

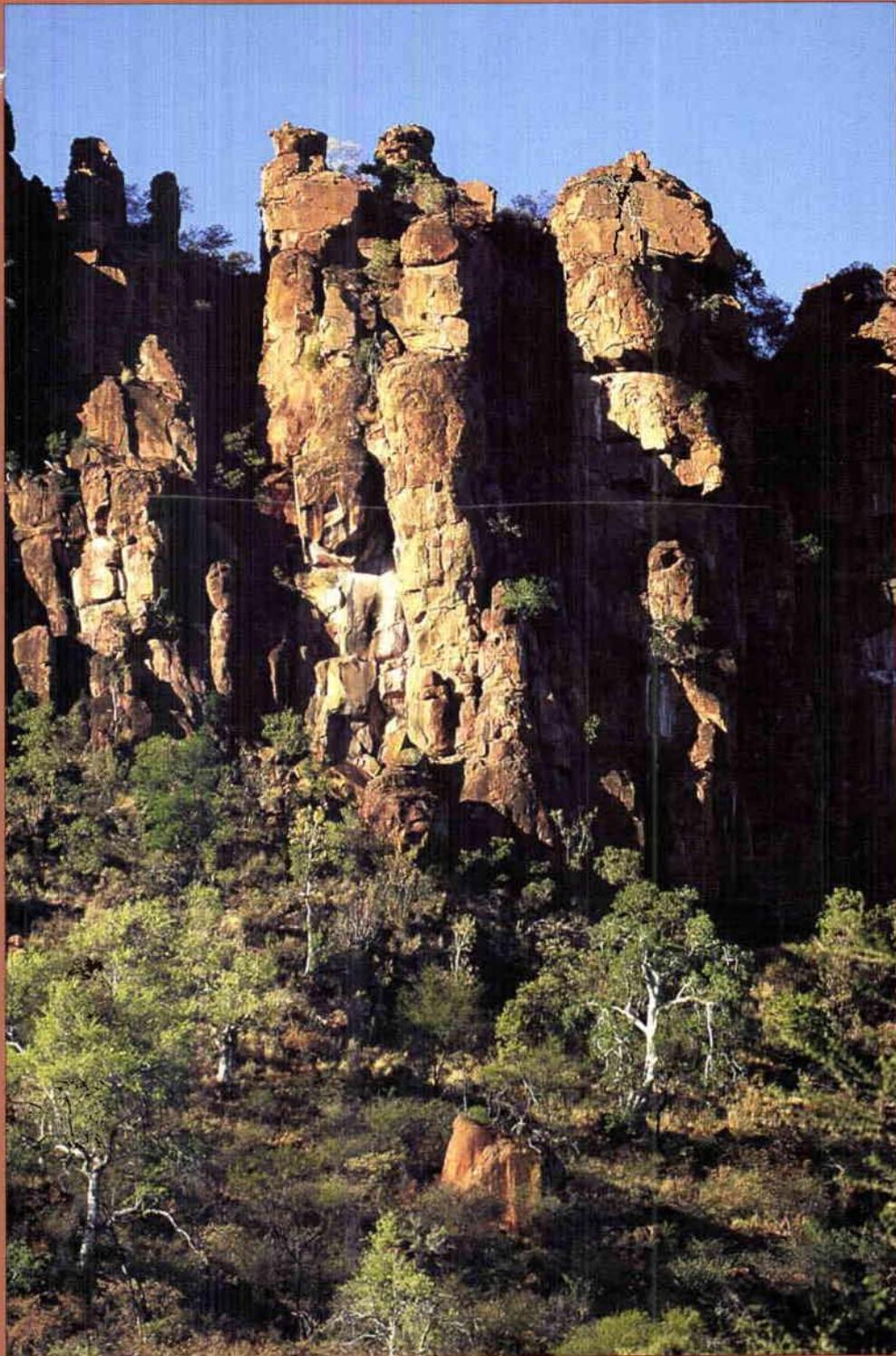
PROCEEDINGS

of the

WILDERNESS MANAGEMENT SYMPOSIUM

WATERBERG PLATEAU PARK, NAMIBIA

June 1996



Edited by Trygve G. Cooper

PROCEEDINGS
of the
WILDERNESS MANAGEMENT SYMPOSIUM

hosted by
The Ministry of Environment and Tourism
and held at
WATERBERG PLATEAU PARK, NAMIBIA
23-27 June 1996



Edited by Trygve G. Cooper

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ACKNOWLEDGEMENTS

For putting his stamp of approval on the Symposium and guiding deliberations in such a far-sighted manner via the opening address, we are humbly indebted to His Excellency Dr Sam Nujoma, President of the Republic of Namibia. What better can our children hope for, than the fact that the Father of our Nation has given his support for those wild corners of Namibia that they have a right to inherit in an unaltered state!!

So many people helped to make the Symposium a success that it would be impossible to name them all here, but a few ought to be mentioned for their absolute dedication and meaningful contribution.

A big thank-you to our sponsors as mentioned elsewhere, but in particular to Ed Spriggs and USAID for making it all possible in the first place through their generous support. To the Waterberg and Otjiwarongo farming and business community for their input, and the Waterberg Plateau Park staff for their hard work; to Polla Swart (Director, Ministry of Environment and Tourism: 1980-1996) for his support of Wilderness and the Symposium, to Peter Tyldsley and his staff at the Namibia Nature Foundation for their help, to the enthusiastic Symposium moderators that handled each session so professionally, and to each presenter and participant that contributed so enthusiastically, we are eternally grateful.

Deep gratitude is extended to Ben Beytell, Vance Martin, Paul Weingart, Drummond Densham, Dr Ian Player, Hu Berry, Pieter Mostert, Beuta wa-Ndjarakana and Ben Ulenga for their assistance, planning, input and dynamic presence.

To Trish Cooper, Ursula Bader and Hu Berry again, for editorial assistance. Zane, Tristan and Victoria Jane Cooper played an unforgettable role both before and during the Symposium to ensure its success.

Dirk Heinrich, Pieter Mostert, Paul Weingart and Joseph Nekaya (NAMPA) are credited for photographic contributions, as is Trish Cooper for illustrative enhancement of these Proceedings. Gert Kedding recorded much of the event on film for posterity, and the Press and Radio media highlighted it all magnificently for the nation.

Werner Kilian assisted with the taping of various presentations.

Finally, there is one person without whom the Symposium could never have taken place; whose dedication, hard work, standard of preparation, selflessness, tolerance and Wilderness ethic, carried the entire event from initial invitations through travel and accommodation arrangements, fund-raising and excellent catering, to typing and transcribing of these proceedings: Trish Cooper, how can we ever thank you enough? If Wilderness has a Namibian Hall of Fame, then you are surely a founder heroine. Your family are proud of you.

Trygve G. Cooper, Editor.
August, 1998



DEDICATION

These Proceedings are dedicated to Vance Martin, Paul Weingart, Ian Player, Drummond Densham, Greg Hansen and Trish Cooper.

*There may be many who believe in Wilderness
Less that fight for it
But only a few really carry the burden—
Dedicated to the extreme, tireless, visionary.
They have left their mark on Southern Africa,
And in far-flung corners of the Globe.
They give their lives
For the sake of Wilderness.*

*Now in Namibia, their presence has been felt
These people of vision
We salute you.*

And to Ed Spriggs, Alan Cilliers, Polla Swart, Stoffel Rocher, the late Giel Visser, Pieter Mostert, Charles Kauraisa, and the late Barry Clements.

Without your support, there would never have been either a Wilderness or a Symposium at Waterberg, let alone 200 Wilderness Trails to date on the Plateau.



Namibia



Major Parks

1. Skeleton Coast
2. Namib-Naukluft
3. Etosha
4. Waterberg
5. Huns / Fish River
6. Hardap
7. Khaudum
8. Mahango
9. Caprivi
10. Mudumu
11. Mamili



PREFACE

Namibia is a magnificent country. The size of Texas, its vast arid expanse tumbles from boulder-strewn hills, across deserts of saltpan and mammoth sand dunes, through acacia bush, and into the cold, fertile currents of the Atlantic Ocean. Its aridity is misleading, as it teems with life: the elegant oryx, herds of springbok, kudu, black rhino, and elephant in the desert, lions on the beach stalking seals, a major fishery offshore in the Benguella current, and much more. But you must know where to look, of course, because the desert life is ruled by the water holes, the shade, and the fickle, seasonal rains. Close observation yields another bonus – a landscape rich in minerals, semi-precious stones, gems, and petrified wood. The flora is fantastic: the ancient *welwitschia* and the pebble-like *lithops* are just a few.

One of the newest nations, Namibia emerged from a German colonial past to a postwar occupation by South Africa, and gained independence in 1990. Its constitution is one of only three in the world, which makes specific mention of the importance of the natural environment. It seems fitting, therefore, that Namibia is also one of the leaders on the African continent in exploring the importance of designating wilderness areas in order to keep some of its land as wild as possible.

The challenges to keeping parts of Namibia wild are many, and pose tough management decisions. Large distances in a harsh climate, with small budgets for natural resource staff, usually require vehicles and vehicles erode wildness. Rural populations in a developing country need food, jobs, clinics, and schools, so these needs must be well integrated with plans for Wilderness designation. But the challenges are not insurmountable and now is the time to address them, to assure that Wilderness has a place in the minds and hearts of Namibians, and a place in the ruggedly magnificent landscape of their country.

Trygve Cooper, Senior Warden of the Waterberg Plateau National Park, saw the need to keep Wilderness part of the growing and changing country of Namibia. With the help of his family, colleagues in the Ministry of Environment and Tourism, and other far sighted supporters, he convened the first National Wilderness Symposium in Namibia in June, 1996. Professionals from throughout southern and east Africa, from Australia, Scotland, and the U.S., met with their Namibian counterparts to share experiences and began to make a plan. After the symposium, the first Wilderness Management Training Course was conducted, in which Namibians and their International colleagues began the training process necessary to keep Wilderness wild.

Keeping Wilderness wild is never an easy task. It is a long, unending trail, but it is now begun in Namibia.

**Vance G. Martin, President,
The WILD Foundation
Ojai, California**

**Paul Weingart,
The WILD Foundation,
(Wilderness Management Training)
Bozeman, Montana**





Symposium venue, Waterberg Plateau Park, Namibia: The Okatjikona Environmental Education Centre
(Photo: Dirk Heinrich)

INTRODUCTION

Trygve G. Cooper

The average Namibian cannot be blamed for thinking that 90% of his or her country is a Wilderness, and likely to remain so far into the future. With one of the lowest human population densities of any country on the planet, and encompassing the bulk of that most haunting and fascinating of deserts, the Namib, within its borders, alongside some of the most rugged landscapes and pristine coastlines in the world, this perception would appear to be correct at first glance - in comparison to the rest of sub-Saharan Africa at any rate.

However we know from elsewhere in virtually every corner of the globe, that the basis for such an impression will not last for ever, that the wildlands of Namibia are indeed shrinking and will forever be in increasing danger of disappearing at the hand of Man's development, technology, and seeming desire to dominate and alter every natural landscape. Even within the borders of the Parks, Game Reserves and other protected areas of Southern Africa, many wild and silent corners are being invaded, violated to some degree, by extraneous noise and pollution, and development strategies resulting from insensitive management planning, or conducted under the name of "eco-tourism". Chalets, roads, camps, firebreaks, pipelines, power-lines, all manner of tourist facilities, uncontrolled visitor access - you name it, it's there round every bend. Of course there is a place and a need for all this, but the question is: where will it all end? All too soon, it will be - in the words of Chief Seathl - "where is the thicket? Gone. Where is the eagle? Gone!"

What manner of custodianship is this; when we bequeath to our children a quality of life that is considerably worse than our own?

Wilderness - Wilderness Areas set aside with legal protection at the highest level and in perpetuity, that is - would seem to be the answer, the necessary balancing factor that we need. Game parks, conservancies, zoos, game ranches, sustainable utilisation of natural resources, eco-tourism, equitable politics, raising the standard of living, education, food production, sound farming and other agricultural practices - these all have their place and are necessary for our well-being, but not at the expense or exclusion of what little remains of this planet's Wilderness.

And nor is Wilderness purely about the aesthetics or spiritual aspects, though those are just as important: it is also about the practical values such as bio-diversity, gene-pools, science, economics, culture, history, national pride, and an international obligation to good environmental stewardship.

It was in order to explore, discuss and highlight these issues, that a Wilderness Management Symposium was hosted by Namibia during 1996, at the Waterberg Plateau Park. It is my sincere wish that the resultant Proceedings contained herein, will serve to preserve at least some of the remaining wild corners, the unaltered landscapes of Namibia, in their natural form. Even if we do no more than proclaim a few corners within some of our existing Parks as Wilderness Areas, then we will have achieved a milestone of monumental proportions. That alone, would once again confirm Namibia's standing as one of the world's leading nations in environmental issues.

Wilderness is as old as Africa. And to go on a Trail through the Wilderness on foot, by horseback or canoe, is to experience that old Africa. To feel her pulse. To know her. To understand. For the first time. Every time.

Onjoka
Waterberg Plateau Park
27 October, 1997.



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Republic of Namibia
State House
Windhoek

**MESSAGE FROM HIS EXCELLENCY PRESIDENT
SAM NUJOMA,
ON THE OCCASION OF THE WILDERNESS
MANAGEMENT SYMPOSIUM,
FROM 23 TO 27 JUNE 1996,
AT THE WATERBERG PLATEAU PARK, NAMIBIA.**



Distinguished Participants,
Ladies and Gentlemen,

I feel privileged to have the opportunity to address you, though in absentia, and to welcome you all to this historic Wilderness Management Symposium. I wish to particularly extend a warm welcome to our foreign delegates, some of whom are touching foot for the first time on the Namibian soil. Please feel free to explore this country and to discover and experience its magnificent beauty during your stay here.

Ladies and Gentlemen,

Namibia is one of Africa's leading nations in environmental protection, awareness and management. Article 95 of the Namibian Constitution enshrines our national commitment to the protection and sustainable utilisation of our environment, for the benefit of both present and future generations. Flowing from this constitutional provision, Namibia pursues a policy of sustainable harvesting of its national resources. This practice is reinforced by stringent environmental impact assessments, which, in turn support the thriving tourism, hunting and farming industries.

My Government has recently introduced the conservancy concept, which gives the management of communal resources back to the people. I wish to point out, too, that the Republic of Namibia has declared no less than 12 per cent of its land surface as parks and game reserves. This percentage surpasses the international norm, for we know very well that we hold this land not only in our own name, but also in trust for future generations. We also know that healthy citizens will only survive in a healthy environment.

Distinguished participants,

I now wish to turn my attention to the topic of this gathering, namely the subject of Wilderness Management. According to I.U.C.N. standards, declaring an area as a wilderness enclave is the highest form of protection that can be given to a piece of land. This is particularly true when such declaration is translated into law.

Despite Namibia's progress in the area of environmental protection, however, we have not yet been able to declare and legalise Wilderness Areas, even within existing proclaimed parks.

This is probably so because there has been no need for doing so to date, considering all the natural wilderness and the wide open spaces that we still have in our country.

However, we know that these areas will disappear sooner rather than later, unless we set aside special zones in various parts of the country, where the natural environment is left to its own devices; where both our citizens and tourists can still enjoy nature in its pristine state; where natural ecological processes, clean air, clean

catchments and rare endemic species can all thrive, and where the added experience of eco-tourism or even hunting can be pursued in a more natural way.

The subject of Wilderness Areas is not about land-grabbing or alienating the land from the people. It is about preserving our natural heritage, about enriching the quality of an outdoor experience, about enhancing the quality of life in general and about broadening our eco-tourism field, respecting our history, our culture and our future. The Wilderness Areas concept introduces a measure of balance in our approach to eco-tourism on one hand, and respect for the environment, on the other. We are proud of our growing eco-tourism industry, but we must be careful not to kill the goose that lays the golden egg.

In implementing this concept, I presume that we must first zone suitable parts within some of our existing parks as Wilderness Areas and manage them as naturally as possible, utilising modern technology only when absolutely necessary, and when appropriate to do so.

However, there may be one or two areas outside existing parks which deserve Wilderness Area status, and a more natural form of eco-tourism, hunting or other utilisation. These areas may include the southern Huns Mountains with their rare and sensitive endemic plant and reptile species, or other areas of historic, scientific, spiritual or cultural value, which need to be handled with care and sensitivity.

In conclusion, I wish to encourage you all to take your deliberations seriously and implore you to come up with practical suggestions for the Ministry of Environment and Tourism and my Government to consider. You should bear in mind, too, that like all forms of conservation, Wilderness Areas must be relevant to the people, otherwise they will be a useless creation.

I thank you.

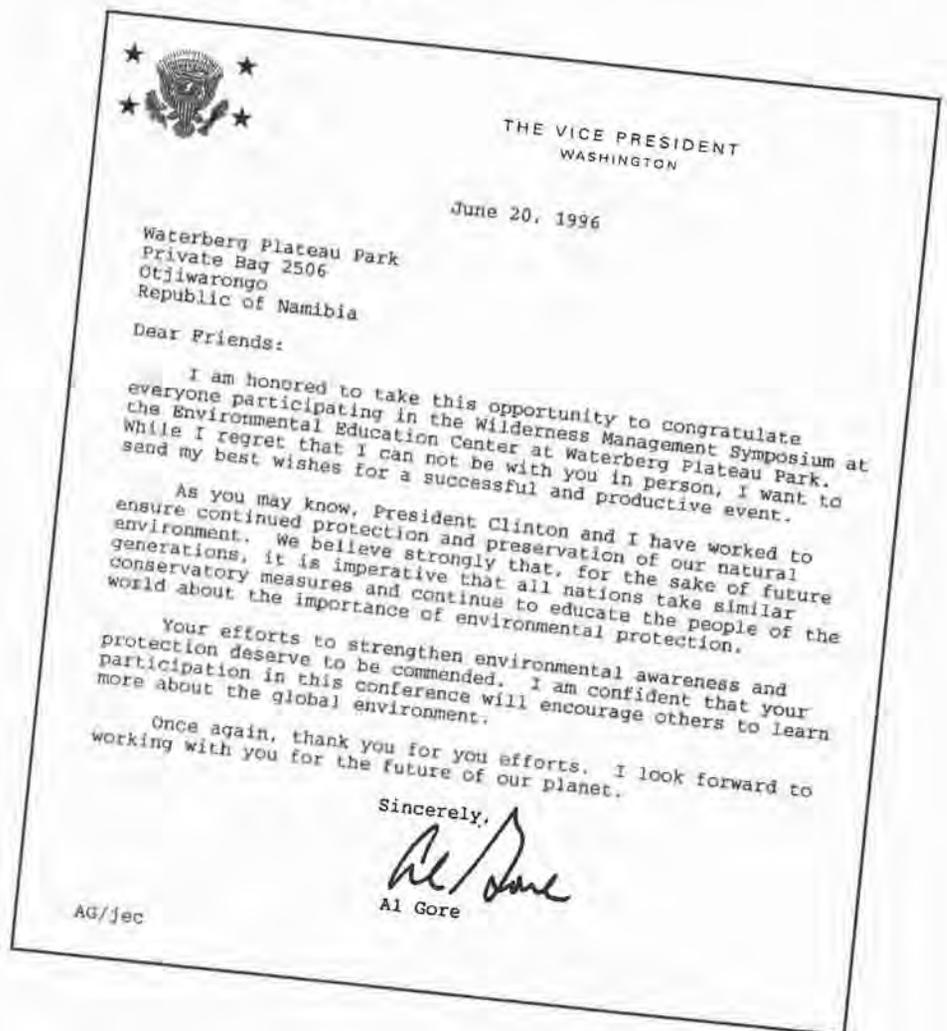


Sam Nujoma

PRESIDENT OF THE REPUBLIC OF NAMIBIA



MESSAGES FROM VICE-PRESIDENT OF THE USA, MR AL GORE



Telex:

Two years ago, Tipper and I had the privilege to witness a magnificent sunrise from atop the majestic red sandstone cliffs of the Waterberg. Our trip to Waterberg Plateau Park, and the chance to observe firsthand the way Namibians care for their unique environment is one of the fondest memories of our May 1994 visit to Namibia.

I was therefore extremely pleased to learn of this week's Wilderness Management Symposium and Training Course being conducted at Waterberg. I am most impressed with its substantive program and the caliber of the presenters who have been assembled here for this timely conference. I trust that the important scientific contributions and discourse offered this week will be valuable to Namibian policy makers in their quest to establish legal status for wilderness areas in Namibia.

Namibia is blessed with some of the most pristine and beautiful landscapes on earth. In its visionary constitution, Namibia has pledged to protect its environment and natural resources. Legally securing wilderness areas, both inside and outside of existing parks and reserves, will be a vital element in safeguarding the special ecosystems, flora, and fauna of this country for future generations.

I commend the Minister of Environment and Tourism, and Mr. Trygve Cooper, for organizing legal wilderness areas for the enduring enjoyment and benefit of Namibians and those of us fortunate enough to visit this nation known as "Africa's Gem".

Sincerely,

Al Gore

WELCOME TO THE OTJOZONDJUPA REGION

Mr. Ua - Ndjarakana
Regional Governor - Otjozonjupa Region

Honourable Deputy Minister, Comrade Ben Ulenga, Foreign Delegates, Compatriots, Members of the Press, Ladies and Gentlemen.

I think we have been more than blessed and welcomed in that His Excellency the President has chosen our former Deputy Minister of Environment and Tourism to represent him this morning. It is my pleasure to welcome you all to the Otjozondjupa Region and to the Waterberg Plateau Park in particular, for the first Wilderness Management symposium to be held in Namibia.

Being as central as it is, with a relatively good infrastructure, a large variety of business and farming interests, and with its varied resources and topography, it would seem to me that this area of Namibia is becoming more and more relevant as a venue for National and International Symposia and Workshops. For example, Otjiwarongo recently hosted the significant PHVA Workshop on Cheetah and Lion, for the Cheetah Conservation Fund. And just last week this very same Okatjikona Environmental Education Centre was the venue for an important Desertification Conference organised by the Desert Research Foundation of Namibia.

Increasingly, Environmental matters affect our daily lives. In fact, among the whole creation of God, it is only human beings who were given the talent to think, to reason, to exchange views and take responsibility for Mother Earth. It is therefore befitting that such matters are of great concern to all of us. However we treat the natural environment and manage our resources, dictates the quality of our lives and those of future generations.

The Waterberg Plateau Park is one of the gems of the Otjozondjupa Region, not only for the Tourism industry and as a sanctuary and breeding station for rare and endangered species, but also for its contribution to environmental awareness and education, through guided vehicle tours; the Unguided Hiking Trail; this Environmental Education Centre which gave courses to over a thousand of our citizens this last year; and through the Wilderness Trails conducted for ten years now, within the Wilderness Area in the West of this Park.

The importance of Wilderness Areas, and the relevance and management thereof within the Namibian context, will be explored, explained and highlighted by you in much detail over the next few days. It is my wish that clarity will be obtained to the extent that Wilderness will truly be seen as a Resource of great benefit not only to this Region, but to other Regions in Namibia as well, especially when it comes to long term planning and zoning of Parks, Game Reserves and other wild areas of our country.

Wilderness does not exclude people. It is for the people. Indeed, such areas, while they give maximum protection to the habitat and to scientific and cultural values, also serve as outdoor "classrooms" to our students, and the broader citizenry by broadening the eco-tourism opportunities and even hunting opportunities by allowing enjoyment of the Outdoors in a way that is less damaging; that is, on foot or horseback and to the exclusion of motorised traffic. I think the Wilderness Area of this Waterberg Plateau Park with its famous Wilderness Trails, is a good example of how this can be achieved harmoniously alongside rare species management and normal tourism and vehicular traffic.

May you find your visit to our Region a very rewarding experience, an experience that will accompany you with a wealth of calabashes to keep your experiences while you are here. And may we thank you for your effort and contribution to our knowledge on the subject of Wilderness.

I Thank You and Welcome.



USAID AND THE WILDERNESS INITIATIVE

Ed Spriggs
USAID Director

Good morning ladies and gentlemen, bureaucrats and outdoor folk, poets, fighters and dreamers:

I have purposefully chosen the myriad salutations because experience tells us that it is exactly such a bizarre combination of individuals that have been involved, worldwide, in the creation and preservation of the wild, of wilderness, of protected space and nature.

David Brower, an elder of the American environmental movement has said: "The world's resources of wilderness and natural beauty that we explore and enjoy today are not available to us by accident. National parks and reserves, regional parks, world heritage sites, wilderness gems — these are not open to public enjoyment through happenstance, or just because a given country is so big and its resources so limitless. No, these areas, to which millions go each year for recreation or renewal, are there because people [people from various walks of life, I might add] have fought for them. We owe a debt to people who went before us, who thought of long-range public use and enjoyment of the rights of nature."

USAID Namibia is pleased to be one of the sponsors of this significant and far reaching undertaking. Indeed, our not-so-hidden agenda is to help bring together the various key players who will be here during this week; people of good will and foresight from both the environmental and the political/developmental policy making communities. Obviously, the many wilderness management experts present here do not need to be preached to on the need for wilderness areas. You also are all familiar with the central problem of conflict between the concepts of conservation and wilderness, on one hand, and development and economic growth on the other.

But to really have a fruitful dialogue on wilderness in the *Namibian* context, one must start, I believe, with an appreciation of the multitude of complex *development* challenges that are being faced on a daily basis by the Namibian government and people. Briefly, Namibian decision makers face: *unemployment* upwards of 35 or 40%; *flat* economic growth, when at least a 5% GDP growth rate is needed; an *illiteracy rate* of 40 to 50%; pressures for *land reform* to redress the legacy of inequities from the colonial and apartheid eras; continuing *drought* conditions, the worst in the region; and, overshadowing all of these, one of the world's most *skewed distributions* of income and wealth — along racial lines — between "haves" and "have-nots."

My point is that *THESE* are foremost among the challenges facing Namibian policy makers, and *if* the *wilderness* concept is to take hold here, it must be seen as relating to and supporting, in some *tangible* way, the *development* needs of the country. The proposition that wilderness *and* development can be compatible, even complimentary, in Namibia is nowhere near as far fetched a possibility as might be the case in other developing countries. Namibia's constitution is one of the most environmentally far reaching in the world. Moreover, tourism is seen by all as a growth industry of tremendous potential in Namibia. But perhaps most importantly, the Namibian Government's environmental policies reflect a deep commitment to environmentally sustainable tourism development — through the twin strategies of high-end, low volume tourism and of community-based tourism.

Other speakers will no doubt elaborate substantially on these policies and approaches. Our challenge during this symposium is to keep these development issues and government policies and approaches in mind as we deliberate on how the wilderness concept can best be applied in the Namibian context.

The United States, through USAID, is a major partner with the Namibian Government in the field of community-based natural resource management, through a US \$15 Million project to help establish community-based conservancies as an economically viable natural resource management approach in Namibia. Key partners with USAID and the Government in this major undertaking are World Wildlife Fund (U.S.), and key Namibian NGOs such as Integrated Rural Development and Nature Conservation, The Rössing Foundation, the Nyae Nyae Farmers Cooperative, the Namibian Nature Foundation, and other environmental NGOs.

We are also strongly committed to supporting *environmental education* in Namibia and, through a grant to The Rössing Foundation, have so far supported the training of 55 Namibians at the certificate, diploma, bachelors and masters levels in environmental education, as well as the production of EE materials, both of which activities have directly supported programs at this *Okatjikona* Environmental Education Center. USAID is also assisting the Ministry of Environment and Tourism with establishing a system of *natural resource accounting*

that will enable planners and economists to value natural resources just as they value capital inputs and outputs, and to give the natural resources of this country proper consideration when making policy recommendations that affect the future.

Let me close by saying that the indigenous peoples of Namibia have pre-historical traditions of reverence for the land, of sacred spaces, and of places where the spirits can be heard. In historical times in Namibia, some of the early environmental trailblazers include the German Governor *von Lindequist*, *Bernabe de la Bat*, after whom this magnificent camp is named, *Drs. Schoeman and Hofmeyer*. Current day trail blazers include *Louw Schoeman*, *Ben Ulenga*, *Garth Owen-Smith*, *Mary Seely*, and *Trygve Cooper*, to name a few. And with us today from other continents and neighboring countries, we have other trailblazers and fighters, scholars and visionaries, and it is indeed a privilege and a pleasure to be among such luminaries.

Today's participants come from wilderness areas with awe-inspiring and poetic names: *The Gila*, *Yosemite*, *the Skeleton Coast*, *Mvuradhona*, *Tembe*, *Umfoloji* and *Hluhluwe*. The Waterberg Plateau Park is one of these magnificent areas, and I have been fortunate to participate two years ago in one of Pieter Mostert's Leadership Trails, accompanied by the Hon. Ben Ulenga.

It was a memorable experience, and did for me what John Muir said going to the hills could do: "climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their freshness into you, and the storms their energy, while cares will drop off like autumn leaves."

Then, last year, during the visit to Namibia of my son — a 20 year-old, rap-music-loving, hippity-hop, urban kid (but a good boy, nonetheless!) — I brought him here to the Waterberg, and Trygve was kind enough to take us on a two-day trail. It was Khamali's first wilderness experience and I was (and remain) deeply moved by his keen enjoyment, and his interest in the trail-wise teachings of Trygve Cooper. Khamali and I, though separated from each other most of our lives, will carry that experience together — always.

If more donors and Namibian decision makers could be paired on such activities, I am sure there would be greater support and understanding for the need for protected areas, for wilderness.

Again, USAID is proud to be associated with such a far ranging and important activity as this Wilderness Management Symposium. I should like to end with a quote from Chief *Seathl*: "All things are connected like the blood which unites one family. Whatever befalls the earth befalls the sons of earth. Man did not weave the web of life, he is merely a strand of it. Whatever he does to the web, he does to himself."

Thank you.



F.l.t.r: E. Spriggs, B. Ulenga, B. Ua-Ndjarakana

(Photo: Dirk Heinrich)

WILDERNESS: AFRICA AS AN INTERNATIONAL RESOURCE

Dr Ian Player.
The Wilderness Foundation

Mr. Deputy Minister, the Regional Governor, the American Ambassador, Honoured Guests, Ladies and Gentlemen.

It is really a great pleasure to be here today.

Let me start off by thanking and congratulating Trish and Tryg Cooper. And I have put it in that order, because you know, we men sometimes think we do it all, but we forget the women, who really make it possible for us. I would like to congratulate them for their persistence to ensure that this Symposium took place.

We have here today, some of the most important people in the field of Wilderness Conservation and Management. And the proceedings of this Symposium will be a landmark in the future.

Southern Africa has been in a state of transition since 1994 and those of us, who are in the field of conservation, are going to be tested as never before. There is so much happening, and it is happening so fast. The one appeal I that would make is, no one should quit: that is the easiest thing to do, to give in when you think that things are getting too hard.

Tryg Cooper, whom I have known for a long time, was originally touched by a Wilderness Trail he went on in 1967 and this has sustained him throughout his life. His wife reminded me that when he came to see me for a job in the Natal Parks Board, I asked him what he wanted to do. And he said, "I want to sit in that chair where you are sitting". I would say that he has now done it.

We in Southern Africa owe an enormous debt to American Conservationists. In 1955 I went into battle in the Natal Parks Board, with Aldo Leopold's *Game Management* under one arm and the *Eleven Fundamental Principles of the Wilderness Concept*, under the other. In 1958 through correspondence I met Howard Zahniser, the Secretary of the Wilderness Society. He sent me a most important document. It was the *Senate Hearings on the Wilderness Act*. Some of my seniors used to wonder how it was that I always had answers to all the arguments against Wilderness, but all I had to do was go to the document and look up the answers. We owe Hubert Humphrey the Senator who steered the Bill through the Senate in 1964 a great debt of thanks. The act is also a monument to Howard Zahniser.

In 1960, two Fulbright Scholars came out here, Dr Mossman and Dr Dassman, who were commonly and affectionately known as Mossie and Dassie, after two of our species in this country. They brought a revolution in Wildlife Management here. Of that there was not doubt at all. Southern Africa was never the same after they had come and gone. We looked at wildlife in a very different way.

Recently Herbert Schroeder's paper in the *Journal of Forestry*, entitled *The Spiritual Aspects of Nature*, is a huge leap forward and those of you who haven't read it, I would urge you to do so, because it illuminates the spiritual understanding of Wilderness, and it is a contribution that is going to play a very big part in the Wilderness movement.

So it gives me great pleasure to take this opportunity to thank those of you who are here from America, for what you have done, and I don't think you really know just how much you have actually contributed to us. I might also add that we are deeply honoured to have a member of Aldo Leopold's family here. There is no-one in the field of conservation who doesn't know Aldo Leopold, no-one who has read him, has not been affected. So we are really delighted to have his grand-daughter Trish here today.

I must also take the opportunity of thanking Paul Weingart for what he has done in the Management Courses in Southern Africa, along with Drummond Densham and other members of the Wilderness Action Group in KwaZulu-Natal. There is not doubt in my mind that it has changed the face of Wilderness management in this country. I must also thank Maggie Bryant who has always been a great supporter of the Wilderness movement and Vance Martin who works tirelessly both for Wilderness in Southern Africa and in the United States.

Namibia is an incredible country, and it stands now, I believe, on the threshold of being one of the world leaders in the wilderness movement, because it has an opportunity to set Wilderness Areas aside, when the population of the country is actually so low compared to South Africa, where we have something like 40 million people. We must remember that by the end of this century half the world is going to be urbanised. That is a frightening thought and a matter of great concern for all of us in the wilderness movement.

Wilderness was home to indigenous people, whether they were Aborigines, Native Americans or Bataangans in the Philippine Islands. Although the wild was home they all had a sacred place to which they made pilgrimages. However, as rural people become urbanised they have exactly the same values as all urban people and eventually Wilderness becomes important to them.

One of the programmes that Andrew Muir, who will be talking to you today has initiated with the Wilderness Leadership School, along with Wayne Elliott and Khulani Mkhize, is the political programme, where we are taking political leaders in South Africa out into the Wilderness. Andrew will tell you that something like 40 have already gone. I think that that programme is going to help change the face of conservation in South Africa. But we have already lost in South Africa, what you in Namibia still have. The quality of silence...what an incredible experience it is to wake up here in the morning and not hear the jarring sounds of the modern world.

I recently had correspondence with a senior administrator in Natal on the subject of Wilderness, and he said that he was in favour of Wilderness because of biological diversity, and he would do his best to protect it. I realised later that there was a very serious difference between us. I believe in the religious aspect of Wilderness and he did not. When I am in the Wilderness, I do not want to see any sign of human artifacts, I don't want to see any electricity pylons, I don't want to hear aeroplanes, I don't want to hear motor cars, because for me, that noise breaks the spell of my connection with the spiritual sense of the place. The artifacts and the noise did not bother this man, because he knew that it did not interfere with the biological diversity. I appreciate biological diversity. I honour it. But when we go into the Wilderness we cross another frontier, and that frontier is physical, spiritual and scientific. However, of all of these I believe that in the end, it is going to be the spiritual aspect that is going to save Wilderness areas.

Why? Well, if you look at all the religions of the world, their founders went into the Wilderness to contemplate and meditate. Look at the politics of Southern Africa, what did people do in the freedom struggles? They went into the bush...they went into the Wilderness, and into the mountains.

The Wilderness was where the prophets had their vision. T.E. Lawrence in his *Seven Pillars of Wisdom* says clearly, "The place of the desert was impossible in the town, it was at once too strange, too simple, too impalpable for export and common use. The scream of a bat was too shrill for many ears". And then the prophets returned from the desert with their vision and they tried to enlighten their people in the cities.

When we get a glimpse of the spiritual part of ourselves it is so illuminating that we are uplifted to conscious, ecstatic heights. I do not believe that anybody goes into the Wilderness, and does not come out unmoved or untouched in some way. Because in essence, they have had a vision of God. In the modern world, or I should really say in the western world, there is a deep psychological wounding taking place. We live in a fragmented world, where we constantly see everything split...men - women, black - white...sick - healthy.... sane - insane. We are even split within ourselves in such a way that we divorce our minds from our bodies. What Wilderness does is to bring us back to Earth.

There are some fundamental things about Wilderness that I think we must understand. And Paul Weingart, and if I paraphrase him he will forgive me, said "It is a state of Mind", which indeed it is, but it is also a geographical place. It must be of sufficient size, so that our hearts and minds can beat in time with the ancient rhythms.

D.H. Lawrence, the poet and the writer, expressed this about New Mexico. He said that for the first time in his life, the experience in New Mexico had evoked a religious emotion, for which he had long searched, in many parts of the World. At last, he had an understanding of the genuine religious feeling; the kind that he wished all humans could recapture. In New Mexico, he felt religious. What had survived in the New Mexico, was of the old religion, which went far beyond the birth of Christ, beyond the pyramids, beyond Moses. The ancient religion was greater than anything we know. And he found it there with the Pueblo Indians. In that religion, everything was alive, not supernaturally but naturally alive. For the whole life ethic of man was to get his life into direct contact with the elemental life of the cosmos. Mountain life, cloud life, thunder life, earth life, sun life. This was the oldest religion, and it was a cosmic religion. The African people prior to Europe's invasion of Africa had it, and in the rural areas still have it.

For myself, a sixth generation South African, it was only when I walked in the landscape of Umfolozi Game Reserve, that I realised that this was the landscape that man had walked in for 250 000 if not 500 000 years. I was continually touched and energised by the forces in that landscape. I learnt to listen to my dreams as I lay sleeping on the red soil, and when I used to awake in the morning, my companion and mentor Magqubu Ntombela was sitting there, watching me. He was the one who brought me into Africa, the real Africa, delivering me as a midwife delivers a newborn child.

Unbeknown to me, I had been caught in this ancient mystical web of Africa and the Wilderness had made an extraordinary impression upon my soul. My life work bears evidence of that. I realised it was here in these ancient landscapes where man evolved. That they resonated within the human psyche. But for me it required the "Word" to make it conscious, and this came from the *Eleven Fundamental Principles of the Wilderness Concept*.

There is no doubt, as Tryg Cooper and all of you who have taken Trails know, that people, even though they have lived in Africa all of their lives, do not understand Africa until such time as they have actually been on a Wilderness Trail and slept on the ground. And sat around the fire, listening to stories which evoke archetypal images and hearing the sounds of the wild animals.

I recently walked in the Kruger National Park in the Spring, and Spring in Africa has no equal. It is the time when our cuckoos come, Klaas's cuckoo, Redchested cuckoo and Diederik's cuckoo, and after the first rains the dung beetles are hard at work and there are always those low clouds on the horizon, pregnant with more rain. Later that morning, we heard some white rhino and we followed them, and as we followed them - as one does in the Wilderness you are constantly reflecting in your own way - I reflected on how much we owed to the Black game rangers of Africa, who were the equivalent of the front line soldiers against poachers. Men like old Magqubu Ntombela and all the others who had worked with him. Very recently some friends of mine went to Gorongosa Game Reserve, where some of the Black game rangers had been there for fourteen years. Fourteen years with no pay - their lips cut off, ears cut off, noses cut off, but they were still there and still are to this day. I say to those of you who think that we have a hard time - think of them for one moment, because they are an example to us.

African is the home of Man. It is a forgiving place in many ways and those who look after the wild lands will always be rewarded, because they do the work of *Nkulunkulu*, of God. It is my fervent belief that in the end, the Parks of Africa, and that is where Namibia has an opportunity, will be the greatest treasure houses and the gift to the modern world. Our biggest challenge is to build up a Pan-African Brotherhood, of men and women, who will protect and guard this landscape of the soul.

I thought about my friend Laurens van der Post who quotes in his book, *Venture into the Interior*, Sir Thomas Brown who says "we carry with us the wonders we seek without us: there is all Africa and her prodigies in us". How did that poet know that? He is a sixteenth century poet. We all carry that image of Africa.

This is what brings people to Africa. To discover parts of the continent, also more importantly to discover parts of themselves. It is a journey for many that eventually becomes a pilgrimage and never ends, like Maggie Bryant. And even with people almost too old to travel, the memory of the African experience remains in the mind. I remember one man, an American, who had saved his entire life to come out here, to Africa. He told me it was like returning to his real home, and I said, "It was your home". I told him there was ever increasing scientific evidence that Africa was the cradle of mankind. Recently, as you know, remains of man have been found, that go back 4.4 million years. The American died shortly after going back to the States, but he had smelt and seen and touched his ancient home, and he was prepared for the world to come.

Look at the people who have been here, and see what it has done to them. Teddy Roosevelt...those of you who are Americans know what he has done for your country. Look at Karen Blixen, she starts her book..."I had a farm in Africa".... . Look at the film that was made, and those of you who have seen it will know how it moved people. I saw it in San Francisco, and I saw one man sitting in front of me, who wept, and wept, and wept.

Again, Van der Post, who was incarcerated by the Japanese in the Second World War - badly tortured by the Japanese - watched some of his men being bayoneted to death, and saw his men become overwhelmed with pain at the sight of it all. He spoke to them, and he said..."Africa came to my rescue. I talked to them about the animals, for two-and-a-half hours, about the bush, about the plains, the mountaintops and the immense skies. And then slowly but surely the sense of doom, that transmuted memory of the killing that we had witnessed in the afternoon receded - thanks to the vision of my boyhood in Africa. I realised how deep, how life-giving, and strengthening was the vision of Africa in my blood".

Robert Johnson says "The western world has taken it for granted that every step away from nature is a step in the right direction." And we call it progress. Speed and comfort are the status symbols. The faster we travel the more we stress. The more we get money, the more we want. The more we tell each other that time is money, the less we have. Civilisation has basically become a way of complicating simplicity. Something has gone wrong on the way. This is why Africa is important to the world. We can show a new way. And I believe from my travels, of which I have done much since 1964, to almost every part of the globe, that the western world is in a very serious state of inner crisis. It is crushed by mass mindedness; many people feel the individual has ceased to be important. T.S. Elliot, the poet said that "modern material civilisation is a form of living death". The ever-increasing use of hallucinogenic drugs is surely proof of this statement. Robert Johnson once said that "people feel too wounded to live, but unable to die".

Again Johnson says "We see a world, anaesthetizing itself with alcohol and drugs. And ironically, in ancient days, it was those substances that were used as divine sacraments to bring new visions of God. But with no sacred means of expression, we can only express our need dramatically, through substance abuse, domestic violence, child abuse, terrorism, wars" and eventually, who knows, the final bomb?

However, at the same time unconsciously and in many people consciously now - and it is growing - there is a desire to connect, to re-connect, with the instinctive world. And in Africa the majority of the people are much better related to the instinctive life. This was told to us by the Deputy-Minister and the Regional Governor this morning. We lack the courage to express ourselves.

Imagine being able to differentiate between the love of a man for his wife, and love of a man for his son and his daughter, his dog and his horse. A woman for her lover, or for her husband. The love for a friend. And then the love for wild places and your land. In Greek there are two words for love, in English one, in ancient Sanskrit there were 96. We don't have the language to describe it.

In the western world, which I believe Africa would imitate at its peril, there is this continuing need to dominate and subdue nature and all wild things, tame it; we don't want anything wild... this is acting out the dark part of the psyche. We have seen it in the elimination of 60 million bison in America, the Aborigines in Australia, the Native Americans, the Bushman in Africa, the Polynesians in Hawaii, and wherever else the hand of western man has rested. The havoc and the destruction and the wiping out of nature in Africa is there for all of us to see. It's in the literature.

All that we have got left in the natural world, in Africa, are the national parks and the game reserves, and the nature reserves. But even these are only witness areas. They are under continuous threat in some way or another. Protected by a thin caul, a thin membrane, and part of that membrane are you, who protect it. The thin line of men and women, the thin line of political people, who have got the courage to speak up.

What we have in Africa is of critical importance to the world. C.G. Jung said "We have lost a world that once pulsed with our blood, and breathed our breath. Did the wind used to cry, and the hills shout with praise?" - They don't in Europe any more. They still do in Africa.

The people in the industrialised world have become ritualised into working eleven months of the year and having one month's holiday. Africa can provide a new form of recreation of the western world. That recreation is to re-create something inside of themselves. And this will give us the opportunity of building a stronger symbiotic relationship with the western world, but we need to introduce Africa to the world in a new way. And that is why the Wilderness Areas are so important. There is something vital that the world can discover here. Not our mining and our industrial achievements: the West can do better than that. But here, they can find the *Sense of Wildness* - the *Spirit of Place* - that has been mercilessly destroyed in the rest of the world.

I will take a few more minutes, just to say that in 1993, the man who brought me into Africa, lay dying in his *muzi* (homestead) in Zululand. Magqubu Ntombela led me along the rhino paths of Umfolozi Game Reserve in the ancient landscape of the human soul. It was through him that I learnt how everything was alive. I owe him and his memory a great debt.

INTERNATIONAL STATUS OF WILDERNESS

(This paper is an updated summary of that presented to the 5th World Wilderness Congress, Norway 1993)

Vance G. Martin

President of the International Wilderness Leadership (WILD) Foundation

International wilderness designation is found across a spectrum of policies and uses, ranging from casual use of the word wilderness as an adjective or generic noun, to its classification through administrative zoning, to protection under legal statutes. We can define three different classes of formal wilderness protection, plus other types of wilderness recognition. The three classes are:

Class One: Statutory -

The highest form of wilderness protection, wherein national and/or state/provincial laws protect officially designated wilderness and mandate appropriate management. Class One wilderness designation is the result of a legal instrument being adopted by the highest legislative authority in a jurisdiction, and cannot be easily changed. This occurs in the United States, Australia, South Africa, Canada, Finland, and on the Flathead Indian Reservation (Montana).

Class Two: Enhanced Zoning -

Administrative declaration is backed by unique procedures and/or strong public support. Specialized management is usually called for, and somewhat increased protection is promoted. This type of zoning is considered enhanced because, while still falling short of statutory protection, it is the result of action through a voting or consultative procedure of a governing or jurisdictional board, such as in New Zealand and Zimbabwe.

Class Three: Wilderness Recognition -

The result of administrative action at departmental or local level. Class Three action includes a policy decision resulting in wilderness zoning and usually implies (but doesn't always provide for) specialized management or recognition of the wilderness values in a particular area. This is found in numerous countries, including Botswana, Namibia, and Italy.

Other types of wilderness recognition occur. While having no legal force, a none-the-less important recognition is found in the World Conservation Union's Framework for Terrestrial and Marine Protected Areas, wherein wilderness is recognized (with scientific reserves) as a Category I protected area. Wildland values, but not the term wilderness, are recognized in numerous other systems or protocols such as UNESCO's Man and Biosphere Reserves and the World Heritage Convention, Russia's Zapovednik system, and Brazil's indigenous and extractive reserves. Also of note has been the concerted call from many nations to declare Antarctica an International Wilderness Park.

CLASS ONE - STATUTORY

United States

As of September 1996, the National Wilderness Preservation System (NWPS) encompasses over 40 million hectares of public lands managed by the United States Forest Service (USFS) and United States Department of the Interior National Park Service, National Fish and Wildlife Service, and Bureau of Land Management. While a minimum size of 5,000 acres (approximately 2,000 hectares) was mentioned in the Wilderness Act, the "ability to be managed as wilderness" phrase overrides the minimum size criteria. Therefore, in a total of almost 500 NWPS areas are a range of sizes between 2 hectares at Oregon Islands National Park in Oregon, to 3.5 million hectares at Wrangell-St. Elias National Park in Alaska.

Australia

Australia has had a long, active and vociferous wilderness debate, spanning the entire continent and involving several key non-governmental organizations (NGOs) and government departments. In Australia, considerably more emphasis is placed on state rather than federal legislation, and therefore the lack of a single national wilderness act is not a major problem. Three of the five states (New South Wales, West Australia, and Victoria)

plus the Northern and Australian Capital Territories have statutory wilderness recognition. Fifteen areas have been designated as such, ranging in size from 2,400 to 113,500 hectares.

Considerable attention at a national (Commonwealth) level also exists, as is evident in the newly completed National Wilderness Inventory. Begun in 1986, the program was accelerated in 1980 in order to develop computer-based wilderness inventory techniques to help monitor resource losses, delineate wilderness areas, define management options, and predict the effects of elopement scenarios on wilderness values. Interestingly, the inventory does not specifically identify wilderness areas or directly select areas that merit wilderness protection. It merely provides the natural resource information and other tools necessary to assist these policy decisions.

Continuing wilderness designation and activity throughout Australia is likely. With groups such as the Wilderness Society of New South Wales, Tasmanian Wilderness Society, Australian Conservation Foundation, and others, widespread and continuing national public involvement is guaranteed.

South Africa

South Africa's first wilderness area was administratively zoned in the Mfolozi Game Reserve (Zululand) in 1958. By 1971, legislation was introduced into the amended Forest Act to specifically recognize wilderness areas in national forests. In addition, wilderness zones are still administratively declared in most national parks and provincial game reserves.

As of 1995, the Forest Act protects some 275,000 hectares of wilderness in eleven areas, with generally good management plans. Four additional areas are proposed as National Forest Wilderness, which would add an additional 152,000 hectares. Other administrative wilderness zones, most of which are managed as wilderness, involve at least another 715,000 hectares

Important to note here is the popularity of wilderness trails (treks) in South Africa. Around the world, a basic tenant of wilderness recreation is that it is unmotorised and done on foot, in a canoe, or on horseback. The Wilderness Leadership School pioneered in Africa the concept of public walking trails in the wilderness. Prior to establishment of these trails, most nature conservation professionals considered it unwise and unsafe for people to walk in wild areas. Walking in game reserves and remote areas of national parks is still forbidden by law in many African countries.

Special mention should be made of Lake St. Lucia in KwaZulu-Natal Province, which is likely the only area in the world in which a portion of a lake is designated specifically as a "lake wilderness area". An administrative wilderness zone was declared within the lake (with fence posts actually emerging from the water to delineate the boundaries), in which no motorized boats are allowed. Lake St. Lucia and its surrounding dunes and wetland areas is the largest estuary in Africa and a biological keystone on the continent. The integrity of the area has been under threat of dune mining.

Canada

The National Parks Act was amended in 1988, requiring that boundaries of wilderness zones within national parks be designated through legislation. The Canadian Parks Service has a big job ahead of them in this regard and the potential for wilderness is vast, with 34 national parks covering 182 square kilometers of which 90 percent is wilderness quality. At a provincial level, two of the nation's ten provinces (Alberta and Newfoundland) have wilderness legislation, and British Columbia and Ontario have wilderness zones and other protected areas.

Indigenous peoples' involvement in wilderness designation is a growing and major force in Canada. One example is the agreement reached in 1987 with the Haida people to establish a wilderness park in the Queen Charlotte Islands area, the Haida homeland. A proposal to establish an indigenous state encompassing 20 percent of Canada, called Nunavut, failed in national referendum, but it will undoubtedly resurface and have significant impact on management of northern wildland and wilderness areas.

A recent and internationally significant wilderness development was the declaration in June 1993 of the Tatshenshini-Alsek Wilderness Park, which was under threat from the proposed major expansion of a copper mine. The one-million-hectare Tatshenshini-Alsek area was declared by the premier of British Columbia because "mining activity would be incompatible with a full preservation of wilderness" and it was "unlikely that consensus would be reached on the issue." This major declaration is even more significant when one consid-

ers that the Tatshenshini-Alsek is contiguous with Wrangall-St. Elias and Glacier Bay National Park (Alaska) and Kluane National Park (Yukon), which together comprise some 8.5 million hectares of key importance for salmon spawning, grizzly bear habitat, and unparalleled scenic and recreational benefits.

Finland

The newest Class One addition to wilderness designation is Finland, where a Wilderness Act was approved by Parliament in 1991. Interestingly, this is the only other national act besides the U.S. Wilderness Act (1964) that is actually called a wilderness act. The Finnish act designated 1.5 million hectares as wilderness, with these objectives: to maintain wilderness, to secure the (indigenous) Sami culture and traditional means of livelihood, and to develop multiple use of natural resources. Importantly, the act sees that the basis for wilderness conservation lies in the coordination of the traditional means of livelihood, recreation use, and some forestry allowances.

These objectives are admittedly a bit contradictory, as it is not easy or likely to maintain wilderness character while simultaneously promoting multiple use. Therefore, zoning within the wilderness allows for core sanctuary areas where wilderness conservation and appropriate recreation is the highest priority; and buffer zones allow for low-intensity, sustainable forestry. In keeping with the democratic nature of the wilderness movement, it is interesting to note that while planning the Wilderness Act and its subsequent land-use allocation, the Finnish Forest and Park Service encouraged public participation for the first time.

Flathead Indian Reservation

The over 300 federally recognized American Indian reservations in the United States are sovereign nations. The Confederated Salish and Kootenai tribes live on the Flathead Indian Reservation in western Montana and are somewhat unique among indigenous peoples with respect to wilderness protection. They established the Mission Mountains Tribal Wilderness Area in 1980, adopted a management plan for the area and, recently designated a buffer zone (with a management plan) surrounding the wilderness area.

The Mission Mountains area encompasses some 36,000 hectares. In addition to its biological and recreational values, the area was established in recognition of the wilderness-based cultural and spiritual values held by the tribes. The land is open to the public, but non-tribal members must purchase a conservation license for US \$6 to access the land and waters in the area. The tribe has an official Wildland Recreation Program, which manages the wilderness area, plus a primitive area designated in 1974, access to which is limited to tribal members, spouses, and families.

CLASS TWO - ENHANCED ZONING

New Zealand

In 1955, with the administrative designation of the 12,000-hectare Otahake Wilderness, New Zealand earned the distinction of being the first country outside the United States to officially recognize a wilderness area. Through 1991, a total of six areas had been gazetted as wilderness, totaling 300,000 hectares, with another five areas zoned as wilderness that have corresponding management plans, adding an additional 164,000 hectares.

New Zealand's wilderness protection falls under two acts: (1) National Parks Act (1980) and (2) Conservation Act (1987). The Minister of Environment declares the designation method on the recommendation of the Parks Authority, in accordance with an appropriate management plan. The minister may also revoke any designation.

Wilderness activity in New Zealand has been intensely public. A unified movement began to emerge in 1985 when a final wilderness policy was issued by a wilderness advisory group that consisted of several government agencies and NGO's. A prime player in this wilderness debate has been the Federated Mountain Clubs of New Zealand, which have consistently kept wilderness on the national conservation agenda.

New Zealand wilderness designation is Class Two because the appropriate national legislation sanctions ministerial declaration, not legal wilderness protection. However, given New Zealand's long history of public involvement in wilderness designation and recreation, and its well-established and sophisticated gazetting system, it is likely that the country will continue to add to its wilderness system and incorporate some form of statutory protection.

Zimbabwe

The designation of the Mavuradonha Wilderness area in 1989 was a significant event in the global trend in wilderness designation. Previously, all designation and official use of the term wilderness had been in developed countries with well-established leisure economies and interest in outdoor recreation.

The establishment of the Mavuradonha Wilderness Area in Zimbabwe was the first such use of the term wilderness in a developing nation. Combined with the fact that the designation was requested by a rural tribal council rather than an urban-based organization or a political bureaucracy, the designation is a significant rebuttal to the argument that wilderness designation is an elitist action and of no value to poor, rural, developing nations.

The Mavuradonha Wilderness Area is approximately 500 kilometers in the escarpment area of the Zambezi Valley and is bisected by a national roadway. Though economic benefit from safari hunting was the original objective for the wilderness area, and it was not realized, the Tribal Council then de-emphasized economic benefits and placed higher priority on other wilderness values.

Additional wilderness areas are under consideration by other tribal councils, all of which participate in the Communal Areas Management Plan for Indigenous Resources (CAMPFIRE), a program promoting local management of wildlife and natural resource programs that directly provide economic benefits to local villages.

CLASS THREE - WILDERNESS RECOGNITION

Administrative declaration of wilderness zones, either within existing protected areas or on private land, is increasing. Botswana, Namibia, and Italy provide such examples.

A wilderness zone was established in 1992 within the Moremi Game Reserve in the Okavango ecosystem in northern Botswana. The management plan for Moremi designated one of the concessions (leased recreational areas) as wilderness and, therefore, suitable only for nonmotorised recreational use. As is not uncommon in these circumstances, however, departmental wardens and game scouts lack the training to implement this specialized management.

In contrast, Namibia has a well-evolved wilderness zone with the Waterberg National Park, with well-defined management goals, peripheral rustic camps, and an established schedule of wilderness-trail hikes led by experienced rangers/interpreters. Interestingly, both of these southern African examples had developed without significant NGO activity but rather as a result of wildlife department professionals having specialized training (as in the case of the Waterberg warden) or because of policy direction to diversify tourism (as in Moremi).

Italy has wilderness zoning in several areas, largely due to the untiring efforts of Associazione Italiana per la Wilderness, an NGO founded by Franco Zunino. The first zone was established within the rugged, mountainous Val Grande Park in the Piedmont region, one of the few remaining haunts of the European brown bear. Eventual statutory protection at a regional level is anticipated. Numerous other small wilderness zones recently declared at a municipal level, such as the Fosso del Cappanno Area Wilderness, represent continued expansion of the concept.

Several aspects of the Italian wilderness movement are worth noting. First, it is one of the few such formal wildland movements in Europe (other than in Bulgaria and Scotland) and has important symbolic value because Europe is regarded as tamed and domesticated, essentially without wilderness. Second, Italian conservation professionals and others involved in this issue have adopted the English word wilderness, with area wilderness now in common usage. This is the first time that this has occurred in a country where English is neither the primary language nor even commonly spoken.

WILDERNESS PROTECTION THROUGH WILDLAND RECOGNITION

The recognition and protection of wilderness areas also occurs under regimes and protocols which do not use the term wilderness, but rather use a language-specific term or rely on the generic term, wildlands. Though wilderness does convey a cultural message, thus making it unlike other similar terms, preference for other terminology should also be seen as a step toward the goal of protecting wilderness in general, as long as appropriate management is being employed to recognize and protect these wilderness-specific values.

For example, Latin America is yet to embrace the term wilderness. In contrast to the Italian example, where

the word wilderness has emerged as a distinct term, Latin America describes wilderness as *area silvestre*. The English word wildlands is also commonly used throughout the region. Wilderness values are being conserved in Latin America through a wide range of unique and promising initiatives that clearly promote local, indigenous community involvement in their nearby wildland areas. Brazil has launched several efforts that have considerable potential for wilderness and wildland conservation. Establishment of indigenous reserves, as the Yanomami Reserve in the Amazon, forbids modern encroachment and fosters self-determination for the primitive Yanomami people and supports their traditional way of life. Several "extractive reserves" have also been established throughout the Brazilian Amazon that allows traditional, nonmechanised harvesting of resources such as rubber sap, Brazil nuts, and medicinal plants. In the short term, at least, such initiatives clearly protect wilderness values.

Russia is another example. While Siberia contains some of the most significant wilderness areas left on Earth, the pressures of development are increasing exponentially. In Russia's official land-use classification system, the most analogous term used to define wilderness is *zapovednik*, literally meaning "forbidden areas." These areas were originally established solely for scientific research, but they have now been opened to tourists. While they are essentially undeveloped, few of these areas have functioning management plans to retain wilderness values, mostly because of lack of funding. A hopeful sign is the creation (with management plan developed by local people) in early 1993 of the 4.2 million hectare Great Arctic Reserve on the Taymyr Peninsula, a significant contribution to de facto wilderness protection.

Marine Wilderness

While virtually all wilderness designation activity has been focused on terrestrial areas, there is a growing movement to apply such designation to marine environments. As mentioned previously, the Lake St. Lucia wilderness area in South Africa is a Class Three designation with considerable potential as a model for other large lake areas worldwide. Plans exist to designate a Greater St. Lucia Wetland Park, eventually including additional designated marine wilderness off the coast and combining with the existing lake and terrestrial wildernesses to form the first designated marine-terrestrial wilderness.

Another notable example is the Great Barrier Reef. While the reef is not officially designated as wilderness, the zoning plan for the Great Barrier Reef Marine Park authority has significant safeguards to protect wilderness values, especially in the northern section of the park. The current National Wilderness Inventory in Australia urges the Great Barrier Reef Marine Park Authority to give considerable impetus to the concept of marine wilderness through officially establishing a wilderness zone in the park.

The World Conservation Union

At its 1990 General Assembly, the World Conservation Union's Committee on National Parks and Protected Areas (CNPPA) proposed a new Framework for the Classification of Terrestrial and Marine Protected Areas, which was subsequently adopted in 1994. The framework now includes a wilderness category for the first time since 1973, at which time wilderness was downgraded from a category to a zone. The new Category I is entitled, "Scientific Reserves and Wilderness Areas." This is a significant accomplishment after years of intensive internal debate and gradual progress through the World Wilderness Congress working closely with the CNPPA. While no form of statutory protection is implied, the acknowledgment of wilderness as a legitimate land-use category lends considerable strength to conservation agency and environmental activist efforts and will certainly lead to further wilderness designation and protection.

Wilderness recognition and protection are gaining ground. Progress is slow but steady. As the wilderness concept is used in different countries whether as Class One, Two, or Three it is evident that definitions vary somewhat and management regimes vary even more. But the most significant trends to emphasize are: the use of the term wilderness is growing; the term is adaptable to developing nations and some indigenous societies. Importantly, we need to assure that the essential qualities of wilderness areas lacking permanent human development, possessing biological integrity, and providing solitude are maintained as the concept is adapted to different countries.

WILDERNESS: A SOUTH AFRICAN PERSPECTIVE

Khulani Mkhize
Control Conservator
KwaZulu-Natal Department of Nature Conservation

Ladies and Gentlemen, it was sad for Mr. Steele not to be able to attend this vitally important conference. He was committed to being present but because the local elections in one of our provinces were changed from 29 May to 26 June, he felt that his duty lay in staying with his staff in case problems arise.

Therefore, it is indeed an honour and privilege to have been invited to speak at this gathering of people who are truly concerned about the environment. It has become fashionable to express concerns over the environment - to pay lip service to environmental conservation. Unfortunately, precious few of those who join in the outcry, really care enough to actually do something about environmental enhancement. And this, Ladies and Gentlemen, is what makes this moment such a happy one for me.

Wilderness is vital for our sanity as individuals as we go through the biggest social transformation since the arrival of the Europeans on the pristine areas of South Africa centuries ago. Inkose Mangosuthu Buthelezi, Minister of Home Affairs once said "I am convinced that once we stop being Wilderness oriented, we are likely to feel caged, with the resultant desperation that overcomes all caged animals even if they belong to *Homo sapiens*".

All around me I see people grouping for spiritual strength as they struggle with the meaning of all the changes, which liberation has thrust upon their lives. The liberators and the liberated, the oppressors and the oppressed alike are still confused about the effects of this transformation. Hopelessly, impossible expectations are taking their toll of many people's lives as the Utopia they expected recedes out of their grasp. Any sensitive person should worry about what the consequences of all these raised expectations will be for South Africa's masses.

I am deeply concerned at the rapid deterioration of the social fabric of our country. Whilst the struggle for power is pursued relentlessly, the levels of poverty increase apace, the rate of unemployment and crime rises exponentially and despair, not hope, becomes the hallmark of our society.

What has all this to do with Managing the Wilderness?, one may ask. Poverty hardens attitudes and the desperately poor across the length and breadth of Africa and other parts of the Developing World have so often stripped nature's resources of their reproductive capacity simply because they sought to survive. Wide spread poverty, often chronic poverty, will have to be eliminated, for this is one side of the coin of environmental degradation in South Africa. In many parts of the country, impoverished and overcrowded communities are battling to survive. In such circumstances, environmental ethics are often irrelevant and Wilderness concerns a perceived superfluous luxury, in the struggle for survival. Metaphorically - and sometimes in reality - people are forced to eat the seed of their next year's crop.

We have seen how desperate politics destroys the land and spreading mass poverty destroys social solidarity and the democratic means of solving the problems. When this happens, conservationists are amongst the many victims. We have recognised the fundamental interaction of people, resources and the environment. Furthermore, we are particularly aware and concerned about the threats to the environment contained in the increasing pressure being placed on it due to rural poverty, unsustainable population growth and insufficient responsibility and accountability for the integrity of the environment.

Our political problems have spawned economic depression and the erosion of the Rand to such an extent that conserving the environment in its pristine state, as Wilderness, must be seen by many as just holding a vacant unoccupied and unused land and its natural resources until they are gobbled up by land-hungry people or monolithic developers. Whether hungry masses are invading the Wilderness or whether developers are trying to bolster the economy or to provide employment for the countless thousands of work-seekers who daily knock on the door of industry and commerce, not only from within South Africa but from without, the Wilderness will suffer.

Conservation has not had a good track record in terms of its human/neighbour relations either. People have been forcefully removed from their land in order to make way for conservation. Understandably, this has led to the notion that animals are more important than people. There has been a lack of access to Parks, lack of employment opportunities in the Parks (I am not talking about employing people as cheap labour), and the

paramilitary and overzealous vigilant attitude of the Park authorities has alienated them from local communities. Even though conservation officials have tried to make inroads to local communities, they have taken a patronising and paternalistic approach and both have been player and referee in decision making. They have not realised that participation and consultation are worth more than handouts. While overpopulation and land-hunger developed on the peripheries of Parks, lush pasture land and growing herds of game were nurtured within.

It is a gloomy picture indeed, and to many it may seem that the provision of Wilderness Areas, that is wild undeveloped areas where man is urged to go into, to enjoy and to depart leaving only his footprints, is a naive and unrealistic economic hope. It is naive and unrealistic despite the spiritual and cultural necessity of such areas. Unrealistic, not because the Wilderness concept is outdated or because it is a western implant from the United States, which is the very reverse of the Third World. It appears unrealistic not because we do not understand the meaning of Wilderness or because we do not need it in this modern world.

Now there are thousands of people daily dependent on the harvesting of natural resources, not because they necessarily want to perpetuate a nineteenth and twentieth century harvester-culture into the twenty-first century, but because they have to or go without a roof over their heads or food in their stomachs. What I am trying to convey to you, Ladies and Gentlemen, is that a depressed economy in Southern Africa almost guarantees a pressurised environment.

In the Developing World, land and related issues have tended to become highly emotive and worthy of political attention. Unfortunately and owing to the historical context this has often meant negative political attention. It is no coincident that political involvement in conservation development, past and present, has tended to focus on those areas of greatest ecological importance (e.g. Dukuduku, Kosi Bay, St. Lucia, Table Mountain etc.).

We have additional pressure from certain white academics and do-gooders. When we try whatever possible to preserve our environment and to conscientise our people to be conscious of their responsibility to their environment, it boggles my mind when certain white academics and do-gooders do their damndest to portray us as callous to the daily needs of our people. The issue is politicised deliberately in order to present us as people who are not concerned about the welfare of our people. It is painful and difficult to be a black conservationist while we are still in this kind of political melting pot in South Africa.

While there are no easy solutions to the dilemmas of future land use in South Africa and the gap between conservation of resources and the exploitation appears irresolvable, experience from the Developing World suggests that there is light at the end of the tunnel. This has emerged at local level out of the growing realisation of the finite nature of natural resources and the need to resort to a policy of sharing as the way to the future. This relationship is based on the parties undergoing shifts in their world views around their respective values on natural resources.

Our popular tourism slogan is that South Africa is "a world in one country". To the conservationists at least this is true. According to Brian Huntley, Roy Siegfried and Clem Sunter in the book *South Africa into the 21st Century*, our flora includes more than 20,300 species of flowering plants and many hundreds of ferns, mosses, lichens and fungi. Our animal kingdom includes some 800 species of birds, 243 species of mammals, 84 species of amphibians, 286 species of reptiles, 632 species of butterflies and tens of thousands of other insects. More than 580 National Parks and Nature Reserves, totaling to more than 7,2 million hectares have been set aside to protect our diverse flora and fauna. Nearly 97% of the birds, 93% of mammals, 92% of amphibians and 92% of our reptiles are included in this protected area network, which makes it one of the most effective systems of its kind in the world.

But, most of these Game Reserves and Wilderness Areas are surrounded by peri-urban development. The problem with this is that it makes our land unrecognisable while the audio effects of train, planes and factory sirens are almost impossible to suppress. While we cannot undo this damage on the edge of Game Reserves and Wilderness Areas however, we have to, at all costs, review the current policy of internal development in Game Reserves and strictly enforce peripheral or external development policy. We need to reaffirm ourselves as the proponents of low-impact overnight accommodation and trails, if the rich diversity of landscape and wildlife that South Africa boasts are to remain the prime drawcard of our tourism industry. The development of tourists' infrastructure has been the focus of many conservation agencies. It has been saddening to see development proposals that come from the conservation agencies themselves. Too often it is the over-enthusiastic conservation executives that try to be all things to all people who end up encouraging bigger rest camps, supermarkets and restaurants in the postage stamp-size Parks. Since conservation and Wilderness management are the two sides of the same coin, let us get them back together, please. I hope the delegates will pass

resolutions from the conference. The first should be directed to the conservation agencies themselves to the effect that internal development is passed and out and external development is in.

My last point, Ladies and Gentlemen, is that setting aside land as designated Wilderness Areas, especially, in the densely populated areas of South Africa requires a lot of very careful planning. Whether we like it or not, economic land use policies and land restitution is high on the agenda of the new South African government. In a country where conservation land use competes with other uses such as agriculture and settlements as well as providing jobs, setting aside land as Wilderness is bound to meet with resistance if it is perceived to be for use by the affluent minority. It is easier to demarcate Wilderness Areas within existing National Parks and Game Reserves and this is why I am calling for a moratorium on a non-essentially vital development in any conservation area. If our intention is to set aside new land for conservation or especially designated as Wilderness Areas on the scale done by the Americans, we will need to be far more careful in its selection, its promotion and its legal establishment. It will have to be set aside, preferably, in national legislation rather than provincial legislation.



F.l.t.r. front: I. Player, V. Martin, P. Tyldsley
back: P. Bridgeford, B. Ua-Ndjarakana



F.l.t.r. T. Cooper, V. Martin, I. Player, B.Ullenga

(Photos: Dirk Heinrich)

THE NAMIBIA NATURE FOUNDATION AND WILDERNESS

Peter Tyldesley
Director Namibia Nature Foundation

BACKGROUND

The Namibia Nature Foundation was established as a non-profit, non-governmental organisation on 29 July 1987. The first full time director, Douglas Reissner, was appointed in November 1989. The primary motivational force behind the establishment of the Foundation was that it would provide a support base for conservation activities in Namibia.

The NNF has grown from strength to strength since its early beginnings. The staff component has grown from one to the current eight, and the number of projects to which the NNF provides assistance now exceeds eighty. These projects cover a wide range of disciplines, and are located throughout the country.

THE ROLE OF THE NNF

The role of the NNF has been fashioned around its primary aim, "to promote and assist conservation in Namibia and the southern African subregion, in the widest context and in all forms, and to conserve the environment for future generations." This aim has been purposely made as broad as possible so as to include a wide range of disciplines and activities.

From the outset it has been clear that the greatest contribution which could be made by the NNF would be as a supportive and facilitative body rather than an implementing agent. The Foundation assists conservation or environmentally orientated projects in all sectors, including government, non governmental organisations and the private sector. This assistance has come in the form of fund-raising and financial administration, the development of project proposals, administrative support, infrastructural development and communications.

The projects currently supported by the NNF may be roughly divided into three categories; Environmental Education, Research and Management. There is however a measure of overlap with many of the projects, and some projects do not fit too well in any of the categories mentioned above. This is perhaps clearly demonstrated when we talk about wilderness.

The NNF and Wilderness

When thinking about wilderness, and the potential role of the NNF in establishing wilderness areas in Namibia, I first considered what wilderness meant to me. Certain associations dominated my thinking; solitude, untainted by the production line ethic, time, peace, space and a sense of spirituality of being close to a great creative force. Virtually all of these associations, so precious to so many of us, have systematically been eroded by our modern "progressive" society.

However, the pleasures of indulging in a little daydreaming on wilderness were tempered by the realities of the land ownership issues in Namibia, and historical factors which could superimpose a negative bias on the idea of wilderness, should it not be very carefully explained.

Land Ownership in Namibia

The land in Namibia is owned either by private individuals - mostly white commercial farmers, or the State. The land owned by the State can be divided into protected areas such as national parks, communal lands, many of which are inhabited by specific ethnic groups, and land on which a concession is held by for example a mining company.

In the first instance, the land is used primarily for farming. This land, the majority of which is situated in the central areas, has to a large extent been severely degraded by years of extensive stock farming. Of interest though, has been the recent emphasis on game farming, and the establishment of conservancies. Indications are also that the multi-functional use of natural resources is becoming an increasing priority for farmers. At the present moment in time, the National Parks probably present the most viable options for the establish-

ment of wilderness areas in Namibia - Waterberg is a typical example. With the proclamation of the Conservancies Act however, rural communities, many of which are located in areas suitable for wilderness, might consider the establishment of wilderness as a source of income. Another potential source of wilderness is land which has been given out to concessionaires. Often large areas of this land are subject to a minimum of human disturbance, and are therefore excellent prospects for wilderness, when the land is returned to the State. An example which springs readily to mind is Diamond areas One and Two, currently held by NAMDEB.

Historical factors

The question of land ownership is complicated by socio-political, socio-economic and socio-historical factors. The era of colonialism, and all the unpleasant memories of the Apartheid system, are only too fresh in the minds of the vast majority of our population. Invariably issues such as lack of access to game and other natural resources, the control of natural resources by the minority, poverty and the drive for empowerment are going to be critical to any discussion about the formation and management of wilderness.

Before any wilderness area in Namibia is proclaimed, the concept of wilderness, within a Namibian context, will have to be clearly defined. Integral to such a definition would be clarification of who would be able to access the benefits of the wilderness (both material and spiritual), who would provide the land, who would manage the land and a comparison of the importance of the land as a wilderness versus its potential to generate income by way of, for example, grazing.

THE POTENTIAL ROLE OF THE NAMIBIA NATURE FOUNDATION

Within the context of its primary aim and areas of operation, the role of the Foundation is likely to be the following:

Facilitation of a Wilderness Steering Committee

If the concept of wilderness is to spread and gain momentum, it is important that a steering committee be formed, which contains representatives of the various potential stakeholders in wilderness. In order to initiate the movement towards wilderness, the NNF will discuss the prospect of a wilderness steering committee with potential stakeholders, and then, upon conclusion of the workshop, assemble such a steering committee should it be deemed necessary.

Education

The NNF is in constant contact with representatives of virtually all the potential stakeholders in wilderness areas. Given that the Steering Committee mentioned above is established, and that it develops guidelines for wilderness, the NNF would consider a targeted education campaign, aimed at promoting the concept of wilderness, and providing information as to what wilderness is, what it means, and the potential benefits which it holds for all.

The NNF as a support base

The development of wilderness areas, just like the development of all projects, will require a support base, whether this be in the form of moral or financial support, or through the provision of resources, expertise or skills. Where possible, and within its means, the Foundation will seek to support efforts aimed at the development and maintenance of wilderness areas in Namibia.

Procurement of Land

The NNF is in the process of changing its constitution to include the purchasing/leasing of land. Should the Foundation be in the position to purchase land in the future, the conversion of the purchased land, or at least a part of it, into wilderness area is very likely.

In conclusion, the NNF will seek to promote the establishment of wilderness areas in Namibia, and where possible assist as required. The Foundation is firm in its belief that, given good information and a clear understanding as to the value of wilderness, representatives from all the forms of landowners mentioned above will seriously consider wilderness as a viable option in the overall management strategy of their land.

In conclusion I leave you with a thought for consideration: What is more important, a healthy society or a healthy environment, and can they be separated?

THE WATERBERG WILDERNESS

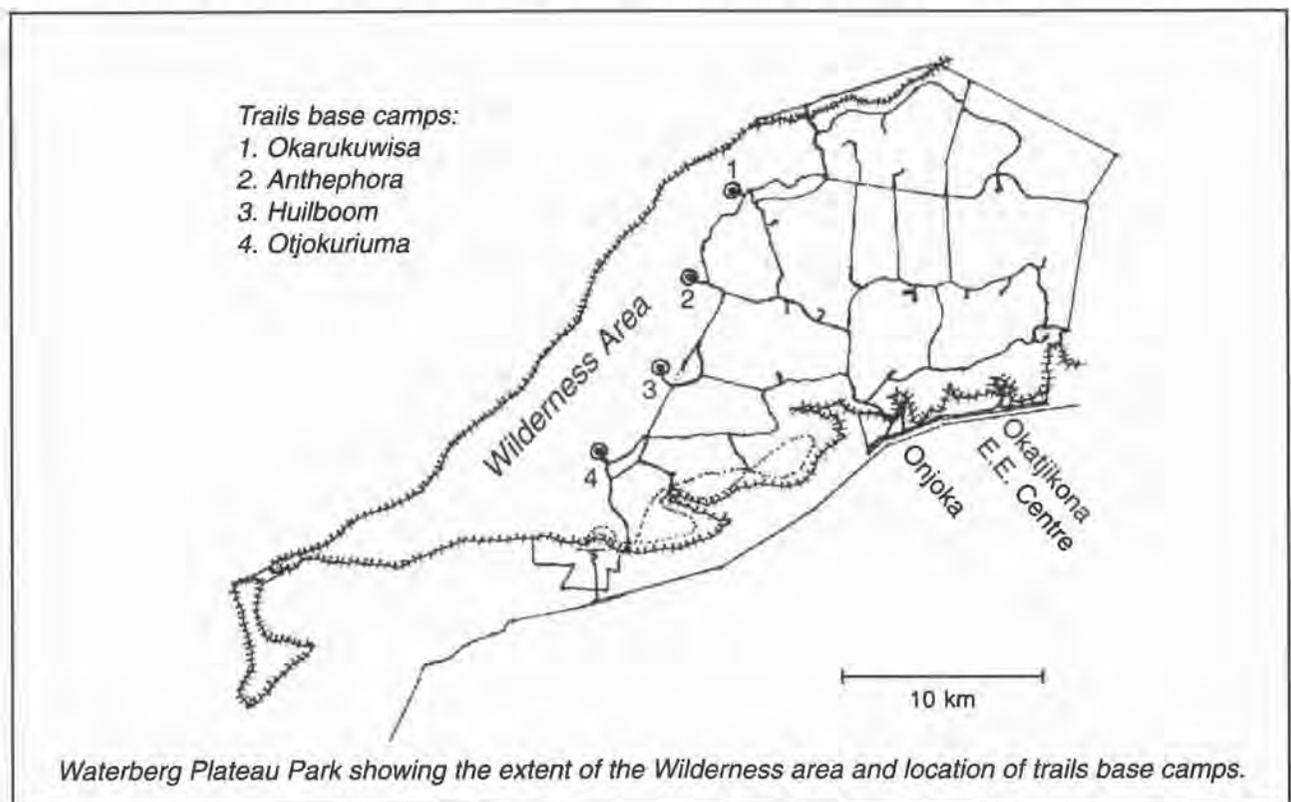
Trygve G. Cooper
Senior Warden - Waterberg Plateau Park

The Waterberg Plateau Park was proclaimed in June 1972, and resulted from the Western half of the Park (already declared in 1956 as a monument area due to the unique Etjo sandstone formations), being joined to commercial farms to the East that were purchased around 1970, in order to form a viable breeding sanctuary for those animals listed as rare and endangered in Namibian terms.

It is 50 kilometers long, and is surrounded by about 130 kilometers of cliffs. On the Northern side are the high cliffs where the Cape Vulture Colony, the last one in Namibia, occurs. It is bordered by commercial farms. The rare species program has been very successful, encompassing Roan antelope, Sable antelope, Black and White Rhino, Eland, disease-free Buffalo and a number of other species suited to the habitat.

The Plateau consists of sandstone cliffs and vegetated Northern Kalahari duneveld, and the plant community is largely deciduous mixed woodland Savannah. It is very rocky, with thousands of rock pools during the summer rains, which dry up totally in the winter and we supply most of the water to the game via boreholes.

Let us talk rather about the Wilderness. In 1984 the word Wilderness had been thrown around quite a lot and we were starting to formulate the Master Plan and the Management Plan of the Park. It was approved that we should go ahead and demarcate or zone the Western half, the monument area, as a Wilderness Area. We proceeded to conduct educational Wilderness trails there, in the beginning of 1986, following a few experimental trails in 1985, so for more than a decade we have been running trails in the Waterberg Wilderness.



The Plateau is about 41,000 hectares in extent, and it is divided into six fire blocks. The biggest is the Wilderness Area, which is just under 19,000 hectares in extent. And I think we have been able to, as the Regional Governor pointed out, relatively successfully marry the concept of Wilderness with a highly specialised management goal which very few parks really have, and that is the management of rare and endangered species. On only very few occasions have we had to traverse the Wilderness by vehicle, during capture operations or anti-poaching drives; it is managed mostly on foot and even more so on horseback.

During the decade that we have been conducting trails we have put just over a thousand people through the Wilderness Area, on something like 160 trails. We do not have any trails officers; the staff, the rangers, the

senior rangers and I run these trails. We have recently had two posts approved, which have been filled by new staff, who are training at the moment to handle trails, but in our situation in Waterberg it is doubtful that they would be permanently on trail; they would be doing all sorts of other work as well.

Trails are conducted for 8 months of the year from April to November for 3 days and 3 nights at a time, starting on the second, third and fourth Thursday of every month. Four Base Camps are situated on the periphery of the Wilderness Area. Of these, two are old camps which are being re-built at the moment, after many years of service, by volunteer youth groups. Two are new camps, of which one has been in operation for 2 years, and the other is under construction. We are hoping to double our tempo of three trails per month, up to six trails per month in the future, by having trails operating simultaneously at two camps and then resting those areas for four months, while the other two camps are being used. It relieves boredom for the staff, and a lot of people we have coming on trail have been with us before and it gives them a change of scenery. There is a terrific demand. The waiting list is endless and we are actually battling to cope with the amount of trails.

I want to go straight into really why we are doing these trails; why we have a Wilderness Area in a place like this, which has such a specialised management goal. And here I am going to borrow some of the words that one of the first Field Officers of the Wilderness Leadership School under Dr. Player, many years ago, Barry Clements, sent to us when we were thinking about proclaiming Wilderness. This is one of those things that we discuss around the camp fire at night, normally on the final evening after the trail participants have had some exposure to the Wilderness Area for three days, and the time is ripe to really start discussing Wilderness issues which many of them don't understand on the first day or two. It's called *Thoughts on Wilderness*, and I will read it out to you.

The proclamation of Wilderness Areas is the highest form of protection that can be given to land. The United States Forest Service set aside vast areas of Wilderness way back in 1924, (in fact the area that Sue Kozacek now manages in the Gila, and the area suggested by Trisha's grandfather, Aldo Leopold). This led to the Wilderness Act of 1964 whereby hundreds of millions of acres of Wilderness were established in the United States, setting a precedent and an example to the entire world.

The ecologically advanced countries who have established Wilderness Areas have done so for a variety of reasons (and I think I am probably talking to my fellow Namibians now at the managerial level, more than others of you who have been in Wilderness for a long time; and I think I am also saying things here which the rural folk out there understand perhaps better than most of us here do) and these are some of the reasons why we have a Wilderness Area in Waterberg, why we believe it is important and why we should consider doing so in other parks:

Cultural

Wilderness is the pinnacle in terms of land value, incorporating the highest elements of culture and value. It is the highest common denominator that one man may share with another, that is a love, knowledge, respect and sense of wonder at the miracle of creation. Wilderness forms the basis of all cultural development.

Scientific

Wilderness is the original research and gene bank. It is the natural standard by which other forms of land use and trends may be judged. It is the storehouse of species, just as *Acock's Veld Grasses* formed the basis from which all other vegetation surveys expanded.

Ethical

The main problems facing nature conservation and conservation in general today stem from people who do not care. The most efficient method of making these people both understand and care is to take them on a Wilderness Trail. Just as greed and the maximum profit at costs motive is considered unethical, so the destruction of nature shares the same unethical standpoint. Wilderness can be a conscience and a perspective to what is ethical and unethical in all forms of land use (whether you are talking about preserving white rhino or looking after a field of maize).

Aesthetic

Wilderness affords total exposure to the aesthetics, untainted by vehicles, buildings, extraneous noise and pollution, etc.

Educational

The highest aspirations of any educational policy would be for students to seek to live in harmony with their environment. Think carefully about it. It's very true. All over the world, exposure to Wilderness has succeeded in providing a cornerstone to education. We have certain schools in this country increasingly now, that send their senior pupils and teachers annually on Wilderness Trails as part of their Life Science program, and they have been doing it before the syllabus was even drawn up.

Ecological

The ecological considerations are almost too numerous to mention. There was at one time a protea in the Cape mountains that was being destroyed by a virus disease introduced by Nature Conservation Officials' boots! Until we know what the conservation requirements are for all species, Wilderness affords and ensures the most complete protection.

Historical

Wilderness shaped the culture of our ancestors. It was the raw material from which civilization was forged. To neglect to safeguard Wilderness in some or other form can be likened to destroying our own history and background.

Spiritual

Wilderness is the opposite extreme to intensive recreation and a necessary balancing factor. That it gives spiritual sustenance and inspiration to thinkers, philosophers, poets, writers and leaders, is very important to our society. I know of a couple of decisions that have come out of the National Assembly that were never made there. They were made around the camp fire on a Wilderness trail, where two people who never usually spoke to each other found themselves and each other after three days on a Wilderness Trail, able to get their whole mindset together, relax, and talk about the very important decisions that need to be made at a National level, not necessarily even to do with conservation.

The most advanced conservation departments are exponents of the Wilderness system. It can be a powerful means of influence; contrary to development it costs nothing to set aside. Nature Conservation departments are accorded internationally now not by what they build, but by what they safeguard. The quality of human experience is greatest by experiencing Wilderness and quality as well as quantity must be considered to achieve a balance.

One day some years ago, I had the pleasure of taking onto the Plateau, some local folk from Okakarara and Otjinene and other places in Hereroland who had come for a visit to the Park with the press - young teachers, local community leaders; and while we were showing them the Vulture Hide and the capture bomas and explaining our rare species program and the burning policy and so on, we decided to visit Huilboom Trails Camp. When I went in there, I thought, well, this is going to be a bit of a puzzle. I wonder whether this group of people will understand why we have set aside this whole block and there are no tourist roads, there's nothing in there. I turned around after a few minutes, to see one old man kissing the ground, and I asked a young reporter from Okakarara, what the old man was doing. He went and spoke to the elder who said something to the effect that he was just so pleased, (this was a prominent leader in local Herero society), to see that the Government was doing the right thing for a change. He said, "It reminds me of my youth. This is for my children. It's not just a lot of roads with white tourists and buses, where we feel too embarrassed to come, because we can't afford the facilities." I said to him "What about emergency grazing." And he said "No, that's fine, you just leave it like this as long as you take my children on Wilderness trail one day." That old man grasped the whole concept of Wilderness without any explanation. He was happy for Wilderness to be part of the Park, and the entire group agreed with him. To him, Wilderness represented *true* Conservation.

I think we are doing an injustice to the masses of people in our country. Just because they have become urbanised does not mean to say that they do not understand Wilderness; they have probably got away from it, but they learn very quickly when you get them back to the Wilderness. The majority of people living out in our rural areas in Namibia, I think, understand a lot more about Wilderness than what we think. We have put a name to it, labeled it, but they are far closer to it than what you or I will ever be. And I think it is going to be very, very important for this country one day if we start entrenching some of our claims here and there of Wilderness, and making them relevant to the people through Trails, through education. They are magnificent outdoor

classrooms, and they must be accessible to the people. I don't see any reason why there couldn't be hunting – traditional or modern - within Wilderness Areas, as long as people are prepared to retrieve their quarry on foot or on a horse. I think that we can make Wilderness very relevant to people, and we are going to find it easier than what a lot of people here think, to make it understood by the rural folk in this country. Thank you very much.

QUESTIONS AND ANSWERS.

Q. *What happens to the revenue from trails?*

A. It goes to the State Treasury. But we don't charge as much as for instance Natal Parks Board do for a trail. We are not dealing with might I say rich sugar cane farmers' sons. We are dealing with people at the grass roots level, mostly the underprivileged folk in this country, who are living on the bread line, and although a lot of our trailers are of course from bigger income brackets both local and foreign, we do believe trails must be made accessible to the man in the street and to the person who doesn't have a lot of education, or money or opportunity. So we charge a minimal amount just to cover the cost of maintaining the operation. We are not trying to make money out of the Wilderness trails. That is not our approach. It may change, but then if it does change, it is going to mean that we will have to find heavy sponsorship to allow the folk out there to come and experience this Wilderness Area. Which we believe is important; we believe that this Park should be a core within a biosphere concept for this whole area, so it must be accessible – particularly the Wilderness Area.

Q. *How many members of the Cabinet have been on Trail?*

A. There have been a few changes as you know. About four top-ranking ministers, and other politicians. Some of them have only managed to visit the Wilderness for limited periods because of time constraints.

Q. *What is the strategy of Pieter Mostert to get more top ranking people and ministers on trail?*

A. Pieter has been trying desperately to get these people on trail, but it often does not work with their schedules. They are very busy people, and important things do come up. It took Ben Ulenga almost two years to be able to get onto a trail.

Q. *Why do you have those trails camps all along the edge of the Wilderness?*

A. That is the edge of the Wilderness Area. In our situation we felt that when we were planning it, we would make a thousand metres, one kilometer, no more, the limit at which the entrance roads to the overnight camps stop. Most of them are between four and six hundred meters, but no camp is more than one kilometer from the edge. That would really be as Paul Weingart pointed out the semi-primitive area, on the Recreation Opportunities Spectrum. Extending further from the camp would be the Wilderness Area proper. And it is done like that to preserve the quality of the experience for those people going on Trail. It cannot be right on the edge, otherwise you hear or see vehicles every now and again, and certainly we felt any more than that would really be violating the Wilderness concept.

Q. *What are you doing to ensure continuity of your programs and the continuation of all your good works while you are here, and obviously you can't predict the future up there but once you leave, what are you going to do to leave a legacy of continuity of this program?*

A. Jim, this is one of the reasons why we need a symposium like this now. We have trained over 20 rangers or senior rangers to take trails and some of them have done very good work, but they are off furthering their careers somewhere else.

AN HISTORICAL PERSPECTIVE OF WILDERNESS IN THE U.S.A.

Paul Weingart

Natural Resource Consultant

Associate - WILD (International Wilderness Leadership Foundation).

The North American continent existed for millions of years without humans, and then was populated by Indians for thousands of years before Europeans brought new civilisations and values to the land. These native Americans revered the earth and believed the land, forests, water, sky, stars and moon were their relatives. They had no concept of land ownership and had very few ways to dramatically alter their environment. The land in which they lived could easily be considered Wilderness as we envision it today.

Approximately 400 years ago, settlers arrived in the New World with ideas totally incompatible with an appreciation for Wilderness. They came to capture a quick fortune from a virgin continent or create in it a new Christian community. In 1620, settlers were unprepared for the challenges of the New World, and, as Pilgrim William Bradford observed, "it's hideous wilderness, full of wild beasts and wild men".

As the westward expansion began, the dark, dismal forests blocking the path to progress and prosperity were pushed back. Trees were only good for building a fence, a fire, or a cabin. Led by rough and ready pioneers and explorers, wilderness was seen as a wasteland, a place to be settled and civilised.

By the early 1800's, wild, natural objects such as mountains and forests were no longer regarded with horror; in fact they were even worthwhile to look at in humble admiration. But, to the majority of people, the undiscovered wilderness was so vast that its complete conquest was unthinkable. By the 1830's, Americans experienced their first loss of freedom; fences and property lines appeared in wide-open prairies once thought to be a wilderness wasteland. Americans began to realise that wilderness was a distinctive trait of our nation - a source of national pride and character equivalent to Europe's age-old cultural heritage.

Scientists such as John James Audubon recognised wilderness as a vast laboratory which held unlimited discoveries. At the same time, wilderness began to serve as a spiritual reserve in which the Creator could be appreciated and worshipped without man's artificial intrusions.

One of the strongest "voices for the Wilderness" came from Henry David Thoreau, who believed that the survival of humans depended upon the preservation of Wilderness. To him, Wilderness was a tonic, enough of which humans could never have. In 1864, George Perkins Marsh wrote a book entitled, "Man and Nature", which stirred the nation by supporting Thoreau's call for preservation to prevent the collapse of civilisation. Support for reserving land for public use was growing, and Congress established Yellowstone National Park in 1872. More than 2 million acres of Wilderness were set aside to protect its natural curiosities such as geysers, mudpots, and waterfalls. It wasn't until a decade later that the Park was recognised and defended as a Wilderness preserve.

The establishment of Yosemite National Park in 1890 in California was the first conscious effort to preserve Wilderness for its own sake, largely due to the efforts of John Muir. In 1892 Muir founded the nation's first organisation dedicated to the appreciation and preservation of Wilderness, The Sierra Club. Muir was a gifted writer who believed Wilderness was God's temple, and wrote in 1898:

"Thousands of tired, nerve-shaken, overcivilised people are beginning to find out that going to the mountains is going home; that Wilderness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life"

By the end of the 1890's Americans were shocked to learn that the "Endless Frontier" was quickly disappearing and would eventually "end". The promise of paradise, carved from the heart of the Wilderness, had not materialised. The wastes and abuses of logging were left on millions of acres. Americans saw themselves in a state of confusion, corruption and material abundance where too much was not enough.

In the Presidential elections of 1900, people were looking for some assurance that the frontier spirit still existed and they found it in Theodore Roosevelt. In 1903, President "Teddy" Roosevelt warmed the hearts of preservationists when he visited the Grand Canyon and spoke to the American public:

"I want to ask you to do one thing in your interest and in the interest of the country - and that is to keep this great wonder of nature as it is. I hope you will not have a building of any kind, not a summer cottage, hotel, or anything else to mar the wonderful grandeur, the sublimity, the great loveliness of the Canyon. You cannot improve it. The ages have been at work on it, and man can only mar it."

Two years later, in 1905 Roosevelt transferred forest reserve lands from the Department of the Interior to the Department of Agriculture, and appointed Gifford Pinchot, Chief of the newly created Forest Service. This new agency was responsible for 107 million acres of public land to be managed "for the greatest good, of the greatest number, for the longest of time". The leading professional forester, Gifford Pinchot, saw Wilderness as a reservoir that ought to be used, but used in a way to conserve it. With the stroke of a pen, large expanses of public domain became Forest Reserves, and in a new era of conservation the "wise use" of natural resources, was adopted. The concept of preservation was reserved for National Parks. Yet the jobs done by the early Forest Service employees were much like those done by today's Wilderness Rangers.

In the years that followed, progressive conservation ideas were packed with pleas for action, grandiose plans, and elaborate conferences, calling for the wise use of our nation's resources. But, by 1913, a collision course between preservationists and resource developers was obvious. Despite a public outcry never before heard in the country, Congress authorised construction of a dam in the Hetch-Hetchy Valley of Yosemite National Park. In defeat, Wilderness preservation gained a national following. Three years later, in 1916, the National Park Service was established to prevent further abuse of present and future parks.

Interest in conservation grew after the First World War as Americans realised that humans had the power to drastically change the character of the environment, and therefore also had the responsibility of maintaining it in the best interests of the entire community of life. The extinction of the Passenger Pigeon, the destruction of entire forests and resulting floods, and the loss of valuable farmland to human-caused erosion, helped to convince people like Arthur Carhart, Aldo Leopold, Bob Marshall and others of the need for a conservation ethic which allowed for "islands of primitive, unmodified Wilderness."

Arthur Carhart was a Forest Service landscape architect who was asked to survey the Trappers' Lake area in Colorado for summer home sites in 1919. He recommended that the area remain undeveloped. Recognising instead the aesthetic and recreational benefits, Carhart later wrote:

"There is a limit to the number of lands of shoreline on the lakes; there is a limit to the number of lakes in existence; there is a limit to the mountainous areas of the world, and in each one of these situations there are portions of natural scenic beauty which are God-made, and the beauties of which should be the property of all people. In order to return the greatest total value to the people, not only of the Nation but of the world, these areas ought to be protected from the marring features of man-made constructions."

A pioneer in the science of ecology, Aldo Leopold argued that Wilderness offered a biological control from which changes in the environment could be measured. Leopold believed that other forms of life, ultimately the environment itself, had as much right to a healthy existence as humans did - he called for an "Ecological Conscience". Leopold wrote that the environment does not belong to humans; we share it with everything alive, and it is not something to be taken lightly.

Leopold's "Land Ethic" was based on science, rather than just spiritual values. By 1924, as a Forest Supervisor, he focused his attention on establishing a Wilderness system within the National Forests. In that year, the Forest Service made an administrative decision that over one-half million acres of land, most of which is now known as the Gila Wilderness in the state of New Mexico, would be designated as a Wilderness Preserve, from which road building and timber harvesting were to be excluded. This represented a radical departure from Forest Service policy, which traditionally had been directed toward managing forests for production of wood and other commodities. In fact, Leopold challenged foresters in the April 1936 Journal of Forestry:

"The question of "highest use" of remaining Wilderness is basically one of evaluating beauty, in the broadest ecological sense of the word. Another way to say this same thing is that no-one who does not sense the value of Wilderness "in their bones" can learn that value through any process of logic or education."

The idea of setting aside public lands for Wilderness preservation was shared by others, one of the most famous being Robert Marshall. He had an almost insatiable desire for true Wilderness adventure and wrote;

"The most important passion of life is the overpowering desire to escape periodically from the strangling clutch of mechanistic civilisation. To us the enjoyment of solitude, complete independence, and the beauty of undefiled panorama is absolutely essential to happiness."

In 1935, together with Leopold and other Wilderness advocates, he founded the Wilderness Society, "an organisation of spirited people who would fight for the freedom of Wilderness." In his 1930 article in *Scientific Monthly* magazine, Bob Marshall gave his definition of Wilderness:

"Wilderness is a region which contains no permanent inhabitants, possesses no possibility of conveyance by any mechanical means and is sufficiently spacious that a person crossing it must have the experience of sleeping out. It is an area that allows breaking into unpenetrated ground, venturing beyond the boundary of normal aptitude, extending oneself to the limit of capacity, courageously facing peril."

In 1939, at the urging of Marshall, the Forest Service adopted "V-Regulations" designating areas over 100,000 acres in size as Wilderness and those as small as 5,000 acres as Wild Areas. Over 13 million acres in 73 different areas received protection by authority of the Secretary of Agriculture.

Immediately following World War II, pressures to open these primitive areas for water, timber, and mineral development drastically increased. Wilderness advocates confronted resource developers in a fight reminiscent of the Hetch-Hetchy battle in Yosemite National Park 40 years before. A dam proposed for Echo Park in Dinosaur National Monument in Colorado produced a nationwide controversy and public debate over the issue of use versus preservation. In 1955, Congress dropped Echo Park Dam, in a victory for preservation as a legitimate land-use value. The greatest factors in favour of wild land preservation in this controversy was the change in public attitude that had developed over a period of 300 years.

But the attempt to submerge Dinosaur National Monument behind a dam united conservationists and preservationists to secure, once and for all, an enduring system of Wilderness. Led by Howard Zahniser of the Wilderness Society, a draft statement supporting the establishment of a National Wilderness Preservation System was prepared. Zahniser recognised not only the recreational and biological value of Wilderness but also that:

"Permanent, legal protection of Wilderness is not a disparagement of our civilisation - no disparagement at all - but rather an admiration of it to the point of perpetuating it in a healthy, happy condition."

On June 7, 1956, Senator Hubert Humphrey and nine co-sponsors introduced the first Wilderness bill in the United States Senate. Four days later, Representative John Saylor introduced a companion bill in the House of Representatives. After 8 years of often heated and bitter debate, 65 different Wilderness bills were introduced in Congress, 20 of them passing either the House or the Senate. There were thousands of pages of testimony for and against the bills, and public hearings held around the country. It was consistently supported by conservation and preservation organisations, and consistently opposed by almost all commodity interests, and the key to the passage was compromise. Grazing and mining interests were the most forceful, and their influence is evident in the provisions for grazing in Wilderness and development of valid existing mining claims.

On September 3, 1964, President Lyndon Johnson signed the Wilderness Act into law. It had been passed by the United States Senate 73-12 and by the United States House of Representatives 373-1. The 1964 Wilderness Act is a milestone in the history of conservation in the United States because it was the nation's first legislative attempt to define the need for Wilderness preservation, use and management. It allows only Congress to designate Wilderness, and therefore requires an act of Congress to remove Wilderness from the National Preservation System. The development of Wilderness once done, is done forever. It is an irreversible act, and no amount of soul searching, self-criticism or scientific application can turn the area back to its original, pristine condition.

The 1964 Wilderness Act culminated centuries of land use and ethics, from the Native Americans through the settlers, developers and conservationists. Its preamble remains visionary and contemporary to this day:

"In order to assure that an increasing population, accompanied by expanding settlement and growing mechanisation, does not occupy and modify, all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is

hereby declared to be the policy of the Congress to secure for the American people the benefits of an enduring resource of Wilderness.”
(Wilderness Act, Sec.2 (d)).

The 1964 Wilderness Act designated 9 million acres as Wilderness. In over 31 years and more than 100 laws later the Wilderness system has grown to over 103 million acres in 630 units.

The value of Wilderness in the United States only increases over time in the face of increasing population growth and development. It's legacy the people of the United States will cherish as well as visitors from other countries.

We are still addressing many Wilderness Issues in the United States to this day among which are additions of new areas to the system, proper management of existing Wildernesses and attempts to create Wilderness for the wrong reason.

The key in answering these many challenges is always to go back to the 1964 Wilderness Act, our anchor, to reaffirm what was told to us in the original legislation concerning what Wilderness is, what it's for and how it should be managed for perpetuation of its long term value.

Some Wildernesses were designated that contained improvements and modifications that are inconsistent with Wilderness. In spite of input on the proposed legislation by Wilderness managers, Congress has the last say in passing laws that create Wilderness. Once designated it's then the Wilderness managers' responsibility to work toward restoring that Wilderness to the best of their ability to its natural state over time, again using their original legislation for guidance.

Dedication and commitment to Wilderness is not a one time job but a continuing commitment, not only to designation of qualified areas but also to constant surveillance of the management of the Wildernesses to maintain that special quality that led to their designation.

It's a dedication that most people of the United States feel is well worth the effort.

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STATUTORY PROTECTION OF WILDERNESS

P.D. Glavovic

SAPPI Chair of Environmental Law

Director: Institute of Environmental Law - University of Natal, Durban

FOCUS

This paper does not deal with the ethics and aesthetics of wilderness, the intrinsic, biocentric and instrumental values of wilderness. Nor does it address the philosophical and socio-economic implications of its preservation. Its focus is on the role of the law in the protection of wilderness and, in particular, on the concept of statutory wilderness.

TERMINOLOGY

For the purposes of this paper, the word '*wilderness*' will be used as descriptive of areas of roadless land substantially unmodified by modern humans, and worthy of dedication as statutory wilderness because of the wilderness values.

Wilderness which exists in fact, but which does not enjoy statutory protection as wilderness, is usually referred to as '*de facto wilderness*'. Wilderness which occurs on land which is in private ownership is one example. Another is an area which possesses all the qualities of wilderness and which is located in a National Park or Nature Reserve, but which is not zoned or managed as wilderness.

'*Candidate wilderness areas*' are *de facto* wilderness areas which have been identified as appropriate for formal declaration and protection by statute.

The phrase '*de jure wilderness*' describes wilderness areas which are protected by law, either

directly, by laws the primary or stated purpose of which is such protection - in South Africa these are the wilderness areas at present declared as such under the Forest Act - and which are also referred to as statutory wilderness, or

indirectly, by laws having some other primary or stated purpose but which nonetheless have the secondary or incidental effect of affording such protection - an example would be an area identified and managed as a wilderness area or zone within a National Park.

The phrase '*statutory wilderness*' refers to areas which are directly and deliberately protected by legislation as wilderness areas.

GENESIS OF STATUTORY WILDERNESS

The conviction that wilderness should be protected by statute was born in the United States of America in 1964. In that year Congress passed Public Law No 88-577 - the 'Wilderness Act'. The concept and philosophy of wilderness became institutionalised and the remnants of American wilderness became legally secured. The passage of the Act marks a turning point in human attitude towards nature.

The preceding era was one of exploitation, rooted in a frontier mentality and pioneering ethos which demanded that the wilderness be conquered and subdued. As wild country became increasingly modified and converted to pastoral countryside, some Americans began to feel uneasy and to regret the imminent loss of their wilderness heritage. The diminishing remnants of wilderness began to assume scarcity value, and therefore to move up in American society's hierarchy of values.

The US Forest Service has an excellent record and tradition of public land management, and it instituted the world's first *administrative* wilderness programme. But it was essentially timber-orientated. It adhered to a multiple-use policy; but its primary objective was the harvesting of timber. Another form of exploitation emerged in 1916 when the National Park Service was established. Its purpose was to establish, protect and manage natural areas for their scenic, aesthetic and recreational values, but in such a way as to leave them unimpaired for the enjoyment of future generations.

The National Wilderness Preservation System founded by the Wilderness Act represents an entirely new paradigm of protection for wilderness - a transition from administrative to *statutory* wilderness. The Act states that it is the policy of Congress 'to secure for the American people of present and future generations the benefits of an enduring resource of wilderness'.

The lesson to be learnt from the American experience, gained over decades of agonising debate and conflict between resource managers, lumber, mining, power, irrigation and other interests, is that the essential resource of wilderness cannot adequately be protected other than by specific legislative enactment.

The concept of wilderness has also achieved legislative recognition in South Africa. It did so in 1971 when the 1968 Forestry Act was amended so as to authorise the Minister of Forestry to set aside wilderness areas. That Act was repealed and substituted in 1984 by the Forest Act 122 of 1984. Section 15(2) provides that no land set aside as a wilderness area may be withdrawn except with the approval of Parliament. This appears to constitute substantial statutory protection. Unfortunately, there is no clear statement of policy in the Act, and wilderness is not defined. It is merely described as part of a state forest that has been set aside as a wilderness area in terms of section 15(1)(a).

THE ROLE OF LAW

Before discussing the institution of *statutory* wilderness, it would be useful briefly to consider the role and purpose of law generally in this context.

Law is essentially organic. It is not static. It responds to changing perceptions of value and societal needs. By its very nature, therefore, it is reactive rather than proactive and its value as an instrument of social change is limited. There is no good reason, however, why it should not anticipate human needs, at least to some extent, and thus serve actual long-term needs and not just generally perceived needs.

Consider for example, the continuing worldwide loss of biodiversity and depletion of wilderness, about which more and more people are beginning to feel uneasy. Surely the law as the servant of society, could and should be used to slow if not halt these processes before they become irreversible and before public opinion is sufficiently educated to demand it?

It is informed opinion that suggests that we are living in an era of environmental crisis. It is informed opinion that appreciates wilderness for its aesthetic or spiritual or psychological values, or sees it as essential gene pools or genetic reservoirs to maintain biological diversity, or as a source of protein, traditional medicines and building material, or sanctuary for threatened species of wildlife, or as a component in land use planning. Surely informed opinion should inform the law?

In this informed sense, there is no good reason why the law should not take into account intrinsic as well as utilitarian values. The law should accommodate the trend in modern thinking towards deep ecology and a biocentric approach.

In any event, there is in fact a greater public awareness of the actual and potential effects of environmental degradation. In this new age of environmental alarm, it seems now more widely accepted that we are rapidly losing something of inestimable value and that what remains deserves effective protection. As society's perception of this value has heightened, so too has recognition of the importance of the protective role of the law.

Legal prescription by itself, however, is clearly not enough. Effective protection of wilderness depends on a combination of legislation, science, technology, philosophical reflection, as well as changes in human consciousness. In the formulation of legal mechanisms it must be recognised that there exist other means of protection with varying degrees of effectiveness.

The foremost of these is undoubtedly education. Wilderness will only survive if the people want it to survive. But the people must be able to make informed decisions. They must be educated in the meaning and significance of wilderness. It is essential that the public be taught the values of wilderness and the need for its protection, in the schools and universities, through the mass media, and in the various extension and community service programmes, and particularly in rural areas.

The legal prescription for wilderness must make provision for public participation, research and education. The more the people are involved in wilderness management and information programmes, the better in-

formed and appreciative of the values and benefits of wilderness they will be.

But knowledge alone is not enough.

Non-government organisations play an important, often decisive, role in conservation issues. In South Africa for example, the efforts of NGO's stopped the threat of coking coal mining in the Kruger National Park and the mining of the dunes on the Eastern Shores of Lake St Lucia and their conversion into vegetated mine dumps.

But NGO activity by itself is not enough.

Another means of affording protection, at least of some pockets of wilderness, or of areas that retain some wilderness criteria or values, is by way of fiscal incentives and disincentives. Farmers should be encouraged to conserve their wild natural resources. The private sector can and does play an important role and should be assisted in the establishment of private game ranches, nature conservancies, natural heritage sites and conservation servitudes, all of which may promote wilderness values.

Private sector involvement by itself, however, is not enough.

Public opinion is not enough. Some measure of public support is essential, because public acceptance is what makes the law effective, but by itself it is not enough.

Administrative protection is not enough, because administrations, managers and policies can and do change, especially in an era of social and political change such as the present era.

In the context of environmental conservation, law is a matter of environmental necessity - we need law to protect the environment. Law also serves society by protecting what is perceived to be of value. If it be accepted as a basic premise that wilderness has value, it follows logically that it should be legally protected. For so long as there is any wilderness left, there will be something in it capable of producing commercial profit and it is therefore at risk. If for no other reason, simply to exclude the effects of human greed, there must be proper legal protection. Given the nature of humans, there is no satisfactory or effective substitute.

The law therefore plays a complementary but vital role in the protection of wilderness.

THE PURPOSE OF STATUTORY WILDERNESS

What is the purpose of a Wilderness Act? Why is *statutory* protection necessary?

Effective protection

The law has an important contributory role to play in protecting wilderness; but it is a function which can only effectively be performed through the medium of appropriate legislation.

A legally constituted National Wilderness Preservation System was introduced in the United States in 1964. Experience in that country has clearly demonstrated that the most effective vehicle for establishment of such a system and for the adequate protection of wilderness is a specific wilderness statute.

Normative and pedagogical function

In most lesser developed countries, there is not the same degree of public appreciation of the value of wilderness as there is in the United States. Large sections of the population live in rural areas under primitive conditions and are of necessity, more concerned with the present generation's day to day problems of survival than with the rights of future generations and other less tangible wilderness values. Ultimately, as in the United States, there will probably be a general awareness and acceptance of the need to establish and protect wilderness areas. But the pressures of over-population and technological advancement are such that we no longer have the time to await such an evolutionary development.

In the United States public awareness and pressure produced the necessary legal change. In many other countries a reversal of roles is necessary. The function of the law in this context should be expanded to include a pedagogical role. By enlightened definition and application, the law itself is able to make a major contribution to environmental education.

In addition to providing direction and leadership to the executive and judicial arms of government and enforce-

ing protection of our wilderness areas when this is necessary, a carefully drafted Wilderness Act could encourage and foster public awareness of the values of wilderness. Appropriate legislation can serve as an instrument for reform of attitudes. The law, therefore, can and must serve a dual function in environmental conservation - as reactor to and as initiator of social change by the creation of new ecological norms.

Administrative guidance

Administration of wilderness areas must be legislatively initiated or empowered, and the law should be designed in such a way as to ensure that the task of the officials charged with their administration is not only facilitated, but directed and regulated. The purpose of statutory enactment in this context, therefore, is to confer upon officials not only powers, but also duties, with respect to the administration and management of wilderness.

It is, however, not enough that public sector involvement in wilderness protection be prescribed. The conduct of private individuals in relation to wilderness must also be regulated. The regulation of human conduct for some purpose is the fundamental role of law. Where the purpose is the protection of a public good such as wilderness, it makes sense for the law to assume a normative role by clearly prescribing not only rules but norms.

As in South Africa, statutory wilderness commenced in the United States in state forests under the jurisdiction of the National Forest Service. The other major wilderness agencies are the Bureau of Land Management and the National Parks Service which now include wilderness areas on lands under their jurisdiction in the Federal National Wilderness Preservation System. There are also wilderness areas in the National Wildlife Refuge System. Comparative perspective thus indicates that it is by no means impractical to spread a single umbrella of legislative protection across several administrative agencies.

Land use planning

It is generally accepted that the provision of a full spectrum of natural environments is a desirable response to the broad range of tastes, interests and needs of society. As in other countries, South African statutory law, therefore, provides for the formal establishment of a wide variety of protected areas, including national parks, nature reserves, protected natural environments, mountain catchment areas and marine reserves. If wilderness is to be effectively protected, however, it is necessary that such legal prescription take cognisance of and emphasise the essential ways in which wilderness differs from all other protected areas. Other protected areas may to some extent qualify as wilderness equivalents. Others no doubt serve to protect wilderness values to some extent. Wilderness legislation must articulate and provide uncompromising protection of the unique characteristics of wilderness.

These, in sum, are that it is

the least humanly modified extreme on the spectrum of land uses (free of persistent evidence of modern human intrusions such as mining, plantations and vehicular access),

entirely free of permanent improvements (for example roads or power lines) or human habitation (for example rustic accommodation), and

managed in such a way as to allow long-term ecological processes to continue without human interference and manipulation.

ESSENTIAL PROVISIONS

As far as the content of a Wilderness Act is concerned, five principles appear to be of central importance. They are statement of policy, definition, status elevation, public participation and minimal intrusion.

Declaration of Policy

There are basically three ways in which national policy may be declared:

- administratively by officials or a Minister,
- in a preamble to a statute as a statement of purpose,
- or as a matter of substantive law in an act of parliament.

Because wilderness is a national asset and heritage, I believe that it is for Parliament as the nation's representative body to declare the nation's will and purpose. In other words, the declaration of policy should be a matter of substantive law, not merely administrative or simply an indication of intent in a preamble which is not an organic part of the statute. Substantive determination of policy at this level of government in effect provides the foundation for a national wilderness ethic.

Definition

Wilderness is essentially a culturally derived concept. It means different things to different people. It can be a state of mind, a place, a condition of place or a resource. Our understanding of it, and our attitude towards it, change from time to time and from place to place. African wilderness is different from American wilderness.

Planners may regard wilderness primarily as a form of land use. As such it should be an essential component in national and international planning, occupying a critical, benchmark niche in the land use continuum - the least modified extreme on the spectrum of land uses. In the context of recreational planning, wilderness is a desirable component in a Recreation Opportunity Spectrum that ranges from urban recreation areas to wilderness, with intermediate forms of use such as campgrounds, nature reserves and national parks, thereby providing a variety of natural environments to cater for the different needs and interests in our society.

It is clearly not possible for legal definition alone to be absolutely definitive of wilderness in all its facets, or to provide answers to all management questions; but legal definition is essential as, by its very nature, such formal, binding pronouncement is both normative and prescriptive. This is illustrated by the United States Wilderness Act, in which the definition of wilderness *prescribes* conditions for areas included in the National Wilderness Preservation System and *indicates the purposes* that management programmes for these areas are designed to achieve.

Notwithstanding the difficulty of definition, substantive legislative definition is therefore important as it will serve as an authoritative guide to administrative interpretation and implementation of declared national policy.

In order to be an effective guide, legal definition must be precise and legally enforceable, but nonetheless capture the essence of wilderness, thereby serving as a secure starting point for determining the nature and purpose of wilderness and providing a context within which the principles of wilderness may be discovered and developed.

Status

Wilderness is a global resource. Where it still exists, it is part of a nation's patrimony, an essential component of national heritage. It is thus appropriate that it be protected at national level, but managed, where appropriate, by existing conservation agencies at regional level of government.

All de facto wilderness areas administratively zoned or managed as wilderness, or considered to be worthy of protection as such, should be elevated to the status of statutory wilderness.

Candidate wilderness areas in all state lands should be identified and proclaimed as statutory wilderness.

As far as wilderness on private land is concerned, provision should be made for prior notice to affected property owners and appropriate reduction of property rights with financial compensation and management assistance.

Public participation

Because of the subsistence needs of people in rural areas, recognition of their aboriginal harvesting rights in or on the periphery of wilderness areas may be necessary. They, and all other interested and affected parties, are entitled to be given prior public notice of wilderness area declarations, deproclamations, intrusions, and alterations of boundaries, and also of the adoption and implementation of management plans.

Consideration should also be given to the establishment of a representative Wilderness Board. The South African Forest Act makes provision for a National Hiking Way Board, a Board for National Botanic Gardens, and a Forestry Council. Surely the protection of wilderness is of at least equal societal importance.

Minimal intrusion

Parliamentary approval should be required for deproclamation of wilderness areas, alteration of their bounda-

ries, or any significant intrusion into them such as prospecting contracts, mining leases and servitudes.

But what of indigenous people who may have been living in harmony with wilderness, and as part of it, since time immemorial? Is the phrase 'inhabited wilderness' an oxymoron? Perhaps their continued presence, under prescribed conditions, may be consistent with the wilderness character of the land occupied or used by them. Phrasing along the lines of 'untrammelled by *modern* humans' would be appropriate in such situations.

CONCLUSION

There are about 160 countries in the world, and only a handful of them directly provide for statutory protection of wilderness. If wilderness is indeed an essential global resource, this places an awesome responsibility on those countries which have not yet effectively protected the remnants of their wild country.

The law can and should serve a proactive and educative role.

In most countries, there is more likelihood of wilderness being protected if its protection is entrenched in the statute books. The values that are deserving of protection in wilderness are such that their protection should not be left to bureaucratic whim, political expediency, or even enlightened administrative policy.

If there is merit in any of these submissions, there is clearly an urgent and compelling need for adoption of the concept of statutory wilderness, articulated in a legislatively determined national wilderness policy, and located within a planned national network, system or suite of protected areas.



Attentive symposium participants, including J. Miller, B. Ulenga, D. Cole, K. Mkhize, A. Lenssen, L. le Roux, J. Walters, C. Ryan, J. Kramer, B. Ua-Ndjarakana, P. du Preez, G. Stevenson

(Photo: Joseph Nekaya - NAMPA)

WILDERNESS MANAGEMENT PRINCIPLES

Chris McCarthy-Ryan

Assistant Director - Arthur Carhart National Wilderness Training Centre

On September 3, 1964, United States President, Lyndon B. Johnson, signed the Wilderness Act, thus establishing the National Wilderness Preservation System. But, simply designating Wilderness did not ensure its preservation. Management is the key to preservation and managing Wilderness is a challenge because it is not resource management in the usual sense of manipulating or improving specific resources for maximising a particular human benefit.

The Wilderness Act defines wilderness as "an area where the Earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain." It more specifically says that Wilderness "(1) generally appears to have been affected primarily by forces of nature, with man's work substantially unnoticeable, (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation, and (4) may also contain ecological, geological, or other features of scientific, educational, scenic or historical value."

The language in the Wilderness Act set us up for challenges in managing by recognising the importance of such values as solitude, unconfined and primitive recreation, science, education, and history while providing direction that the imprint of man's work must be substantially unnoticeable.

To better enable wilderness managers to meet these challenges, a set of guiding principles has been developed based on the Wilderness Act and the four federal land management agency's policies.

Principle # 1. Manage wilderness as a unique resource with inseparable parts.

What is the wilderness resource? It is wildness, natural processes, solitude, primitiveness, spiritual, secluded, untrammelled, primeval, and unconfined. These are the words used to define wilderness in the 1964 Wilderness Act.

The uniqueness and difference between wilderness and other lands is how individual resources (water, fish, air) operate within the framework of the wilderness resource of naturalness, primeval, uncontrolled and solitude. These basic natural resources within wilderness are to be managed as inseparable parts of the whole – the wilderness resource.

Wilderness managers have the challenge to ensure that all natural resources within wilderness are managed in a way that preserves the wilderness resource.

Principle # 2. Manage all activities within Wilderness, including special provisions, with minimum impact on the Wilderness resource.

Many of the lands that have been designated wilderness in the US had pre-existing uses prior to passage of the Act. When the legislation was being debated, the concern surfaced that preservation of these lands would exclude pre-existing uses thus negatively impacting livelihoods. This concern was hotly debated throughout the legislative hearing.

Because of these concerns, Congress included special provisions in the Act that allow for continued grazing, mining, water impoundments, etc. Even though these special provisions exist, they must be managed in a manner that least impacts wilderness.

Principle # 3. Allow natural processes to operate freely within wilderness.

In wilderness, natural processes, such as fire, insects, and disease, are not good or bad, they are natural. These natural processes should be allowed to play their ecological role as much as possible. This is probably one of the most difficult principles for managers because of the potential threat to lands outside Wilderness. Fire is probably the most obvious example. Though the need for fire in the wilderness ecosystem is recognised, the decision to not put fires out is difficult because of the potential impacts to lands outside the Wilderness boundary.

Efforts have been made to provide conditions that will make these decisions more feasible. For instance in some areas prescribed burns are done around the Wilderness boundary to provide a fire break. Or if there are

structures in Wilderness that must be saved from fire, fire breaks may be established around this structure.

In the Southwestern part of the US the ecosystems are fire-dependent but the Wildernesses are small making the likelihood of a natural fire very slim. Managers in these areas have been conducting management-ignited fires to maintain the fire-dependent ecosystem.

Principle # 4. Attain the highest level of primeval character.

An overall goal of wilderness management is to make wilderness as wild and natural as possible. This includes restoring wilderness character when it has been damaged by humans. For example: rehabilitating degraded campsites, controlling noxious weeds, closing old roads, and reestablishing fire in the ecosystem.

Principle # 5. Provide for human values and benefits while preserving wilderness character.

It is important to recognise that people need wilderness and that recreation is an important value and use of wilderness. The challenge is to balance use and enjoyment with protecting wilderness character. The Wilderness Act specifically mentions solitude, primitive and unconfined type of recreation. People benefit from wilderness recreation because of the opportunity for solitude, self-discovery, challenge, and escape from the pressures of our busy society. Managers must keep this in mind when making decisions not only on what type of recreation activities to allow and encourage but in how they manage those activities, such as types of improvements and level of control.

Principle # 6. Reduce physical and social impacts of human use in wilderness through education, minimum regulation, and by favoring wilderness-dependent activities.

Education needs to be an integral part of any wilderness management program. This doesn't just mean educating the public on the values of wilderness and proper behaviour in wilderness; it may also mean educating our agency people.

We also need to not be afraid to bite the bullet and impose regulations if necessary to reduce physical and social impacts. This may include designating campsites, closing trails to certain uses, such as stock, or reducing use through a permit system.

Wilderness is a scarce resource and many activities taking place in wilderness can be enjoyed elsewhere. Examples are horse and foot races, commercial film making, motorised or mechanised recreation, and manipulative research. Managers should always ask themselves whether an activity is truly dependent on the wilderness resource, or could it occur elsewhere.

Principle # 7. Restore wilderness character by removing existing structures and terminating uses and activities not compatible with wilderness.

The Wilderness Act prohibits permanent structures, "except as necessary to meet minimum requirements for the administration of the area for the purposes of this Act." Though the Wilderness Act doesn't require the removal of all structures, they should be evaluated to determine what is the minimum administrative need. In your evaluation, don't forget the historical value of wilderness. Wilderness can provide us with an important tie to our history. So, not only do you need to evaluate the need of the structure, but also its historical value. There may not be an identified administrative need for an old fire lookout, or a miner's or trapper's cabin, but if there is historical value, and its presence is not having a negative impact on the wilderness character of the area, why not leave it alone?

It's critically important to terminate uses that are not compatible with Wilderness and are not allowed for by law. This is difficult to do, especially if they are well-established uses, but the longer its put off, the harder it will get.

If you are in a situation where you are managing lands that are not designated Wilderness but are likely to be soon, work toward that goal now. It will make the job easier over the long haul.

Principle # 8. Accomplish necessary wilderness management work with the minimum tool resorting to mechanised or motorised equipment only when its use clearly is the least damaging to the wilderness resource.

The minimum tool principle is another one that is difficult for many managers to follow because we have a tendency to think that more is better and that instant gratification is necessary. But, we need to remember that

we do our work differently in wilderness. We do only those projects that are necessary to protect the resource and we accomplish them with the least impactful methods. A stock bridge may be necessary or an existing ford may suffice. Minimum tool does not always mean primitive tool. The minimum tool could be a cross-cut saw or a chainsaw. It may be a pack animal or a helicopter. We need to guard against basing the decision exclusively on economics or convenience.

Principle # 9. Plan and manage wilderness with public involvement and interdisciplinary science.

It's important not to plan or manage wilderness in a vacuum. We have a tendency to think because we are the "experts" we have all the answers. But, again it's important to remember all the resources contained within wilderness and get involvement from wildlife biologists, hydrologists, fisheries biologists and soils scientists. And the public must be involved, not only because it's their land, but because if they are involved and have been heard through planning and management, they will have ownership resulting in support.

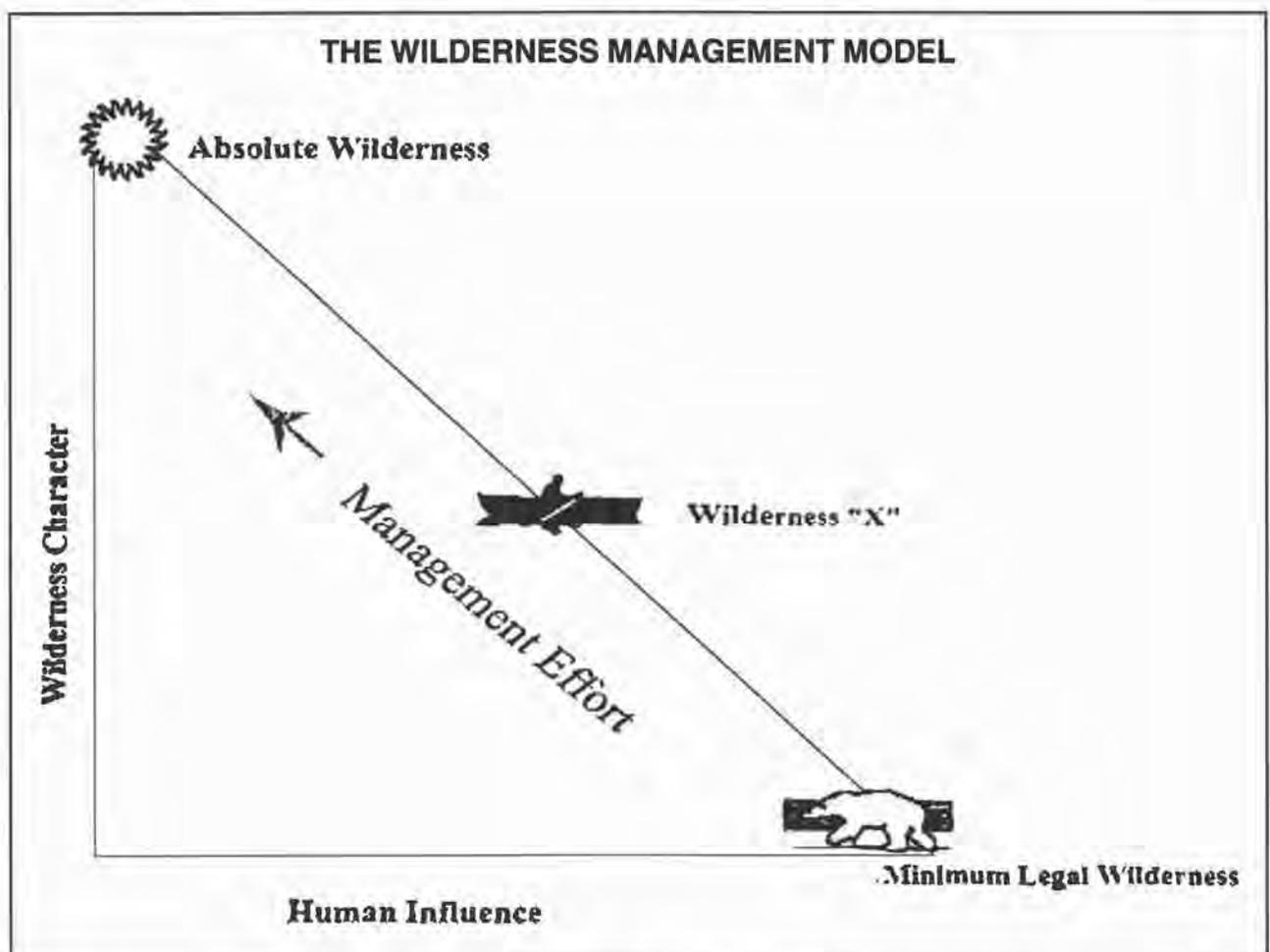
Principle # 10. Harmonise land management activities adjacent to wilderness to provide a transition from pavement to primeval.

Make attempts to provide opportunities for people to transition into wilderness. For instance, if your wilderness boundary is very close to the trailhead, make your trailhead signing rustic and aesthetically pleasing. If your wilderness boundary is a distance up a trail, work with other resource managers in planning any activities that may affect the trail leading up to the boundary.

Wilderness Decision-making.

The philosophy of wilderness management is to manage these lands for non-degradation, keeping human influence to a minimum, thus ensuring preservation of wilderness character.

This wilderness management model illustrates the influence your management actions and decisions should have on wilderness character.



In absolute wilderness there is very little or no human influence on natural conditions. When making decisions that affect wilderness, always ask yourself, "is my decision or this management action moving wilderness towards or away from preservation of character?"

Just as wilderness management is not business-as-usual, wilderness decision-making is not also. Most decision makers in our land management agencies are faced with a myriad of resources to manage, wilderness being one small segment of their overall program. Therefore, it is sometimes difficult for them to shift from their usual way of thinking when it comes to making decisions that affect wilderness. To provide decision makers with a quick reference the following questions have been developed:

Does Your Decision:

- Consider the 1964 Wilderness Act and other legislation?
- Consider agency policy and your management plan?
- Support Wilderness as an entire resource rather than as a means of maximising specific resources?
- Ensure that Wilderness is not permanently occupied or modified?
- Allow Wilderness to retain solitude and elements of surprise and discovery?
- Consider Wilderness values before convenience, comfort, economical or commercial value?
- Ensure that the effects of human activities do not dominate natural conditions and processes?
- Ensure that future generations will be able to enjoy the benefits of an enduring resource of Wilderness?

If these screens are considered prior to each decision that is made affecting wilderness, the character and integrity of that wilderness will be preserved, ensuring that over the long haul, **Wilderness Wins!**



Clearly visible are, f.l.t.r: P. du Preez, G. Geigub, G. Stevenson, B. Zeiss, P.Lane, T. Sikuvi, M. Morrison, L. Marker, T. Towell, H. Schneider-Waterberg, M. Bryant, A. Muir, W. Elliot.

(Photo: Joseph Nekaya-NAMPA)

AUSTRALIAN APPROACHES TO WILDERNESS

Jonathan Miller

**Director, Wilderness and Wild Rivers Unit
Australian Heritage Commission**

HUMAN ASSOCIATION WITH AUSTRALIAN WILDERNESS

Australia retains significant large remote and natural areas. Even so, these areas represent a small and diminishing proportion of the country's land area, particularly on the more densely settled eastern seaboard.

A workable wilderness concept for Australia needs to take account of the layers of human history across the continent which have left a range of imprints on the landscape. Arguably, much of Australia could be considered a cultural landscape, despite the absence of widespread cultural features easily recognised as such by the urban lay person.

There has been a dramatic rise in the profile of issues relating to Australia's indigenous peoples, with an accompanying recognition of the significance of their activities in shaping the Australian landscape. Aboriginal people reached Australia at least 50 000 years before present, and it has been argued that occupation spread rapidly right across the continent. Over the millennia Aboriginal peoples brought major changes to their environment, especially through burning, and possibly through hunting.

The idea of wilderness as land with no human presence or impacts has been of major concern to Aboriginal groups. Certainly the very close ties of Australia's indigenous peoples with their traditional lands starkly contrast with the concept of 'wilderness' as land which is remote or lacking in human imprint, as defined in the US Wilderness Act.

In a similar vein to Aboriginal groups, some Australian historians have expressed concerns that the wilderness concept can lead to cultural imprints on landscape not being recognised, or to pressures to remove cultural heritage from areas managed for wilderness objectives. Even in areas managed for wilderness values there has often been a long European association which has left subtle marks on the landscape which would detract from a view of wilderness as unaffected by human activity.

The ongoing changes to the Australian environment by human activities must be placed against the backdrop of dramatic environmental change brought about by climatic change even in the last 20 000 years. There is no single static 'pristine environment' to which a wilderness manager can set out to restore or maintain an area.

AUSTRALIAN CONCEPTS OF WILDERNESS

Many of the early British settlers found the Australian 'bush' alien and hostile. Affinity for the Australian natural environment increased in the nineteenth century and Australian ideas of wilderness were doubtless informed by the Romantics and important American thinkers, but the Australian wilderness tradition has had its own distinctive history.

Wilderness issues have been central to many land use controversies in Australia over the last twenty years. Support for wilderness protection in the 1970s was conspicuously from outdoor recreationists, and this reflected in wilderness being conceived as providing a certain experience, close to nature and removed from the influence of modern technological society. The main values recognised in Australia for wilderness areas have been:

- nature conservation;
- recreational opportunity;
- providing spiritual / emotional experiences;
- intrinsic values for "wilderness has a right to exist"; and
- scientific research.

More recently, the emphasis in Australia has shifted from recreation values to nature conservation values and 'intrinsic' values. This has been accompanied by a changed perception of the wilderness landscape. Wilderness areas are no longer conceived as lacking in human history, but rather as areas large enough and in such condition that they allow the long-term maintenance of natural systems and biological diversity, as well as cultural values.

Over the last decade the conservation of biological diversity has become the pre-eminent conservation concern for natural environment planners in Australia, as elsewhere. While not all Australian conservation planners see the protection of wilderness areas as necessary to maintain biodiversity, or an efficient means of doing so, wilderness areas do provide possibilities for protecting biological systems and natural processes.

A definition of wilderness which has been widely adopted is "...an area that is, or can be restored to be:

- of sufficient size to enable the long-term protection of its natural systems and biological diversity;
- substantially undisturbed by colonial and modern technological society; and
- remote at its core from points of mechanised access and other evidence of colonial and modern technological society."

Consistent with this definition is the Australian National Wilderness Inventory (NWI) technique, which establishes a GIS database of wilderness quality. The NWI starts from the premise that the distinctive elements of wilderness areas are size, remoteness and naturalness. It then defines remoteness and naturalness of land in terms of the imprints on landscape by modern technological society. Recently there has been considerable international interest in the use of the NWI, including within IUCN. A survey of parts of Scandinavia and Russia has now been completed, and may be extended to the whole Arctic region.

The NWI approach allows exploration of the value society places on remote and natural land, even if it is below a minimum size threshold for wilderness areas. Over time minimum size thresholds appear to decrease as remote and natural areas diminish. This approach also allows areas to be selected for the protection (and restoration) of remoteness and naturalness values, irrespective of the areas' size or whether the land necessarily has important identified biological or recreational values.

SYSTEMATIC ASSESSMENT

One of the benefits of the NWI approach is that it allows for the systematic identification of wilderness areas across broad areas, using explicit thresholds and criteria for selection.

With the completion of national NWI data coverage, the Australian Heritage Commission is undertaking the national identification of wilderness areas. One challenge is that wilderness values are unevenly distributed across the continent. In eastern Australia wilderness areas are relatively small and confined to mountainous areas. In contrast, in the arid lands which dominate central and Western Australia there are huge expanses of remote and natural land. It is impossible to set a single threshold which does not either include the majority of Australia's land mass, but which does not exclude the smaller areas on the east coast, which are certainly valued as wilderness. Stratification of the country into two or more zones may be a solution.

The NWI database also allows for consideration of wilderness values at a regional planning level. The Australian Heritage Commission has been conducting regional heritage assessments in forest regions, and has set its thresholds for the identification of significant areas on the basis of the relative abundance or scarcity of remote and natural values in the region.

Using the GIS-based NWI techniques, remoteness, and naturalness values can be incorporated with other layers of land information, such as biological data, to make a powerful basis for designing nature conservation systems. It can be usefully linked to gap analysis processes, and in this case becomes an indicator of land condition. In this area, the major author of the NWI techniques, Rob Lesslie, has just completed a study to generalise the NWI indicators to become more specific measures of ecological condition at the landscape level.

The Australian Heritage Commission has also contracted the Great Barrier Reef Marine Park Authority to explore the application of the wilderness concept to the marine environment, and the adaptation of the NWI indicators as measures of marine environment condition. A report on this work should be released in the second half of 1996.

GOVERNMENT ACTIONS TO PROTECT WILDERNESS

Under Australia's constitution, the states and territories have prime land management responsibility. The Commonwealth (or national) Government has direct control over very little land, but has increasingly become involved in environmental policy. Over the last five years it has facilitated a range of national environmental strategies.

The Commonwealth is committed to establishment of a comprehensive, National Reserve System by the year 2000, and the protection of wilderness could be achieved through that system. Forest wilderness areas will be reserved under a separate initiative.

The Commonwealth has established a Wilderness and Wild Rivers Unit in the Australian Heritage Commission which continues to work on the National Wilderness Inventory and the Wild Rivers program. The Unit also administers a Commonwealth Wilderness program, which has as key objectives the national delineation of wilderness areas and supporting the conservation of wilderness areas through Commonwealth actions and co-ordinating national initiatives. Wilderness legislation has been mooted at the Commonwealth level, but if it were ever enacted, its scope would probably be limited to protecting the very limited wilderness estate on Commonwealth land, and to ensuring Commonwealth agencies do not act to degrade wilderness. Specific legislation has been passed by state governments in New South Wales, Victoria and South Australia to protect wilderness, and there are provisions for wilderness management in Queensland and the Australian Capital Territory.

MANAGEMENT ISSUES

While European settlement in 1788 may be a useful theoretical benchmark from which to measure changes to the landscape, Australian wilderness managers do not try to recreate the evolving landscape as it appeared at that slice in time, but rather aim to maintain or restore wilderness quality within a matrix of other objectives, such as maintenance of cultural heritage and broad nature conservation.

Australian wilderness managers face a number of challenges, including increasing pressures from recreation and ecotourism.

Aboriginal sites are protected by strong legislation in all states, and these apply also in wilderness areas. Non-indigenous cultural heritage sites are assessed for their significance and maintained and protected if considered important; otherwise they are left to decay, or are sometimes removed. The protection of cultural values in wilderness areas raises interesting questions of accommodating apparently conflicting objectives. Restoration of wilderness values remains controversial, particularly where this would reduce the access of groups who have had a history of access.

Finally, increasing recognition of Aboriginal access rights to their traditional lands raises a number of issues, including hunting in protected areas, and mechanised access in wilderness areas. Most important is the increasing land estate recognised as Aboriginal land and how protection of wilderness values might be achieved in these lands with the consent of the Aboriginal owners. Across several protected areas a range of agreements have been instituted which recognise Aboriginal ownership and set out arrangements for joint management.

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WILDERNESS RESTORATION - A NATIONAL AND GLOBAL PRIORITY FOR THE NEXT CENTURY

Alan Watson Featherstone
Executive Director, Trees for Life

If we look at the most commonly-used photograph of the Earth taken from space, the most prominent feature on it is desert. Although deserts are natural ecosystems on the planet, much land has become desertified as a result of human activities. This is particularly true in North Africa, in the Mediterranean coastal zone, most of which was forested in Roman times (*Day*), and in the Sahel region, south of the Sahara. More recently, Madagascar has suffered extensive deforestation and consequent widespread erosion, with only about one third of its original area of rainforests still surviving (*Collins*). This photograph of the Earth from space therefore is a potent symbol for the environmental destruction currently taking place on the planet.

Most environmental projects and campaigns are, by necessity, focussed on stopping this destruction from occurring, whether it be desertification, clearance of the tropical rainforests, or the hunting to extinction of large mammal species (e.g. rhinos). However, even if all such environmental degradation were to stop immediately, we would still be left with a planet whose ability to support its full complement of biota is substantially impaired and reduced, due to the extent of the damage which has already taken place.

We live today in a world which has been grossly impoverished in terms of the population sizes of most of the large species of fauna, and the extent of most major habitat types. Furthermore, the underlying direction of our present day industrial, consumer culture is the enslavement of the planet - the harnessing of all available 'resources' for human needs.

The extent of the destruction which has already taken place can be gauged by reference to Chart 1, which shows the effects of human exploitation and population increase on selected other species and habitats. This chart mainly covers North America, as the destruction is more recent there, and data on pre-exploitation levels exists, unlike, for example, in Europe. Species populations and habitat extents are now tiny percentages of their original sizes, and a similar situation holds true for other continents and species (e.g. blue whales, tigers etc.). Chart 2 illustrates a similar trend in Africa.

The main thrust of the conservation movement to date has been to achieve protection for wild land and species, through the establishment of National Parks, Wilderness areas and other categories of land set aside, as being 'safe' from exploitation. The lead for this has come mainly from the USA, where Yellowstone, the world's first National Park, was established in 1872, and which now has one of the most comprehensive systems of protected areas in the world. However, recent studies have shown that the substantial areas protected in the western USA are inadequate to maintain all their constituent species (Chart 3).

It is clear therefore that protecting the remaining undisturbed wild areas of the planet is not enough to ensure the survival of other species, particularly the 'charismatic megafauna' - large mammals such as grizzly bears, tigers etc., which require large ranges to live in. This, however, should not divert efforts to achieve protection for extant wild areas, as these are still an essential component of a global strategy to sustain the biota, and biological integrity, of the planet. However, two other elements need to be added to such a strategy to make it effective - connectivity, and ecological restoration (*Noss*, 1993).

Connectivity, using habitat corridors, is essential to link up areas of wild land which individually may not be large enough to support all their constituent species, but together may sustain viable populations of large mammals (*Noss*, 1993; *Foreman*, 1995). Ecological restoration is necessary to rehabilitate degraded ecosystems and return them to a wilderness condition.

Wilderness restoration may at first seem like a contradiction in terms, if wilderness is taken as meaning land which is free from alteration by humans, and restoration to imply active management by humans. However, if we go back to the photograph of the Earth from space, our planet can be viewed as behaving like a self-regulating organism (*Lovelock*) which exhibits homeostasis - the state of constancy in which living things hold themselves when their environment is changing.

Indeed, like individual organisms, which display the ability to heal themselves from wounds, so too does the Earth, sometimes referred to as Gaia (after the Greek Goddess of the Earth) in this context, have the ability to

heal 'wounds'. This has been observed in situations such as the aftermath of the eruption of the volcano Krakatau in Indonesia on August 26, 1883. Vegetation, insects, birds and animals have all recolonised the remnant island which was blanketed with cinders and lava (*Thornton*). More recently, the area devastated by the eruption of Mt. St. Helens in the USA in 1980, and the area which burned in the fires in Yellowstone National Park in 1988, are also providing living laboratories of how parts of the biosphere heal after catastrophic disturbance.

Ecological restoration, therefore, is a natural process, an example of homeostasis in action on the Earth, but one which is prevented from taking place in most places by the scale and extent of present-day human activities. In the Argentinean part of Tierra del Fuego, for example, introduced cattle are grazing in areas of burnt forest, preventing their regeneration.

Scotland provides a sobering example of degraded, formerly-forested ecosystems, which are unable to recover because of continued human exploitation. In the Highlands, the native pinewoods of the Caledonian Forest, characterised by the Scots pine, *Pinus sylvestris*, originally covered an estimated 1.5 million hectares, but have now been reduced to about 17,000 hectares (*Forestry Authority*). Figures 1a and 1b illustrate the estimated original range of the native pinewoods, and the surviving remnants.

Gone with the trees are all the large mammal species - the beaver *Castor fiber*, wild boar *Sus scrofa*; lynx *Felis lynx*; moose *Alces alces*; brown bear *Ursus arctos*; the wolf *Canis lupus*; (*Ritchie*). Most other species have either declined in number (e.g. pine marten *Martes martes*; red squirrel *Sciurus vulgaris*;) or in size - the red deer *Cervus elaphus*, our largest surviving terrestrial mammal, has been forced to adapt from its natural forest habitat to life on the bare hillsides, where it only reaches three quarters of the size it did in former, forested times (*Ritchie*).

Although fragments of forest do survive, the farming of large numbers of introduced sheep, and an artificially-high population of red deer (maintained by large land owners for their 'sporting' interest) mean that grazing pressures have prevented the regeneration of any native forest in most areas for over 150 years. With the mature trees in the forest remnants now dying of old age, and not being replaced by a new generation, time has almost run out for the Caledonian Forest.

This is critical not just in a national context, but also internationally. Although Scots pine has a wide distribution, stretching from Scotland and Spain through central Europe and Russia to Siberia, and from north of the Arctic Circle to the Mediterranean (*Steven & Carlisle*), the pinewoods in Scotland are unique because of the absence of any other conifers in them: elsewhere the Scots pine is found in association with other trees (often Norway spruce, *Picea abies*) (*Rodwell & Cooper*). Ecological restoration measures are therefore essential now to rescue this unique ecosystem before it is too late, and to bring the land in the Highlands back to a condition of health again, where it can support its extirpated native species.

Trees for Life has been developing a strategy for the restoration of the Caledonian Forest since 1985, and we have been implementing this in practice since 1989, in partnership with major organisations in Scotland, such as the Forestry Commission and the National Trust for Scotland.

Some measures to help the forest regenerate have been undertaken in the last 30 years, and where the deer and sheep have been fenced out of forest remnants, a new generation of trees have grown successfully. However, these initiatives have been relatively small in scale, uncoordinated and have focused solely on the trees, often just the Scots pine. Our work is concerned with the entire forest ecosystem, and our goal includes the restoration of the forest to a large contiguous area of about 1,500 sq. km. (illustrated in Figure 1 b), and the eventual reintroduction of all the extirpated species of wildlife.

We have a threefold strategy for expanding the extent of native tree cover, recognising that this is an important initial step in the restoration of the whole forest community. The first part of our strategy is to facilitate the natural regeneration of the trees, by fencing the deer out of areas on the periphery of the existing remnants, so that seedlings can grow naturally to maturity again without being over-grazed. This is the simplest and best method of regenerating the forest, as it involves the minimum of intervention and allows nature to do most of the work. This forms one of the basic principles of ecological restoration which underlie our work. However, this is only effective in locations where there is an existing seed source nearby, which is not the case in the treeless expanses which make up most of the Highlands today.

The second part of our strategy comes into effect in these situations, and it involves planting native trees in barren areas where the forest has disappeared completely. To do this, we collect seed from the nearest

surviving trees, to maintain the local genetic variation in the forest. The resulting seedlings are then planted in a random, non-linear pattern inside fenced exclosures, replicating the natural distribution of the trees. We are working with all of the native trees from the forest, and are paying particular attention to the pioneer species, such as birch, rowan and aspen, as they have an important role to play in the succession of the forest as it gets re-established.

The third part of our strategy involves the felling of non-native trees, which in some areas have been planted as a commercial crop amongst the old trees of the Caledonian Forest remnants, thereby preventing their regeneration and shading out the native understory vegetation etc. These felled exotics are not extracted, but instead are left to decompose in situ, so that the nutrients they contain are retained within the forest ecosystem, instead of being exported and not replaced.

Combining these three strategies, our intention is to re-establish areas, or 'islands', of healthy young forest scattered throughout the barren, deforested glens. As these new trees reach seed-bearing age they will form the nuclei for an expanded natural regeneration in the surrounding area. While the trees in these 'islands' are growing, it will be important to reduce the numbers of deer, so that the forest restoration process can become self-sustaining, without the need for further fences. At that stage, we expect that the existing fences can also be dismantled and removed, so that the human intrusion into the landscape can be minimised, and more of a quality of wilderness restored.

As the trees grow, some of the other woodland species will return by themselves. Seeds will be blown in by the wind or carried in by birds, and flying insects and birds will move in as soon as there is habitat for them. The interconnected web of life which makes up the living community of the forest will thus begin to re-establish itself. Other species will need to be physically reintroduced to the regenerating forest, as and when the habitat can support them. In the long term, we plan to reintroduce all the locally-extinct large mammals. Those species, and particularly the predators at the top of the food chain, such as the brown bear, the lynx and the wolf, are essential to maintain the overall health and balance of the forest ecosystem. This will need to be accompanied by an education programme to counter public fears and misconceptions about predators, and compensation measure for any livestock losses which result - there is much we can learn here from the current reintroduction programme for the wolf in the USA.

In practical terms, since 1989 we have organised and funded the fencing of 159 hectares of land in Glen Affric for forest regeneration and restoration; planted over 100,000 Scots pines; developed a propagation programme for aspen from root cuttings, as it almost never reproduces by seed in Scotland now, and have successfully grown over 1,000 trees by this method, and we are also propagating all the other native trees from the forest ecosystem. Current projects include initiatives to secure the restoration of specific components of the forest ecosystem, particularly riparian vegetation and the montaine shrub community.

We have also organised a number of scientific studies into aspects affecting the restoration of the forest, including research into the role of mycorrhizal fungi in forest establishment; habitat requirements and population densities of wood ants *Formica aquilonia*, which is found in association with native pinewoods; and the rate of regeneration in browsed pine seedlings after the grazing pressures are removed (*Blanchflower*). Through research such as this we hope to document the effectiveness of various restoration techniques, so that they can be applied elsewhere as well.

In contrast to most other forms of human 'management' of nature, ecological restoration is based on the principle that 'Nature knows best', and in practice we seek to mimic natural processes wherever possible. Through the practical experience we've gained, we've articulated a series of principles which underlie our work of ecological restoration (Chart 4). These are not intended to be either exclusive to Trees for Life, or exhaustive - rather they represent a 'work in progress' as we proceed.

Ecological restoration is now becoming well-established as a field of research and practice, with numerous projects underway in different ecosystems and countries of the world. Some of these include initiatives to restore the dry tropical forests in north-western Costa Rica (*Cherfas; Maslow; McGhie; Wolf*); to restore mangroves in Vietnam (*Collins*) and Thailand (*Koon*); the ecological restoration of Nonsuch Island in Bermuda (*Wingate*); while proposals have recently been made to develop on a much larger scale (*Popper and Popper; Lichf*) the existing work of prairie restoration in the Midwest of the USA (*Berger; Wolf*).

I believe, though, that this is only a prelude of things to come, and that in the next century ecological restoration will become a national goal in every country, and indeed the global priority for humanity as a whole. This view is shared by an increasing number of people: "Wilderness recovery, I firmly believe, is the most important task of our generation" (*Noss, 1993*), "We must become active participants in the restoration of the earth" (*Valbracht*),

"In restoration forestry lies the hope of the world and of humanity" (Maser).

The survival of many species on the planet depends on the ecological restoration of wilderness becoming the single most important activity of humanity, one in which major resources are put to this end. Indeed, in the early 1970's Richard St. Barbe Baker, the visionary founder of Men of the Trees (now renamed the International Tree Foundation) was calling for the armies of the world to be redirected to tree planting work to help reforest the

degraded fringes of the Sahara Desert (Baker; Gridley). The work of Trees for Life, that of the many other pioneering ecological restoration projects, can be viewed as developing the principles and practices of helping the Earth to heal, ready for the time when they are implemented on a global scale.

For wilderness restoration, and the other 2 complementary strategies for preserving the planet's full complement of biota, to be effective, there also have to be major changes in the individual and collective lifestyles of humanity. Chart 5 presents an initial list of what some of these changes will involve. This subject is explored in depth elsewhere (Berry; Irvine), but it is only through such radical changes that our culture will successfully make the shift from one which is fixed on the enslavement of the planet to one which has as its goal the revitalisation of the Earth. "Embarking on a path away from mass extinction will require a radical departure from deeply embedded policies and land-use practices." (Wolf)

Chart 1: The effect of human exploitation and population increase on selected other species and habitats

| Species | Pre-exploitation | Today | % Now |
|--|--|----------------------|---------|
| Passenger pigeon (USA) ¹ | Most numerous bird on Earth 1 flock in 1870 had 2 billion birds | Extinct | 0% |
| American bison (USA) | 60 million ² | 50,000 ³ | 0.08 % |
| Wolf, lower 48 States (USA) | 100,000 + (1 million killed 1850-1890) | 1,000 | < 1 % |
| Grizzly bear (western USA) | 100,00 ² | < 1,000 ² | < 1 % |
| Black-footed ferret (USA) | 1 million | < 200 | 0.02 % |
| Otters (France) ⁴ | 30,000 – 50,000 (pre-1900) | 1,000 | 2 – 3 % |
| Caledonian Forest (Scotland) ⁵ | 1.5 million hectares | 17,000 hect. | 1.1 % |
| Pine forests, (Michigan, USA) ⁶ | 1.6 million hectares | 809 hectares | 0.05 % |
| Humans (World) | 600 million (in 1700) | 5.43 billion | 905% |

Sources: 1 Day, David A. 1989 *The Encyclopedia of Vanished Species* Universal Books Ltd., The Grange, Grange Yard, London SE1 3AG, England. 2. Foreman, Dave 1991 *Confession of an Eco-warrior* Crown Publishers, New York. 3. Burton, John A. & Pearson, Bruce 1987 *Rare Mammals of the World* Collins, London. 4. Armorique Regional Nature Park, Finistère, Brittany, France. 5. Forestry Authority, 1994. *Caledonian Pinewood Inventory* HMSO, Glasgow. 6. Noss, Reed 1995 "What should Endangered Ecosystems mean to the Wildlands Project?" *Wild Earth* Vol.5 No. 4

Chart 2: Decline of selected species and habitats in Africa because of human pressures

| Species | Original population | Today | % Now |
|--|----------------------|------------------|-------|
| Cape Lion ¹ | ? | Extinct (~ 1865) | 0% |
| Barbary Lion ¹ | ? | Extinct (~ 1922) | 0% |
| Atlas Bear ¹ | ? | Extinct (~ 1870) | 0% |
| Quagga ¹ | ? | Extinct (~ 1883) | 0% |
| Blue buck ¹ | ? | Extinct (~ 1799) | 0% |
| Black wildebeest ² | 100,000 + | 1,800 in 1965 | 1.8% |
| Northern white rhino ³ | 1,100 (1981) | 32 in 1993 | 2.9% |
| Black rhinoceros ⁴ | 70,000 (late 1960's) | 2,475 in 1993 | 3.5% |
| Primary forests in Sierra Leone, Guinea, Côte d'Ivoire, Nigeria ⁵ | | <10% | |

Sources: 1. Day, David A. 1989 *The Encyclopedia of Vanished Species*. Universal Books Ltd., The Grange, Grange Yard, London SE1 3AG, England. 2.. Burton, John A. & Pearson, Bruce 1987 *Rare Mammals of the World* Collins, London. 3. World Conservation Monitoring Centre 1995 *White Rhinoceros data sheet*. 4. World Conservation Monitoring Centre 1995 *Black Rhinoceros data sheet*. 5. Collins, Mark ed. 1990 *The Last Rainforests* Mitchell Beazley, London.

Chart 3: Habitat Area and Loss of Large Animal Species in North American National Parks, Assessed in 1986.

| National Park | Area (square kilometres) | Percent of Original Species Lost |
|----------------------------|-------------------------------------|---|
| Bryce Canyon | 144 | 36 |
| Lassen Volcano | 426 | 43 |
| Zion | 588 | 36 |
| Crater Lake | 641 | 31 |
| Mount Rainier | 976 | 32 |
| Rocky Mountain | 1,049 | 31 |
| Yosemite | 2,083 | 25 |
| Sequoia-Kings Canyon | 3,389 | 23 |
| Glacier-Waterton | 4,627 | 7 |
| Grand Teton-Yellowstone | 10,328 | 4 |
| Kootenay-Banff-Jasper-Yoho | 20,736 | 0 |

Source: Edward C. Wolf 1987 *On the Brink of Extinction: Conserving the Diversity of Life*. Worldwatch Paper 78 Worldwatch Institute

Chart 4: Principles of Ecological Restoration

As developed and used by Trees for Life

1. Mimic nature wherever possible.
2. Work outwards from areas of strength, where the ecosystem is closest to its natural condition.
3. Pay particular attention to 'keystone' species – those which are key components of the ecosystem, and on which many other species depend.
4. Utilise pioneer species and natural succession to facilitate the restoration process.
5. Re-create ecological niches where they've been lost.
6. Re-establish ecological linkages – reconnect the threads in the web of life.
7. Control and/or remove introduced species.
8. Remove or mitigate the limiting factors which prevent restoration from taking place naturally.
9. Let nature do most of the work.
10. Love nurtures the life force and spirit of all beings, and is a significant factor in helping to heal the Earth.

Alan Watson Featherstone, Trees for Life, 1995.

Chart 5: Some cultural changes necessary for Wilderness Restoration to be successful on a meaningful scale.

1. Humans relinquish need to use and/or manage all the land and oceans on the planet.
2. Shift from industrial philosophy of unlimited economic growth to one of improving the quality of life, while reducing (at least in overdeveloped countries) the quantitative level of consumption. A sustained contraction, instead of 'sustainable' growth, and voluntary simplicity become priorities.
3. Reallocation of resources – eg. military expenditure and personnel being redirected to carry out essential ecological restoration work.
4. Removal of infrastructure (roads, power lines, dams etc) from areas designated as essential for the restoration of wilderness.
5. Personal lifestyle change, to demand less of the Earth, and to live more simply in material terms, but with an increased quality of life.
6. Renewed respect for the Earth and all her species and habitats.

Alan Watson Featherstone, Trees for Life, 1996

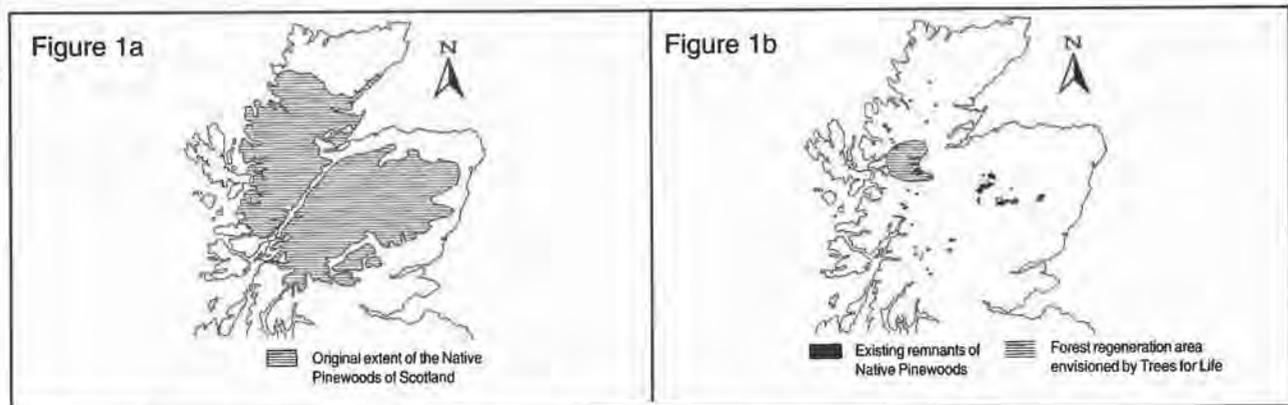


Figure 1: Maps showing the former extent of the Caledonian Forest, the present day remnants and the area Trees for Life aims to restore to forest again.

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WILDERNESS: A SOCIO-ENVIRONMENTAL PERSPECTIVE

Dave Cole

D.R.F.N - The Desert Research Foundation of Namibia

The globe is experiencing two major inter-related crises, one social, the other environmental. Poverty, wars, and unemployment for example, are indications of an ever deepening social and economic crisis, while ozone depletion, desertification and pollution are indications of the environmental crisis which threatens future life on earth. These crises are related in that they tend to reinforce each other, but they are also effects of a common cause, which can be summarised as the exploitative relationship humans have with their environment.

Humans have historically exploited nature as a resource for survival. In the process large areas of fertile land, with all the resources they once contained, have been lost or seriously degraded. In the exploitation of nature lies the root cause of conflict between humans. As competition for natural resources becomes more and more desperate, so grows the conflict between humans for use of what little resources remain. The upshot of all this conflict is a desperate scramble to exploit the last remaining vestiges of natural wealth as soon as possible - that is, before a neighbouring individual, tribe or nation exploits them - which leads to an accelerating rate of environmental degradation.

The concept of wilderness could therefore be seen as an attempt to deal with the problem of environmental degradation. When the idea of wilderness as something worth protecting first entered the collective consciousness, its main objective was the strict protection of an area which would only be used for scientific research, environmental monitoring and recreation. One aspect which was taken for granted was the exclusion of people from living inside wilderness areas. This aspect caused and continues to cause much controversy.

In 1984, however, the General Assembly of the International Union for the Conservation of Nature recognised a shift towards another category of wilderness, which accepted the inclusion of indigenous people in these protected areas. While this might address some of the injustices of the past, such as the removal of indigenous people to create parks and wilderness areas, it raises other moral and ethical questions. The IUCN states that one of the objectives of wilderness management should be to "enable indigenous human communities living at a low density and in balance with the available resources to maintain their lifestyle "

This can be seen as a positive development, especially with regard to the rights and integrity of indigenous cultures. But it begs the question of what is meant by the "lifestyle" which such communities are to maintain? It could imply that people in these areas will not be able to deviate from this "lifestyle", as such deviation might increase human impact on and environmental degradation. Therefore the question today and in the future with regard to wilderness areas and indigenous people is: "What happens when these people want " development " and " modernisation " ?

In attempting to understand the role of wilderness areas we have to take cognisance of the different perceptions of wilderness. While the IUCN provides clearly defined guidelines for the selection and management of wilderness areas, these guidelines represent a particular view. People's perceptions of nature are largely determined by culture, especially material culture, with different value systems resulting in different ideas about nature. As an example we can mention the contribution to Africa's environmental problems made by "cattle culture", that is the African cultural pre-occupation with livestock as a form of wealth and as status symbol, regardless of the ability of the environment to support large herds. If cattle are your main concern, wilderness is just so much potential grazing. Similar examples can be found in all cultures.

Luckily, cultures are not static and neither are cultural views about wilderness areas. The changing western concept of nature serves to illustrate this point. The wilderness preservation movement has its roots in America, where it was fostered by the writings of John Muir, David Thoreau and Aldo Leopold. The concept of wilderness in western culture has evolved significantly due to the changing relationship between westerners and nature.

At first nature was seen as the enemy, that is, as something which humans were striving to dominate. From the perspective of a caveman cowering in fear of the sable-toothed tiger outside, this makes perfect sense. The separation of people from nature was seen as the desirable outcome of civilisation. Nature "red in tooth and claw" was seen as an obstacle to human dominance over nature. Out of this emerged the notion that humans

are above nature and not part of it, which also implies that they are free to use, and even abuse, nature for their own superior purposes.

The Industrial revolution not only accelerated human exploitation of the environment, but also furthered the separation of humans from the natural environment. Charles Darwin provided the perfect intellectual fuel for this process with his notion of the survival of the fittest - humans were obviously the fittest of all animals and Victorian Englishmen were the fittest of all humans. The result of this was an unprecedented assault on nature, to the extent that true wilderness became something of a rarity. This brought about a more recent nostalgic and aesthetic view of wilderness, a type of "Bambi" consciousness, in which a western culture no longer in direct contact with nature idealises wilderness as a lost Paradise, a psychological counter-point to the hell of modern urban life. These changes in the way in which nature is perceived reflect the shift of western society away from its land-based roots and into an existence dominated by industry and technology.

But perceptions of wilderness have not stopped changing and are evolving even today - a fact to which this meeting bears witness. The latest changes coincided with the shift from industrial society to information society in western economies. This shift also brought about an awareness that our whole world is one small planet in which problems impact on all people, across national borders, and in which limited resources are available. This awareness is further fuelled by the realisation that future human existence, and especially the quality of future human existence, is seriously threatened by the population explosion, the unsustainable exploitation of non-renewable resources, the loss of bio-diversity and all the other evils of unsustainable human impact on essential natural processes.

As a result of all this, wilderness has become a valuable commodity, to be traded as all other commodities are. This is why eco-tourism is a buzz word and why community involvement in nature conservation is motivated in terms of material benefits which are to be gained from preserving nature. This is not necessarily a good thing: some wilderness areas are experiencing such a rapid growth in the number of visitors that they are losing one of the key characteristics traditionally associated with wilderness areas, namely solitude.

Namibia is fortunate to possess wilderness areas in which humans can still be brought "down to earth" by the experience of true solitude. Large unpopulated wilderness areas such as the Namib desert and Skeleton Coast are not directly threatened by human settlement. These marginal areas will probably remain largely uninhabited and therefore generally undisturbed. They offer unique opportunities for solitude and scientific research.

However, the identification and proclamation of wilderness areas outside of these marginal areas will need careful consideration, especially of the population pressures these designated areas will face in future. Namibia's resources are limited, especially with regard to productive land, which is becoming less productive as a result of bush encroachment, deforestation and desertification. Combined with one of the fastest-growing populations in the world, this spells trouble for any areas capable of sustaining humans, or at least their goats.

From this scenario we can quite safely predict more conflict about the proper way to use or not use Namibia's natural assets, especially its wilderness areas. On the one hand wilderness areas will be valued for their "potential productivity", for example grazing. On the other hand they will be also be valued, by a different group of people, for their "lack of productivity", for example solitude. A third possibility is to value them for their potential yield of sustainable natural wealth, for example harvested game and tourism.

Wilderness areas are also needed for scientific reasons. Appropriate scientific research in such areas can provide valuable information on ecosystems largely untouched by human intervention in a world where ecosystems are rapidly being destroyed. Such research could provide useful base line information for the restructuring of damaged ecosystems. This is one of the cornerstones of the philosophy behind the Desert Research Foundation. Our capacity to wisely manage nature depends entirely on the extent to which we understand natural systems and the driving forces behind them. This applies equally to wilderness areas and settled areas.

For all the potential benefits associated with wilderness areas, a word of warning is in order: There is an inherent danger in the view that nature should only be protected to the extent that it useful to humans. If wilderness is preserved only because this is perceived as being the most profitable and appropriate use of land, then that wilderness is always threatened by a shift in popular perceptions of the costs and benefits involved.

We need to realise that nature in general, and wilderness areas in particular, are inherently worth preserving just because of what they are and what they represent. For this to happen though, a fundamental change in beliefs, values and actions needs to take place. Respect, enjoyment and the sustainable use of the environ-

ment should be sought irrespective of whether an area is specifically designated as a wilderness area.

To put this another way: Nature, especially as represented in wilderness areas, is under attack from a growing human population. If we approach this problem defensively, in other words, if we view wilderness areas as islands to be protected from a rising tide of humanity, we have lost before we have begun. What we need is to take wilderness on the attack, and the only way to do this is to encourage spiritual, intellectual and scientific growth in our understanding of nature and in our practical ability to live at peace with nature. Out of this understanding can emerge the new value system which will be needed to conserve not only wilderness areas, but also to extend certain aspects of wilderness into surrounding areas.

This is not to say that protection of our surviving wilderness areas is irrelevant. It would be naive to deny the urgency of halting the rapid destruction of nature. But protecting wilderness areas is not enough. We need to find ways to bring wilderness closer to all people, for example by creating habitats in settled areas and by taking people back to the wilderness, so that they can experience the spiritual benefits of true wilderness. Without wilderness areas for people to rediscover their souls therein, there is no hope at all.

In this view wilderness areas are not besieged fortresses to be defended - they are the seeds of fundamental change, both scientifically and spiritually. It is up to us whether these seeds grow or die.

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Game-viewing, Duitsepos hide: L. Boyers, B. Quissenberry, P. de Bruyn

(Photo: Dirk Heinrich)

MANAGEMENT OF THE GILA WILDERNESS

Sue Kozacek

District Ranger, Gila National Forest, New Mexico

This paper discusses several of the significant management programs currently being addressed within the Gila Wilderness area of the Gila National Forest in southwestern New Mexico, USA. These programs include fire, grazing, wildlife, threatened and endangered species and visitor use. Reference to the Gila Wilderness includes both the Gila Wilderness and Aldo Leopold Wilderness. These two Wilderness areas are adjacent to each other and are managed similarly.

Facts and Overview

New Mexico is located in the southwestern United States and lies 35 degrees north of the equator. It is bordered on the south by the country of Mexico. The state of New Mexico comprises 198,000 square kilometres (123,000 square miles) and has a population of 1.7 million.

The Gila Wilderness is located in the southwestern part of New Mexico. Together, the Gila Wilderness and the Aldo Leopold Wilderness comprise over 300,000 hectares (750,000 acres). The Gila Wilderness is approximately three times the size of the Aldo Leopold Wilderness. The Continental Divide runs the length of the Aldo Leopold Wilderness.

Elevations in the Wilderness range from 1,500 metres (5,000 feet) to 3,300 metres (11,000 feet) at the highest peak. The majority of the wilderness lies between 2,100 metres (7,000 feet) to 2,400 metres (8,000 feet).

Rainfall at the lower elevations ranges from 25 centimetres (10 inches) to 38 centimetres (15 inches) per year. Two rainy seasons occur: the soft rains of winter fall from December through February and the intense rains of summer fall from July through September. These latter rains are accompanied by lightening storms. Snow can occur at both the lower and higher elevations. Snow melts within a day or two at the lower elevations but lingers in the mountains until spring. Temperatures can reach over 38°C (100°F) in the summer and drop to -10°C (15°F) during the winter. June is the hottest and driest month.

Vegetation of the Gila Wilderness includes scattered semi-desert grasslands, extensive pinyon/juniper habitat, extensive ponderosa pine forest, limited areas of mixed conifer forest at the higher elevations and narrow riparian corridors along the three main forks of the Gila River and in scattered creek bottoms.

History

The Gila Wilderness area contains evidence of occupation for the past 5,000 years. However, it was not until 2,000 years ago that the culture called the Mogollon began relying heavily on corn agriculture and living in villages. The American Indian group called the Apaches later inhabited the area and were pursued by the Spanish military into the Gila's mountains in the late 1700's. The famous Apache Chief Geronimo was born near the headwaters of the Gila River. Very few Apache remained in the area after 1886 when Geronimo was captured.

In the 1880's and 1890's, miners, military, ranchers and homesteaders made their way into this part of New Mexico. The Gila National Forest was created in 1906. Programs of work at the time of establishment of the Forest focused on fire suppression, timber, mining and grazing sheep and cattle. In order to manage the Forest, a network of roads, trails and telephone lines were built to link ranger stations with fire guard cabins and mountain lookouts.

In 1917, Aldo Leopold became Chief of Operations for the District Office in Albuquerque, New Mexico, the headquarters for the Forests of Arizona and New Mexico. He developed a particular passion for a means to preserve the wildness of the area later to be known as the Gila Wilderness. Since there is a separate paper on Aldo Leopold at this symposium, details will not be presented here. However, it is significant to note that he was instrumental in the Gila Wilderness becoming the first administratively designated wilderness in 1924. Designation did not come easy. Business interests, especially timber interests, and even some Forest Service officials, were opposed to the establishment.

Today, the Gila Wilderness is known for its relative remoteness (the closest large city El Paso, Texas, lies three

hours distant), relatively low visitation (approximately 10,000 people per year), protection of the headwaters of the Gila River (one of the few main river and riparian systems in the dry southwest) extensive virgin pine forests and quality elk hunts.

PROGRAM AREAS

Fire

The basic issue with fire has been the historical suppression of fire. This issue has evolved directly through fire-fighting suppression efforts and indirectly through high levels of grazing utilisation. As mentioned earlier, fire suppression was one of the major programs when the Gila National Forest was established in 1906. Fire suppression was practiced just as ardently inside the Wilderness area after it was designated in 1924. It was not until later in the 1970's that the benefits of naturally caused fire was officially recognised by the Forest Service and became a part of wilderness management.

One of the U.S. Forest Service's very successful public education efforts has been Smokey Bear. This lovable mascot won the hearts of people all across the nation. Appealing posters were developed with a variety of effective fire suppression messages. However, the forest Service soon realised that the message being given the public was that all fires were bad. We are now having to re-teach the public about the importance of the role of fire in a naturally functioning ecosystem.

In addition to a public information program, the Forest Service also had the political backing for a well-funded suppression program. The agency was able to afford helicopters and sophisticated fire-fighting equipment, some of which was allowed to suppress fires in wilderness. This enabled the Forest Service to have effective fire suppression efforts. Unfortunately, the result is that the natural functioning of the ecosystem has changed. Some such effects have been invasion of grass habitats by trees and a decrease in brushy habitats. These habitats are important for wildlife.

Under natural conditions, we believe that the ponderosa pine forests of the Gila Wilderness area experienced an average fire frequency of once every seven years. For the most part, these were relatively low intensity fires. Studies in one area showed that in 1867, tree density was 9 stems per hectare (23 stems per acre). Today, this same area has 340 stems per hectare (850 stems per acre). Fuel loadings have more than doubled in these areas. These conditions result in what we believe are more intense fires over larger areas than what occurred under natural conditions. Intense fires result in conditions such as soil sterilisation and stand replacement.

An indirect effect on the wilderness fire regime has occurred through heavy domestic livestock utilisation of grass species. Heavy utilisation rates, particularly those experienced in the late 1800s and early 1900s, decreased grass production and therefore decreased the fine fuels needed to carry a fire. This is especially evident in the pinyon/juniper habitat where the majority of grazing activities occurs. The result has been an encroachment of junipers resulting in thicker stands of these trees which lower grass production further.

We believe that natural conditions were more savannah-like with a higher level of grass production. This grass also suppressed the production of juniper seedlings as did more frequent fires that occur today. The decrease in the health of the grass allowed more juniper seedlings to get started and the lack of fire allowed them to grow to maturity. Thicker trees resulted in even less grass and less fire. The result of this process has been a change in fire frequency resulting in a change in the functioning and productivity of the ecosystem.

Luckily the agency has recognised its management errors and now in the Gila Wilderness we have a very active and successful prescribed natural fire (PNF) program and a managed ignited fire (MIF) program. The prescribed natural fire program relates to fires ignited by natural causes which in the case of the Gila Wilderness is lightning. We have written and approved plans which identify the areas and conditions under which lightning-caused fires are not suppressed. However, at times, due to certain locations and conditions, lightning-caused fires are still suppressed in the Gila Wilderness. For example, there are still areas of high fuel loading that concern people, especially when prolonged extremely dry, windy conditions increase the potential for extensive intense fires.

To help achieve our goal of predominantly not fire suppressing in the Gila Wilderness, we plan and execute managed ignited fires in these areas of high fuel loading. These management efforts are planned and approved in advance and are then ignited by trained and skilled fire people under the predetermined conditions. In the Gila Wilderness, all our managed ignited fires are for the objective of fuel reduction to eventually achieve a naturally functioning ecosystem.

Careless, accidental human caused fires are all suppressed both inside and outside wilderness. Our philosophy is that fires caused by visitors are not a natural occurrence in the Gila Wilderness ecosystems. When we do suppress fires in the wilderness, we try to practice minimum impact suppression techniques (MIST). These are techniques which achieve the objective of suppression but which are "light on the land."

Helicopters and chainsaws are allowed up to an appropriate level. Handlines are constructed in such a way as to minimise impacts of the line. However, bulldozers and other motorised equipment are almost never used and would need special justification and permission. On the Gila Wilderness we try to use horses and mules in our suppression efforts as much as we can.

We are fortunate with the Gila Wilderness to have a large enough area that we can realistically hope to achieve a predominantly natural fire condition where fire can once again play its role in the ecosystem. With larger areas, there is more area for fires to ignite and burn freely. Fires can burn for longer periods of time without threatening private land, structures and human habitation.

Fire is one of the many program areas where size becomes an important factor in wilderness designation and management. The larger the wilderness area, the easier it is to manage allowing the forces of nature to take their course and the easier it is to manage the area as a functioning ecosystem with the natural interaction of all its individual parts.

Grazing

Domestic livestock grazing is an activity that is permitted in the Gila Wilderness. The Wilderness Act of 1964 mandated that grazing be allowed to continue in wilderness areas where it was permitted prior to an area being designated as wilderness. It is important to understand that this is not because the authors of the Wilderness Act believed that domestic livestock grazing was a natural part of the ecosystem. Instead, grazing was specifically permitted because the Wilderness Act would not have otherwise been approved by the U.S. Congress. The permitting of domestic livestock grazing in wilderness was an entirely political reason.

After the Wilderness Act was passed, there were a number of interpretations as to how grazing should be managed in wilderness. As a result, the Grazing Guidelines of 1980 were developed. These guidelines specifically stated that grazing was not to be eliminated in wilderness areas just because the area was designated wilderness. If grazing was eliminated in a wilderness area, the justification had to be for resource reasons that would have eliminated grazing in areas outside wilderness.

The guidelines also explained that existing structures could be maintained and new developments built even with the use of motorised equipment in wilderness if motorised equipment had been used before the specific area had been designated wilderness. The guidelines did qualify these statements though by saying that this was not to imply that intensive management is acceptable in wilderness areas nor should developments be constructed to increase livestock numbers. Instead, developments should only be constructed for resource protection (e.g. a fence to keep cattle out of a riparian area).

Managing the grazing use is extremely important. Where left as an unmanaged situation resource damage and change in ecosystem functioning can occur on both upland and, particularly, in riparian areas. The riparian vegetation needed to stabilise and shade stream banks and provide habitat for wildlife, can be depleted. The age structure of the riparian tree species can become decadent with no young trees for replacement. Water quality can also be affected.

In the uplands, unmanaged situations can result in a reduction of ground cover and compaction of soil. Water tends to run off unprotected and compacted soils instead of soaking into the ground. The species diversity of grasses can decrease along with the production of grasses.

Before the Forest Service started enforcing regulations to manage livestock, many unmanaged situations occurred. Formulating an effective and meaningful allotment management plan was and still is a slow process. Where state universities and state agencies have supported the Forest Service, this has been a tremendously easier effort. Education, taking an objective viewpoint, having an open mind, and willing to change are all factors that have led to successful livestock management in wilderness.

The Gila Wilderness has seen both extensive cattle and sheep grazing. Sheep grazing died out due to economic factors but cattle grazing continues, although its future in many areas is probably questionable. In previous periods of time, it was profitable to run livestock on Forest Service lands. Today, economics have

changed that situation and the Gila Wilderness is marginal at best for efficient livestock production.

The mild New Mexico climate has allowed grazing to occur on Forest Service lands. The rancher only needs to own 16 hectares (40 acres) to have a permit to run cattle on an allotment of 58,000 hectares (145,000 acres) of Forest Service land.

Grazing on Forest Service land is relatively cheap. The current fee is \$1.35 per month per cow/calf pair. Permits are issued 10-year permits which are easily renewed. Although the Forest Service does not recognise a value to the permit, the banks do recognise a value. This has led to a 16 hectare (40 acre) tract of private land taking on the value of, for example, the 58,000 hectare (145,000 acre) grazing permit land.

When range developments are maintained, traditional means are encouraged to be used, even if the development was previously built or maintained with the aid of motorised equipment. Some permittees take great pride in their traditional skills such as packing salt or fenceposts on a mule instead of using a pickup truck. These skills that are rapidly being lost are considered part of the custom and culture of the area.

Natural materials are used wherever possible. For example, corrals are repaired with wood poles cut on site with an ax or a hand saw. We try to have the development located away from hiking trails. We camouflage developments as best we can. We insist that old junk such as old barbed wire and old metal feed troughs be hauled out.

When planning construction of a new improvement or extensive maintenance of an old one, we assess the various methods that could be used to accomplish the project. Neither convenience nor cost nor time involved are factors more important than the impact on the wilderness resource. The choice is selected based on the amount and extent of impact on the wilderness values and reasonableness of construction with traditional means.

For example, when hauling in fence materials, we look at the number of trips it would take with a packstring of a reasonable size, the terrain that would have to be traversed, the existence of trails, and the impact to the resources that the number of animals and trips would have. If the traditional means of packing would impact the resource to an unacceptable extent, then a helicopter might be used with the reasoning that cumulatively it would have less impact on the resource.

Although the American cowboy lifestyle in one form or another is still practiced by a number of our existing grazing permittees, for the most part, the younger generation is finding easier and more profitable ways to make a living. Especially the kind and amount of work involved in running cattle in wilderness is not appealing to the majority of the younger generation.

As operations become more marginal, the tough years such as the current one will probably see a number of permittees getting out of the business and retiring. The dry years such as the current one in New Mexico will take its toll. However, economics will be the determining factor. Ranching in the Gila Wilderness as the area has historically known it will probably cease to exist. It will then become another example of the fading out of a lifestyle and its associated historic land practices that were not sustainable on the land.

Wildlife and Threatened and Endangered Species

The Gila Wilderness continues to maintain relatively good native wildlife populations representative of the southwestern United States. Among the species the Gila has are elk, mule deer, bighorn sheep, black bear, turkey and cougar. The Gila is also home to such threatened and endangered species as the Mexican spotted owl and the indigenous Gila trout.

Unfortunately the elimination of the Gila's wolf and grizzly bear populations occurred in the late 1800's and early 1900's. These two species preyed on domestic livestock in addition to elk and deer. Their large territories and home ranges brought them into direct contact with human activities on a regular basis. Also, it was the belief at the time that predators were "bad varmints" since they preyed on game animals. The feeling was that these predators needed to be eradicated so that the "good wildlife" (elk, deer, etc.) could multiply and create a hunters' haven. As a result, extensive efforts were taken to eradicate the large predators. Before people realised what a mistake this was, the wolf and the grizzly bear had succumbed to these efforts.

Today a movement is underway to reintroduce the wolf to the Gila Wilderness. Time will tell if that will occur and if it will be successful. Again the size of the Gila is important since the wolf needs a large piece of country

in which to function and survive. There is some question as to whether the wilderness area is large enough to accommodate the territories of enough animals to make a viable population.

As sport fishing became more and more popular with the public and streams received more fishing pressure, various state and federal agencies wanted to insure good fishing opportunities for the public. Trout began to be raised in hatcheries and stocked in streams such as the Gila River. Hatcheries tried raising Gila trout, however, the native fish did not do well under hatchery conditions. On the other hand, non-native Rainbow trout and Brown trout responded well to being raised in hatcheries. These non-native fish then became the fish that were raised then stocked in the Gila's streams.

Most of these stocking efforts occurred outside wilderness, however, the non-natives migrated up the streams. This proved to be detrimental to the native Gila trout because the Rainbow trout hybridise with the native Gila trout and the Brown trout out-compete the Gila trout. As a result, by the late 1970's there were only five small areas of Gila trout remaining in the Gila Wilderness.

The first Recovery Plan for the Gila trout was written in 1979 and recovery actions were begun. A Recovery Plan is a document written by biologists for the purpose of lining out the steps needed to recover a particular species.

Over the next 16 years, extensive, dedicated efforts were undertaken to replicate and secure this species. Donor streams were identified that were suitable to establish and harbor a viable population. Natural waterfall barriers were located which would prohibit non-native fish downstream of the reintroduction site from getting upstream. Field crews were assembled that would hike or ride horseback into the reintroduction site. The stream was renovated using a safe and effective substance specific to fish (antimycin). The purpose of the renovation activities was to eradicate the non-native species and leave a stream habitat where the Gila trout could become re-established as a pure population without competition from Brown trout and without hybridisation with Rainbow trout.

Once streams are renovated, Gila trout are reintroduced. Since these areas are in wilderness, fish are packed in by horseback if they can reach their destination within 10 hours. If not, then a helicopter is used to transport fish from the donor stream to the receiving stream.

Unfortunately, since these are such small areas of streams, catastrophic events can wipe out hard efforts in one fell swoop. Intensive fires in areas of high fuel loading can generate large amounts of ash. When these fires are followed by intense rainstorms, the ash flow into streams can wipe out that stream's population of fish.

The reality could be that the Gila trout may never be completely recovered where it can function on its own. At least the wilderness area provides a repository where it can exist in its native habitat.

Visitor Use and Education

Approximately 120,000 people per year visit the Gila Wilderness. Eighty percent of these visitors are backpackers and ten percent are horseback users. Most use occurs on an individual or small group basis (less than 7 people) instead of being outfitted and guided. Group size limits for the Gila Wilderness are 25 people and /or 35 head of riding and packing stock. Camps are not designated.

Our visitors are from all over the world, all walks of life and all income levels. However, the majority of our visitors are from within a 200 mile radius. There is a high sense of ownership and pride by almost all the local people even if they themselves do not visit the wilderness, however most of them have visited.

Our philosophy is that the Gila Wilderness is open to anyone. The only requirement is that the mode of travel be by the traditional means of foot or horseback. It is the visitor's responsibility to be in adequate physical condition and to be prepared. We do not check that, however we do offer advice and training. We recognise that there are inherent dangers and risks for the visitor. However, our philosophy is that the visitors are to a large extent responsible for themselves within the constraints of good wilderness ethics.

Another concept that we employ is that the quality and management of visitor use in our wilderness areas is directly affected by the quality and management of the adjacent non-wilderness areas. In other words, offering a variety of recreational opportunities that are appropriate for the areas outside wilderness will serve those pursuits or those times when the visitor is not really after a true wilderness experience. Some examples would be mountain biking, driving, short easy walks and minimal risk experiences. Even outside wilderness areas

though we strive not to destroy the uniqueness of an area.

We use several methods of educating people about the history, values, concepts and philosophies of wilderness. Some of these methods we only consider appropriate outside wilderness. However, we do recognise that some forms of wilderness education are best done individually in a wilderness setting or at least adjacent to a wilderness. Education inside wilderness is done mostly through contacts made by our wilderness patrol. Our policy is not to have ranger guided tours in the wilderness. However, we do have such tours and talks outside the wilderness.

We do outreach to schools, civic groups and user groups. We feel that education which occurs outside wilderness and before people plan their trips is very important. We want people to come prepared for their wilderness experience and to put thought and planning into their trip. We want people to be prepared before they show up at the trailhead or before they are in the wilderness.

Our visitor centre and our employees play a vital role in visitor information. Prospective visitors can call, write or visit to obtain information, maps and books which we have for sale. We have found that it is vital to have friendly, knowledgeable people at the visitor centre that can answer people's questions. We have found it very beneficial to have our field people rotate around so that they can work from time to time in the visitor centre. This is one way of insuring that correct information is dispersed that allows people to make choices involving their wilderness trip. It also provides information important for last minute changes in a visitor's plans due to weather conditions. etc.

At our visitor centre we have an interpretive association that provides books, maps and other educational material for sale. They also provide bookcases and training sessions on making a reception area and book sale area attractive.

Outfitters and Guides

Our outfitters are people who have a business of taking people into the wilderness area for a fee. The Forest Service receives 3% of this fee. Our district administers approximately 30 outfitter permits. Most outfitted trips are by horseback and during the hunting season. However, recently we have noted an increase in the number of non-hunting trips, some of which are on foot. Outfitters also do "drop camps" where the clients, food and equipment is packed in and out of a particular place but the outfitter does not stay with the client.

Outfitters must apply to us for permits. On the Gila, in order to qualify, a prospective outfitter must have either 150 days experience with a permitted outfitter or have taken an educational course that teaches wilderness ethics. Our district offers a week long course for this purpose that has been extremely successful. We strive to have outfitters that give visitors a quality experience and educate the clients on the values of wilderness, proper use, philosophy and history.

After meeting the initial criteria, a new outfitter receives a temporary permit for two years. If there are no problems, they then receive a renewable priority permit that renews every 5 years. We field check our outfitters at their camps to insure they are meeting our requirements. We have a point system whereby if an outfitter receives over a certain number of demerits, their permit can be jeopardised.

Search and Rescue

Approximately half a dozen times a year a search and rescue effort of some type is needed. We do not keep track of visitors. It is up to them to leave word with a friend or relative of their expected return date. These are then the people who initiate the search and rescue efforts by first calling the State Police. We then get involved in the efforts by ensuring that coordination runs smoothly, that appropriate methods of search and rescue are used in the wilderness and by possibly helping in the search. Working with a search and rescue effort in wilderness involves making sound judgement calls based on information from the visitors' friends and relatives. Ninety nine percent of the time the visitor has been alright.

Trails and Signage

Our district administers 600 miles of system trails. With that number of miles, we have found it imperative to prioritise our trail maintenance and reconstruction needs. Our main objectives are attending to safety hazards and areas receiving resource damage. For example, "logging out" is one of the high priorities after the winter on our main system trails. Particularly dangerous for packstrings of horses/mules, are large logs across a trail

that traverses a steep side slope or a section of trail that has sloughed off.

Our main resource damage that we try to correct is water damage, ensuring that erosion problems are corrected. This may mean installing water bars. These are made of rocks or logs placed at strategic points on the trail to facilitate proper drainage.

We do not have bridges in the wilderness for crossing the Gila River. Usually the water level is low enough that this presents no problem. However, we do have a number of trails that follow the river and therefore there are numerous crossings.

We do have bulletin boards at our major trailheads. Trailheads are located outside of wilderness. These bulletin boards contain most of the critical information for the visitor. We have found that bulletin boards with a small protective roof draws more attention than one without a roof.

Trail signs inside the Gila Wilderness are only placed at trail junctions, are made of natural materials and are routed but not painted. Our signs have the trail number/trail name/mileage. There are often long discussions concerning which one or which combination of these is most appropriate.

In our efforts at trail maintenance and really anything to do concerning wilderness, our crews take great pride in the knowledge and practice of traditional skills to get the job done. This means using and maintaining equipment such as crosscut saws and axes instead of chainsaws which of course are not permitted in wilderness. In this way they are a part of keeping the wilderness traditions alive.

Conclusion

Hopefully this discussion of some of the major issues and programs on the Gila Wilderness will be beneficial to other managers of current or potential wilderness areas. One fact we on the Gila have found to be true is that issues and programs get increasingly complicated over time. We have found that timely action is the key, whether it be for designating new wilderness areas or making new policies.

Those people who support and understand wilderness know what is meant when we say: Wilderness Areas hold answers to questions we have not learned to ask; Wilderness Areas embody ecosystems that are more complicated than the human brain can think; Wilderness Areas embellish the concept that the whole is greater than the sum of all the parts. My hope is that all of you are those people.



Okarukuwisa trails camp - f.l.t.r: C. Ryan, R. Taylor, U. Bader, M. Price, D. Godfrey,
T. Cooper

(Photo: Dirk Heinrich)

SUPERSTITION WILDERNESS PROGRAM A WILDERNESS MANAGEMENT MODEL

Gregory F. Hansen
Wilderness Staff Officer - Tonto National Forest

ABSTRACT

Sound program development and management is the key to the success of any Wilderness program. This paper will focus in on methods and techniques that have been developed and field-tested over the last 18 years in the Superstition Wilderness. The Superstition Wilderness which is located in south-central Arizona is one of the most heavily visited Wilderness units in the National Wilderness Preservation system. Located less than 50 miles from the Phoenix metropolitan area which hosts over 2.5 million people, this Wilderness was literally being loved to death in the 1970's and 80's. In 1979, the Wilderness Information Specialists Program was developed in an effort to give this fragile arid land environ a second chance for survival.

Although many issues still face the Superstition Wilderness, constant evaluation and adaptation has allowed this particular program to improve both social and biological conditions over time. Volunteer management and program structure are highlighted in this particular piece, but these methods and techniques also work well for full-time or seasonal employees. Quality program management takes investment, support, and good personnel to carry it out. The Superstition Wilderness Program can be looked upon as a model for other programs, and it is this author's intent to share successes in an effort to better Wilderness management around the World. The country of Namibia has a tremendous opportunity to protect and preserve the natural integrity and value of some of the most unique areas in the world. With supportive legislation, efficient planning, partnering with local communities, and effective management this can be achieved.

INTRODUCTION

People of all ages and socio-economic backgrounds are ready, willing, and able to volunteer their time and talents to assist in the management of the National Wilderness Preservation System. The individuals and groups that use the wilderness represent a valuable resource that wildland managers may draw from to supplement wilderness management efforts.

Wilderness is a unique resource that depicts the very essence of this country's past, and the public is progressively realising its role in preserving these special areas for the future. A strong wilderness alliance has already been established in many areas across the country as a result of successful wilderness volunteer programs and partnerships.

Although volunteers can accomplish a variety of office-based and field-oriented duties, volunteers should complement, not replace, seasonal and full-time wilderness management positions. Further, use of volunteers should in no way jeopardize paid positions, and this must be made clear to all seasonal and full-time employees. On the contrary, volunteer programs are successful only when supervised by paid employees; in some cases, these volunteer programs actually create new positions.

Therefore, only when a solid commitment has been established to properly support volunteers should any attempt be made to secure volunteer agreements.

Starting a wilderness volunteer program can improve public relations and increase understanding of wilderness values and management needs for both the public and managing agencies. This teaching unit will explain how volunteers can strengthen your present wilderness programs or serve as a basis for beginning new management efforts.

VOLUNTEERS FOR WILDERNESS MANAGEMENT

An array of wilderness management duties can be accomplished by volunteers with the proper training, supervision, and support. This section will examine the different tasks volunteers can effectively complete and the advantages of each job.

One of the simplest and most valuable tasks for which volunteers can be used is the compilation of visitor use

data. These data can be analyzed to monitor visitor use trends and patterns. The wilderness manager can use this information to plan and prioritise management efforts more effectively.

Boy Scout and Girl Scout groups visit wilderness areas on a regular basis and represent an excellent source of volunteer assistance. Many of the levels in the scout advancement programs require some type of service project. Outreach letters can be sent to local scout councils and followed up with a phone call to secure a contact person for each council. This individual will assist the agency in setting up a service project and can serve as the liaison between the scout council and agency.

Litter removal, campsite renaturalisation, trail maintenance, road closures, and structure removal are a few examples of projects that can be completed by scout groups. Scout service-project programs can help to involve the using public in the management of their wilderness. These programs will contribute to the timely completion of backcountry work targets, if organised and supervised adequately. Finally, a scout service project program can open the door to developing a wilderness education program designed specifically for scouts who visit your wilderness.

A SUCCESSFUL VOLUNTEER PROGRAM

Recruitment

Successful recruitment of volunteers is an integral step in developing a successful volunteer program. Without effective recruitment, it will be difficult to acquire volunteers who possess the skills you are seeking.

The recruitment procedure should begin long before you want your volunteers to start working. Long-term and seasonal goals and objectives must be established and clearly defined prior to budget planning sessions in order to successfully market your program. Present your program as a realistic, attainable endeavor, with benefits for the community, the wilderness resource, the agency, and the individual.

Program organisation, goals and objectives, and projected costs must be accurately planned and documented. These program components must be reported and presented with confidence, enthusiasm, and commitment at the district or area planning and budgeting sessions. Once you have established a solid financial and logistical commitment for your program, you can then begin to advertise volunteer positions.

Developing Recruitment Announcements

A variety of techniques can be used to recruit volunteers at the local or national level. Your recruitment program should evolve over time as you develop the most efficient techniques for your specific needs. Traditional advertising, such as press releases, news stories, and vacancy notices, can be used to inform the public of volunteer opportunities.

Announcements and articles must be well thought out and carefully written. They must appear professional and can use a theme or logo that depicts your district or agency. Be careful not to advertise popular landmarks or wilderness destinations when designing logos, and refrain from sensationalising area history to avoid unnecessary use of your or other wilderness areas. Consult your planners and landscape architects for ideas on how to design your announcements and bulletins. The time spent developing an effective drawing card could determine how successful your recruitment bulletin actually is.

Articles and announcements should include:

1. a brief legislative history of the wilderness;
2. a condensed but detailed description of duties;
3. benefits available, such as housing, stipend, uniforms, and equipment;
4. starting and ending dates;
5. benefits received by participants;
6. weather, living, and working conditions;
7. training opportunities; and
8. how, when, and where to apply.

Local Recruitment

Volunteer vacancy announcements can be submitted to local community colleges and universities. Recruit-

ment bulletins can also be posted in district and upper-level front offices. By communicating volunteer opportunities with wilderness employees and co-workers in other departments, volunteers can be recruited through visitor contacts made in the field and in the office. After you establish a core group of volunteers, it is possible to continually recruit in the field by way of personal contacts.

Wilderness user group lists can be developed at entry points, in the backcountry, and at front offices. Volunteer vacancy announcements can be mailed to these groups with a personalised cover letter explaining wilderness management challenges and projects. Outreach efforts can establish a positive working relationship with the community by inviting them to become more involved in wilderness management.

Statewide and National Recruitment

Some areas around the country have found it difficult to recruit all or part of their volunteer work force locally and must progress to a more extensive recruitment program. Volunteer announcements can be mailed to forestry and natural resource management programs in colleges and universities in other parts of your state, or to surrounding states. When competing at the state or national level, vacancy announcements must be innovative and professional in order to draw volunteers to your area.

Due to the widespread public interest in natural resource management, a number of organisations and recruitment services have evolved in various parts of the country. These organisations specialise in soliciting, screening, and distributing volunteers to land managing agencies.

The Student Conservation Association (SCA), based in New Hampshire, receives applications from college students who are interested in volunteering in resource management. The SCA screens these applications and refers to the agency qualified volunteer candidates who match up with specific program needs. SCA Resource Assistant Programs are generally 10 to 12 weeks long and are scheduled for the summer, fall, and spring seasons.

The Seasonal Intern Volunteer Employment Service (SIVES) is an organised bank of job descriptions, plus an innovative computer program that screens and matches applicants with your specific job needs. This successful volunteer placement service is maintained at Colorado State University in Fort Collins.

Helping Out in the Outdoors is a publication produced by the Washington State Trails Association and is another good source for recruiting wilderness volunteers.

Screening Applications

After you have determined which recruitment avenue you will follow and have received applications, the next step is to screen applications. It is vitally important to understand the needs of your volunteers, and how those needs correlate with your program objectives, before you can effectively use their talents.

Applications should be carefully evaluated and ranked according to experience, education, and related specialised skills. Develop a list of skills that you have identified as priorities for your program before screening applications or conducting interviews.

Screening volunteer applications is primarily the same as reviewing applications for paid positions. Some supervisors prefer hand-tailored resumes, which can show initiative and creativity on the part of the applicant by their format and content. Applications should request at least two references, and these individuals should be contacted by phone prior to scheduling volunteer interviews.

The following skills and experiences have proven useful in screening wilderness volunteer applications:

1. a desire to work with people;
2. experience or education in areas of study that focus on natural sciences such as biology and forestry;
3. an understanding of outdoor education and wilderness ethics;
4. knowledge and/or experience in trail planning, maintenance, and repair;
5. public relations, public speaking, or interpretive skills;
6. skills in backcountry hiking, camping, cross-country skiing, and rock climbing;
7. formal training in education and/or teaching experience;
8. experience with using media, exhibits, and other educational materials and methods;
9. training and/or experience in medical and/or search-and-rescue-activities;

10. a positive attitude;
11. a clean, presentable appearance; and
12. previous experience with federal, state, or local government agencies.

TRAINING

Quality volunteer training begins with a successful training program for the wilderness employees who will train and supervise your volunteers. Wilderness is an integrated resource management job, and full-time and seasonal employees must be adequately trained in all related management disciplines. If you make the commitment to adequately train wilderness volunteer supervisors, you will have a much better chance of success in training your volunteers.

Proper training will enable your volunteers to feel comfortable and confident in their duties, therefore ensuring that they represent you and your agency appropriately. Begin by planning a comprehensive training program that teaches all aspects of wilderness management. Training must instill in volunteers a basic knowledge and understanding of your agency's land management role and commitment towards managing wilderness. In many instances, volunteers will be the only contact the public has with your agency. For this reason also, it is key that your volunteers receive quality training, as they will draw from this knowledge base throughout their volunteer service. Quality training also enables your volunteers to represent you and your agency in a positive, professional manner.

It is possible to vary your training environment by scheduling sessions in the field and in the backcountry as well as in the office. Use this opportunity to help your volunteers become familiar with the area and the job and at the same time have fun learning.

Nothing is less effective than sitting in a room for a week trying to grasp the concept of wilderness. All aspects of your training program should attempt to use hands-on, participatory presentations, because learning and retention are enhanced by direct involvement. For the best results, use a variety of learning environments and employ audience-participation techniques when training volunteers. The following sections describe three training settings (the office, the field, and the backcountry) and emphasise appropriate content and advantages of each setting as a training site.

Office Orientations

Volunteer training can begin with a district orientation session. These sessions should not exceed two days as participants easily can be bored when office sessions are too long and drawn out. Use the office orientation to make your volunteers feel that they are a consequential part of the management team.

Invite district and upper-level staff to meet your wilderness employees as presenters and facilitators. This will familiarise your staff with the volunteer program and give staff and volunteers alike a chance to become acquainted. Involving district and upper-level management will help your volunteers feel that their training is important and meaningful.

An understanding of the following items should be effectively conveyed during office orientations:

1. the Wilderness Act of 1964;
2. the philosophy and history of wilderness;
3. the National Wilderness Preservation System;
4. the organisational structure of your agency;
5. the general management mission of your agency;
6. the wilderness management mission of your agency;
7. the organisational structure of the volunteer program, including the chain of command;
8. the goals and objectives of the volunteer program;
9. specific job duties;
10. emergency procedures and who to contact in these situations;
11. the history of the district and wilderness area in which the volunteer(s) will be working;
12. the types of uses permitted in the wilderness in which the volunteer(s) will be working; and
13. a good host program.

Field Training

Training sessions held in the field, following office orientations are more effective in generating enthusiasm about wilderness management. Field training can be conducted at duty stations or trailheads. Also, by providing variation in the teaching environment, a well-rounded learning experience is achieved. Field training sessions should follow the initial office orientation and should serve as a transition into the backcountry training phase.

Topics such as wilderness basic first aid, cardiopulmonary resuscitation (CPR), search-and-rescue, flora and fauna, and visitor contact can be taught in these field sessions. Retention of the curriculum by participants can be maximised by using the environment that best suits each subject; also, role-playing and hands-on instruction are more effective in the field. This makes the extra planning and coordination needed to set up field sessions worthwhile.

Backcountry Training

Backcountry training is most effective if conducted following office and field training. By this time volunteers will be familiar with program objectives and wilderness management philosophies, so that backcountry sessions can focus specifically on back-country related duties.

Training held in the backcountry should be planned according to your program objectives and volunteers' skill levels. For example, if your volunteers have no backcountry experience, and their main duties are to greet and educate visitors at trailheads, you would not want to take them out on a ten-day extended backcountry training trip. However, if your volunteer program involves extended tours into the backcountry, then a more physically demanding backcountry training session should be developed.

Even if volunteers are not expected to travel deep into the backcountry, they must be familiar with as much of the wilderness as possible. Wilderness volunteers in the office or at the trailheads will most certainly be quizzed by the public on information relating to subjects such as trail conditions, campsite locations, and water availability. This will be difficult for volunteers, and at times even frustrating, if they have not seen the areas they are expected to inform the public about.

Volunteers should be able to convey to the public information about other wilderness areas and non-wilderness opportunities as well. Information can be presented to the public on alternative areas within and outside of the wilderness, such as developed campgrounds or designated off-road vehicle areas. Try not to limit your volunteers' opportunities to serve the public by limiting their information to the wilderness they are working in

Backcountry training can be used to excite volunteers about the special resource of wilderness, and can begin to bring your crew together as a team. By observing the way individuals interact with other crew members, it is possible to identify people who will work well together. The crew or volunteer supervisor can also evaluate individual and group hiking and camping capabilities, and this information can be used to plan and schedule upcoming patrols and projects.

Observing your volunteers in various working and social situations in the backcountry will provide insight on their relative strengths and weaknesses. This information can help determine how to best use their talents to accomplish volunteer program objectives.

The backcountry training session can be used as the pinnacle of your training program. A social get-together can follow and close out your training program with a fun event.

Backcountry training should include the following:

1. how to live and travel safely in the backcountry;
2. techniques for visitor contact and education at trailside and in the campsite, including message content;
3. no-trace camping techniques;
4. trail maintenance, closure, and inventory techniques; and
5. campsite rehabilitation, inventory, and monitoring techniques.

Ranger exchange programs, computerised communication networks, and wilderness management training sessions and workshops can ensure information transfer. By sharing successes and failures at workshops and training, wilderness volunteer supervisors can learn and improve from each other's experiences. This informa-

tion can then be incorporated into future training sessions, thus improving overall training capabilities for volunteers and paid wilderness employees alike.

SUPERVISION

Volunteers should be supervised closely directly following training in order to learn how much information has been assimilated and how their visitor contact skills are developing. Supervision of volunteers should take place throughout the entire program as well if volunteers are to achieve desired management objectives.

Supervision of volunteers must begin with an adequate supervisory structure. Seasonal and full-time wilderness employees at the technician and professional levels are key in developing and implementing a successful volunteer program. Returning wilderness volunteers who show leadership skills can also assist in supervising new volunteers.

Supervise volunteers as if you were overseeing paid employees. Just as a paid employee needs direction and encouragement, so do volunteers. Treat volunteers as an equal part of the overall management team. They have responsibilities and many times are your front-line representatives, so avoid treating them as second-rate help.

It is difficult to state exactly how many volunteers one employee can supervise. Determining the amount of supervision needed and the type of supervisory structure that should be used depends upon many variables. The amount of supervision volunteers receive should be determined according to their experience levels and the difficulty of the task(s) you are asking them to complete.

Supervision of volunteers can be organised in a number of ways. The following sections describe some ideas for successful volunteer supervisory structures.

Seasonal Supervision

Seasonal wilderness rangers can supervise a small number of volunteers, but this added responsibility must not become a burden or interfere with regularly scheduled duties. Be cautious of delegating volunteer responsibilities to employees who are already carrying a heavy workload or who are not ready to become supervisors. Hire an additional seasonal or volunteer coordinator, or assign volunteers to employees who are sufficiently prepared and willing to make the most out of the challenge.

Wilderness volunteers can accompany paid employees on extended overnight, and weekend patrols and projects. Schedules and logistics must be carefully coordinated between the ranger and volunteers. Volunteers can assist the wilderness ranger in several routine duties such as visitor education and registration, trail maintenance and inventory, and campsite rehabilitation and monitoring. However, volunteer management takes time and commitment, and supervising volunteers can be difficult and even counterproductive if not carried out correctly. Make sure your volunteers are well supervised, but do not add supervisory responsibilities to overworked seasonal employees.

Volunteer Coordinators

Volunteer coordinators are hired in some areas to assist in the supervision of wilderness volunteer and management programs. These positions can be filled by a volunteer, seasonal, or full-time employee, depending on program needs and budget constraints. A volunteer coordinator can be recruited or can be a returning volunteer who shows strong organisational and leadership skills.

If a multitude of volunteer programs exists in your wilderness unit, a coordinator could oversee all volunteer efforts. He or she could supervise specific program coordinators, such as a wilderness management program coordinator who would work under the district coordinator.

Your volunteer coordinator should be treated as a valuable asset to your staff. He or she should continuously communicate and coordinate work objectives with the appropriate employees and/or staff officer to maintain an organised, productive volunteer program. Volunteer wilderness programs must mesh cohesively with the overall management objectives of your unit, and a volunteer coordinator can help to accomplish this overall program consistency.

Slowly work your volunteer coordinator into the job to give him or her a chance to become established and

learn the duties. Try not to overload your volunteer coordinator in order to prevent burn-out. If necessary, delegate some of the workload to other district personnel while your coordinator is being trained. This will avoid unnecessary stress for the coordinator and will help your staff learn more about the volunteer program. As your program expands, think about ways that the coordinator can delegate appropriate duties to responsible volunteers. Tedious organisational jobs can be delegated, thereby allowing your volunteer coordinator time to work on improving the program.

If your program continues to grow and prosper, then it might be time to think about forming a volunteer association. A volunteer coordinator can be instrumental in setting up a volunteer association. All land-managing agencies are making an increased commitment to working with volunteers and establishing public partnerships. A volunteer association can be extremely beneficial to the wilderness unit, the volunteers, and the resource.

Most volunteer associations presently in operation are geared towards accomplishing interpretive and developed recreation management objectives. The Laguna Mountain volunteer Association (LMVA), which operates on the Cleveland National Forest, is an excellent example of the successful association. A volunteer association that specialises in wilderness management could be developed if a dedicated volunteer work force exists.

Volunteer Support

The six basic principles listed below are important to remember when supervising and supporting wilderness volunteers.

These simple factors can make the difference in sustaining a quality wilderness management volunteer program, and they directly affect the overall well-being and contentment of the program participants.

1. Respect and supervise volunteers as if they were paid employees.
2. Give volunteers responsibility.
3. Show a sincere interest in your volunteers and the program.
4. Emphasise the common cause of wilderness preservation.
5. Take care of your volunteers' personal needs.
6. Make every effort to recognise and acknowledge good work and accomplishment with more than words.

EVALUATION

Evaluating your volunteers is vital in determining your overall program effectiveness and development. By the same token, volunteers should be asked to evaluate their experiences and be given the opportunity to share suggestions and ideas for improving the program. This information can be used to indicate the positive and negative aspects of your program and to improve future volunteer management efforts.

Individual Evaluations

Formal evaluations are most often conducted at mid-season and at the end of the program or project. Individual evaluations can be coordinated in a one-on-one situation wherein the supervisor or coordinator follows a pre-planned evaluation form. The evaluation environment should be one where minimal interruptions enable you to give the volunteer your full attention. Evaluation criteria should be carefully explained to the volunteer before the evaluation is continued. It is critical that the person being evaluated completely understands the objectives of the exercise and what is expected of him or her.

Performance appraisals should allow for unrestrictive interaction to gain the best results. The evaluator must be fair, honest, and tactful. Individual evaluations are extremely useful when addressing strengths and weaknesses of volunteers.

Informal evaluations can be held on the job throughout the initial training period. This feedback will enable the volunteer to assess personal progress and can help identify specific areas needing improvement.

"Teachable moments" can be conducted individually or with a group. An example of a teachable moment would be to remind a volunteer, following a visitor contact, to remove sunglasses before speaking with wilderness visitors. Individual teachable moments should not be held in front of visitors or co-workers, and group sessions should not be conducted in front of the public. This technique should only be used directly following a

specific situation and should not be conducted constantly, as volunteers could develop a negative self-image.

Performance must be presented professionally and should serve as a positive learning experience for both the evaluator and the volunteer. Properly conducted evaluations can assist in the volunteer's personal development and overall program contributions.

Evaluation of Program and Supervisors

The evaluation process must be observed as a two-way street, allowing volunteers the opportunity to evaluate the program and their supervisors, coordinators, and peers. Asking for ideas and suggestions from your volunteers will instill a sense of ownership, provide useful information on program successes and productivity, and ensure a balanced perspective.

Ongoing volunteer programs should be evaluated annually to identify what has been accomplished and what can be done to improve the program in the future. Program evaluations can be done providing volunteers, crew foremen, and coordinators with an evaluation form. Give ample time to complete the form. Group or individual discussions can be held afterwards to give volunteers and supervisors a chance to explain their suggestions and ideas.

Program, supervisor, and peer evaluations must be conducted so that weaknesses can be identified and eliminated or improved during participant and program evaluations as well, and these should be reinforced accordingly, including praise for a job well done and incorporation of effective practices. All evaluations should serve as a positive learning tool that benefits the volunteer, the program and the agency.

RECOGNITION

People who make a commitment to donate their time and efforts to your agency deserve recognition. Recognising the accomplishments of volunteers involves much more than an occasional thank-you or pat on the back. Just as all other aspects of volunteer management incur some costs and time, so too does volunteer recognition. However, if such recognition is carefully organised, it can be done for a minimal cost.

To properly recognise your volunteers, it is necessary to evaluate the needs of each individual or group and to meet those needs to the best of your ability and as budgets will allow. Awards should be given to volunteers for long and short-term accomplishments and projects. Volunteer certificates are available through most agency personnel offices and make an excellent recognition gift if signed by the appropriate supervisor or coordinator and framed.

Homemade frames and plaques can be constructed by attaching a volunteer patch or a meaningful photograph onto a neatly cut piece of natural stained wood. Engraved or routed letters can be used to inscribe the volunteers name, accomplishments, and dates of volunteer service.

For minimal cost, volunteer barbecues and picnics can be sponsored by the host district or agency. The cost of volunteer get-togethers can be minimised by hosting events for all volunteers, and individually recognising separate programs and/or projects throughout the event. Activities that involve volunteers and their supervisors outside of the work place, such as softball games, off-site field trips, or camping outings, can be useful in establishing positive working relationships. Supervisors and coordinators must set a positive example at these functions, as they are representing the agency even in off-duty situations.

Special or personal volunteer efforts can be recognised by awarding homemade certificates, plaques, or even gag gifts for personal achievements. Achievements such as "most improved hiker" or "best visitor contact skills" are examples of special recognition award subjects.

If specialised awards are given, praise the team and the program accomplishments first and foremost, then present specialised awards. Special awards can make recognition fun and meaningful and can serve as a memento of the volunteer's experience for years to come.

In most cases, people who volunteer their time expect some type of recognition, and justly so. Volunteer recognition can be fun and rewarding for both the volunteer and supervisor and will help to ensure a lasting partnership. If your volunteer goes away unhappy, that person will not only volunteer elsewhere (or not volunteer again) but will most likely not recommend your program to others. Future recruitment could be difficult if the word gets out that your agency took advantage of a volunteer.

Make the effort to reward successful, individual and/or group accomplishments with more than a handshake. Recognising people who volunteer their time and effort to assist in the better management of wilderness will pay off in the long run not only for the wilderness resource, but also for the viability of the volunteer program.

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Greg Hansen



F.l.t.r: Tristan Cooper, Dr. Ian Player, Trygve, Trish and Victoria Cooper, Vance Martin, Zane Cooper, Paul Weingart. (Photos: Dirk Heinrich)

WILDERNESS MANAGEMENT IN YOSEMITE

Laurel Boyers
Assistant Wilderness Manager - Yosemite

It's hard to properly manage public land, whether in Africa or in the United States. Take Yosemite, for example. This National Park is perhaps cursed by its own beauty. It wasn't long ago these sheer cliffs rang only with bird calls and echoed the songs of the waterfalls. Now rock climbers wait in line to climb the seemingly impossible walls, and traffic jams confuse the meaning of what holidays should be.

Early management in the Park primarily consisted of encouraging use. Roads were built, accommodations ranging from tent cabins to luxurious hotels sprang up even in the backcountry, and park staff worked to promote attractions to the point of cutting an automobile tunnel through a live giant sequoia tree. Now, only a few decades later, we struggle to control that same public we encouraged so diligently and to restore the vegetation we so callously manipulated. Tourism, indeed, is a double-edged sword.

As use increased, so did associated problems. Socialised wildlife populations, poaching, trespass grazing, litter, air and water quality pollution, inappropriate commercialization and overcrowding negated the very purpose of the Park – "To preserve and protect the natural and cultural objects within, and to provide for the public's enjoyment of them."

WILDERNESS DESIGNATION

Luckily, managers like yourselves realised these resources were far too precious to squander. They realised poor management today would seriously jeopardise the future. After the initial "setting aside" of this land in 1890, the most dramatic step to ensure the long term health and quality of the Park was taken nearly 100 years later. In 1984, almost 95% of Yosemite National Park was designated Wilderness.

Unlike some feared, designation did not tie up this public land – over 700,000 visitors recreate, and spiritually re-create, in the Yosemite Wilderness. It did not bring economic failure to businesses nearby – motels and services on the Park boundary flourish to the point that reservations are required 6 months in advance to access more popular areas. It did not tie park managers' hands, but provided significant new understanding of and commitment to stewardship as we continue to optimise the resultant trade-off's.

Nor did wilderness designation eliminate local traditional use or benefit – consumptive uses such as hunting and mining were moved to lands outside designated wilderness, and locals retain the same rights of access in accordance to existing laws. It did not compromise cultural or historic resources, it protected them. Without wilderness preservation, it is likely much more of Yosemite would be overrun, a victim of encroaching civilisation, its ecological and cultural integrity squandered and irreplaceable.

MANAGEMENT STRATEGIES

How do we manage such a heavily used area for wilderness values? Although Yosemite's ecosystem and use patterns are very different than those in Namibia, many similar management principals can and are applied world-wide.

We build public understanding and support, and control behavior, with education, both in person or through outreach programs such as teach-the-teacher workshops in California classrooms. If education fails, appropriate regulatory enforcement is mandatory. We try to justify our regulatory actions with sound research and science.

With a strong research, inventory and monitoring system baseline data has allowed us to track long term change, assess the effectiveness of our current management program and determine priorities from modification. Restoration programs such as meadow, riparian, trail and campsite rehabilitation programs attempt to repair old impacts and allow natural processes to re-establish. Wildlife management programs track demographics and animal health using photo traps, sighting records, micro-chip implants (integrated transponders), visitor reports and other methods to assess the public's impact on complex wildlife relationships.

To assess, limit or disperse wilderness recreational use, we have a trailhead quota and permit system. We charge \$3 per person for reservations, and currently make about \$70,000 which we then use to fund the

program. Permits are also used to make educational contacts, for search and rescue, and for various management purposes such as maintaining a visitor data bank, statistical reporting, or tracking levels or changes in use patterns.

We have developed partnerships to augment programs with financial and project support. US Forest Service neighbours and user groups who have a high degree of interest in retaining various types of access, work well in integrated park programs. We also nurture financial support from our users. Park funding levels are not keeping pace with increased visitation and pressure. Fortunately, we have found that the public *wants* wilderness, and will give generously to protect it. We have strong partnerships with two non-governmental organisations who have literally provided millions of dollars to the Park through donations or non-profit sales.

Most importantly, we nurture our resource because whether it is wildlife or waterfalls, these lands and their community of life are priceless global treasures, more valuable than we even know.

Because Yosemite is located in the centre of a state with over 30 million people, the Yosemite Wilderness and the wilderness areas that surround it, form an island of a relatively intact ecosystem. In California, these are the last strongholds of naturally functioning wildlife populations. These populations would be decimated quickly primarily by encroachment to habitat, and secondarily from poaching, without large tracts of land.

Wilderness reservoirs of plants and animals hold the greatest hope for the long-term survival of entire species, particularly for wide ranging large mammals. Habitat management, linking wildernesses with the areas surrounding them is the key to the healthy existence of the residents of these lands. Wildlife management in Yosemite also stresses proper visitor behaviour through information, education, and enforcement, and tracks behavioral change, both in wildlife and visitors, with research and monitoring.

SUMMARY — THE FUTURE

The almost 7,000 square kilometre wilderness of Yosemite will be enjoyed by the generations of today and tomorrow thanks to some correct decisions yesterday. This land is both available for the public to use and enjoy, and basically ecologically intact. Gene pools harboured in these large wild areas, whether in Yosemite or Waterberg Plateau or Etosha, may hold answers to questions we haven't yet needed to ask, as well as the hereditary future of complex interdependent relationships we may not even understand. The wilderness areas preserved today will serve as the environmental barometers of our world. It is in our best interest to take the best care of them we can.

The managers of the public land in Namibia have the opportunity today to make the right decisions about these African lands for tomorrow. I urge you to fully recognise and appreciate the gift of wilderness, and make a commitment to insure its integrity into the future. If not, the world may lose this incredible African resource, these fabulous herds of wildlife and this stunningly beautiful landscape, through the slow erosion of seemingly inconsequential actions.

And even though I'm from the other side of the world, it's very important to me, and to my family and friends and lots of people I don't even know, that you take very good care of this place.

Good luck, best wishes, and thank you.

MINIMUM IMPACT USAGE OF WILDERNESS

John Kramer
Resources Staff Officer- Gila National Forest

The approach we have taken on the Gila Wilderness to **Minimum Impact Usage of Wilderness**, is one of Education - rather than Regulation.

Our Education attempts have 2 main areas of Emphasis: Wilderness **Values/Ethics**
Leave No Trace.

Where Wilderness **values** could be considered the Philosophical approach;
Leave No Trace could be considered the Practical/How To approach.

Today, I am going to talk about **Leave No Trace.**

Formerly, we had thought there to be a inversely proportional relationship between **visitor use** and **wilderness purity**; that is, as **visitor use increased - wilderness purity decreased.**

We have since learned, that by modifying the behaviour of the visitor, we can increase Visitor Use with **NO** corresponding degradation of the **Wilderness Resource.**

An example of this is: we have experienced an increase by approximately 1/3 in the Non-Hunting customers of O/G's in the Gila Wilderness; with **NO** apparent increase in impacts to the physical environment. This is because that increase is due to increased use by NOLS, COBS, and VOBS - all of which teach **Leave No Trace** Education to their clients.

(The ensuing 14 diagrams complemented an extremely informative presentation on LNT (Leave No Trace) ethics and practices, delivered by the presenter - Ed.)





LNT GOAL

TO HAVE A LNT MASTER ON
EVERY NATIONAL FOREST
IN EVERY REGION

LEAVE NO TRACE

MISSION STATEMENT

The goal of LNT is to engage a broad range of recreational users & the general public in a national effort to promote outdoor skills & ethics through publications, videos, electronic webs, & training

LEAVE NO TRACE

NATIONAL STRATEGY

- GAIN INTERNAL SUPPORT-INTEGRATE LNT INTO EVERY ASPECT OF LAND STEWARDSHIP
- FOSTER INTERAGENCY COLLABORATION TO PROMOTE LNT
- SEEK A BROAD DIVERSITY OF EXTERNAL PARTNERS



LEAVE NO TRACE

LNT PRINCIPLES

- PLAN AHEAD & PREPARE
- CAMP & TRAVEL ON DURABLE SURFACES
- PACK IT IN PACK IT OUT
- PROPERLY DISPOSE OF WHAT YOU CAN'T PACK OUT
- LEAVE WHAT YOU FIND
- MINIMIZE USE & IMPACT OF FIRES

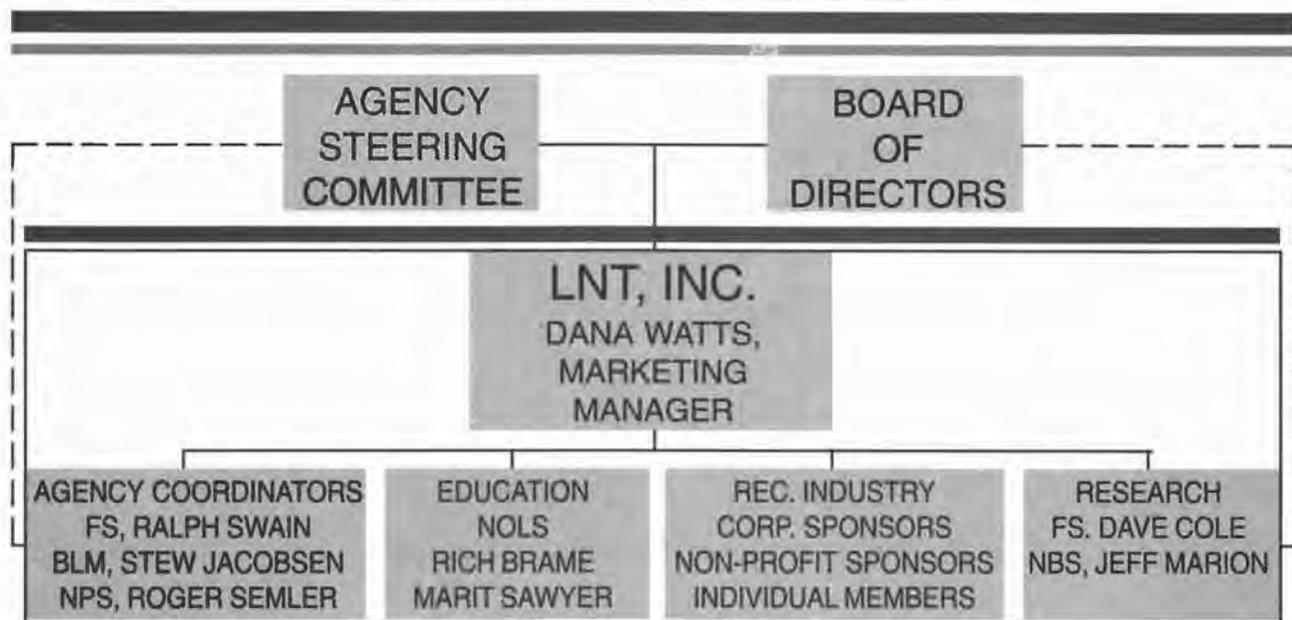
LEAVE NO TRACE

HISTORY OF LNT

- 1960-70'S USE SOARED ON PUBLIC LANDS
- 1978 JIM BRADLEY, EAGLE CAP WILDERNESS
- 1980'S COLE'S CAMPSITE IMPACT STUDIES
- 1982 R4 "NO TRACE" PROGR. WITH BOY SCOUTS
- 1986 NOLS ASK COLE TO REVIEW CON. PRACTICES
- 1988 SOFT PATHS, HAMPTON & COLE
- 1990 FS INVITES NOLS TO DEVELOP MASTER TRAINING
- 1991 FIRST "MASTER" TRAINING
- 1994 MOU SIGNED (FS, BLM, NPS, FWS)
- 1995 LNT, INC. ESTABLISHED
- 1996 LNT, INC. BOARD OF DIRECTORS MEETING

LEAVE NO TRACE

ORGANIZATIONAL STRUCTURE



LEAVE NO TRACE

LNT CONTACTS

- DANA WATTS, LNT, INC. 303-442-8222
- LNT HOTLINE, 1-800-332-4100, EXT. 282
- RICH BRAME, NOLS, 307-332-6973
- BRENT BOTTS, WO FS, 202-205-1313 DG: B.BOTTS:W01C
- RALPH SWAIN, FS NAT. COORDINATOR 406-626-5208,
R.SWAIN:R01F16D04A
- STEW JACOBSEN, BLM NAT. COORDINATOR 801-539-4235
- ROGER SEMLER, NPS NAT. COORDINATOR 406-888-5441, EXT. 294

LEAVE NO TRACE

LNT COORDINATORS

- | | |
|--------------------|-------------------|
| R1 JONATHAN KLEIN | R6 KEN ELDREDGE |
| R2 BETH BOYST | R8 PAT LANCASTER |
| R3 SHERI FOX | R9 MARY RASMUSSEN |
| R4 VIRGIL MINK | R10 PAT COOK |
| R5 PAULA MCMASTERS | |
- LEAVE NO TRACE

LNT MASTERS

- AGENCY MASTERS = 217
 - FS = 135
 - BLM = 71
 - NPS = 11
- NON-AGENCY = 62
 - GSA = 12
 - COLLEGES = 10
 - BSA = 9
 - OUT.BOUND = 8
 - REC. INDUSTRY = 5
 - OTHERS = 39



TOTAL
MASTERS:
300

LEAVE NO TRACE

WHY LNT?

- INCREASE USE, TYPES OF USE
- OLD SKILLS & TECHNIQUES
- NEW RECREATION RESEARCH
- NEW OUTDOOR EQUIPMENT
- EVOLVING OUTDOOR ETHIC

LEAVE NO TRACE

TO LEARN MORE ABOUT IT

INTERNET: <http://www.nols.edu/LNT/LNTHome>

- LNT SKILLS & ETHICS BROCHURES
- SOFT PATHS VIDEOS, 15 & 30 MINS.
- SOFT PATHS BOOK (1995)

LEAVE NO TRACE

EXAMPLES OF LNT IN ACTION

- ATWATER TAG CARDS IN PACKAGING
- FOGHORN PUBLICATIONS
- TRAILS ILLUSTRATED-LOGO ON MAPS
- OSPREY PACKS-SIX PRINCIPLES
- PEAK 1, COLEMAN PRODUCTS
- LNT ADVERTISING IN NPCA MAGAZINE

LEAVE NO TRACE

TREAD LIGHTLY/LNT

- TREAD LIGHTLY -- TARGETED TO MOTORIZED RECREATIONAL USERS
- LNT -- TARGETED TO NON-MOTORIZED RECREATIONAL USERS
- COMPLEMENTARY NATIONAL OUTDOOR EDUCATION PROGRAMS

LEAVE NO TRACE



WILDERNESS AND THE CAMPFIRE PROGRAMME: The Value of Wildlands and Wildlife to Local Communities in Zimbabwe

R.D Taylor
WWF Programme Office, Zimbabwe

INTRODUCTION

Until recently, there has been very little incentive to maintain wildland or wildlife populations in the communal lands of Zimbabwe. The introduction of the Communal Areas Management Programme for Indigenous Resources, the CAMPFIRE programme (Martin 1986), which seeks to achieve rural development through resource management programmes, has promoted the formal commercialisation of wildlife utilization in a number of communal lands (Cumming 1991). This is being achieved by placing the proprietorship of natural resources with the people living most closely with them. Consequently, views and perceptions of the value of wildland and wild resources on the part of rural communities is undergoing considerable and rapid change. Where wildland and wildlife still remains in meaningful quantities, rural communities, through their Rural District Councils (RDCs), are seeking ways in which these resources can be conserved and managed for beneficial gain. Since 1989, when two districts in the Zambezi valley were granted responsibility for the management of their wildlife, namely Guruve and Nyaminyami, a further 22 districts have entered the CAMPFIRE programme in the intervening seven years. Not all these districts are necessarily well endowed with large, spectacular wildlife, but other natural resources, including wildlands, aesthetic landscapes and scenery are being marketed to generate revenue.

This paper describes the formally protected areas of Zimbabwe in relation to wilderness and then examines the concept of wilderness in communal land districts implementing the CAMPFIRE programme. The value of wildlands and wildlife is assessed through an examination of key attributes in twelve of these districts. The maintenance of wildlands and wilderness values in practice is demonstrated through the example of one district, where incentives attached to resource use promote realistic and attainable approaches to community based natural resource management. Wilderness does not enjoy definition as such in Zimbabwe, and for this reason and the fact that many CAMPFIRE areas are settled to a greater or lesser extent, I have preferred to use the term wildland, although the two are used interchangeably. Finally, it is worth noting that the US Wilderness Act of 1964 allows identification of wilderness areas in North America as small as 5,000 acres or 20 km² (Arnett 1984), less than one tenth the size of the smallest areas of wildland in the CAMPFIRE districts of Zimbabwe.

Thus, it should be borne in mind that wilderness is as much a construct of society as it is a physical entity.

WILDERNESS AND WILDLANDS IN ZIMBABWE

The Parks and Wild Life Estate

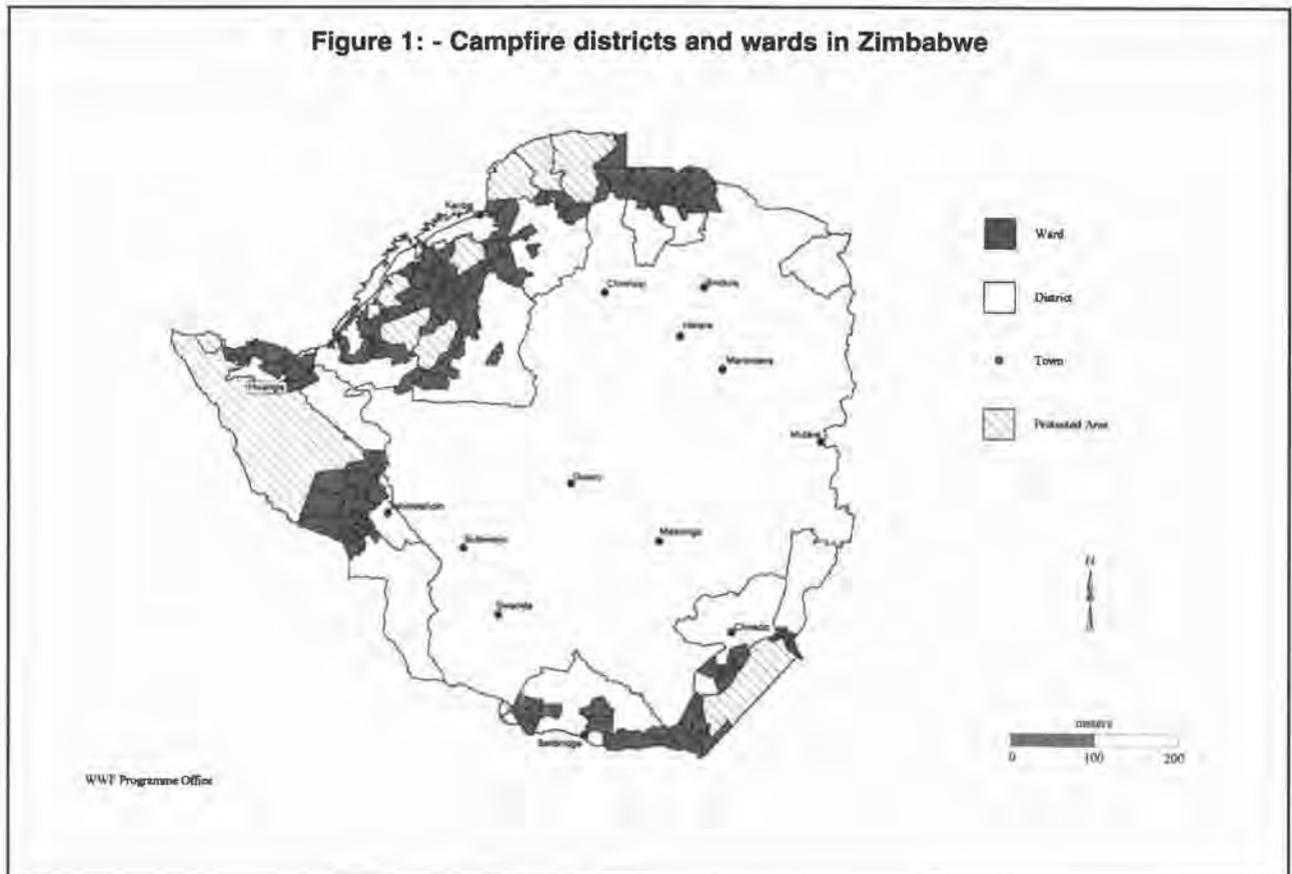
Nearly 50,000 km² or 13% of Zimbabwe is formally protected State Land which is maintained for the conservation of the nation's wild resources and biological diversity. This Parks and Wild Life Estate comprises six classes of protected area, namely eleven National Parks, fourteen Botanical Reserves, three Botanical Gardens, six Sanctuaries, sixteen Safari Areas, and fifteen Recreational Parks (Taylor 1990). Together, these protected areas provide an integrated system of environmental biotic and abiotic protection for the enjoyment, education, inspiration, benefit and recreation of the public. (Fig 1).

The criteria for the classification of these components are differentiated by degree and nature of permissible use, and are defined in the country's Parks and Wild Life Act (Anon. 1975). This primary legislation, however, makes no provision for wilderness as a specific category of protection. Rather, further refinements which include designated *wilderness areas*, are provided for in park zonation plans which flow from specific park policy documents. Wilderness areas in this context are areas of such a size as to contain, as far as possible, the complete flora and fauna of that part of the protected area in which they are situated. Most are relatively large areas with minimal development. Public entry is permitted in low numbers, but there is considerable freedom of action within defined parameters. The approach to the establishment of wilderness areas in the Parks and Wild Life Estate has drawn criticism (Tomlinson 1980), largely because many designated wilderness

areas do not include the complete representation and range of the protected area's biological diversity and/or its ecosystems.

Besides the Parks & Wild Life Estate, the only other category of protected State Land is Forest Land which constitutes 2.4% of the country and is not considered further here. The remaining land within Zimbabwe is designated primarily for agriculture within different categories, namely Large Scale Commercial Farming, Small Scale Commercial Farming, Resettlement Areas and Communal Lands. It is the latter, where large tracts of wildland still remain and where many elements of wilderness can be found, which provides the focus for this paper.

Figure 1: - Campfire districts and wards in Zimbabwe



Communal Lands and the CAMPFIRE programme

Outside of the formally protected Parks & Wild Life Estate, CAMPFIRE has enabled considerable progress to be made in the conservation and use of natural resources by rural communities through economic empowerment and devolutionary legislation (Child 1993). CAMPFIRE is mostly focused on undeveloped remote areas with little or no agricultural potential and which still support the larger species of wildlife. Many of these species, especially elephant, depend on relatively extensive areas of wildland to meet their habitat requirements. Most of the twelve primary wildlife producing CAMPFIRE Districts are adjacent to, contiguous with or relatively near protected areas of the Parks and Wild Life Estate (Fig. 1).

Within a district, political and administrative sub-units or Wards make up the district and in the CAMPFIRE programme such wards are known as "producer wards" or "producer communities". Not all wards in a district necessarily support areas of wildland or wildlife populations and even within those wards that do, there is usually a mosaic of wild and settled land. On average, CAMPFIRE producer wards make up 36% of the total number of wards in CAMPFIRE districts and their land area constitutes 55% (39,580 km²) of the total area of land within the CAMPFIRE programme (Table 1).

If the producer wards are taken as a proxy for wildland, together with the Parks and Wild Life Estate, this additional 40,000 km² increases the amount of wildland from 13% to approximately 22%, even though nearly half may be settled to a greater or lesser extent. Nevertheless, this provides opportunities for maintaining, enhancing and/or increasing wildland beyond the core protected area system. Because of close proximity to

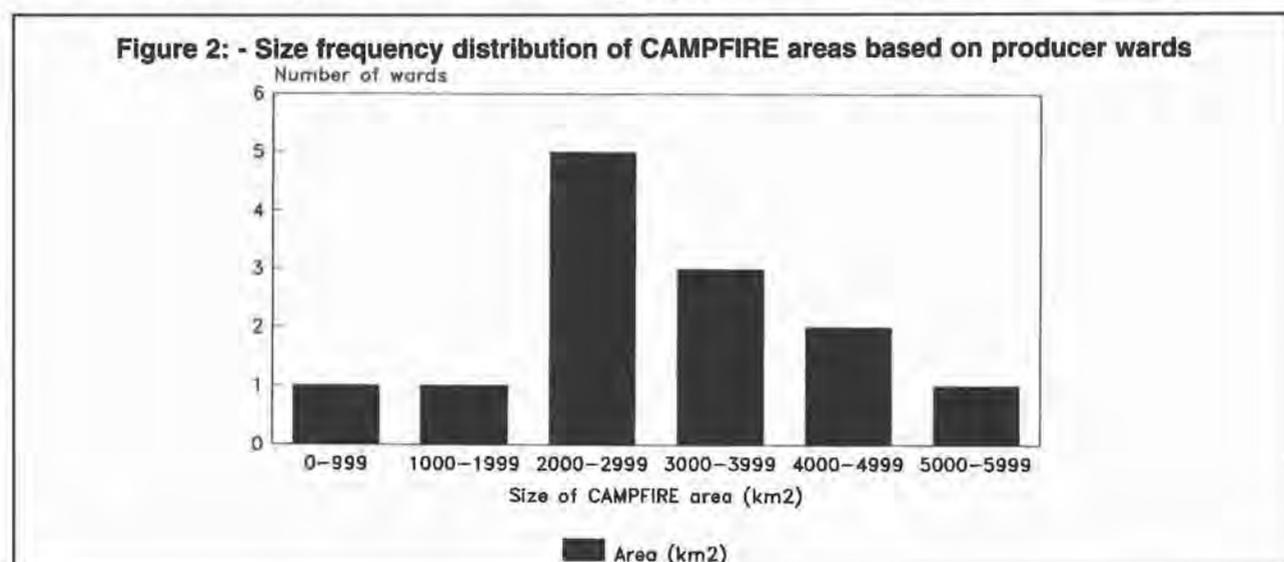
the Parks & Wild Life Estate, such wildland plays an important role either as an extension of the core area or as a buffer in terms of maintaining wilderness values, ecosystem processes and biological diversity.

Table 1. Features characterising CAMPFIRE areas in relation to wildland, human and elephant densities and revenue earnings. Data for 1993.

| District | Total area (km ²) | CAMPFIRE Area (km ²) | Area as % | Human density (no./km ²) | Elephant density (no./km ²) | Revenue Earned (Z\$) | Revenue as % |
|-----------------|-------------------------------|----------------------------------|-----------|--------------------------------------|---|----------------------|--------------|
| Beitbridge | 6775 | 3729 | 55 | 7.5 | 0.03 | 256,000 | 2.64 |
| Binga | 7770 | 4440 | 57 | 7.7 | 0.63 | 1,283,909 | 13.24 |
| Bulalima/Mangwe | 6866 | 1530 | 22 | 23.4 | 0.26 | 195,000 | 2.01 |
| Gazakhomani | 5306 | 3665 | 69 | 13.5 | 0.34 | 554,010 | 5.72 |
| Gazaland | 2973 | 408 | 14 | 25.7 | 0.12 | 158,000 | 1.63 |
| Gokwe | 13560 | 4748 | 35 | 22.5 | 0.21 | 534,076 | 5.51 |
| Guruve | 5551 | 5045 | 91 | 8.9 | 0.85 | 1,923,647 | 19.86 |
| Hurungwe | 4929 | 2735 | 56 | 9.2 | 0.76 | 873,116 | 9.01 |
| Hwange | 3975 | 2384 | 60 | 7.9 | 0.18 | 137,451 | 1.42 |
| Muzarabani | 2774 | 2542 | 92 | 15.3 | 0.12 | 50,000 | 0.52 |
| Nyaminyami | 3631 | 3534 | 97 | 6.8 | 0.96 | 2,549,818 | 26.32 |
| Tshlotsho | 7382 | 4814 | 65 | 8.4 | 0.33 | 1,174,181 | 12.12 |
| TOTAL/MEAN | 71493 | 39579 | 55 | 11.6 | 0.4 | 9,688,208 | 100.00 |

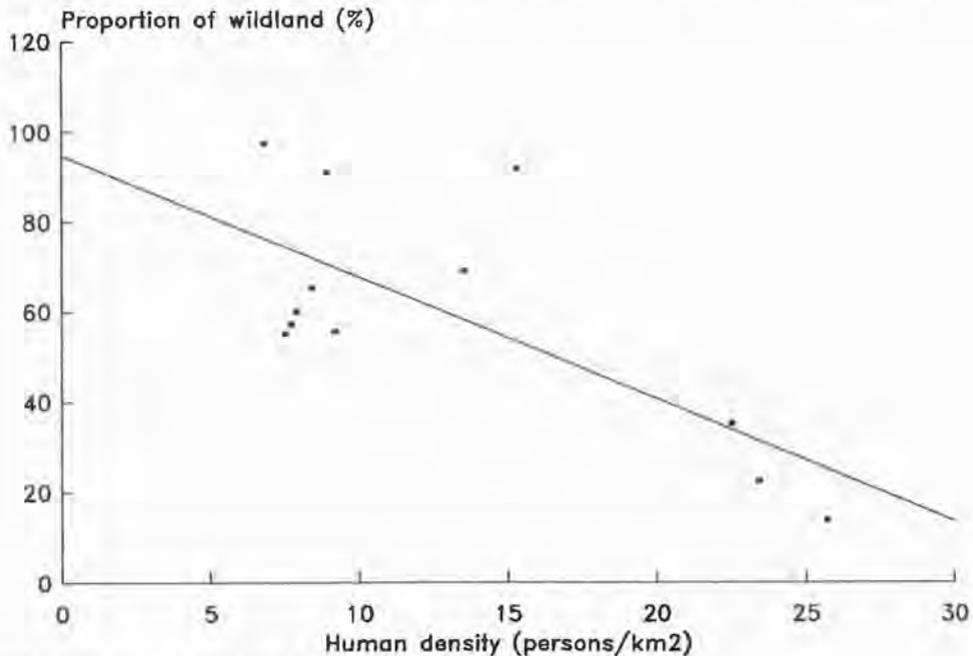
Wildland, elephants and people

The amount of wildland in these CAMPFIRE districts varies from less than 500 km² to just greater than 5000 km² with an average size of 3,300 km² (Fig. 2). Of the 12 districts, three have wildlands in excess of 90% of the district area, six have 50-70% of the district under wildland, and in three districts, less than 35% of the district area constitutes wildland (Table 1). The availability of wildland within individual districts and wards is negatively correlated with human population density ($r = -0.72$; $p < 0.01$; Fig. 3), with the maintenance of wildland (> 50% wildland) more likely under lower rather than higher population densities (< 10 persons/km², Taylor 1995).



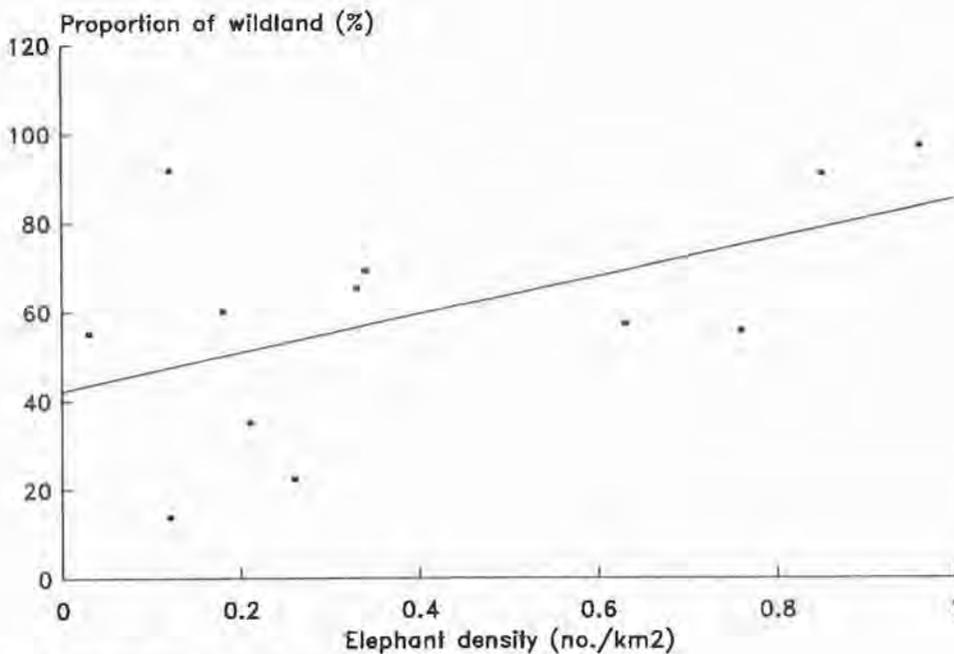
Since elephants are long lived, large bodied generalist herbivores, requiring large tracts of land for their continued long term survival (Armbruster and Lande 1993, Taylor and Cumming 1993), their abundance in a given area provides an useful index to the value and extent of the wildland with which they are associated. Although not significant and with considerable variation, elephant density is positively correlated with the proportion of wildland available in CAMPFIRE areas ($r = 0.52$; ns; Fig. 4) and, not unexpectedly, negatively associated with human population density ($r = - 0.49$; ns; Fig. 5), a relationship already observed by Parker and Graham (1989).

Figure 3: - Proportion of wildland in relation to human density in CAMPFIRE areas



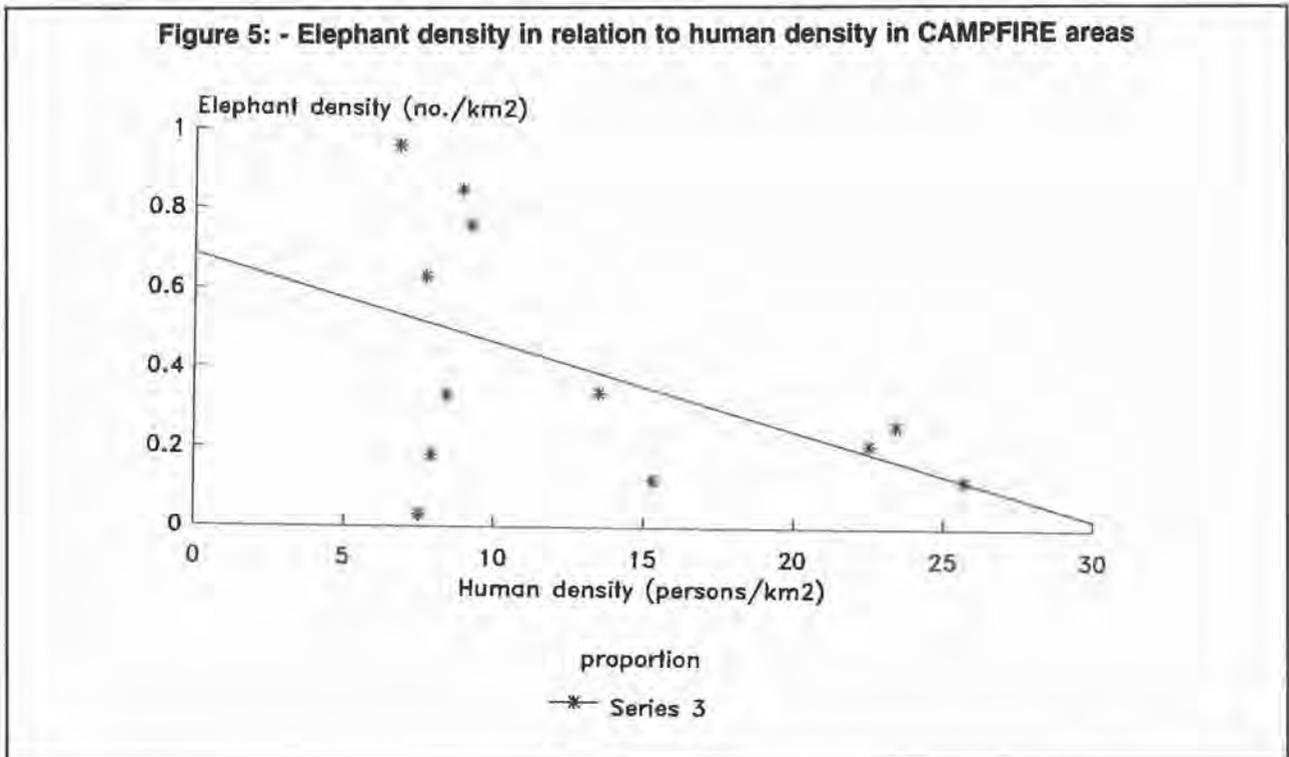
CAMPFIRE producer wards proxy wildland

Figure 4: - Proportion of wildland in relation to elephants density in CAMPFIRE areas



CAMPFIRE producer wards proxy wildland

Figure 5: - Elephant density in relation to human density in CAMPFIRE areas



For Zimbabwe, Parker and Graham (1989) predicted elephant extinction locally at human densities of 19 persons/km² and clearly this would be linked also to loss of all wildland or at least its substantial fragmentation. Interestingly, the relationship in Fig. 5 indicates local elephant extinction at around 30 persons/km², a considerably higher density than that predicted by Parker and Graham (1989) who argue that competitive exclusion of elephants will occur in similarly preferred habitats when human densities reach a critical level. Whilst the relationship is complex, including linkages to rainfall and soils (Coe *et al.* 1976, Bell 1982, East 1984), it is suggested here that as a consequence of the CAMPFIRE programme, there is now a greater human tolerance of elephants than occurred previously in the communal lands of Zimbabwe. Thus, elephants may be a very sensitive barometer for measuring human-wildlife interactions and levels of mutual tolerance or otherwise (Happold 1995).

VALUE OF WILDERNESS AND WILDLANDS

The loss of natural areas, wildlands and habitats for wildlife has been conventionally portrayed as a conflict between *development* and *preservation* options (Barbier 1992). Whilst development has usually implied the substitution of artificial (technology dominated) environments for natural (biology dominated) ones, it is increasingly being recognised that the absence of economic development may be a greater environmental threat than its presence (Allin 1990). In many circumstances there are land and wildlife use options that avoid the extremes of development and preservation but which provide sustainable human use of resources and meet long-term conservation needs.

Since wilderness is a societal construct, at least in the developed world but probably in developing countries as well, it ultimately must have an economic value. Consequently, wildlands do pay their own way, in aesthetics, in inspiration, in recreation, in science, in the opportunity for future choice and in the maintenance of ecosystem, species and genetic diversity (Allin 1990). Although rarely undertaken, it is necessary to assess the total economic value of land and the resources thereon. Thus, the total value of wilderness includes its use and non-use values. These in turn entail direct and indirect uses, option values and existence values (Table 2). A continuing difficulty is that many components of wilderness have no market, especially subsistence use, indirect use, and option and existence values. Nevertheless, the few assessments that have been made suggest that these values are considerable (Barbier 1992).

In their accepted and conventional role, protected areas are limited in their provision of total economic value. They do not provide human habitat or sustainable harvests, including subsistence use of resources, and invariably, at least in the context of colonial Africa, access to traditional cultural and heritage values has been foreclosed. In contrast, the provision of these values and all the others listed in Table 2 are likely in the wildlands of the communal lands in the CAMPFIRE programme. In this sense, such wildlands are more holistic

in meeting the requirements of human welfare. Ideally, successful integrated conservation and development programmes, such as CAMPFIRE, should combine equally economic, ecological and social requirements of natural resource management. In the case of CAMPFIRE, the entry point has been economic (Child 1993), although appropriate legislation and empowerment is also crucial to success. Because of their long-term nature, conservation incentives lack immediate tangible benefit and rarely provide persuasive arguments for the rural poor.

Table 2. Classification of total economic value for wildlife and wildlands (From Barbier 1992)

| Direct value | Use value | | Non use value |
|----------------------|------------------------|-------------------------|-----------------|
| | Indirect value | Option value | Existence value |
| Sustainable harvests | Ecological function | Future uses as in 1 & 2 | Biodiversity |
| Recreation | Protection function | | Cultural |
| Tourism | Waste assimilation | | Religious |
| Genetic material | Microclimatic function | | Heritage |
| Education | Carbon store | | |
| Human habitat | | | |
| Other services | | | |

Financial incentives and the maintenance of wildlands

In the CAMPFIRE programme, the incentive for the retention of wilderness, and its component values has, of course, relied on returning financial benefits to those people who live amongst these wildlands. Between 1989 and 1994, CAMPFIRE earned Z\$34 million (US\$6 million) from wildlife utilization, mainly through sport hunting which accounted for 93% of total income (Bond unpublished data). Income by district for the 1993 year (Table 1) varied from Z\$50,000 in Muzarabani to Z\$2,549,818 in Nyaminyami District. Nyaminyami has both the lowest human density and the highest elephant density of the 12 districts (Table 1). Whilst Muzarabani has considerable wildland, much of the prime riverine habitat is heavily settled (Muzarabani is the fourth most densely populated area amongst the CAMPFIRE districts) and wildlife abundance is low, as indexed by an elephant density of 0.12 elephants/km² (Table 1). For all 12 districts, revenue earned from wildlife was positively and significantly correlated with both the proportion of wildland ($r = 0.59$; $p < 0.05$; Fig. 6) and elephant density ($r = 0.90$; $p < 0.001$; Fig. 7) but negatively so with human density ($r = -0.53$; ns; Fig. 8). In a more detailed analysis, Bond (unpublished data) has shown that ward wildlife revenues decline as a negative exponential in relation to human density. An inflexion on this curve at about 10 persons/km² indicates the critical density below which wildland can no longer be maintained, an observation already made here and elsewhere (Cumming 1985, Taylor 1995).

Since the financial returns from wildlife are not only substantial, but also proportional to the abundance of such resources, the incentive for local communities to conserve and maintain wildland and wildlife is considerable. This has been the case in the CAMPFIRE programme as reflected by the increasing number of districts which have applied for authority from central government to manage their wildlife resources and to join the CAMPFIRE programme. A number of districts have taken positive steps to retain wildlands through formal zonation and designation, followed by subsequent protection from further settlement and/or encroachment by people and/or domestic livestock. The imposition of community sanctions and regulations regarding access to and use of resources in such areas is beginning to emerge as are punitive measures for transgression of such rules. It can be anticipated that a return to, or reinforcement of traditional existence values is likely in a number of areas.

Figure 6: - Relationship between revenue earned and wildland in CAMPFIRE areas

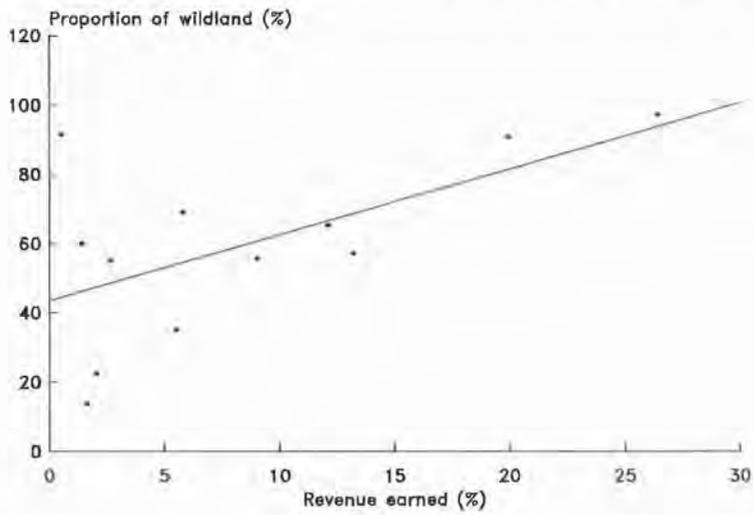


Figure 7: - Relationship between revenue earned and elephant density in CAMPFIRE areas.

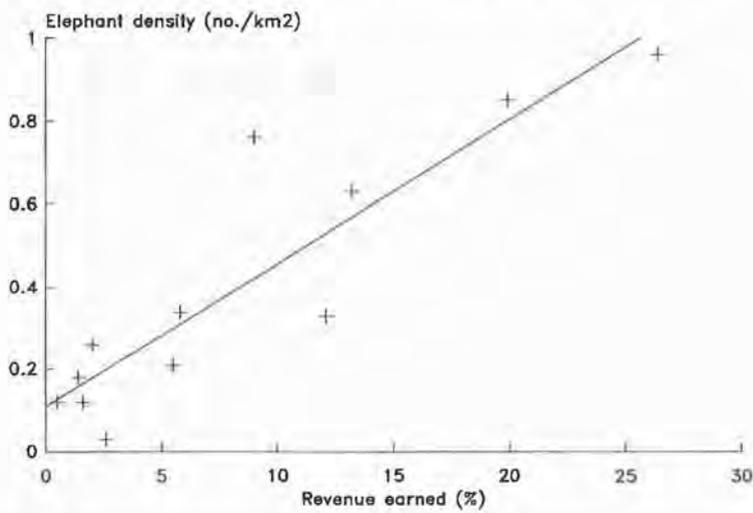
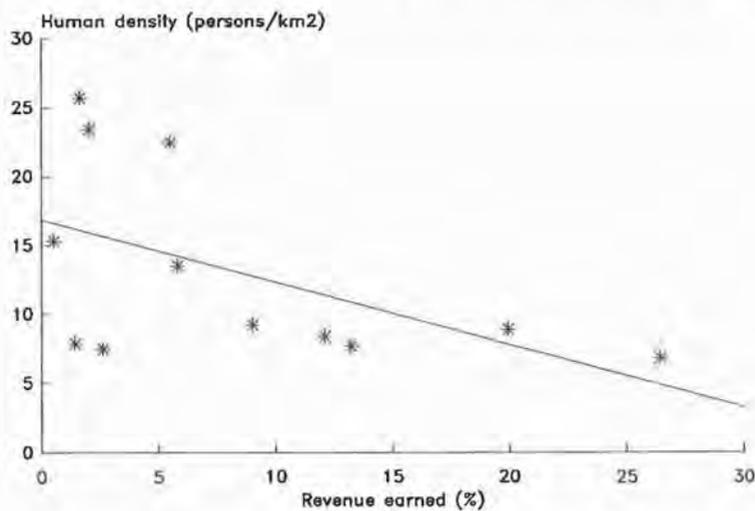


Figure 8: - Relationship between revenue earned and human density in CAMPFIRE areas



MAVURADONHA WILDERNESS AREA AND THE EXPERIENCE OF MUZARABANI

Rather than attempt to catalogue value attached to wildlands and wildlife use in CAMPFIRE, and how this has been recognised and developed by individual districts, the use of an example will demonstrate progress made in one district, Muzarabani, in north-east Zimbabwe.

Socio-political initiatives

Muzarabani Rural District Council was the first Council in Zimbabwe to gazette a portion of the communal land under its jurisdiction as a Game Area in terms of the Communal Land Act, 1982, which it designated the Mavuradonha Wilderness Area (MWA) in 1988. Unlike most other CAMPFIRE areas, the Mavuradonha Wilderness Area in the rugged Zambezi escarpment is largely free of human habitation with little or no agricultural potential. Whilst Mavuradonha provides the core area of wildland in Muzarabani, elephant numbers are low and human densities are relatively high over the remainder of the district (Table 1 and above). Consequently, wildlife use has not relied solely on high valued international safari hunting as in other CAMPFIRE districts and the district has had to explore alternative options.

Further development of wildlife based tourism in Muzarabani relied on the incorporation of an adjacent piece of State Land, the Great Dyke State Land (GDSL), into the MWA. Although the importance of this was recognised and desired by Muzarabani RDC and community, this was opposed by central Government, which intended to use the land for agricultural re-settlement. A technical study undertaken on behalf of Muzarabani by WWF (Cunliffe 1992) concluded that tourism and wildlife presented the best land use option for this land, a conclusion strongly supported by the local Muzarabani community. Following strong representation to Government and public meetings, the GDSL was leased to Muzarabani RDC by central Government for the purposes of developing wildlife based tourism.

Three notable points attach themselves to these decisions taken by Muzarabani District: (i) there is provision within the country's primary legislation (the Communal Land Act) for the designation of protected areas (Game Areas) within Communal Lands which only Muzarabani has taken advantage of; (ii) the gazettment occurred before the formal implementation of CAMPFIRE in 1989; indeed, Muzarabani RDC was only granted Appropriate Authority to manage its wildlife under the CAMPFIRE programme in 1991 and (iii) the strong local desire of the district council and community to actively pursue wildlife conservation and management as a land use option, even before its socio-economic viability had been demonstrated.

Revenue generation

Development of tourism

Initially, this relied on generating a very limited income from local tourists visiting the MWA Head Quarters campsite and surrounds. Whilst the scenic beauty and spectacular mountainous terrain was very much appreciated by the few visitors coming to MWA, less than Z\$2,000 was earned in 1989, the first year of operation (Table 3). With incorporation of the GDSL into the MWA and recognition of the strength of joint venture arrangements (Jansen 1989), the RDC initiated two important developments:

Table 3. Wildlife revenue (Z\$) earned by Muzarabani District 1989-1996

| Year | Sport Hunting | Tourism | Hides & Ivory | Capture & sales | Other | Total |
|--------------|----------------|---------------|---------------|-----------------|---------------|------------------|
| 1989 | 0 | 60 | 0 | 0 | 1,700 | 1,760 |
| 1990 | 0 | 7,082 | 0 | 0 | 4,690 | 11,772 |
| 1991 | 0 | 4,021 | 1,364 | 0 | 12,851 | 18,236 |
| 1992 | 0 | 7,568 | 0 | 0 | 2,702 | 10,270 |
| 1993 | 50,000 | 0 | 0 | 0 | 0 | 50,000 |
| 1994 | 236,000 | 8,360 | 0 | 0 | 0 | 244,360 |
| 1995 | 280,091 | 19,387 | 0 | 352,533 | 4,804 | 656,815 |
| 1996 | 340,594 | 32,882 | 0 | 0 | 24,000 | 397,476 |
| TOTAL | 906,685 | 79,360 | 1,364 | 352,533 | 50,747 | 1,390,689 |

(i) The RDC entered into a tourism contract with a commercial safari operator to develop horseback safaris based in the wildlife-rich Tingwa valley running through both the GDSL and MWA. Marketed internationally since 1994, this venture generates an annual fixed lease fee and percentage of gross turnover for Muzarabani.

(ii) Rather than manage the HQ campsite itself with limited resources, the RDC has undertaken a management contract with the local branch of the national Wildlife Society to handle the running and administration of this very attractive facility. The RDC retains a proportion of gross income based on occupancy rates and the Wildlife Society is developing additional facilities including an Environmental Education centre.

Safari hunting

Despite a very limited hunting quota, this option has nevertheless provided Muzarabani with the bulk of its wildlife revenue since 1993 (Table 3), largely derived from elephant. The elephants shot, however, are killed mostly in the Zambezi valley below the MWA in inhabited areas and where elephants are in conflict with farmers and their crops. A small proportion of the quota is taken in the MWA itself where hunting is confined to certain areas only, according to a zonation plan, so as to avoid conflict with the other tourism activities taking place. The hunting concession, renewable every three years, is tendered publicly and the negotiated tender price is based on a concession fee, and trophy fees at current market values for each of the species on the hunting quota.

Live animal sales

Restocking of farms and ranches, conservancies and communal lands elsewhere in Zimbabwe and the regions with commercially valuable species like sable antelope, has become an important wildlife management activity. The MWA has a healthy growing population of sable which has allowed Muzarabani the opportunity to enter this market. A 10% offtake of 30 animals captured and sold from an estimated population of 320 sable in 1995 realised Z\$352,533, an average of Z\$12,370 per animal. Earnings from this sale represented 53% of total wildlife revenue for 1995 (Table 3).

Bamboo sales

Wild bamboo, *Oxytenanthera abyssinica*, has a limited distribution in Zimbabwe, occurring mostly in the Zambezi escarpment. It is used to manufacture furniture and other artifacts and Muzarabani cuts and markets a sustainable offtake of 10,000 stakes annually, at Z\$1 per stake. Because the plant reputedly flowers once only in a lifetime and is extremely fire sensitive, its commercial value provides an incentive for its wise conservation and management.

The above income-generating projects are an extremely important focus of the CAMPFIRE programme, which to date have earned Muzarabani Z\$1,390,689 (Table 3). Linked to these projects, however, are a number of related activities which reflect investment in resource management by Muzarabani with no immediate tangible or material benefit. Nevertheless, in many cases, income generation provides an important incentive for such management. These activities include game guard patrolling, fire management and protection of the environment from small- and large-scale mining activities (the Great Dyke is a geological anomaly with chromium and platinum reserves). The most important activity in the present context of CAMPFIRE in Muzarabani has been the establishment of the District's elephant technical group.

Muzarabani elephant technical group

"Our communities do not hate elephants- they hate the problems they create". This statement by Ward Councillor Mushangwe at the first meeting of the Muzarabani Elephant Technical Group sub-committee of the RDC sums up local perspectives on elephants. Human-elephant interaction and conflict is of concern wherever elephants co-habit with people (Taylor 1994) and Muzarabani is no exception. The district's elephant technical group was set up to create short, medium and long term plans for managing elephants in Muzarabani through (i) problem identification and analysis; (ii) review of existing policies and management approaches and (iii) development and implementation of solutions. The vision of the group is "to protect and preserve the presence of elephants as a part of the communities' heritage and future, on condition that human life, property and croplands can be protected from elephant". A continuing series of facilitated, participatory workshops have produced a succinct description of the problem as articulated by the people of the district (Fig.9) and a set of objectives for elephant management in the district with an accompanying set of actions (Table 4).

These include a number of discrete but linked activities that seek to identify and understand the problems and thereafter put in place management action to minimise them.

Figure 9: - MUZARABANI DISTRICT - Elephant Technical Group

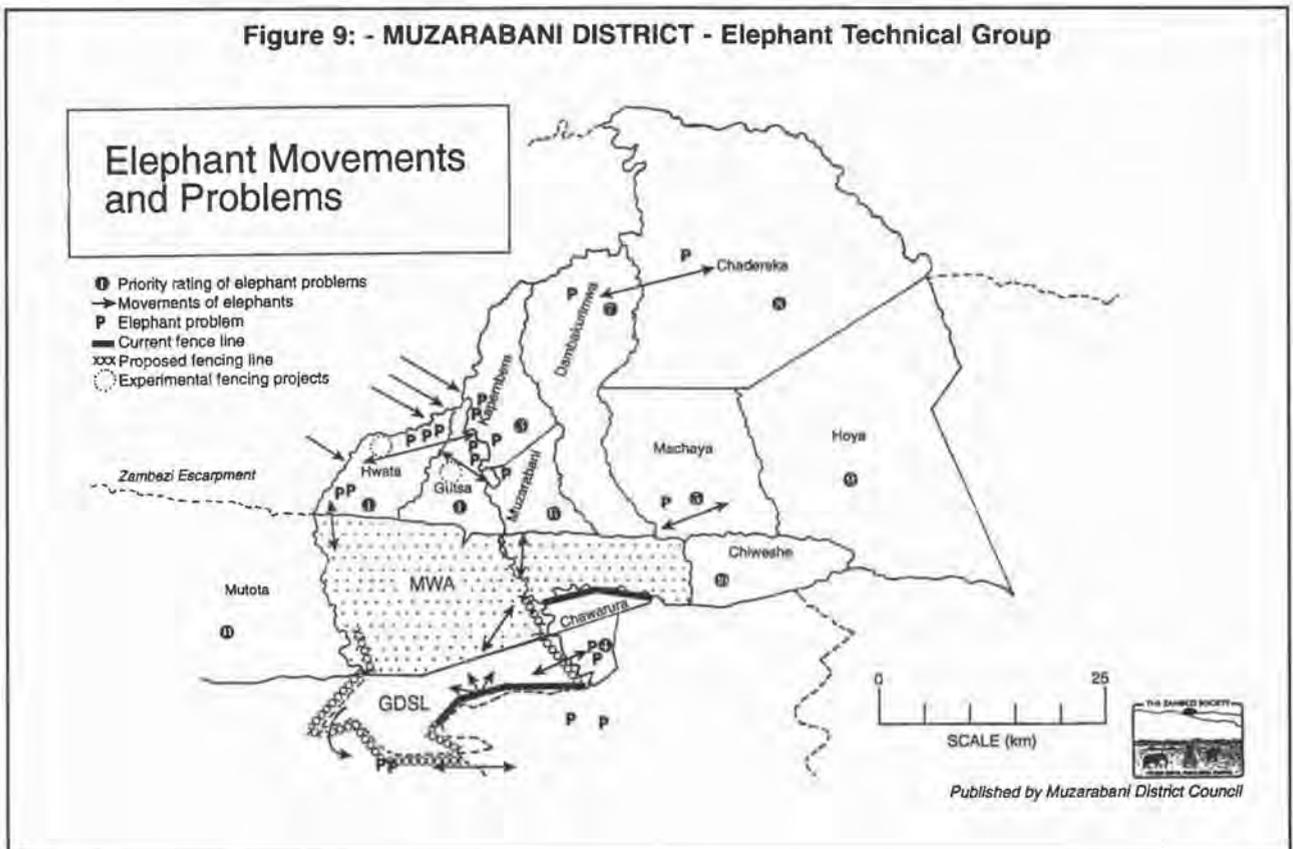


Table 4. Elephant management plan for Muzarabani District

| Objectives | Long term actions | Medium term actions | Short term actions | Problem/Issue |
|--|---|---|--|--|
| 1. Maintain control over resources | Improve existing "Appropriate Authority" legislation | Make proposals and apply pressure | Lobby and mobilise people for pressure | Threats and constraints to "Appropriate Authority" |
| 2. Integrate wildlife, especially elephant, into development planning | Include wildlife management in land use options | Investigate existing land use plans and ensure input to new land use plans | Liaise with CA & USAID on NRMP II in Muzarabani | Wildlife not included in land use plans |
| 3. Protect croplands and human habitation | Improve PAM system; selective electrified game fence construction | Improve PAR response Fencing according to ward priority | Improve PAR response Encircling fences for homes and fields | Response too slow Money for fencing |
| 4. Ensure elephant presence makes positive contribution to sustainable rural development | Implement elephant management plan | Increase income from elephant management & ensure transparency & accountability | Ensure information flow between all interest groups | Elephants seen as a problem |
| 5. Improve capacity building at grass roots level | CAMPFIRE Collaborative Group to train Ward Wildlife Committees | Develop training programme | Conduct needs assessment | Lack of capacity |
| 6. Increase knowledge of elephant resource | Support management plan with research results | Implement accepted research proposal; continue & improve monitoring systems | Synthesise existing knowledge and develop research proposal | Lack of knowledge |

Problem animal management to protect croplands and habitation (Objective 3 in Table 4) is broken down further in Table 5. The prescribed solutions revolve around the development of combined elephant management and land use plans, control of problem animals through shooting, the use of different fencing models (Hoare 1995) with which to deter elephant entry and trespass, the use of experimental non-lethal chemical deterrents (Osborn 1996) and improved problem animal reporting procedures (Anon. 1996).

Table 5. Action and implementation plans for problem animal management in Muzarabani District

| Problem | Action | Where | When | Responsible | Budget |
|--|---|--|----------------------|---|--|
| Land use planning does not provide for elephant | Combine & integrate elephant management plans with land use | Whole district | 1996 onwards | Agritex RDC, Wards | Donor funds |
| Crop raiding Property destruction Threat to human life | Shooting of trophy elephants | Prioritise worst affected areas in district | Commence March 1995 | Safari Operator MRDC | Safari Operator |
| | Disturbance &/or control shooting | Affected areas Gutsa & Whata | 1995/1996 Wet season | MRDC & DNP Wildlife Coordinator Safari Operator | Safari Operator PAC Contract Training Rifle & Ammo. |
| | Experimental use of non-lethal chemical deterrents | Prioritise affected areas e.g. Gutsa & Whata | 1995/1996 & onwards | MRDC WWC Osborn | Donor funds |
| | Experimental electric fencing | Mtangi A&B Msawi pilot sites | 1996/97 & onwards | MRDC Wildlife Coordinator Ward Councillor WWF Fence contractor | Zambezi Society and individual farmers |
| | Improved PAR system: reporting & response | All wards | 1996/97 & onwards | MRDC Wildlife Coordinator Ward Committees | MRDC wildlife revenue & Ward wildlife dividends |
| | Increased community awareness | All wards | 1996/97 & onwards | MRDC Wildlife Coordinator Ward Committees | MRDC wildlife revenue |
| | Prompt payment of ward &/or PAC dividends | All wards | 1996/97 & onwards | MRDC Wildlife Coordinator Ward Committees | MRDC wildlife revenue |

Importantly, increased knowledge (Objective 6) provides for a research and monitoring component. The objective is to understand better the seasonal distribution and movement of elephants in the district in relation to settlement and human-elephant interactions. This in turn will facilitate improved planning and management of land and elephants, both in the MWA and the district as a whole. This exercise has now been funded and is currently being undertaken by a local conservation NGO.

CONCLUSION

Recognition of the widest possible set of socio-economic needs of rural communities in relation to natural resources, and endeavouring to meet those needs, offers the best opportunity for conserving wildlands, their natural resources and the wilderness values associated with them. By so doing, the total economic value of wildlands (Table 2) is being realised. Importantly, direct use value provides immediate and tangible benefits

and such use should precede other more indirect uses. Once these are benefiting people, indirect value should follow unimpaired because the direct uses ensure their integrity is maintained. Of course, this assumes such use is sustainable, but in many cases where access rights and ownership have not been returned to people, over-use and resource degradation is inevitable. Site specific conditions will determine whether restoration of existence value is immediate or likely to take longer.

In Zimbabwe's CAMPFIRE districts, as opposed to the protected area network, the direct value options are mostly all attainable or are in place as shown in the 12 primary wildlife districts. The relatively large size of the wildlife producer wards, ca. 3,000 km², allows most indirect value options such as ecological processes and catchment protection to function normally and option value such as future use has great importance amongst local communities when faced with alternative land uses, such as Muzarabani. Existence value options, as with indirect value, are well catered for in CAMPFIRE, in particular cultural value, often previously denied local people, especially in protected areas. Importantly, the possibility of achieving the total economic value of wilderness is improved through community based natural resource programmes such as CAMPFIRE. Use of a rudimentary methodology, which still requires further refinement, has endeavoured to demonstrate that economic and financial incentives are important to both collective and individual efforts to manage natural resources. Such management can contribute to the maintenance of wildlife populations, wildland and its associated wilderness values. In addition, the existence and indirect value of adjacent core protected areas is greatly enhanced.

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F.l.t.r: Maggie O. Bryant, Tim Towell, Jim Walters

(Photo: Dirk Heinrich)

WILDERNESS MANAGEMENT IN KWAZULU-NATAL

Drummond Densham

KwaZulu-Natal Nature Conservation Service – formerly Natal Parks Board

INTRODUCTION

Wilderness conservation on the continent of Africa and in South Africa had its beginnings in KwaZulu-Natal. The Natal Parks Board set aside the first wilderness area in Zululand in 1955. Since this time, additional areas have been proclaimed or zoned administratively throughout the Province by various Government agencies.

Wilderness management is directed by policies or as an integral part of the reserve management programme in which the wilderness area is located. The Umfolozi Wilderness is the exception as it has a comprehensive management plan. There are three Authorities in the Province with custodianship of wilderness areas, each with different sets of legislation under which wilderness areas are administered and only those in the State Forests are proclaimed. This has resulted in a number of different approaches to wilderness management in the Province.

HISTORICAL PERSPECTIVE

Wilderness conservation in KwaZulu-Natal began when the Natal Parks Board designated the Zululand wilderness areas in the late 1950's. The Lake St. Lucia Wilderness area of 5 000 ha. was proclaimed in 1955 (Provincial Notice 331/1955), however, this legislative protection was removed during a major revision of the Natal Nature Conservation Ordinance in 1974. It was retained as a wilderness zone and the Tewate area on the Eastern Shores of the Lake was added to the zone. The Umfolozi Wilderness Area was administratively set aside in 1958, and has been expanded to double the original size. A wilderness zone was set aside, administratively, in the Mkuzi Game Reserve in the 1970's.

The Department of Forestry proclaimed the Drakensberg Wilderness Areas when they amended the Forest Act with the first two areas being promulgated in 1973, and these were followed by the proclamation of additional areas. The Drakensberg game reserves are located adjacent to these State Forests but were not included as part of the proclaimed wilderness areas. However, a co-operative policy statement for the management of the Drakensberg game reserves and State Forests was drawn up between the Natal Parks Board and the then Forestry staff. Today, the KwaZulu-Natal Nature Conservation Service, with devolution of the State Forests to the Provinces in 1986, manage these game reserves and the State Forests known as the Natal Drakensberg Park.

Wilderness zones in the Tembe Elephant Reserve and coastal forest reserves were set aside by the KwaZulu Department of Nature Conservation in the 1980's.

WILDERNESS POLICY AND LEGISLATION

In 1994, South Africa recognised Wilderness Area as a separate category in the South African classification of terrestrial and marine protected areas (RSA Government Notice No. 449 of 1994) which was based on the IUCN system. There is also a South African definition of wilderness in the policy document (see Appendix 1). Wilderness Area is classified under Category I of Reserves, Scientific Reserves, and Wilderness Areas. Category II lists Reserves, National Parks, and Equivalent Reserves which, by definition, can contain wilderness zones.

At present, there is no single policy or legislative protection for the wilderness areas in KwaZulu-Natal as there are three separate pieces of legislation under which wilderness areas in the Province are administered. These are the Forest Act (No. 122 of 1984), KwaZulu Nature Conservation Act (No. 6 of 1992) and the Natal Nature Conservation Ordinance (No. 15 of 1974). This lack of unity is being addressed in two ways. Firstly, a new Nature Conservation Act is being prepared as part of the process to amalgamate the three Nature Conservation Agencies into a single Authority, to administer the nature conservation resources in the Province. (*this has since happened, resulting in the KwaZulu-Natal Nature Conservation Service: Ed.*) There are procedures to ensure the Province's wilderness areas will receive legal protection in this Act. Secondly, there is a rationalisation exercise currently underway at a National level by the Department of Forestry. All primary conservation areas under the control of the Department in State Forests are being identified and will be devolved to the Province's nature conservation Authority and will then be proclaimed in terms of the new legislation.

Besides the Provincial initiatives, there is a move to have wilderness proclaimed at a National level. Professor P.D. Glavovic of the Law Faculty of the University of Natal, has prepared a proposed National Wilderness Act. There is a growing opinion that, as wilderness is so important to South Africa, it should be given the highest legal protection at a national level. The involvement of the public in the administration of the wilderness areas is also proposed.

CURRENT STATUS OF WILDERNESS AREAS IN KWAZULU-NATAL

There are five proclaimed wildernesses, five administrative wilderness zoned areas (Table 1, Map 1), and three candidate wilderness areas which have been identified to be proclaimed as wilderness areas (Table 2, Map 1).

Table 1: 1996 status of KwaZulu-Natal wilderness areas

| Wilderness Locality | Area (ha) | Authority | Status |
|------------------------------|----------------|------------------------------|----------------|
| Mlambonya, Drakensberg | 6 344 | Natal Parks Board | Proclaimed |
| Mdedelelo, Drakensberg | 27 000 | Natal Parks Board | Proclaimed |
| Mzimkulu, Drakensberg | 28 340 | Natal Parks Board | Proclaimed |
| Mkhomazi, Drakensberg | 56 190 | Natal Parks Board | Proclaimed |
| Ntendeka, Ngome State Forest | 5 230 | Dept. of Forestry | Proclaimed |
| Subtotal | 123 104 | | |
| Umfolozi, Zululand | 25 000 | Natal Parks Board | Administrative |
| Lake St. Lucia, Zululand | 5 000 | Natal Parks Board | Administrative |
| Mkuzi, Zululand | 5 000 | Natal Parks Board | Administrative |
| Mont-aux-Sources | 4 000 | Dept. of Nature Conservation | Administrative |
| Tembe Elephant Reserve | 15 000 | Dept. of Nature Conservation | Administrative |
| Subtotal | 54 000 | | |
| TOTAL | 177 104 | | |

Table 2: Candidate wilderness areas Kwa-Zulu-Natal in 1996

| Wilderness Locality | Area (ha) | Authority | Present Status |
|---------------------|---------------|-------------------|--------------------------|
| Tewate, Zululand | 9 539 | Natal Parks Board | Cape Vidal State Forest |
| Sodwana, Zululand | 10 000 | Natal Parks Board | Sodwana State Forest |
| Marine Sanctuary | 11 000 | Natal Parks Board | St. Lucia Marine Reserve |
| TOTAL | 30 539 | | |

There are wilderness zones in the Maputaland Coastal Forest Reserve which have not been included, as there is a reserve management zonation planning initiative in process at present (Pers.comm. W. Elliott, DNC). There are additional areas in the Drakensberg which can be added to the existing wilderness areas.

The KwaZulu-Natal wilderness areas are small compared to those found elsewhere in Africa, and they do represent a very valuable suite of wildernesses protecting the resources of solitude and an unchanged landscape for spiritual and mental rejuvenation. The total area under wilderness management is 207 641 ha, which is 24 % of the Province's formal protected area estate, 2.25 % of the Province land area.

WILDERNESS MANAGEMENT IN KWAZULU-NATAL

Unfortunately, there is no common approach to wilderness management in KwaZulu-Natal.

There is general acceptance of the principle of a natural process-based management strategy for protected areas. This allows the natural processes to operate with minimal interference. It is only when components of these processes are absent will management be contemplated. This is usually to re-instate the process where possible or to simulate its effects. This approach is applied to the management of all the wilderness areas.

Zululand Reserves

When the Zululand wildernesses were set aside in the 1950's, access was restricted to "rangers on foot, horseback or canoe" in respect of the Lake St Lucia Wilderness. The only exception to this rule was the rhino

capture team whom they allowed to remove rhinos. In the absence of specific wilderness management directives, the early rules were soon disregarded and motorised access by management into these wilderness areas became standard practice. It was only in 1984 that the Natal Parks Board adopted a specific wilderness management policy. This policy imposed constraints on how the wilderness areas are managed and used. It effectively prevents reserve staff taking management action which is in conflict with the wilderness ideals. The motorised access into the areas was removed, except in cases of an emergency or the reintroduction of specific animal species, and the tracks reclaimed.

The cleared ground census transects were allowed to rehabilitate as these had become almost permanent lines through the areas and aerial censuses are now used. Capture operations are carried out using very much more expensive helicopter capture techniques which involve the darting and removal of live rhinos by using helicopters only.

The harvesting of natural resources such as reeds and thatch grass, by local people, is limited to the boundary zones.

Visitors are only permitted to enter the wilderness area under the supervision of a trail guide. There are overnight trail camps located in the wilderness area which are used by trail parties. The use of these camps is carefully monitored and, where the impact is unacceptable, the camps are closed for a period of time to allow for recovery.

In 1995, the Board adopted a comprehensive wilderness management plan for the Umfolozi Wilderness zone based on the American wilderness zonation and management criteria. All management decisions are based on wilderness dependant actions and the use of the "minimum tool" principle. The wilderness area is planned with three zones each with a specific definition. They are pristine, primitive and semi-primitive (non-motorised). The extent or intensity of management and use of each zone is prescribed. The primitive zone on one end of the spectrum allows no camping or overnighing where management actions are strictly controlled. The semi-primitive zone on the other end is less prescriptive. This plan may be the model on which the preparation of specific management plans for all the wilderness areas in KwaZulu-Natal will be based.

Drakensberg Reserves

The Drakensberg wilderness areas are managed in respect of the 1976 Drakensberg Policy and the various reserves' management plans. This Policy focuses on types of development which are permissible in the various biophysical zones. There is no access by vehicle permitted except in cases of an emergency. The management of areas such as fire burning is carried out in respect of specific management prescriptions. The monitoring of the visitors and their use of the caves has been ongoing for a number of years where regular surveys of the popular trails and overnight spots are undertaken. If unacceptable signs of over-use is detected, steps are taken to limit the use of the trail and caves are closed to allow them to recover. The Drakensberg is currently being zoned using the Recreation and Wilderness Opportunity Spectrums to allow a more consistent approach to the management of the visitor impact on the wilderness areas. The fixed wing and helicopter traffic over the wilderness areas has increased in recent times. This is causing concern in a number of circles as these flights reduce the quality of the wilderness resource. These flights will need to be curtailed to essential work only with flight paths to avoid the wilderness areas.

The Department of Nature Conservation have no specific management plan for their wilderness zone in the Drakensberg (Pers.comm. W. Elliott, DNC – *at the time of writing: 1996*).

Future Management

A good understanding of the wilderness, the resource and its values with a clear definition of wilderness is essential before any management strategy can be developed. These two components will form the base which managers will need when dilemmas in wilderness management arise and decisions and actions are required. If the definition is also included in legislation, it will add a legal base which will bind both managers and visitors. South Africa has a definition of wilderness as a result of its inclusion in the classification of protected areas.

There are elements of these in the various plans, policies and guideline documents in KwaZulu-Natal. However, there is a general lack of understanding among managers of how to manage wilderness areas which is responsible for the different approaches to management issues. This is due to the fact that there is no single wilderness directive. The fact that there are three agencies involved in administering wilderness areas in the Province adds to this inconsistent approach. (*pre-amalgamation comment: Ed.*)

The varying approaches to wilderness management in the Province must be addressed urgently. The pressures already being experienced with growing numbers of visitors to the reserves and wilderness areas, escalating demands for natural resource harvesting and a drive to provide additional eco-tourism facilities both within and outside the Parks, as part of the rural economic development programmes, make it imperative to prepare plans. Comprehensive management plans are imperative if the quality of the wilderness resource and values are to be preserved. They will need to be developed within a framework of a consultative process in order to gain the acceptance of managers, local communities and interested parties. Wilderness areas will not survive in the true sense without this support.

Specialist skills will be required to equip the managers to do the job, with training being an important component in the management of wilderness areas. This will help the manager to be able to take the best course of action and greatly help in a consistent approach to their management. This training has been available in KwaZulu-Natal since 1990 due to the efforts of the Wilderness Action Group. Similarly the efforts of the field wilderness manager must be supported by staff who have a good understanding of the wilderness principles and ethic at all levels of the organisation charged with the custodianship of these areas.

ROLE OF NON-GOVERNMENT ORGANISATIONS IN WILDERNESS CONSERVATION

The role of non-government organisations in the conservation of wilderness in KwaZulu-Natal cannot be underestimated.

The Wilderness Leadership School, founded by Dr Ian Player in 1962, was the first wilderness-orientated NGO in South Africa and was established in Natal. The School has done a tremendous amount of work in developing a wilderness understanding and land ethic and it is at the forefront of wilderness conservation and education.

The Wilderness Foundation, again founded by Dr Ian Player, gives financial support to the Wilderness Leadership School and it is also involved in wilderness conservation by enlisting public support for the values of wilderness.

The Wilderness Action Group was formed at the Third World Wilderness Congress in Scotland in 1986 and is KwaZulu-Natal based. The Group has a number of concerned professional people from the legal and business sectors, Wilderness Leadership School, University and formal conservation organisations. The aim of the Group is to foster wilderness conservation in Southern Africa.

These NGOs have played a significant role in wilderness conservation and education in South Africa. Their continued participation will be vital in the promotion of true wilderness to all levels of society. The formal conservation organisation will need the support of the public in their custodianship of the wilderness areas.

CONCLUSION

Wilderness conservation in Africa began in KwaZulu-Natal with the first areas being designated in the late 1950s followed by the proclamation or designation of present wilderness areas. The management is based on the policies and legislation of three controlling Authorities, which has resulted in a varying approach to their management. There are steps being taken to create a single Nature Conservation Authority for the Province and place the wilderness areas under one set of legislation in order to achieve a co-ordinated management approach. In addition there is a move to ensure that wilderness is given National status with a proposed National Wilderness Act.

Wilderness management plans based on internationally acceptable principles are urgently needed to ensure that these areas are managed consistently and preserve the quality and the resource. In the preparation of these plans it will be essential that a consultative process is used to involve all interested parties. They need to be working documents which are regularly updated. Training at all organisational levels will be essential to develop understanding and support for wilderness and the staff who work in them.

The first NGO, the Wilderness Leadership School, was established in the Province shortly after the first wilderness area was designated. This has led to further areas and NGO's being established in KwaZulu-Natal. Their most valuable role will be in the support for the formal Conservation Authority in their custodianship of the wilderness areas.

ACKNOWLEDGEMENTS

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APPENDIX I

SOUTH AFRICA'S DEFINITION OF WILDERNESS

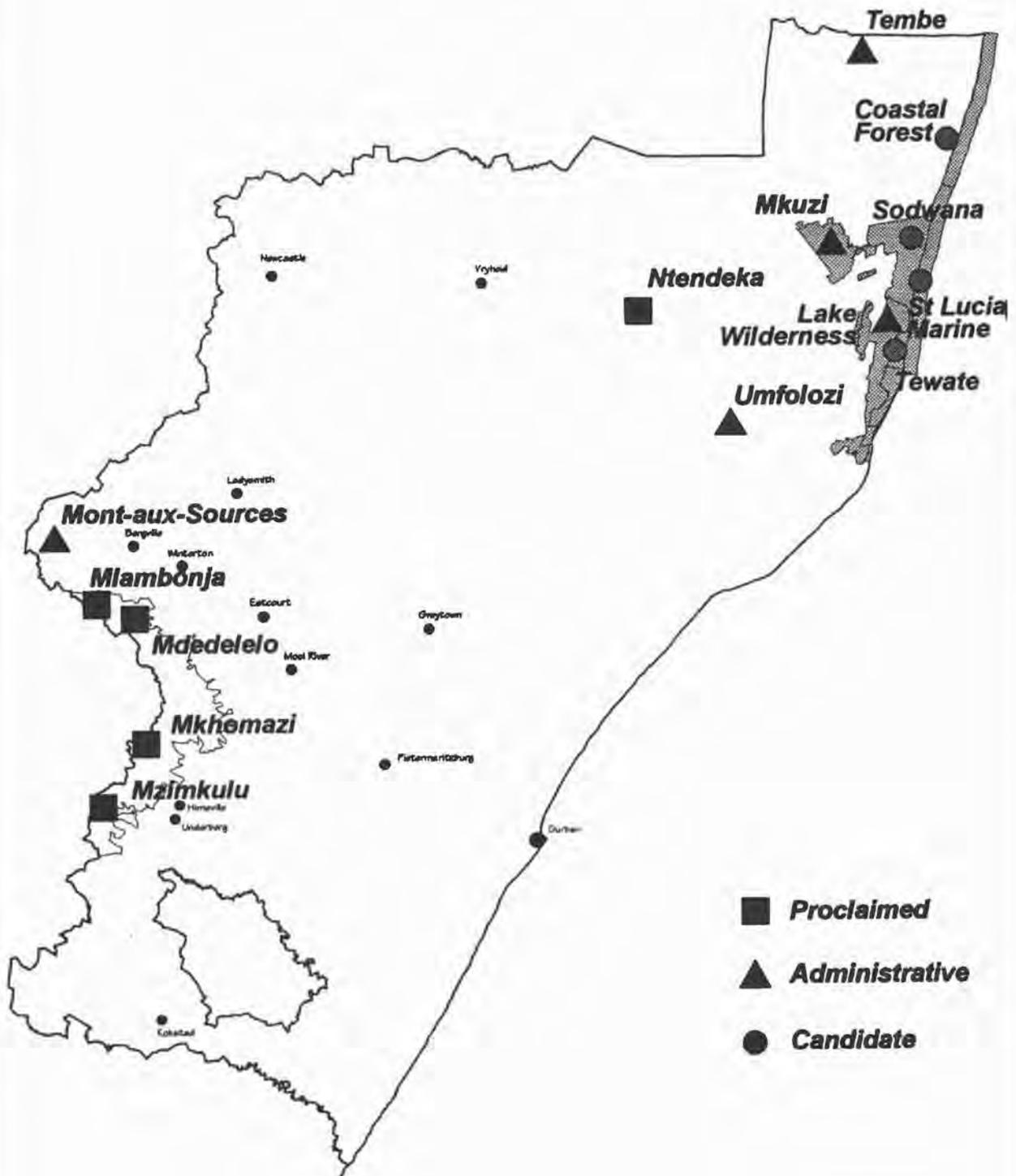
According to the recent Department of Environment Affairs policy on the classification of protected areas (gazetted in May 1994), wilderness areas are included under Category 1: Scientific Reserves and Wilderness Areas. The following definition is given:

"Wilderness is an enduring natural area protected by legislation and of sufficient size to protect the pristine natural environment which serves physical and spiritual well-being. Wilderness is an area where little or no persistent evidence of human intrusion is permitted, so that natural processes will take place largely unaffected by human intervention. Wilderness areas stress non-mechanised access. As pristine natural areas, they should be established to ensure that future generations will have an opportunity to seek understanding in largely undisturbed areas."

The criteria for selection and management of these areas are as follows:

- * An undeveloped area, presently uninhabited by man and retaining an intrinsically wild appearance and character or capable of being restored to such a condition.
- * It must be of sufficient size to protect the wilderness character and provide the wilderness experience, and should be physically and visually separated, preferable by areas of other conservation status, from surrounding areas of development and habitation.
- * It is managed by a nationally recognised authority.
- * Preservation of the natural environment and wilderness character will be the highest management priority.
- * Controlled access for visitors seeking the wilderness experience in a natural environment in strict accordance with the natural carrying capacity of the area.
(Council for the Environment, 1993).

Map 1. Location of the Kwazulu-Natal Wilderness Area



WILDERNESS MANAGEMENT IN THE EASTERN CAPE

Japie D. Buckle

Nature Conservation Scientist, Eastern Cape Nature Conservation

OVERVIEW OF WILDERNESS AREAS IN THE EASTERN CAPE

Existing Wilderness Areas in the Eastern Cape

There are only two wilderness areas in the Eastern Cape Province. Both of them are located in the Cape Folded Mountain Belt in the south west corner of the Province. They are:

| <u>Name</u> | <u>Size (ha)</u> |
|-------------------------------|-------------------|
| Baviaanskloof Wilderness Area | 174 000 |
| Groendal Wilderness Area | 30 000 |
| Total | 204 000 ha |

These two areas comprises 36% of the area under formal conservation in the Eastern Cape and 1.253% of the total area of the Eastern Cape. Groendal Wilderness Area is close to the Port Elizabeth metropolitan area whereas Baviaanskloof is in a relatively remote locality.

There are however many other scenic, unspoiled and often isolated areas in the Eastern Cape that qualify for wilderness status. Examples of such areas can be found along the Wild Coast, Southern Drakensberg in the North East Cape and the Karoo interior (semi desert). Most of these areas are privately owned and therefore difficult to declare as wilderness.

Historical overview

Both the Baviaanskloof and Groendal wilderness areas were State Forest Land, managed as Mountain Catchment areas by the former Department of Forestry. Because these areas were too rugged and inaccessible for development or afforestation they qualified as wilderness by default. Groendal has been declared as a wilderness area under the South African Forest Act which at present is the only Act making provision for the declaration of wilderness areas. Baviaanskloof is not a legally declared wilderness but has been managed as such since 1985. Management of these areas was handed over to Cape Nature Conservation in 1987 and they are presently managed by Eastern Cape Nature Conservation (since 1994) as part of the network of conservation areas in the Eastern Cape Province of the Republic of South Africa.

Development of management plans for wilderness areas

Management plans were developed and produced for both wilderness areas in the last four years. The planning process used, played a major role in the way that these areas are managed at present. The process also helped with the acceptance of the wilderness concept as a valuable land use option by top management and even the public. This planning process might be of value to countries that plan to introduce the wilderness concept for the first time.

Planning committees were appointed consisting of the relevant wilderness managers, scientists, line managers and other role players. The planning process was coordinated by a scientist who also had the responsibility of drafting the final management plan. The process took a long time (meetings and consultations) but the end product is proof that it works well. Public participation in finalizing the plan was sought, but this was not very successful. After completion of the management plans the planning committee for each wilderness area was substituted with a management committee which is responsible for the implementation of the management plan. Management plans are seen as working documents and are subject to review and change as circumstances dictate.

All managers and scientists involved with wilderness management in the Eastern Cape had been on both the introductory and advanced Wilderness Management Courses initiated by the Wilderness Action Group and presented by Paul Weingart and others. These courses helped a great deal in developing an understanding of the philosophy behind the wilderness concept and the solving of typical wilderness management problems. It

is imperative that the momentum of building a wilderness culture in the Eastern Cape Province is maintained. We continue to gain from the experience of our colleagues in the USA who have been managing wilderness areas for decades, but if we are to be successful we need to develop a wilderness culture that will be understood and accepted by the majority of our people and be uniquely African.

MANAGING WILDERNESS IN THE EASTERN CAPE: PROBLEMS AND SOLUTIONS

Inadequate public and political support for wilderness

Relatively few people utilize the wilderness areas in the Eastern Cape and not many of them understand what wilderness is all about. The South African public at large lacks a true wilderness culture and this is manifested in the patterns of use and problems associated with public utilization of our wilderness areas. This also leads to a lack of public support when the integrity of wilderness areas are threatened (possibility of cattle grazing, transgression by livestock of neighbors, uses not conforming to wilderness principles etc.).

More significantly due to public expectations relating to housing, health and education, political leaders at both provincial and national level place the natural environment and conservation very low on their priority list. Few of these leaders are aware, understand or even care about a wilderness area or a wilderness concept. The fact that there is no Wilderness Act in South Africa bears testimony to this and a great deal more lobbying amongst our politicians is still necessary.

Solutions:

One way of addressing lack of public support is by starting a Friends Group for a wilderness. In the Eastern Cape the Friends of Groendal (FROG) is already in operation and plans are on the way to get a similar support group for the Baviaanskloof.

The Wilderness Leadership School (WLS) took it on their shoulders to introduce the wilderness concept to national and provincial political leaders by taking them on trails in wilderness areas. The WLS is also actively involved in introducing the wilderness to teachers and youth. Groups of eight are taken out into wilderness areas for three or five days. These wilderness trails help promote an understanding of wilderness and certainly help to build up a support base for the protection of wilderness areas.

Problems associated with isolation

The people involved with wilderness management in the Eastern Cape feel isolated from wilderness managers in the rest of South Africa and the world. The general feeling is that there is not enough contact and interaction between wilderness proponents and that everybody is working in a vacuum. This is aggravated by the new provincial dispensation where every conservation agency and organization is only concerned about its own problems.

Solutions:

We need to stand together in southern Africa to ensure that wilderness areas be recognized as an important conservation category and that appropriate areas are set aside for this purpose. Regional Wilderness Symposia, such as this, can help a great deal to improve interaction between the different conservation organizations involved with wilderness management.

A system of Sister Wilderness Areas in different provinces and countries would also allow for the exchange of wilderness managers/scientists and in so doing provide greater exposure and cross pollination of ideas.

Problems associated with utilization

Despite the fact that wilderness areas have a low human carrying capacity, those in the Eastern Cape are underutilized. The utilization that does take place tends to be concentrated to a small proportion of the available area. These popular areas share certain characteristics. These may include accessibility, availability of water (for drinking and swimming), aesthetic appeal, ease of walking etc.

Those making use of wilderness areas tend to come from a particular sector of society (middle income bracket). In other words, wilderness areas do not at present have a broad appeal in the Eastern Cape.

There is pressure from certain special interest groups with activities that are incompatible with the wilderness concept such as four-wheel clubs, mountain bikers and power boats for access to these areas.

Solutions:

Sufficient attention to marketing the wilderness experience will bring the presence of wilderness areas to the attention of more people. In addition to increasing the utilization of these areas, a range of marketing strategies will help exposure to a broader social spectrum.

The production of maps and information brochures has made a significant contribution to the marketing of wilderness areas in the Eastern Cape. Firstly they provided exposure to the fact that these wilderness areas exist and secondly improve peoples confidence in utilizing these areas. This contributes to a more even spread of utilization over the entire wilderness area.

The development of multiple trailheads will enhance the even use of a wilderness area as well as providing opportunities for distribution of information (signboards).

A further means of achieving even use especially of the more remote areas, is to make use of horse trails. Horses provide a range of opportunities such as access to wilderness areas for the non-hikers.

By applying the Recreation Opportunity Spectrum (ROS) system areas have been zoned outside the real wilderness for the incompatible special interest groups.

Problems associated with uneducated wilderness users

The public in general do not appreciate the unique qualities of wilderness areas. This leads to the inappropriate use of wilderness areas. This is compounded by a general lack of consideration for general conservation and environmental ethics. Problems experienced include littering, disturbing animals, destruction of vegetation (breaking of branches), acting like they own the place and a lack of consideration towards other users.

Solutions:

The cultivation of a "Leave No Trace" or minimum impact ethic amongst all users of wilderness starts with the appropriate information included in maps and permits. However presentations to the different user groups provide an opportunity for more specific education on this topic.

Making wilderness areas available to educational groups such as the Wilderness Leadership School also contributes to the development of a "Leave No Trace" culture.

Problems associated with managing wilderness as a resource

Given that wilderness areas are to be maintain in as pristine a state as possible, the presence of alien vegetation is of particular concern. The same is true of the presence of existing man-made infrastructure such as roads and buildings.

Wilderness areas are not isolated from their immediate environs. Incompatible land use adjacent to these areas has a negative influence, for example pressure from overgrazed commonage bordering Groendal had led to calls for the opening of portions of this wilderness area to livestock grazing.

The presence of privately owned land inside wilderness areas has proven incompatible with the character and management of a wilderness area.

Solutions:

In the Eastern Cape the removal of alien vegetation is being undertaken as part of a Reconstruction and Development Program (RDP) project. This project aims to get rid of all the exotic vegetation in these catchment areas and is proving to be successful.

The removal and rehabilitation of alien vegetation and undesirable infrastructure must be carried out according to the minimum tool principle.

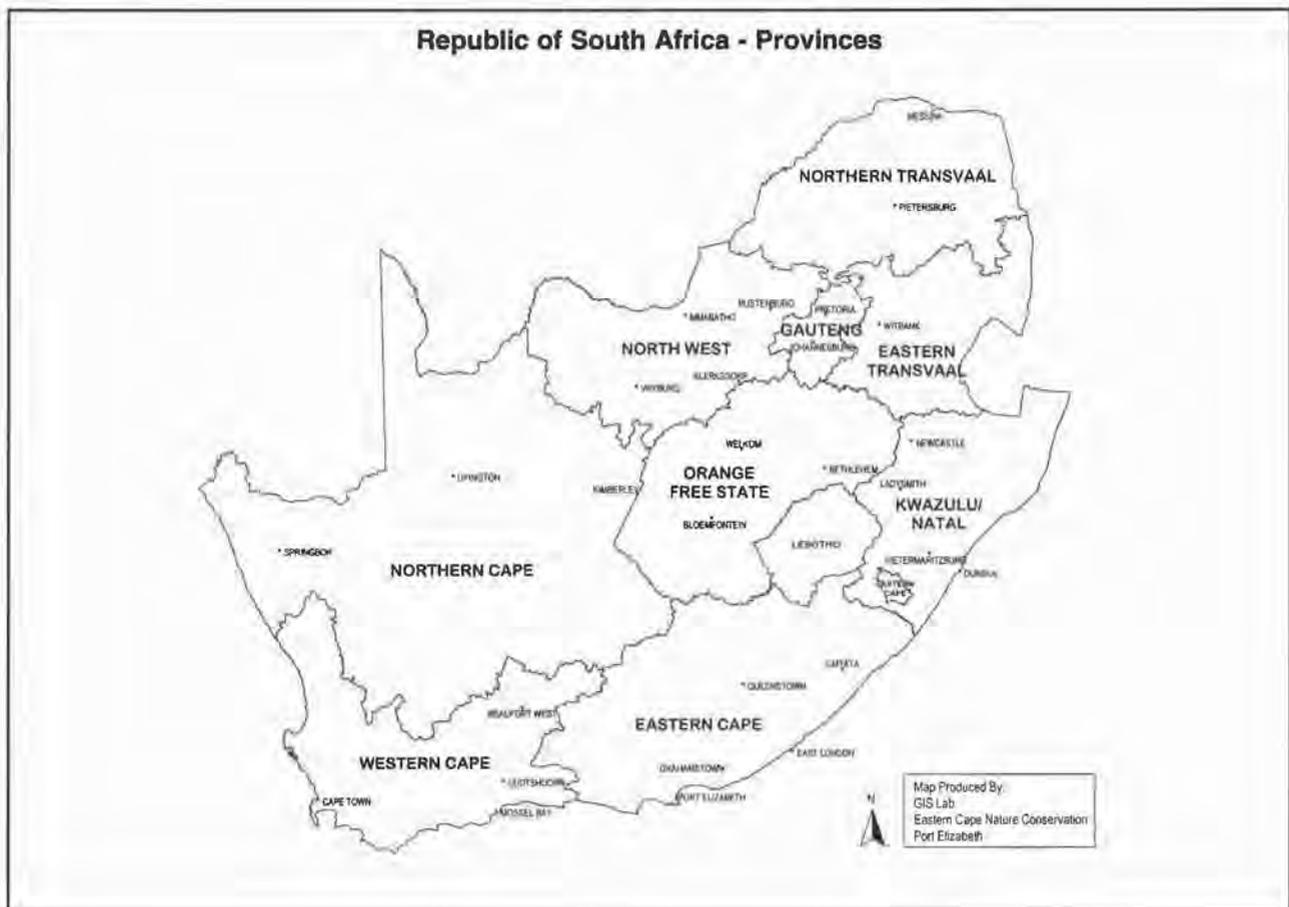
CONCLUSION

The management of wilderness areas in the Eastern Cape Province has evolved to the point where these areas have good management plans and well informed and trained managers. The short term priority in the Eastern Cape is to improve the utilization of these areas and in the medium to long term to identify and develop additional wilderness areas in the Eastern Cape. At the same time public and political support must be generated for the wilderness concept which is to be reflected in provincial and national wilderness legislation.

ACKNOWLEDGMENTS

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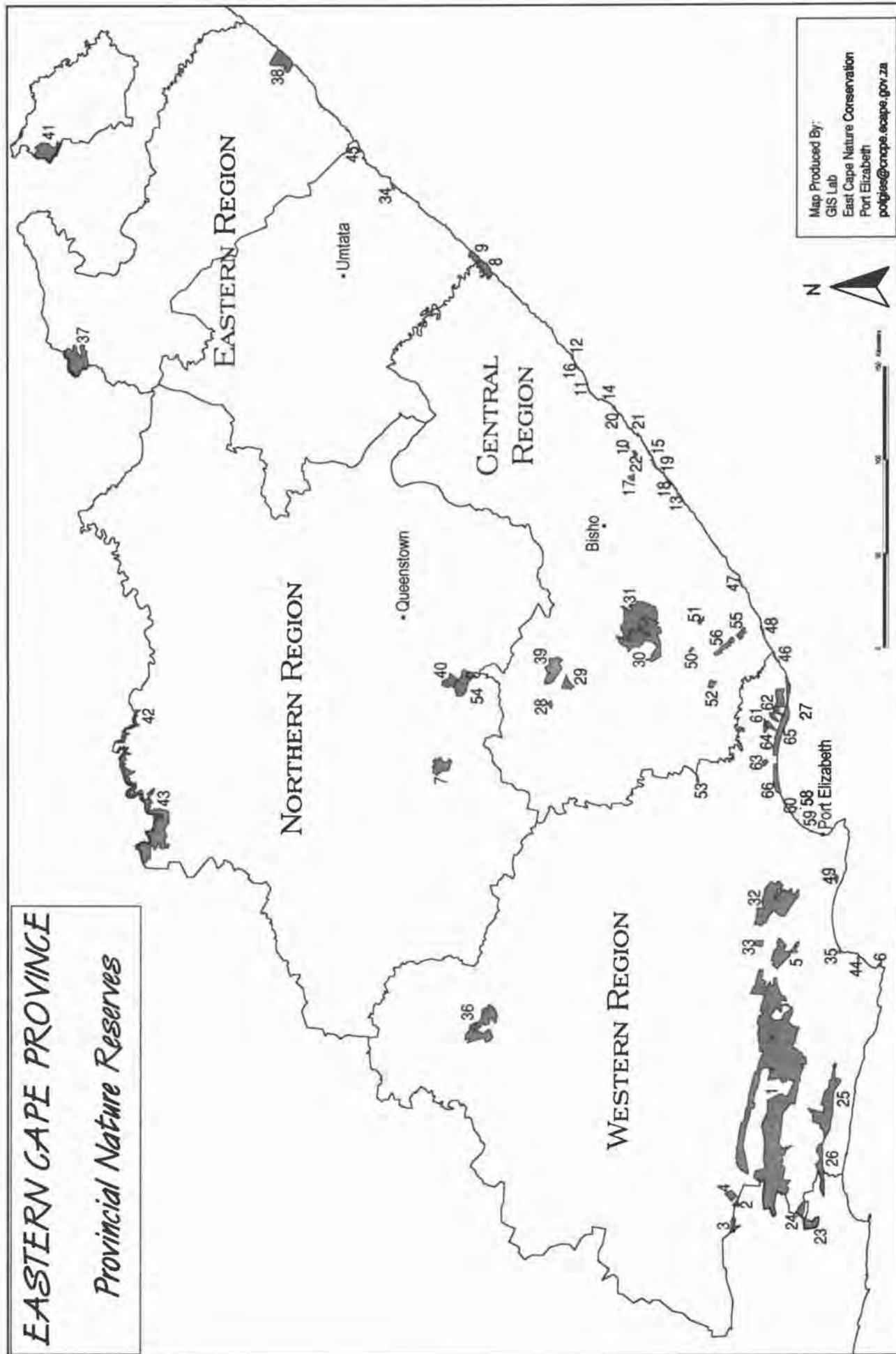


| No. | Component Name | Reserve Name |
|-----|---|---|
| 1 | Baviaanskloof | Baviaanskloof Wilderness Area |
| 2 | Baviaanskloof – Misgund | Baviaanskloof Wilderness Area |
| 3 | Baviaanskloof – Skilpadbeen | Baviaanskloof Wilderness Area |
| 4 | Baviaanskloof - Welbedacht | Baviaanskloof Wilderness Area |
| 5 | Stinkhout – Welbedacht | Baviaanskloof Wilderness Area |
| 6 | Cape St. Francis NR | Cape St. Francis NR |
| 7 | Commando Drift NR | Commando Drift NR |
| 8 | Dwesa Wildlife Reserve and Marine Sanctuary | Dwesa-Cwebe Wildlife Reserve and Marine Sanctuary |
| 9 | Cwebe Wildlife Reserve and Marine Sanctuary | Dwesa-Cwebe Wildlife Reserve and Marine Sanctuary |
| 10 | Amalinda NR | East London Coast NR |

| | | |
|----|--|--|
| 11 | Cape Henderson | East London Coast NR |
| 12 | Cape Morgan SF | East London Coast NR |
| 13 | Chalumna | East London Coast NR |
| 14 | Cintsa West | East London Coast NR |
| 15 | Cove Rock/Gulu | East London Coast NR |
| 16 | Double Mouth | East London Coast NR |
| 17 | Fort Pato NR | East London Coast NR |
| 18 | Kayser's Beach | East London Coast NR |
| 19 | Kidd's Beach | East London Coast NR |
| 20 | Kwelera | East London Coast NR |
| 21 | Nahoon | East London Coast NR |
| 22 | Umtiza NR | East London Coast NR |
| 23 | Klein Palmiet Rivier | Formosa NR |
| 24 | Niekerks Berg | Formosa NR |
| 25 | Tsitsikamma East | Formosa NR |
| 26 | Tsitsikamma West | Formosa NR |
| 27 | Bird Island | Woody Cape Nature Reserve |
| 28 | Bosnek Outspan | Fort Fordyce NR |
| 29 | Fort Fordyce SF | Fort Fordyce NR |
| 30 | Andries Vosloo Kudu and Sam Knott NR | Great Fish River NR |
| 31 | Doubledrift NR | Great Fish River NR |
| 32 | Groendal Wilderness Area | Groendal Wilderness Area |
| 33 | Mierhooplaat | Groendal Wilderness Area |
| 34 | Hluleka Wildlife Reserve and Marine | Hluleka Wildlife Reserve and Marine Sanctuary |
| 35 | Kabeljousriver NR | Kabeljousriver NR |
| 36 | Karoo NR | Karoo NR |
| 37 | Malekgonyane (Ongeluksnek) Wildlife Reserve | Malekgonyane (Ongeluksnek) Wildlife Reserve |
| 38 | Mkambati Wildlife Reserve and Marine Sanctuary | Mkambati Wildlife Reserve and Marine Sanctuary |
| 39 | Mpofu NR | Mpofu NR |
| 40 | Nthabathemba Tribal Reserve | Nthabathemba Tribal Reserve |
| 41 | Ntsikeni Wildlife Reserve | Ntsikeni Wildlife Reserve |
| 42 | Oviston NR - East | Oviston NR |
| 43 | Oviston NR - West | Oviston NR |
| 44 | Seekoeiriver NR | Seekoeiriver NR |
| 45 | Silaka Wildlife Reserve | Silaka Wildlife Reserve |
| 46 | Kwaaihoek | Sunshine Coast NR |
| 47 | Sunshine Coast NR - East | Sunshine Coast NR |
| 48 | Sunshine Coast NR - West | Sunshine Coast NR |
| 49 | The Island NR | The Island NR |
| 50 | Beggar's Bush SF | Thomas Baines NR |
| 51 | Kap River SF | Thomas Baines NR |
| 52 | Thomas Baines NR | Thomas Baines NR |
| 53 | Tootabi SF | Thomas Baines NR |
| 54 | Tsolwana NR | Tsolwana NR |
| 55 | Waters Meeting I NR | Waters Meeting NR |
| 56 | Waters Meeting II NR | Waters Meeting NR |
| 58 | Brenton Island | Woody Cape NR |
| 59 | Jaheel Island | Woody Cape NR |
| 60 | St. Croix | Woody Cape NR |
| 61 | Boschhoek | Woody Cape NR |
| 62 | Boxwood | Woody Cape NR |
| 63 | Congoskraal | Woody Cape NR |
| 64 | San Soucie | Woody Cape NR |
| 65 | Woody Cape NR | Woody Cape NR |
| 66 | Woody Cape West | Woody Cape NR |

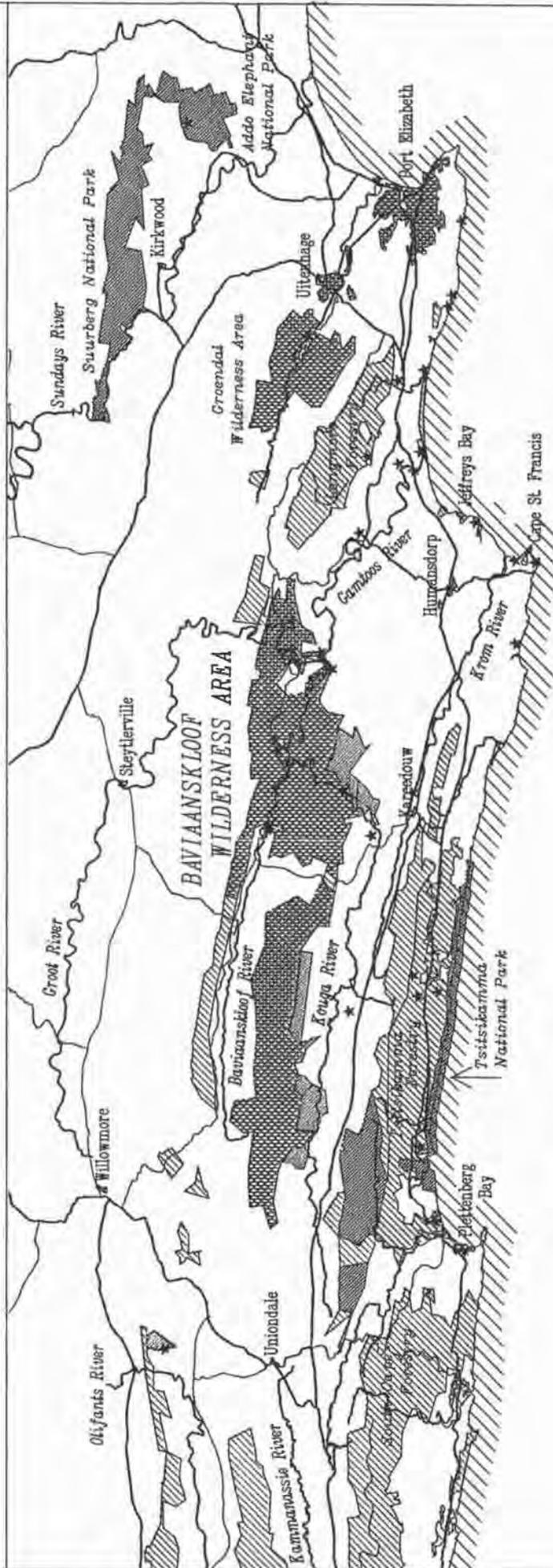
EASTERN CAPE PROVINCE

Provincial Nature Reserves



Map Produced By:
GIS Lab
East Cape Nature Conservation
Port Elizabeth
pot@ecncpe.ecape.gov.za

NATURE AREAS IN THE SOUTH EAST CAPE IN RELATION TO THE BAVIAANSKLOOF WILDERNESS AREA



INDIAN OCEAN

LEGEND

- Cape Nature Conservation - Nature Reserves
- Cape Nature Conservation - Wilderness Areas
- Urban Areas
- National Parks Board
- SAFCOL (Forestry)
- Private Nature Reserves
- N Main Roads
- N Minor Roads
- Tourist developments



CAPE NATURE CONSERVATION
Private Bag X 1126
PORT ELIZABETH 6000

Compiled by Cheryl de Lange 1984

Composite data derived and digitized from data on
1:250 000 map sheets: 3322 Oudtshoorn
3324 Port Elizabeth

Map reference code: buansa3.sml

ALDO LEOPOLD AND WILDERNESS

Gordon Stevenson
Aldo Leopold Foundation

To understand and apply the work of Aldo Leopold is to understand this:

"A thing is right which preserves the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise", (Leopold 1949). The Land Ethic is the enduring message contained in *A Sand County Almanac*, Leopold's seminal work published posthumously in 1949.

What does this seemingly simple message have to say to us in 1996? And in the particular case of wilderness, can it provide guidance to us now in answering some basic questions about wilderness?

As many know, Aldo Leopold is a difficult fellow to categorize. Until the late 1960's and 1970's, which some call the Environmental Awakening, he was best known as the father of game management, later to be called wildlife ecology. He published the first complete text on the subject, *Game Management*, in 1933, setting the direction for wildlife management in North America for several decades. This 63-year-old textbook remains in use today. By my count, Leopold had at least seven careers beyond wildlife manager. These were: forester, public policy maker, soil conservationist, ecologist, natural historian, university professor, and wilderness philosopher. All of these careers had bearing on his attitudes and actions on wilderness.

Leopold is now generally regarded as being among the major figures of the American environmental movement, having been preceded by the wilderness visionaries Henry David Thoreau and John Muir (Oelschlaeger, 1991). However, Leopold is also often placed in company with more utilitarian conservationists such as George Perkins Marsh, early American conservationist and Gifford Pinchot, the well-known American forester. While Thoreau and Muir found spiritual sustenance in wild nature, Pinchot and his practical-minded contemporaries found a more worldly cause: to conserve nature's resources because future generations may need to use them (Oelschlaeger, 1991).

In a larger sense, Leopold's presence within the Conservation Movement is often viewed as the bond between the economic and the ethereal or the utilitarian and the spiritual, seamlessly mending any perceived rift between the two camps. Among the three books, over 500 published and unpublished essays, reports and handbooks penned by Leopold stands a short volume called *A Sand County Almanac*. Published posthumously in 1949, one year after Leopold's death in a grass fire near his beloved "Shack" on the Wisconsin River, *A Sand County Almanac* is among the most articulate statements of the relationship between people and wild nature.

Throughout his multiple careers, he would return to questions about wilderness, ever refining his answers and discovering deeper human meaning for wilderness in the process.

His questions included: What is Wilderness? How much of it should we have? Does wilderness have value in our modern world? Leopold's answers to these questions would evolve over time. All of the answers remain not only useful, but vital.

In Leopold's lifetime, the intimate interaction between people and land on the North American continent was coming to an end. Leopold's life, which spanned between 1887 and 1948, coincided with the end of the North American frontier. The American historian Frederick Jackson Turner described the end of the last century as the demarcation between a country of wilderness-taming pioneers looking for economic opportunity to a country of settled farmers and merchants (Turner 1893). Aldo Leopold's father Carl was one of those settled merchants. Carl Leopold introduced his sons to the natural splendor of the bottomlands of the Mississippi River. He encouraged his sons to discover the river's sloughs and backwaters. As an avid sportsman and waterfowl hunter, Carl Leopold eschewed the wanton practices of market gunning and overharvest that was rampant at the time. Instead, his sons were instilled with a sense of ethical sportsmanship and fair play as they pursued this activity, learning the art of wing shooting and never taking waterfowl in the spring, although it was legal to do so at the time (Bradley, 1995).

As more wild lands fell to the axe and shovel on the North American continent, the landscape was being laid waste in the nation's headlong search for affluence. In Leopold's lifetime, the long grass prairie would come under the plow, the short grass prairie grazed with livestock, the coastal prairie occupied by oil wells and citrus groves, and the virgin pineries logged off. Despoilation of land did not go unnoticed by U.S. federal policy-

makers who were beginning to embrace the concepts of conservation. At the time, conservation was rooted in the "warehouse" idea. That is, natural resources must be stockpiled and saved for use at a later day. As federal policy, the value of the enterprise of conservation was invested in the value of the raw materials saved, not necessarily any more intrinsic value that the continued existence of those resources might hold. At the age of 22 with a recently conferred Master of Forestry degree from Yale University, Aldo Leopold entered the fledgling U.S. Forest Service as a ranger in the American Southwest. At this point in his life, his interests were already expanding beyond trees and board feet of lumber. He began organising game protection societies and explored the possibilities of recreational hunting on Forest Service lands. In 1915, Leopold published a brief essay, entitled "*The Varmint Question*" which some readers more familiar with Leopold's later writings find shocking. In this early essay, the young Aldo Leopold called for a coalition of game protectionists and ranchers to extirpate predators (wolves, mountain lions, coyotes) in the American West (Leopold, 1915), his thinking being that both ranching and hunting would improve with the absence of predatory species. At the same period in his life, he published another essay in a hunting publication declaring that game populations could be maintained without pristine wilderness (Leopold, 1918), calling the essay, "*The Popular Wilderness Fallacy: An Idea that is Fast Exploding*." While it must be admitted that the premise of the essay was and is factual, these words were written before Leopold began thinking about the wilderness itself as a resource, not just the fragmentary contents of wilderness.

John Muir described his spiritual awakening to the natural world as a "baptism by light and water" in the Sierra Mountains of California. An older and wiser Leopold would reverse his position on predators and write of a kind of baptism of his own in the eyes of a wild wolf. He would later write:

"We were eating lunch on a high rimrock, at the foot of which a turbulent river elbowed its way. We saw what we thought was a doe fording the torrent, her breast awash in white water. When she climbed the bank toward us and shook her tail, we realised our error; it was a wolf. A half-dozen others, evidently grown pups, sprang from the willows and all joined in a welcoming melee of wagging tails and playful maulings. What was literally a pile of wolves writhed and tumbled in the centre of an open flat at the foot of our rimrock.

"In those days we had never heard of passing up a chance to kill a wolf. In a second we were pumping lead into the pack, but with more excitement than accuracy; how to aim a steep downhill shot is always confusing. When our rifles were empty, the old wolf was down, and a pup was dragging a leg into impassable slide-rocks.

"We watched the old wolf in time to watch a fierce green fire dying in her eyes. I realised then and have known ever since, that there was something new to me in those eyes, something known only to her and to the mountain. I was young then and full of trigger itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters' paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view." (Leopold, 1949).

Leopold's capability to see, at least metaphorically, "the fierce green fire" was a sense acquired over three decades. Collaborating with a forest service colleague Arthur Carhart (Meine, 1988), Leopold began considering the possibilities of preserving portions of the National Forests as wilderness. Some of our questions about wilderness and Leopold's initial answers to them began to emerge in essays published in the 1920's:

What is wilderness? Leopold wrote, "By 'wilderness' I mean a continuous stretch of country preserved in its natural state, open to lawful hunting and fishing, big enough to absorb a two weeks' pack trip, and kept devoid of roads, artificial trails, cottages, or other works of man", (Leopold, 1921). *How much of it should we have?* A young Leopold again, "Such wilderness areas should occupy only a small fraction of the total National Forest area - probably not to exceed one in each state", (Leopold, 1921). *Does wilderness have value in our modern world?* "...only areas naturally difficult of ordinary industrial development should be chosen. Each area should be representative of some type of country of distinctive recreational value.." (Leopold, 1921). These thoughts laid the foundation for what would be the first formally designated wilderness area in the United States: the Gila, designated as wilderness by the U.S. Forest Service in New Mexico in 1924.

Acknowledging that recreational needs of most people at the time involved roads for automobiles and hotels, wilderness was solely for a minority of recreationists who desired open, wild country to "hunt, fish and camp", (Meine, 1988). Leopold believed such areas could be set aside for recreation purposes on landscapes that had no otherwise exploitable economic uses. This was a rationalised view of wilderness, perfectly molded to fit the utilitarian policy of the times. Leopold based his rationale for wilderness on the overriding principle of "highest use," or "the greatest good to the greatest number of people". Leopold further asserted that this concept of highest use was "the guiding principle by which democracies handle their natural resources", (Leopold, 1921).

What is most striking to me about the "wilderness for recreation" view is how contemporary it is. In Leopold's day, he saw threats to wilderness, calling them the "Booster Spirit" (Leopold, 1923) and later the "Good Roads Movement" (Leopold, 1949). He referred to the frenzy for commercial development around wilderness and the unrelenting pressure to build roads into wilderness areas. The list of recreational opportunities in Leopold's time, which included hunting, fishing and camping, have been expanded in contemporary times to include hang-gliding, mountain biking, cross-country skiing, kayaking, and whatever else the sporting goods industry can manage to convince us that we should be doing with their products. Those of us who work in natural resource policy in the U.S. know that with these activities comes a ready constituency and the job of setting aside "wilderness" for such uses can muster significant public support. While I am not an expert on outdoor recreation, I am told by my acquaintances who are, that many of the best known wild places in North America are being trodden by too many. In my home state of Wisconsin, I have seen eroding hillsides from off-trail travel and tire ruts in areas supposedly off limits to vehicles. Wilderness for recreation now threatens both the wilderness and the recreation. Leopold himself would recognise the pitfalls in wilderness for recreation, writing later, "Generally speaking, it is not timber, and certainly not agriculture which is causing the decimation of wilderness area, but rather the desire to attract tourists", (Leopold, 1925). Or in the words of the American naturalist John Burroughs as paraphrased by Leopold, "We fall back into the biological category of the potato bug which exterminated the potato, and thereby exterminated itself", (Leopold, 1924).

Does wilderness have value beyond recreational opportunity?

Leopold's answer, just a few years later, would be yes. Leopold found virtue in what he called "the spirit of the covered wagon." Invoking that most compelling metaphor of the American westward movement, Leopold asserted that "American society had need for connection with the values of hard work and self-reliance from our pioneer past", (Leopold, 1925). The sustaining presence of wilderness would provide a "cultural harvest," a chance to revisit a more virtuous past and rekindle a better side of ourselves. He mourned the fact that such connection was decreasingly available to Americans of modest means. Only the wealthiest Americans could reach the remote and exotic places like Alaska, Siberia or Africa where pristine wilderness could still be found. He would later write in *A Sand County Almanac*, "It is only the scholar who appreciates that all history consists of successive excursions from a single starting-point to which man returns again and again to organise yet another search for a durable scale of values. It is only the scholar who understands why the raw wilderness gives definition and meaning to the human enterprise", (Leopold, 1949).

Exploring more deeply into the relationship between wilderness and human values, the cultural and ethical content that wilderness possessed for Americans would continue to occupy Leopold's thoughts. In so doing, Leopold connected two unlikely figures: evolutionist Charles Darwin and the Russian mystic philosopher P.D. Ouspensky. In homage to them both, he wrote, "...the determining characteristics of rational beings is that their evolution is self-directed", (Leopold, 1949). Such self-direction or self-control, was perhaps best exemplified in Leopold's lifelong passion for hunting. Some chroniclers of Leopold's life would later assert that hunting was the wellspring from which Leopold's inspiration flowed (McCabe, 1985). During Leopold's life, hunting in America was transformed from an economic necessity to a sport. In possible reconsideration of the wilderness-as-recreation paradigm, the wilderness would become a staging ground for discovering not just the lost values of an earlier era, but for people to develop culturally and ethically. On wilderness hunting, Leopold believed that hunting for sport was an improvement over hunting food in that it required that the hunter practice self-restraint through an ethical code of behaviour without the benefit of, "moral support of bystanders", (Leopold, 1925).

By the 1930's Leopold was entering public life at the national level, chairing the Game Policy Committee of the American Game Conference and participating in the establishment of what would become the Wilderness Society. Contemporarily, Leopold is now popularly thought of as a wilderness philosopher. Make no mistake; he was also a wilderness politician with a keen sense of the public temperament. His proposed public actions were, "...designed to fit the unpleasant fact that America consists largely of businessmen, farmers and Rotarians, busily playing the national game of economic expansion. Most of them admit that birds, trees, and flowers are nice to have around, but few of them would admit that the present "depression" in waterfowl is more important than the one in banks..." (Leopold, 1932). The message to those of us in government in 1996 is clear: understand the sensibilities of the political constituency needed to achieve wilderness goals.

The 1930's would sharply focus on Leopold, what wilderness is and is not. In 1935, Leopold made his only trip abroad to Germany to study its forestry practices. After this trip, Leopold wrote an essay entitled simply "*Wilderness*." Ironically, the essay was not about wilderness; it was about the absence of it on the German landscape. He was shown "interminable miles" of evergreen forest and observed an occasional deer. But he also observed something he called "an aesthetic deficit", (Leopold, 1935). He had no expectations of finding pristine wilderness in this long-settled part of the world. What he did not expect, however, was the "unnecessary

outdoor geometry," and its accompanying dearth of species. The trees had been laid out in rows and the rows organised in blocks. Furthermore, the boundaries between cultivated fields and forest, which Leopold found so charming in the Midwestern American landscape because of the "tag ends" of wilderness which they contained, were "straight, sharp and absolute," in the German forests. Upon his departure, he was relieved to learn that German foresters were making a determined effort to get away from "cubist forestry." But he also knew that it would take generations for the landscape to reacquire a more natural character.

A year later he would travel to the Rio Gavilan in the Sierra Madre Mountains of Mexico for the first of two hunting and pack trips to that area. In juxtaposition to the experience in Germany, Leopold found a "lovely picture of ecological health," (Leopold, 1937). For cultural and political reasons, this area of Mexico had never been grazed or subjected to settlement. Geographically, the Gavilan was just south of the international border from the American Southwest where Leopold had spent his days as a forest ranger. On the U.S. side of the border ecological damage was already severe, the most graphic example of which were eruptions in the populations of deer in certain ranges of New Mexico and Arizona. Ecologically, these eruptions would lead, again, to the problem of the potato bug and the potato. That is, in an arid climate, an overtaxed browse range could not sufficiently recover, leading to the loss of both the deer and the range. On the other hand, the conditions in the Gavilan displayed stability, with abundant but not excessive deer, as well as a broad range of other species. There was no evidence of deer eruptions; mountain lions and wolves were common. While in the Gavilan, Leopold made a startling observation. Foresters of Leopold's era were trained to believe fire was the ultimate evil (Meine, 1988). There was evidence that fire burned over the Gavilan area periodically with no apparent ill effects. On the landscapes which I am most familiar with, fire is perhaps the premier ecological restoration tool. It is with sadness that I must tell you that contemporary reports from the Rio Gavilan are not good; it has now succumbed to unceasing population pressures.

As times and careers change, so did the definition for wilderness. In contrast to the earlier Leopold definition of wilderness as a place "big enough to absorb a two weeks' pack trip," the definition would be expanded to include, "the little accidental spot at the head of a ravine in a Cornbelt woodlot...", (Leopold, 1949). Wilderness could exist in varying degrees. These small patches of wildness, sometimes no bigger than a few square feet, were a delight to Leopold. In *A Sand County Almanac*, he described one such place.

"Every July I watch eagerly a certain country graveyard that I pass in driving to and from my farm. It is time for a prairie birthday, and in one corner of this graveyard lives a surviving celebrant of that once important event."

"It is an ordinary graveyard bordered by the usual spruces, and studded with the usual pink granite or white marble headstone, each with the usual Sunday bouquet of red or pink geraniums. It is extraordinary only in being triangular instead of square, and in harboring, within the sharp angle of its fence, a pin-point remnant of the native prairie on which the graveyard was established in the 1840's. Heretofore unreachable by the scythe or mower, this yard-square relic of original Wisconsin gives birth each July to a man-high stalk of compass plant or *cutleaf silphium*, spangled with saucer-sized yellow blooms resembling sunflowers. It is the sole remnant of this plant along this highway, and perhaps the sole remnant in the western half of our county. What a thousand acres of *silphioms* looked like when they tickled the bellies of the buffalo is a question never again to be answered, and perhaps not even asked", (Leopold, 1949).

I am happy to tell you that this spot survives.

The 1940's would see the utilitarian side and the spiritual side of Leopold speak in a single voice. The publication of *A Sand County Almanac*, in Leopold's own words, attempted to weld together three concepts about land: ecology, aesthetics, and ethics. Or in Leopold's own words: on ecology - "*That land is a community*", on aesthetics - "*That land yields a cultural harvest*" and on ethics - "*That land is to be loved and respected*", (Leopold, 1949).

From the spiritual side, Leopold made an impassioned plea for the preservation of wilderness for the sake of wildlife. Citing North America's largest predator, the grizzly bear, *A Sand County Almanac* referred to the lack of permanent grizzly range and permanent wilderness areas as "two names for the same problem."

The scientific side of Leopold, by this time, had embraced the ecological model of the British ecologist Charles Elton who viewed natural relationships as a pyramidal community. Leopold elaborated the Eltonian view in *A Sand County Almanac*, calling it The Land Pyramid, an energy circuit with the soil at the base with plants resting above it, followed by succeeding layers of biota with carnivores at the apex of the pyramid. Energy flowed upward in an open system through the pyramid. The term "land" in Leopold's definition was not merely soil, but included waters, plants and animals. In the Elton/Leopold model, native plants and animals had the

unique capability to keep the energy circuits open; exotic species may or may not; and human-induced changes on the landscape may have more profound effects than is foreseen. Some of these profound effects Leopold would describe as "violent conversion" of the landscape (Leopold, 1949). He observed that more temperate landscapes could sustain violent conversions with greater resilience than arid landscapes. In this view, the overtaxed deer ranges of the Southwest could be described in part as a pathological response to the loss of predators, lopped off from the top of the pyramid.

The science of ecology has advanced significantly in the last fifty years and it is likely that the pyramid model has been modified, if not usurped, by more complex and contemporary ones. Nonetheless, the basic concept of land as an inter-related community survives.

The discussion just completed has been about land in general. What does it have to do with wilderness? A great deal; it provides us with another answer to the question of the value of wilderness. Land health, like human health, is the capacity for internal self-renewal (Leopold, 1949). When that capacity is lost, sickness results, symptoms of land sickness are lost soil fertility, water and wind erosion, more frequent flooding, abnormal eruptions of pest species, to name a few. Wilderness can be the "base datum of normality" or, "a laboratory to study land health", (Leopold, 1949). An understanding of how the wilderness community works may provide us some insight on how we may better interact with land. There are profound economic implications here, particularly in the area of agriculture. Let us ask the next question again: *How much wilderness should we have?* Leopold advocated that each "biotic province" needed its own wilderness for comparative study. For example, "One cannot compare the physiology of Montana in the Amazon", (Leopold, 1949).

Perhaps it was his love of the fencerow and field corner patches of wildness in his home state, which led him, in part, to consider the prospects for ecological restoration. Leopold steadfastly held the view that the two-week-pack-trip version of wilderness could not be recreated. Rather, he recognised very early that wilderness at this large scale needed to be proactively reserved or it would be consumed in the economic onslaught. For a number of reasons, one of which was likely the possibilities for ecological restoration, Leopold acquired a worn out corn farm along the Wisconsin River, abandoned by the previous owner whose mortgage likely exceeded his ability to produce crops. This property displayed the symptoms of land pathology: lost soil fertility, eruptions of noxious exotic weed species and evidence of soil loss from wind erosion. Leopold chose this farm for, "...its lack of goodness and its lack of highway", (Leopold, 1949). On a cold February day in 1935, Aldo Leopold, his wife and five children walked across a frozen field of corn stubble and burrs. They entered a windowless old chicken coop and found two feet of frozen manure. The farmhouse had been burned to the ground by its previous owner. This was the Leopold family's humbling introduction to what would become a grand and enduring experiment (Bradley, 1995). This was the place where Leopold and his family tried, "...to rebuild with shovel and axe, what we are losing elsewhere", (Leopold, 1949). Could a piece of abused land be nursed back to some semblance of wildness? The answer at this site I believe is yes. In place of corn stubble and burrs, one can now walk through six foot tall Big Blue Stem Grass. We can find Little Blue and Indian Grass. Over the summer we have enjoyed the blooms of blue *Lupine* and yellow *pacoon*. There are now 150 species of prairie plants, most of which were planted by the family. Surrounding the open prairie are tall white and red pines, oak and river birch. No longer is there a barren view of the Wisconsin River. The original small chicken coop is now called the Shack. It remains to be a very rustic family retreat. And, by the way, the manure is on the garden.

The acreage surrounding The Shack won't accommodate a two-week pack trip but it can provide a two-hour bird walk. And perhaps here is another wilderness lesson from Leopold. To fully appreciate wilderness, we must understand something of its minutiae, not only how each of the parts of the wilderness community works but how those parts fit together. The preservation of the large wilderness tracts will be more expedient with the lessons and perceptions gained from the restoration of the small tracts. The act of wilderness restoration, even at a humble scale, can only enhance those perceptions. Or in Leopold's more eloquent words: to build "...receptivity into the still unlovely human mind", (Leopold, 1949). Beginning then and continuing now, many minds are perhaps a bit more lovely by the experience of the Shack.

We have now traversed across Leopold's wilderness landscape, which spans recreation, cultural values and science. The last stop on the journey will be where we started: that land, like people, has rights: The value of the wilderness is encompassed in the Leopold Land Ethic which I shall repeat: "A thing is right which preserves the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise." These few words are the capstone of Leopold's career and likely his greatest legacy to us. The role of humankind is to assure that they acknowledge and extend those rights. And perhaps to a greater degree than other land, wilderness possesses integrity, stability and beauty.

Professor Craig W. Allin summarized Leopold's contributions to wilderness as follows:

"In the last analysis, Aldo Leopold gave us two great gifts, and each is enhanced by the other. Aldo Leopold, forester, hunter and outdoorsman, gave us wilderness. Aldo Leopold, scientist and philosopher gave us the ecological vision to understand and preserve it." (Allin, 1987).

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F.I.t.r: Gordon, Trish, Bergere and Hannah Stevenson, Beuta Ua-Ndjarakana

(Photo: Dirk Heinrich)

THE WILDERNESS LEADERSHIP SCHOOL

Andrew Muir
Director Wilderness Leadership School

It is a privilege to be able to share our experience and programmes with you this morning, I thank Tryg Cooper and the Namibian Ministry of Environment and Tourism for making this important event possible.

The Wilderness Leadership School has always invested in people. Since 1963 it has been exposing leaders of diverse culture, race and age to a wilderness education and experience, stressing the importance of a balance between humanity and nature. It's founders - Dr Player and the late Magqubu Ntombela - were the first to introduce the concept of wilderness trails in Southern Africa. The quality of a wilderness trail is profoundly impactful.

The Wilderness Leadership School:

- nurtures an environmental ethic through enabling South Africans to rediscover quality of life within themselves and the land of their birth.
- is shaped by 34 years' experience enabling youth and current leaders to experience the wilderness areas of seven of the nine regions of South Africa. To date, this non-profit NGO has hosted over 35 000 people.
- supports the right of all people of South Africa - in particular those from rural and urban black communities - to appreciate their natural heritage.
- sponsors thousands of disadvantaged youth leaders to participate on wilderness trails - selection being devised by community, education and network organisations together with the School. On a five-day wilderness trail, these young leaders are able to interpret the full life network displayed so clearly in natural environments; to practically relate environmental issues to their daily lives.

"I came to realise and understand that Africa is not the dark continent that it was claimed to be ... the beauty of the massive rocks made me realise that the future of the coming generation relies precisely on how nature is for them."

(Marcus Mosae, Scholarship Trails in KwaZulu-Natal.)

works in partnership with all the major conservation bodies in SA which includes National Parks Board, Western and Eastern Cape Nature Conservation, Natal Parks Board, KwaZulu Department of Nature Conservation, WWF-SA and The Wildlife and Environment Society of SA. (Operational offices in Durban, Port Elizabeth, Cape Town and Gauteng.)

MISSION

We strive to restore a balanced relationship between humanity and nature by providing a direct experience of wilderness for the leaders who shape society.

In wilderness we find a place where the full range of natural process are in balance. We cross the boundary between civilisation and these places with respect.

WILDERNESS LEADERSHIP SCHOOL JOINT VENTURE PROJECTS

Apart from Wilderness Trails, the School has also initiated a number of educational projects which it is running in joint venture with formal conservation and educational organisations. Between these programmes a potential *fifteen thousand* leaders partake in specific projects. For this talk I would like to specifically focus on two of our projects, namely the *Imbewu* and *Opinion Leader* programmes:

IMBEWU

Joint venture between the Wilderness Leadership School Trust and the National Parks Board (Co-ordinator - Andrew Muir)

"Imbewu" is an investment in future youth leaders, with particular accent on a quality of experience which kindles an environmental consciousness. "Imbewu", a Zulu word, literally means planting a "seed" of environmental understanding as part of an empowerment process.

On the borders of all the main game reserves live retired black staff who played a dedicated, but largely unrecognised role in conservation history. Some were game guards with over thirty years of experience working in the reserves, which border their homes. Their intimate knowledge of flora and fauna is unequalled, together with the ability to skilfully interpret how the landscape has spiritual and practical meaning within people's lives from a cultural perspective. The concept and vision of Imbewu is to re-employ selected former game guards and train them to become teachers and role models for youth to participate on specially-designed "entry point" educational experiences. The experience recognises oral traditions and indigenous knowledge as a stimulant for environmental conservation.

We are in the process of securing funding to take 10 000 disadvantaged youth (over a three year period) through the four-day Imbewu programme, in National Parks throughout SA.

"I can see miracles that God has created, I can see animals all around without being kept in cages, we should respect nature for what it is."

(Tsakani Sharol Malungani - Magwagwaza High School)

OPINION LEADER TRAILS

(Co-ordinator: Ms Margot Morrison)

Within the Standing Committees for Environment and Tourism in the Senate, National Assembly and each of the nine regions, are decision-makers tasked with defining a framework for the environmental future of the new South Africa. They represent the interests of the ordinary South African People. The Wilderness Leadership School Trust has developed a project with the support of the *European Union* via the Kagiso Trust, which brings these political representatives together with key community and environmental leaders on four-day trails in the environments of South Africa's wilderness areas.

These trails are a natural catalyst, bringing a focus on fresh strategies for environmental protection. At its core, the programme recognises prevention rather than cure as a key aspect of Southern Africa's environmental future. To date sixty-four opinion leaders including twenty-five parliamentarians have participated on this programme.

"These trails come at a very important period of our country, because the discussion on formulating our environmental policy is on. The process started last month. We will be able to give far better information to this process, because it is not something you read about. It is something that you touched, something that you felt."

(Gwen Mahlangu, MP, Chairperson Standing Committee - National Assembly.)





Waterberg Wilderness Area, Namibia



Atlantic coastline, Namib-Naukluft Park

(Photos: Dirk Heinrich)

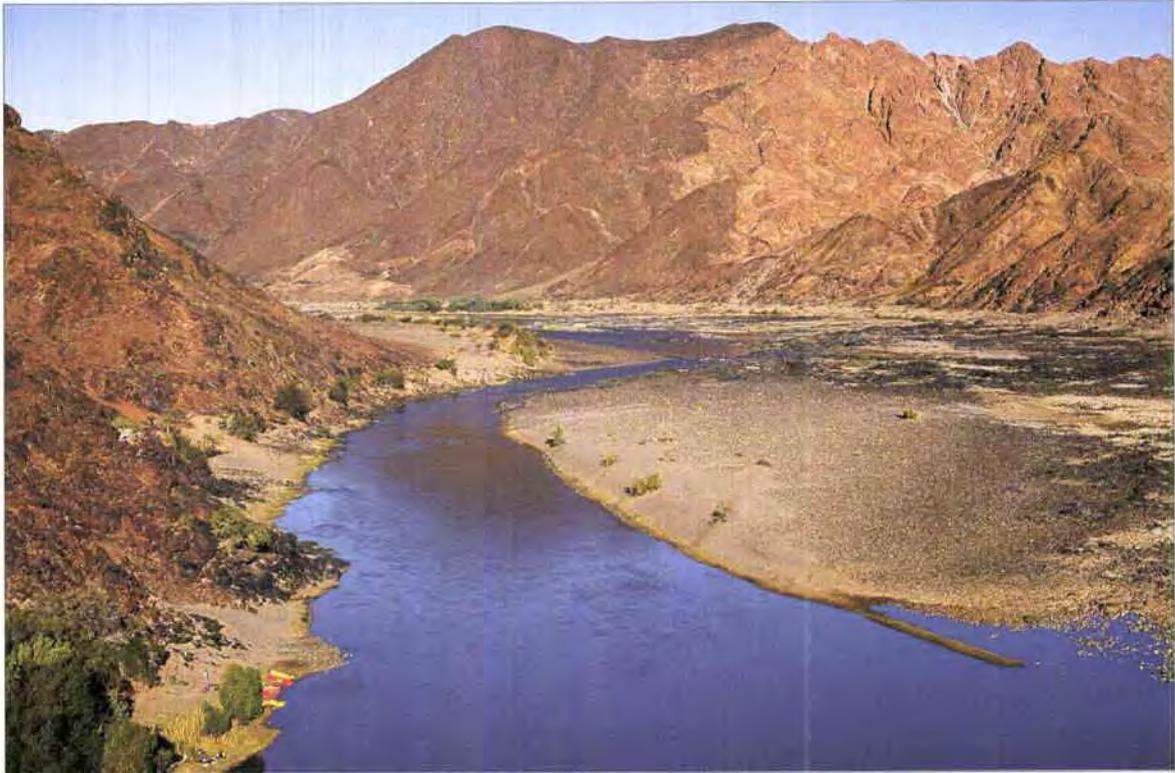


Southern oryx on the edge of Etosha Pan



Fish River Canyon, with *Aloe gariensis* in foreground

(Photos: Dirk Heinrich)



Lower Orange River valley



Ju/'Hoansi hunters, Eastern Bushmanland

(Photos: Dirk Heinrich)



Desert-dwelling elephants, Hoarusib River, Skeleton Coast Park



Namib landscape: Sperrgebiet 1

(Photos: Dirk Heinrich)

WILDERNESS: THE WILDLIFE SOCIETY PERSPECTIVE

Len le Roux
Wildlife Society of Namibia

INTRODUCTION

The Wildlife Society of Namibia has been requested to make a contribution to this "Wilderness Conference", and it is in the interest of the organisation to participate in such a conference. However, it must be noted, that in the absence of an official policy statement and position from the Wildlife Society, the contribution I can make at this stage reflects more on some of our thoughts on this issue, rather than an official position. Our participation here gives an indication to our interest, and hopefully the ideas we have been exposed to here will prompt the organisation to seriously consider adopting a viewpoint on wilderness management.

WILDERNESS MANAGEMENT

With the ever increasing pressure and demands placed on land in Namibia, and the inequities created by past government policies, it is recognised that those remaining wilderness areas in Namibia will be placed under scrutiny over the next few years. The total lack of legislation to possibly protect identified resources as designated wilderness areas, and the perceived lack of development of a national land use plan, add to the vulnerability of areas that could be identified as wilderness areas.

In principle the Wildlife Society supports the ideals and concepts embodied in the philosophy of wilderness management areas. The ideology of recognising the need and importance of wilderness being preserved for conservation, cultural, education, historical, recreational, scenic, scientific and wildlife values rests comfortably in the domain of activities supported by the Wildlife Society.

Furthermore, the Wildlife Society, in its support for wilderness areas, acknowledges the need to protect resources from significant degradation by human influence and use. It also recognises the individual characteristics of different wilderness areas and that management plans should recognise these differences and provide for flexibility in its implementation. The ability of a wilderness area to act as a benchmark, permitting comparison of relatively unmodified environments with other environments is valued, and public use opportunities consistent with the preservation of wilderness resources is encouraged. The other benefits that wilderness areas have to research, management planning, natural ecological processes and experimentation are also noted. In Namibia of particular concern are those habitats that have significant endemic importance or are under threat, such as riverine vegetation.

However, having given our support to wilderness areas, it must be noted that the Wildlife society has also supported other legislation and policy initiatives concerning the environment and land use in Namibia. Of importance is the new Conservancy Act which has recently been promulgated and the significance this has to common-property resource management activities. For wilderness areas to gain recognition and importance in Namibia it is imperative that the underlying principles of wilderness areas be translated into activities that are more acceptable to a broader spectrum of the Namibian community. As an integral part of a Park's management plan is one thing, but to take the idea further and place this into private or communal land is another challenge. For wilderness to take root in Namibia it has to develop into an alternative option to land use that not only makes sense in environmental terms, but also can be understood in social and economic terms. The danger that we face is that the concept of wilderness areas can be exclusive, whereas the challenge facing Namibia today is one of inclusiveness and not exclusiveness.

CONCLUSION

The Wildlife Society therefore, in lending support to the development of wilderness areas in Namibia, does so mindful of the other broader issues that must be taken into consideration when developing a national land use plan. Wilderness is one of many options faced when planning the use of natural resources and must be accessible to communities to take into consideration when developing land use plans.

CORPORATE INVOLVEMENT IN WILDERNESS

David Godfrey

Executive Director - Rössing Foundation - Namibia

The Rössing Foundation is a development organisation funded by Rössing Uranium, a mine situated in Namibia as part of the RTZ/CRA Group. In 1978 shareholders of Rössing decided that a Foundation was needed to help with the development of the people of Namibia. A decision was made that the Foundation should be an organisation that became involved directly with communities through the establishment of mainly adult training centres, although this role has changed considerably over the years. A decision was taken that the Foundation was *not* to be a chequebook organisation. The Company recognised that it had responsibilities beyond those to its work force, its shareholders and wished to include in its main responsibilities the communities in which it operates.

The Foundation built up a number of adult education centres and other projects which included farming training centres, libraries and a maritime training centre over the years. The Foundation has permanent staff of over 100 supplemented by some 15 volunteers. Over 15 000 people each year benefit from the programmes and facilities that the Foundation has put in place. Since Independence in 1990, the Foundation worked in partnership with the Government and many of the aid and donor agencies. The Foundation last year handled some N\$12 million of aid and donor money, in addition to spending some N\$ 6 million of it's own funds. A good example of a partnership/teamwork between aid agencies, Government and the Rössing Foundation is the USAID funded Environmental Education Programme which is run by the Foundation on behalf of USAID and in conjunction with the World Wildlife Fund. The Foundation has a strong role to play as a bridging organisation, and facilitator as a broker, to bring aid agencies and donors together with communities and the Government to facilitate development in rural communities.

With regard to wilderness areas the Foundation and the Company through the Foundation have had an impact in two ways.

DIRECT

The Foundation and the Company have helped directly in the development and preservation of wilderness areas in Namibia through

Community game-guards;

Direct support and funding of the community game-guards in Damaraland when this programme started.

Rössing Conservation Trails.

This programme has been running for about 10 years and was established to sensitise decision-makers in the Government and the business world to the importance of wilderness areas and conservation generally. Many younger people have also benefitted from this programme.

Namibia Business Forum for the Environment

This organisation is a gathering of business leaders in Namibia who are concerned about the environment. The Rössing Uranium Company was instrumental in the establishment of this organisation and supplied secretarial services and its first Chairman.

INDIRECT

Through the Foundation, the Company achieves the following objectives

- through rural development programmes raises awareness of the environment
- raises education levels
- creates job opportunities;
- improves household food security;
- creates wealth in both rural and urban settings;
- contributes to poverty alleviation.

“WILDERNESS SURROUNDED BY POVERTY CANNOT EXIST.”

CONCLUSION

We live on a small blue planet and we all must work together if we are to save our planet from the harm and damage that we are currently doing to it. I believe that businesses and corporations such as ours are now much more open to dialogue than they were in the past. Many organisations such as ours have come to realise that their responsibilities towards the environment and the communities are much greater than they were in the past. The time has come for more dialogue, for more openness and for more trust. However, the initiative for this dialogue must come from groups like this. I believe that dialogue initiatives from groups such as these will be met with a much more sympathetic hearing than has been the case in the past. Furthermore, I also believe very strongly, that if changes are to be brought about in corporate thinking and attitude, it is much easier to bring those changes about from within. My advice therefore is to get inside the corporations and the business world if you can. Companies/ businesses are changing. RTZ/CRA has just produced a new policy document stating that they wish to see community development as an integral part of their philosophy throughout the Group. This is a clear indication that corporations, especially RTZ are changing their attitude.



Garth Owen-Smith

(Photo: Paul Weingart)

Economic value of wilderness in Namibia

J.I. Barnes

WWF LIFE Programme, Directorate of Environmental Affairs,
Ministry of Environment and Tourism, Namibia

Abstract

Wilderness in Namibia is described in terms of its total economic value, comprising use values (direct and indirect) and non-use values (option, bequest and existence). Economic use values amounting to between N\$2.00 and N\$6.00 per hectare, per annum are estimated for some potential wilderness areas in Caprivi and Kunene region. These consist of the value of tourism and resource use in and around wilderness, which is attributable to the existence of the wilderness. Use values could be enhanced if consumer surplus, measured at some 26% of trip costs, could be extracted from tourists. The non-use values are much less well understood but there is evidence that the average leisure tourist in Namibia is willing to pay some N\$104 per trip to preserve wildlife in the country. This amount represents non-use value (and possibly also consumer surplus use value where there is substitution). Rough calculations, based on this, suggest that non-use values for wilderness are at least 15% to 25% of the estimated use values. Because many wilderness values are realised on surrounding land, wilderness should be planned to maximise total economic value within a suite of land uses. Generally, wilderness should be surrounded by natural and multiple use areas, where more intensive tourism and resource uses are possible. A system of safe minimum standards is suggested to ensure the future options to capture non-use values. More research to determine values and changes in them, and physical planning, incorporating the results, are needed. Capture of non-use values via a conservation fund is suggested.

Introduction

In this paper an attempt is made to define and describe the economic values associated with wilderness as it occurs in Namibia. The importance of these values in the formulation of policy and in planning is highlighted. Recommendations are made for future research and use of results.

Definitions

Economics is the science of the allocation of scarce resources in meeting human needs. It thus deals with human decision making and the values that go into making of those decisions. Traditionally, it has tended to focus on material values but economics should include all humanly perceived values, many of which are non-monetary. This means that "inherent" values, or value in, and of, non-human objects, as defined by Aylward (1992) are not included. Antarctica may be described by preservationists as having non-economic inherent value but as soon as they decide that it should, say, be kept as a park and not used for mining, they are ascribing economic value to it and making an economic decision.

Money has evolved a complex role as a medium of exchange and store of value in human society and it is thus the most commonly used yardstick for economic value. An economic analysis from the individual's perspective would incorporate her/his private preferences and include financial and material values as well as other values reflecting, for example, ethical, religious and altruistic motives. Economic analysis from the national, regional or global perspectives incorporates the aggregates of all values for the resources involved as perceived by the whole of society in the nation, region or world respectively.

Economic value as applied to the environment and natural resources has been defined under the umbrella of "total economic value" (Pearce and Turner, 1990). Total economic value is made up of several components. Traditional material values are reflected in *direct use values* which are income earned through use of the resources or environmental assets. Where resources. The indirect value of resources and environmental assets in creating ecosystem health and sustainability, or use values elsewhere, is reflected in *indirect use values*. These are also ultimately reflected in changes in income. Direct and indirect use values are commonly referred to simply as *use values*.

Where humans see value in the preservation of resources and environmental assets it can reflect *option value* (the value of the option to derive value later), *bequest value* (the value in being able to bequeath the resource to someone else or *existence value* (the value of mere existence of the resource). Option, bequest and existence are the three main categories making up what are commonly referred to as preservation or *non-use*

values. They are "fuzzy" values, difficult to measure, and generally manifested as perceptions rather than tangible assets. Option and bequest values can both reflect the option to use (and derive use values) later. All of the non-use values can represent human perceptions of the importance of inherent or non-economic values. All of the non-use values can be perceived as a willingness to pay or willingness to receive money. Thus, given the right market conditions it is, at least theoretically, possible for all the non-use values to be manifested in terms of money payments or income.

Measurement of the components of total economic value aims at determining revealed preferences but can involve a variety of approaches. Direct use values are often easily measured from revealed preferences in the market. Estimation of indirect use values and non-use values often requires identification of surrogate markets (for example, hedonic pricing or travel cost analysis) or the creation of hypothetical experimental markets (for example, contingent valuation). Generally, the further one moves from actual markets the more problems there are getting meaningful measurements. Issues of information, uncertainty, uniqueness, irreversibility and equity affect measurement techniques.

Wilderness, in the USA, is defined by Hendee *et al* (1990) as "roadless lands, classified as component areas of the National Wilderness Planning System, and managed so as to protect its qualities of naturalness, solitude and opportunity for primitive types of recreation". This is very much a developed world or "western" definition. Martin (1992) provides an international perspective on wilderness. He states, among other things, that "the rights of indigenous people to use ancestral wilderness for sustainable resource use and/or spiritual rituals is now an integral part of the international movement to conserve wilderness values". Jones (1996) has pointed out that for the wilderness concept to be widely developed in Africa it needs modification to incorporate African conservation and cultural values.

Wilderness clearly lies on the "least disturbance" end of the environmental modification spectrum. In Namibia, official policy guidelines for park planning (MWCT, 1993) recognise "specially protected areas" as a land category for parks. These conform, more or less, to the strict definition of wilderness. Outside parks, in communal land are areas which effectively meet the definition of wilderness but where communities derive some benefits from resource uses. *The definition adopted for this paper is one of a de facto natural core area, where mechanised access is effectively prevented, and where only very limited small scale or recreational uses of natural resources is possible or permissible.* Closely linked with wilderness, and probably the dominant form of wild land is the category "natural area" as defined by MWCT (1993). Natural areas may be described as having essentially unmodified natural environments, no infrastructure except for limited tourist and access roads, and restricted levels of tourism and consumptive resource use. Also linked with wilderness areas, but less closely, is the MWCT (1993) land category, "multiple use areas". These are outside parks and, besides tourism, can involve a variety of consumptive land uses such as livestock grazing, plant product extraction, wildlife hunting and culling, etc. Some multiple use areas retain significant value as wildlife and biodiversity conservation areas.

What economic values apply to wilderness in Namibia ?

Namibia is a poorly developed nation with markedly unequal asset and income distribution. Most people live under communal land tenure in rural environments, are poor, and struggle to meet their basic needs. Human populations in the rural areas of Namibia double about every 30 years. A very high priority must be put on the generation of income (primarily via direct use values) among the poor, rural majority. Conservation of wildlife and natural resources must take place within this setting. In the past people in the communal lands tended to view wildlife and wilderness negatively, because they were unable to derive any benefits from them. Recent policy and legislative developments allow for the transfer of property rights, for management and use of wildlife and associated resources, to local communities. This local empowerment process is aimed at providing incentives for conservation and eliminating over-exploitation of wildlife and other resources due to open access.

Nearly all lands designated for conservation in Namibia have an *opportunity cost* in that they could be used for other purposes, by which income could be generated. Land zoned for parks or wildlife core areas could be used for traditional livestock keeping, livestock production and, in a few places, crop production. In the long term future use of these lands for wildlife and nature conservation depends on their being able to generate higher tangible economic value under conservation than under alternative uses.

In the same vein, wilderness zones within conservation areas have opportunity cost in that many of them could be used for more intensive wildlife uses, involving for example, motorised tourism, hunting, or wildlife cropping. In the long term as human population pressures, and pressures for development of incomes, increase, wilderness areas will be converted to more intensive or alternative uses unless they are perceived to have high

value by Namibians and, in particular by rural society. So far, wilderness in Namibia has tended to occur *de facto* rather than as a result of deliberate planning. Within parks it occupies the least developed zones and, generally, both in and outside parks it tends to occupy rugged, arid, remote, inaccessible sites where land value for other uses has been relatively low.

Table 1 is an attempt to describe, hypothetically, some characteristics of economic values which are likely to be associated with Namibian wilderness.

Table 1: Some likely characteristics of the types of economic value likely to be associated with Namibian wilderness lands

| | Type of value | | | | |
|------------------------------|---------------|----------|-----------|----------------|-----------|
| | Use values | | Option | Non-use values | |
| | Direct | Indirect | | Bequest | Existence |
| Ease of measurement? | Good | Moderate | Poor | Poor | Very poor |
| Available data? | Some | Little | None | None | None |
| Realise as income? | Easy | Not easy | Difficult | Difficult | Difficult |
| Likely importance to: | | | | | |
| Rural Namibians | Very High | High | Low | Low | Low |
| All Namibians | High | High | Moderate | Moderate | Moderate |
| Global society | Low | Moderate | High | High | High |

The table shows the suggested importance of each component of the total economic value of wilderness as perceived by people in rural Namibia, by Namibian society as a whole, and by the global international community. Most notable in the table is the inverse relationship between the importance that rural Namibians are likely to place on the values and the ease with which they can be captured within Namibia as tangible income or assets. This tendency is likely to follow when the whole of Namibian society is considered, but perhaps less strongly.

The direct use values associated with wilderness in Namibia, referred to in Table 1, are currently dominated by expenditures of hiking tourists. In some communal areas small amounts of consumptive resource use (of veld foods, veld products, wood, game, fish) also take place in areas which qualify as wilderness. Regarding the income from hikers, it is possible that the prices set for use of wilderness trails are below the maximum levels that users would be willing to pay. Any positive difference between the actual benefit received from a product and the actual price paid for it is known as the *consumer surplus*. Consumer surplus is realised as unpaid-for benefit and not as income, and if it is realised by foreigners, it is lost to Namibia altogether. Appropriate property rights and pricing can increase the amount of wilderness direct use values (including at least some foreign consumer surplus) which is captured by local, rural Namibians as income.

There is likely to be a close link between hiking tourism in wilderness areas and the more intensive and economically valuable motorised ecotourism in "natural areas" and "multiple use areas". Indirect use values associated with wilderness areas in Namibia, result from their role as core breeding areas for wild species which disperse and are utilised in *surrounding* "natural" and "multiple use" areas. The value of wilderness in ensuring other aspects of ecosystem functioning is less well understood.

Option values associated with the preservation of wilderness in Namibia are likely to reflect the desire to retain options for tourism uses. Non-consumptive tourism, both non-motorised and motorised, are likely to be involved here, as well as consumptive tourism involving hunting, shooting and fishing. Bequest values are likely to reflect as well as existence. Existence values for Namibian wilderness are likely to reflect desire to save wild resources from the perceived rapid degradation associated with poverty and population growth in developing countries.

It is suggested in Table 1 that the value of preservation of wilderness in Namibia as perceived by members of the international community, particularly those in the developed world or richer countries, is high. Empirical

evidence for this is weak, but research in other countries shows that preservation of wild land resources, generally, has significant value. This is evident from the work of Holland (1993) and Oellermann *et al* (1994) in South Africa, Echeverría *et al* (1995) in Costa Rica, de Lacy and Lockwood (1994) in Australia, Kriström (1990) and Boman and Bostedt (1995) in Sweden, and Gilbert *et al* (1992), Duffield (1992), Loomis and Walsh (1992) and Godfrey and Christy (1992) in the United States. Within all these countries residents were found to value the preservation of national wild land, wild species or wilderness.

If international non-use values for preservation of Namibian wildlife and wilderness are significant, it appears relatively difficult for them to be captured as income. The non-market nature of the values is the problem, and many of the people who perceive these values will never visit Namibia. Willingness to pay for preservation needs to be captured via funds, taxes and other mechanisms and transferred to landholders who are investing land and resources in wild land preservation. This presently takes place in the form of grants from international non-governmental organisations to Namibian ones, such as the Save the Rhino Trust, and in the form of international aid from, for example, USAID to the Namibian LIFE project. However, these transfers are economically inefficient in that very little of them ends up actually reaching landholders, that which does reach them tends not to be perceived as income and, in any case, the flows of money tend to be temporary and unsustainable.

What do we know of the economic values of wilderness in Namibia ?

The resource economics programme in the Directorate of Environmental Affairs, Ministry of Environment and Tourism is in the process of building up information on the economic values associated with wildlife and conservation in Namibia. Because of their importance for national development, efforts so far have been focused on direct use values associated with tourism and the consumptive uses of wildlife. In addition, work on tourism has been focused on the more intensive areas where lodge development and motorised access is possible. No work at all has been done specifically on wilderness values.

There is likely to be wide variation in the total economic value of different wilderness areas. For example, the Brandberg has characteristics of scenic beauty, endemic wildlife and vegetation, uniqueness, suitability for hiking or mountaineering and low alternative value for other uses. The use of the Brandberg as a unique hiking or mountaineering destination has high direct value. Also its fairly well known, unique, natural characteristics mean that its non-use values are likely to be high. The vast dune sea in the south of the Namib-Naukluft Park, as a wilderness can be described as having similar characteristics. However, here, the same total economic value is either spread over the whole dune area, or refers to small relatively accessible parts of it. A very small wilderness zone within one of the parks in Caprivi region could have a relatively much higher total economic value per unit area, due to its great biotic richness and potential for relatively intensive hiking tourism. A fairly large wilderness area embracing *Burkea* woodland in the north-central Kalahari sandveld of the Kaudom Game Park, would be likely to have much lower value due to its relatively poor biotic diversity, relatively monotonous scenery, and lower potential for attracting hikers.

Wilderness economic value will vary depending on the inherent quality of the site, but also on land use patterns in and around the site. For direct use values there is likely to be an optimal size for a wilderness area, beyond which the values, per unit of land, from recreation and consumptive uses begins to diminish. Similarly, the indirect use value of wilderness as a core area, from which dispersal of wildlife takes place, has an optimal value dependent on the size of the wilderness and the land uses on surrounding land. Results from research on non-use values of wilderness in north America (Godfrey and Christy, 1992) and of wolves in Sweden (Boman and Bostedt, 1995) suggest that these values diminish rapidly when the extent of the wilderness or the size of the wolf population exceed the minima needed for "preservation".

Use values

Profiles depicting estimates of current and potential direct use values of wildlife resources have been prepared for communal land and adjacent parks in Caprivi and Kunene regions in Namibia (Barnes, 1995a, 1995b). For each of 35 zones in these regions, the net economic contribution of wildlife use to the economy was measured, as well as the benefits accruing to resident communities. In some of the zones, *de facto* wilderness sub-zones are present, associated with "natural area" and "multiple use" sub-zones. Profiles from four selected zones have been used to derive estimates of potential, direct and indirect use values (in terms of the net contribution to the economy or national income) for the wilderness components of the zones. The selected zones are the "eastern core area" of the West Caprivi Game Park (Caprivi region, park setting), the eastern part of the "multiple use area" of the West Caprivi Game Park (Caprivi region, communal land setting), the Skeleton Coast Park in the vicinity of the Uniab river (Kunene region, park setting), and the Uniab river catchment

(watershed) adjacent to the Skeleton Coast Park (Kunene region, communal land setting). Table 2 shows these estimates, which can be assumed to be fairly typical of the better quality wildlife areas found in the north east and north west.

Table 2: Estimates¹ of potential economic use values for four typical potential wilderness areas in Namibia.

| Wilderness Area | Extent (hectares) | Economic use value (N\$/hectare) | |
|--|----------------------|----------------------------------|-----------------------|
| | | Direct ² | Indirect ³ |
| Woodland/floodplain habitat | | | |
| Caprivi region (park setting) | 30,000 | 1.45 | 4.33 |
| Caprivi region (communal land setting) | 60,000 | 0.68 | 1.36 |
| Desert/semi-desert habitat | | | |
| Kunene region (park setting) | 70,000 | 0.54 | 1.63 |
| Kunene region (communal land setting) | 100,000 | 0.99 | 2.99 |

- 1 Average annual net contribution to the national income per hectare, derived primarily from empirical financial and economic enterprise models
- 2 Direct use value derived mainly from guided hiking trails
- 3 Indirect use value - derived from lodge-based tourism and consumptive resource uses in surrounding "natural areas" or "multiple use areas"; which uses are attributable to the presence of the wilderness

The results in the table suggest that the economic use values of wilderness in Namibia are likely to be dominated by indirect values. These are dependent on wilderness being associated with relatively large tracts of surrounding natural land which can be used more intensively for tourism and consumptive wildlife use. If wilderness areas were to be much larger than those in Table 2, similar net benefits would be attributable to more land, and the average use values per hectare would be lower.

A study on the economic characteristics of demand for wildlife-based tourism in Namibia, involving a questionnaire survey of 750 tourists, has been carried out by the Directorate of Environmental Affairs, Ministry of Environment and Tourism (Barnes *et al*, 1996). Tourists were systematically sampled at a variety of private and state controlled destinations, and the sample was corrected for sampling bias using official statistics on leisure tourist arrivals. The results suggest that the average wildlife tourist in Namibia derives a consumer surplus amounting to some 26% of her/his holiday cost, or about N\$ 550 per tourist trip. Some 70% of tourists are foreign so that most of this surplus is lost to Namibia, but if mechanisms could be found to capture some of it as income (say through taxes or donations) then the use values in Table 2 could be higher.

Findings presented by Ashley *et al* (1994) make it likely that the use values in Table 2 exceed the values attainable from commercial livestock production in these remote parts of the country. It is not clear to what extent they would exceed the values of traditional livestock keeping, however, since this is dominated by non-market values which are difficult to measure. Opportunity costs are likely to be much higher in the less arid Caprivi region than in Kunene.

Non-use values

As stated, we have very little idea of what non-use values might be for wilderness areas in Namibia. A little research work on non-use values has been done in South Africa. Oellermann *et al* (1994) used a bidding technique to survey the willingness to pay to prevent flooding of the Wakkerstroom wetland (a small wetland) in Mpumalanga province, South Africa, among 50 members of the local Wakkerstroom Natural Heritage Association. Median willingness to pay for option values was between N\$17 and N\$20 per month. For existence and bequest the median willingness to pay was between N\$15 and N\$18 per month. There was a positive relationship between willingness to pay and income levels, and a negative relationship between willingness to pay and family size.

Holland (1993) conducted a detailed survey of 246 visitors to four protected areas (recreation areas and game

reserves) in KwaZulu-Natal Province, South Africa, using a bidding technique to elicit their non-use values for the sites. One of these sites was the Royal Natal National Park, in which tourism use, although intensive, is restricted to non-mechanised activities. Results suggested that visitors were willing to pay N\$15, N\$12, and N\$12 per month to a fund for the option to use, bequest value and existence (respectively) of this park. The total annual non-use value perceived by visitors was calculated to be N\$389,000, and this amounted to N\$43 per hectare of park.

The closest we can get to identifying non-use values for wilderness in Namibia, is from examining results of the general wildlife-based tourism demand survey referred to above (Barnes *et al*, 1996). The survey sample of 750 tourists from the general tourist population was asked to name the main attraction(s) that had induced them to take the trip in Namibia. 977 responses were recorded, involving 45 different attractions. Table 3 shows the results which suggest that sentiments for wilderness preservation are likely to be high.

In another question tourists were asked the question: "Some parts of Namibia have extensive wilderness but limited numbers of game animals. Would you be interested in visiting such areas ?" Of 674 responses, 560 (83%) said "yes".

In the survey tourists were asked if they would be willing to pay towards a special *conservation trust fund* which would be used directly in "conserving and protecting wildlife in Namibia". Out of 683 responses 494 (72%) said "yes" and 190 (28%) said "no". Those who had said "yes" were asked in an open-ended question to state *how much* they would be willing to pay. Three hundred and thirty one respondents gave an amount, the mean of which was N\$144 per trip (standard deviation = 162). The mean willingness to pay for the *whole* sample of 750 tourists (including the 28% who would not pay anything) was calculated to be N\$104 per trip.

This willingness to pay to a conservation fund is a measure of the non-use value of wildlife in Namibia, as perceived by the leisure tourist in the country. It can be assumed to consist of one, or two, or all, of option, bequest and existence values. It amounts to 4.8% of the mean total trip expenditure within Namibia for the tourist sample. If we can assume that tourism in and around wilderness areas involves similar non-use values, then it can be calculated that non-use values associated with the use values in Table 2 are between 15% and 25% of these. This estimate, of course, is restricted to non-use values perceived by the actual (tourist) users of the wilderness areas and surrounding natural lands. It does not include any non-use values held by non-users in Namibia and elsewhere. To the extent that the non-use value of tourists could supplant consumer surplus use value, some or all of the willingness to pay for a conservation fund could *also* reflect use values.

Table 3: Main attractions inducing wildlife-based tourism visits in Namibia (named by 750 tourists surveyed)

| Attraction named | No. responses | Percent |
|---|---------------|---------------|
| Unique, unspoiled nature/landscape | 252 | 26.8% |
| Wildlife/animals | 161 | 16.5% |
| Etosha National Park | 88 | 9.0% |
| Dunes/Namib desert | 77 | 7.9% |
| Game parks/natural resorts | 31 | 3.2% |
| Others (40 attractions: each with < 30 responses) | 368 | 36.6% |
| Totals | 977 | 100.0% |

The evidence above suggests that there is a high level of preference among Namibian leisure tourists for unique, unspoiled nature/landscapes and there is a willingness to pay for its preservation. Wilderness, specifically, emphasises unspoiled naturalness and thus is likely to be characterised by similar non-use values.

How should the economic values of Namibian wilderness affect policy and planning ?

Irland (1988) gives a good argument for the use of economics in wilderness planning in North America. Development pressure in Namibia makes it essential. Wilderness *must* be planned in a way that ensures that its total economic value, realisable by both local landholders and society as a whole *in* Namibia, is higher than the

value of alternative non-wilderness land uses. Failure to ensure this will mean that, as demand for rural land and income generation grows, wilderness will be converted to these other uses.

Wilderness areas should be selected to maximise their total economic value. Resource use in wilderness should have the lowest environmental impact of any, but use opportunities should be maximised within this context. Designation of land with high levels of biological diversity as wilderness is likely to result in maximum preservation of non-use values and is sound policy. It is suggested that a system of *safe minimum standards* be developed for natural assets, to safeguard the option to capture their values in the future. The standards should reflect the likely non-use values of natural land and wildlife communities which are difficult to measure. As pointed out by Meffe and Carroll (1994), the burden of proof should rest with those who would wish to dispense with natural assets, and not with those who would wish to protect them.

The data shown above illustrate the importance of planning wilderness as an integral part of a larger land use plan. The use values associated with an interlocking combination of wilderness and "natural" and/or "multiple use" areas are complementary and much higher than if these land types were not together. The results of the use value analysis suggest that, as a very rough guide, wilderness areas should be of such size that their own use values can be maximised, but they should also be surrounded by some two to four times the amount of land in natural/multiple use zones. These ratios (1 : 2, 3 or 4) tend to reflect differences in the land requirements for the various tourism activities.

Ongoing studies on the economic value of land use and studies on the characteristics of demand for both use and non-use of wildlife and wild lands should be expanded to specifically include wilderness. Physical planning in parks and in communal land should be carried out, incorporating the results of such economic studies. Barnes (1996) has found in Botswana that the relationship between the cost of wildlife viewing tourism trips and quantity demanded is such that prices would drop markedly with too rapid expansion of services (demand tends to be price inelastic). Expansion of tourism development is, thus, very dependent on *overall* increases in demand. Research into demand growth rates is needed and planning of wilderness and associated lands should take the results into account. Walsh and Loomis (1992) in Colorado determined that total economic value of wilderness (as reflected in demand for both use and non-use) could be expected to grow by some 2% per annum for 30 years. A recent survey of 50 wildlife-based tour operators by the Namibian Directorate of Environmental Affairs, found that they expect the demand for their products to grow at a mean rate of 15% over the next three years (based on overall growth in tourism).

The development of a conservation trust fund (or environmental investment fund) for Namibia is in progress, and should be continued. It should be developed, among other things, as a mechanism for capture of the non-use values of wilderness and natural assets in Namibia. It should be designed to ensure the sustainable transfer of these values to local landholders and society in Namibia, as a return for their investments in natural assets and wilderness.

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MANAGING DIMINISHED WILDERNESS IN MISSISSIPPI

William Y. (Bill) Quisenberry, III
Mississippi Department of Wildlife, Fisheries and Parks

INTRODUCTION

By way of brief introduction, Mississippi is located along the central Gulf of Mexico in the southeastern United States. Mississippi is a blend of rivers, streams, lakes, expansive forests, rolling farmlands, hills, alluvial plain, and coastal marshes.

Mississippians are proud of their exceptional natural resources and sentiments run strong to protect the land which has made life so rich. Hunting, fishing, camping, boating, and other related recreational activities are not only big business in the state, they represent a way of life.

It is my sincere hope and desire that the way in which Mississippi is going about the acquisition, protection, and management of wildlife lands will be of value to the Republic of Namibia as it continues to make critical policy decisions on matters such as education, public health, economic development, wildlife and fisheries management, and wilderness management.

Mississippi Natural / Wildlife Heritage Program

During the 1970s Mississippi became a pioneer in the development of state natural heritage programs. The effort was a public-private partnership between the state and The Nature Conservancy to help offset accelerated land use changes that were altering forever the character of many rivers and streams.

In response to much citizen involvement, the Mississippi Legislature created a 10-member Wildlife Heritage Committee with the following major responsibilities:

- Acquire lands for public hunting, fishing, and related outdoor activities.
- Acquire habitat and make recommendations for protection of rare and endangered species.
- Establish a statewide system of unique natural areas of significant ecological, scientific or educational interest.

Specific examples of land acquisition projects to date include the following:

- Pascagoula River Wildlife Management Area - 38,000 acres (15,200 hectares)
- McEntire Scatters - 1,191 acres (476 hectares)
- Clark Creek Natural Area - 700 acres (280 hectares)
- Old River Wildlife Management Area - 13,244 acres (5,297 hectares)
- Shipland Wildlife Management Area - 3,642 acres (1,457 hectares)

These acquisitions were made possible through issuance of general obligation bonds, general fund appropriations, revenue sharing funds, U. S. federal funds through Pittman-Robertson and Dingle-Johnson, and monies derived from the sale of hunting and fishing licenses.

Since 1976, the Natural Heritage Program Inventory has been a major component of Mississippi's effort to identify the types and locations of plant and animal life, geological areas, and other significant natural areas in the state. It is Mississippi's most comprehensive source of information on rare and endangered animals and plants, exemplary natural communities, special geological features, and significant natural areas. A database inventory compiled from a broad range of sources, including museum and herbarium collection records, publications, unpublished reports and experts throughout the Southeast was developed.

By consulting the heritage database early in the planning process, planners can avoid sometimes costly conflicts.

Staff members can determine whether on-site environmental assessment is still needed (i.e., if no information is available on the site) and can provide guidelines on what to look for and techniques to use in relation to protected species. By using the inventory data, conservationists are better able to focus their preservation efforts on those elements which are most critically endangered.

While most lands have been added to state ownership through outright purchase in fee title, avenues exist for private landowners to preserve and protect their properties that possess unusual or even rare qualities. The means to accomplish this came about in 1978 when the Legislature created the Mississippi Natural Heritage Law. This act established a system of protection and management for lands of unique ecological, scientific, or educational interest through voluntary action by landowners on which sites have been identified, compiled, and placed on the State Register of Natural Areas.

The owner of any natural area on the registry may, if the commission so agrees, register the natural area by executing a voluntary agreement with the commission for the owner to manage and protect the natural area according to the rules and regulations promulgated by the commission and to give the commission first option to purchase the natural area. Owners agreeing to register their property are given a certificate of registration and are committed to manage the area according to the terms of the agreement with the commission.

The owner of an area may dedicate property as a natural area preserve by executing "Articles of Dedication" with the Commission on Wildlife, Fisheries and Parks. The articles of dedication contain provisions for the management, custody, and use of the natural area preserve. They also set forth provisions defining the rights and privileges of the owner and the state. Any person who conveys any interest in real property to the state is entitled to have the assessment of the property reduced by the amount of the value of the interest conveyed to the state.

When acquired by registration, dedication, or fee title, the property remains under the administration and control of the Commission until a proper management plan for the land is developed. The purpose of this required conceptual plan is to insure that any acquired lands will be properly cared for once they become public property.

Since its introduction in the late 1970s the state income tax "check-off" has become an effective way to raise money for nongame management by U. S. wildlife agencies. Residents receiving a state tax refund may designate all or any portion of the amount (at least \$1 or more) to go to the Wildlife Heritage Program for helping nongame wildlife, threatened or endangered wildlife or plants, and unique geological formations such as waterfalls, caves and canyons, and by purchasing, leasing, registering, dedicating, and maintaining natural areas."

Pascagoula River WMA

The Pascagoula River Wildlife Management Area is located in the heart of the Pascagoula River basin. Acquired in 1976 by the Mississippi Wildlife Heritage Committee, the approximately 38,000-acre (15,200 hectare) tract represents one of the more ecologically important bottomland hardwood forests remaining in the southeastern United States.

The preservation of the Pascagoula was a "first" in several respects:

- At the time of purchase, it was the largest tract ever acquired by a state out of its own funds for wildlife management.
- It was the largest bottomland overflow swamp ever to receive protection by a state.
- It was the first major property purchased by a private conservation organization by means of a complex tender offer. The Nature Conservancy purchased 75 percent of Pascagoula Hardwood Company stock subject to certain conditions, then liquidated and dissolved the Company and took title to 32,000 acres (12,800 hectares) of land.
- It involved the largest private loan (\$13.5 million) in the history of conservation.

The great importance of saving the Pascagoula Swamp lay in the credibility it established for the organization's heritage programs. Although Georgia and South Carolina had paved the way with land purchases, buying the Pascagoula tract was the first time The Nature Conservancy had worked with state legislators and agency heads to develop a truly comprehensive plan to preserve a state's most vulnerable and unique natural resources. This included: (1) the creation of a relatively independent state agency designed to identify, protect, and manage that state's threatened resources; (2) the implementation of a computerized "element specific" inventory of the state's

fauna and flora and the ecosystem containing them; (3) the practice of preidentifying lands of exceptional ecological worth and then initiating efforts to protect them rather than acquiring wild lands in a haphazard manner as they became available; (4) the methodology for working with state government to finance land acquisition and with the federal government (through Land and Water Conservation funds) to finance an ongoing inventory.

It is unlikely that the Pascagoula River project would have been acquired by the state without the overwhelming support of hunters and fishermen.

Shipland Wildlife Management Area

Acquisition of Shipland Wildlife Management Area represents:

- The first purchase of a public wildlife management area behind the main line levee fronting the Mississippi River.
- The first time the U. S. Internal Revenue Service issued a favorable ruling under Revenue Ruling 63-20 allowing a non-profit organization to issue tax-exempt bonds under certain condition, for conservation purposes.
- The first time in U. S. history that tax exempt revenue bonds were issued by a nonprofit conservation organization to acquire land for public hunting and fishing purposes.

Mississippi wanted to purchase the Shipland property from the U. S. Gypsum Company but did not have the necessary funding to complete the project. Mississippi approached The Nature Conservancy, to secure the property until such time as sufficient state funds would become available to purchase the land.

Tax-exempt revenue bonds were issued in the name of The Nature Conservancy in March 1984, and the state began making semi-annual payments toward retirement of the bonds in June 1984. In November of 1988, the state completed full payment for the property.

Clark Creek Natural Area

Located along the steep Loess Bluffs near the Mississippi River in Wilkinson County, Clark Creek Natural Area represents the first of a proposed system of natural areas in the state. Recognizing the significance of the land, International Paper Company donated 430 acres (172 hectares) of the property to the state in 1978. An additional 166 acres (66 hectares) was purchased from an adjoining landowner. Noted for its numerous waterfalls and popularity for hiking along the eroded stream bed of Clark Creek, the area is home to a number of plant and animal species of special concern.

Clark Creek is being managed for its scientific, educational, recreational, and aesthetic benefits as well as for biotic preservation and protection. An estimated 100,000 people visit the property each year.

Grand Bay Savanna

Much like the once expansive native prairies of the Midwest and bottomland hardwood forests of the Mississippi Delta, very little savanna habitat remains with us today.

The Grand Bay Savanna is located approximately eight miles (13 kilometers) east of Pascagoula, Mississippi and 20 miles (32 kilometers) west of Mobile, Alabama. It remains the largest and least disturbed wet savanna in America.

A major effort to acquire, protect and manage this remarkable ecological system is underway. Approximately 50 percent of the proposed 12,940 acres (5,176 hectares) refuge has been acquired. The Nature Conservancy has acquired several tracts adjoining the refuge as additions to the 3,200 acre (1,280 hectare) Bangs Lake Coastal Preserve, a state management area. Some 700 acres (280 hectares) have been purchased to the west to develop a common boundary with Grand Bay National Wildlife Refuge for future management purposes. The Nature Conservancy's Alabama Chapter acquired 80 acres (32 hectares) on the east of the Refuge in 1994 via a mitigation project. Alabama's state-funded land acquisition program - Forever Wild Land Trust - is presently negotiating to purchase approximately 3,000 acres (1200 hectares) east of the Refuge.

Black Creek Wilderness Area

The Black Creek Wilderness (BCW) was established by Congress on October 19, 1984 and is administered by the Black Creek Ranger District of the Desoto National Forest in Mississippi. The BCW contains approximately 5,010 acres (2004 hectares).

The goal of the U. S. Forest Service is to protect and preserve the natural resources and wilderness character of Black Creek Wilderness Area, provide for public use and reduce conflicts between this use and values of wilderness. When a choice must be made between wilderness values and human use, preserving wilderness resources is the overriding decision.

Gulf Islands National Seashore

Gulf Islands National Seashore, established by Congress in 1971, is a unit of the U. S. Department of the Interior's National Park Service. It includes 11 separate units stretching eastward 150 miles (240 kilometers) from west Ship Island in Mississippi to the eastern tip of Santa Rosa Island in Florida. The purpose of the park is to provide recreation for visitors and to protect wildlife, barrier islands, salt marshes, historic structures, and archeological sites along the shores of the Gulf of Mexico.

In 1978 Congress set aside Horn and Petit Bois Islands as wilderness areas. This act recognized the islands as being among the last untouched and undeveloped islands on the Atlantic and Gulf coasts.

Two special wildlife projects associated with Horn Island that should interest wildlife professionals:

- Restoring the Southern Bald Eagle (*Haliaeetus leucocephalus*)

During the period 1986-1989, a large cooperative effort was undertaken to reintroduce Southern bald eagles into the Horn Island Wilderness. Horn Island was chosen as a hack site because of its wilderness designation, the historic evidence of nesting in the area and its excellent bald eagle habitat, and both public interest and limited public disturbance of the research area.

- Recovery of the Red Wolf (*Canis rufus*)

As part of a five-year research project to document the biology of the red wolf, a breeding pair were brought to Horn Island in January 1989. Horn Island was selected as the breeding and study site because it provided ideal habitat and excellent food supply for the species.

From a national perspective, the red wolf recovery effort has been successful. As of June 1, 1995, the total wild and captive red wolf population was 289, (not on Horn Island).

Mississippi Sandhill Crane (*Grus canadensis pulla*)

The Mississippi and Florida cranes were listed as rare in the 1968 federal List of Endangered Fish and Wildlife. In 1971, the Mississippi Game and Fish Commission approved the establishment of the Mississippi Sandhill Crane National Wildlife Refuge.

The Mississippi Sandhill Crane was once an inhabitant of the Gulf Coastal Plain of Louisiana, Mississippi and Alabama. Now it is found only in a small area west of the Pascagoula River in Jackson County, Mississippi.

The Mississippi Sandhill Crane is listed as endangered by the U. S. Fish and Wildlife Service. As of 1992, there were only 120 cranes in the wild population.

The Mississippi Sandhill Crane National Wildlife Refuge was established in 1975 to provide protection and management for the cranes and to preserve unique savanna plant communities which they require. The refuge consists of three separate land units containing approximately 18,000 acres (7,200 hectares).

Black Bears

Viable populations of this species have been jeopardized by significant habitat alteration and/or reduction in range in east Texas, Louisiana and Mississippi. Consequently, in 1992 the U. S. Fish and Wildlife Service declared the animal "threatened" under provisions of the U. S. Endangered Species Act.

Though bear populations in the tri-state region have been significantly reduced since the time of European contact, there are indications that past downward trend in bear numbers can be reversed. Current U. S. Forest survey data for Louisiana and Mississippi indicate a leveling off and/or reversal of the decline in forested habitat within the bears' historic range.

Attitudes of landowners and the public are slowly changing to a point of acceptance for black bears. The species should be viewed as an asset, a unique and treasured wildlife heritage.

Perhaps the best hope for black bear restoration in Louisiana, Mississippi, and east Texas rests with the Black Bear Conservation Committee (BBCC). To date, the BBCC represents the combined efforts of more than 60 agencies, companies, organizations, and universities working together for the black bear and its associated natural resources.

Gopher Tortoise (*Gopherus polyphemus*)

The gopher tortoise ranges from extreme southern South Carolina, south over most of Florida and west to extreme southeastern Louisiana. In Mississippi the tortoise inhabits the southeastern section of the state.

Gopher tortoise burrows are essential to survival of a wide variety of vertebrates and invertebrates, including some found nowhere else. These species, including the endangered indigo and black pine snake, use tortoise burrows as summer refuges and overwintering sites. Extinction of the gopher tortoise could result in the decline or extinction of most of the other species that depend upon its burrows for survival.

Due to this decline, the western part of the gopher tortoise population (west of Alabama's Mobile River System), which includes all Mississippi tortoises, was designated as threatened by the U. S. Fish and Wildlife Service in 1987. The Service prepared a recovery plan for the species in 1990. Such plans delineate reasonable actions believed to be required to recover and/or protect listed species.

Educational Programs

Emphasis on education cannot be underestimated in terms of the acquisition, expansion, management and understanding of wilderness areas.

Project WILD is an interdisciplinary conservation and environmental education program emphasizing wildlife for children in kindergarten through 12th grade. *Project WILD* capitalizes on the natural interest of children and adults in wildlife by providing hands-on activities to enhance learning in all subject and skill areas. *Project WILD* addresses the need for human beings to develop as responsible citizens of our planet.

The "*Becoming an Outdoors-Woman*" program was developed to meet the needs of a woman. Historically, their participation in hunting and fishing has been at a rate much lower than their representation in the general population. Reports indicate that female hunters may have increased to nearly 10 percent of the hunting population, and women make up greater than 30 percent of anglers.

The "*Becoming An Outdoors-Woman*" involves weekend workshops for women that include courses on shooting, hunting, fishing, and other outdoor-related skills.

The goal of the "*Becoming an Outdoors-Woman*" program is:

To provide opportunities for women to learn skills that enhance and encourage participation in hunting, angling, and other outdoor activities.

NOTE: Expanded Version of this paper available upon request from Bill Quisenberry, Mississippi Department of Wildlife, Fisheries and Parks, P O Box 451, Jackson, Mississippi, USA 39205-0451.

Edited By David L. Watts & Catherine C. Shropshire, Ph.D.
Mississippi Department of Wildlife, Fisheries and Parks

UNDERSTANDING AND BUILDING PARTNERSHIPS WITH INDIGENOUS PEOPLES

Gregory F. Hansen
Wilderness Staff Officer - Tonto National Forest

Understanding and working with any culture, or group of people who are different from yourself can be very rewarding and enlightening. Such efforts can also be time consuming, difficult, and at times even frustrating, but will ultimately lend numerous benefits to all parties involved. The indigenous peoples of this world have survived thousands of years of oppression, prejudice, and abuse. Today, there are people, organisations, and land management agencies, that are beginning to realise that native peoples the original keepers of the earth, have a great deal to offer to the world. Many native peoples still have the ability to effectively understand and communicate with the natural world, and have retained a deep-rooted relationship with the land and all that abounds on what many native groups refer to as our Mother Earth. These people still have the ancient knowledge of medicinal plants, natural cycles, and the spiritual connectedness between man and his environment that is so much a part of the Wilderness philosophy.

It must be made clear, that in no way does this author speak for indigenous cultures as these proud Nations, Tribes, Bands, people, speak for themselves. The information provided in this paper is a direct result of the author's experiences in growing up, living, and participating in American Indian cultures for the last 30 years. Although much of the information presented in this document relates to American Indian people, the ideology, concepts, and techniques provided here can be successful in bridging contemporary natural resource management and the traditional knowledge of the original inhabitants of this land.

With such pressing issues as the management of religious sites located within public lands, and the preservation of the indigenous heritages that are vanishing in this the modern age, the time has come upon all of us to break down cultural barriers and begin to live and work together. It is time for us all to realise that difference is not a negative thing and that each and every culture has something to contribute to the world. The indigenous cultures on this earth are the ones who best know and understand our natural environment. As land managers, we must make strong efforts at combining our love and modern knowledge of managing the land, with the traditional people's devotion and knowledge of our Mother the Earth. By bringing the best of both worlds together, it is possible to again mend the sacred hoop of life that for generations has been broken by deceit, hatred, and prejudice. Traditional elders say that by mending the symbolic circle of life, the seven generations after us will benefit by living in a world where people once again understand and care for each other ... and can live in harmony with their natural surroundings.

Developing quality partnerships with the native peoples takes a great deal of patience and commitment. It is important to understand that a trust must be built up with any native community before any type of cooperative work can be accomplished. Meeting with tribal elders or leaders in their home surroundings is helpful in establishing a positive rapport with the community in which you wish to work with. Having someone from the tribal community that knows and trusts you, introduce you to community leaders, and who can serve as interpreter if needed, can assist in opening up communications more quickly.

Take every opportunity to attend community dances, celebrations, and events, if they are open to the public. This will assist in building your knowledge of the people whom you wish to work with and will send a positive message to the people that you are sincerely interested in their culture. Always accept invitations to visit with elders or leaders, share meals, or speak at meetings, as this will also begin to construct your reputation with the people.

You will find that certain people within the community will open up to you and certain ones will not. Try not to avoid the ones who seem resistant, but use the openness of certain individuals, clans, or sub-groups to establish communications. Take note that in certain instances, the official governing body of one particular community might not always represent the philosophies, beliefs, or wishes of all community members. Be careful to never get in between community divisions, but make a point to be aware of them when establishing communications or beginning to build a partnership.

Be aware that many indigenous groups do not have the same perception of time that non-native people do. Practice patience and sensitivity when trying to communicate and realize that your sincerity and motives could be tested by your ability to not push your ideas too fast or by being overbearing. Indigenous communities will probably have a spectrum of communication technological capabilities ranging from fax to verbal communication

only. Take the time to identify the best way to communicate with the particular people you wish to work with, and strive to improve and maintain those communication techniques.

Once you have established a positive rapport, and respectful communications, you can begin to speak about your program/agency goals. It is vital to let the people you are working with know your honest intentions, as deception is the fastest means for dispersing any partnership. At this point, it is crucial that you openly develop a set of goals that both your agency and the native community you are working with can agree on. Traditional beliefs, values, customs, and practices, must be integrated as a part of this goal-setting process if the partnership can be expected to continue. Once the goals of the partnership are agreed on, then it is possible to move ahead in the development of a partnership or program action plan.

Your action plan should document the specific actions that will be accomplished through the partnership. For example, an action that might be selected is for a tribal community to take over the management of a few wildlife species within a Wilderness Park that they will use for subsistence. Each such action must coincide with the original goals of the partnership, and must be carefully planned out and agreed on by both parties. The partnership action plan should include: the traditional beliefs that directly relate to each specific action, who will implement the action, a time frame for accomplishing the action, tools and or equipment needed, how many people will be needed to complete each action, and the cost for accomplishing each action.

Now that you have built a solid relationship with the people, you have identified and agreed on program goals, and you have jointly developed an action plan that documents your program's objectives, your partnership has the framework to prosper. Remembering the simple rules of being patient, showing mutual respect, always being honest, and working together to meet the goals that both parties have agreed on, will allow you as the land manager to build and maintain a quality partnership. Working with indigenous cultures to find the balance of contemporary land management and traditional values and practices, will make it possible to develop a partnership that will benefit your agency, the land, and the indigenous communities in your area.

At this juncture I would like to share some important elements or "keys" that I have found over the years to be quintessential in understanding Indian people and their cultures. I will begin with the concept of kinship and family. Family is in my mind one of the most important aspects of Indian life. I am reminded of the story I once heard about a Lakota (Sioux) women being asked what it was like to be Indian? Her reply was; to be Lakota is to be a good relative. The social structure, and in many cases the political structure of a tribe or band is closely related to the family structure. The importance of family and relatives is evident if one has ever been fortunate enough to attend any type of American Indian or indigenous people's celebration or event.

You see the grandparents sitting with the children and teaching ... always teaching and sharing of their wisdom and knowledge. You see the aunts and uncles always talking about their relations and how proud they are of them. You can see the parents of the new born children with their young ones, crowded by people who want to see and spend time with the newest members of the community. Family and kinship are amongst the most fundamental elements of indigenous cultures and this must be understood when attempting to get to know Indigenous peoples and their cultures.

Comprehending the close interconnectedness that Indigenous people have with the land is yet another important key to understanding such cultures. To traditional people, the land is like their mother, as everything in life is provided for through the environment.

Food, water, shelter, clothing, medicines and cures, the opportunity for spirituality and religion, and the ability to develop a beautiful and complex culture: for these reasons American Indians have had a difficult time in grasping non-Indian concepts such as owning the land and managing natural resources. But it is these close ties to the land that have given Indian peoples, especially the traditionalists, another reason to grasp onto their beliefs and values. This strong connection to the land has also presented some problems for Indian people. Take for instance the American Indian student who has to move away from his or her homeland to enter into college. This is very difficult from some as they are torn away from their families and the land that they love and depend upon spiritually. Mother earth is a part of them and they are part of her, and for this reason I feel as though this relationship with the land is a real foundation for appreciating indigenous cultures.

Language is the next element of Indian culture that must be addressed, for without the traditional languages we would have lost much more of the American Indian culture than we did. The retention of traditional language in my mind was the single most determining factor that allowed the tribes to hold onto much of their traditional history, songs, dances, and religion. The language told of the old warrior societies, how religious ceremonies and events were to be carried out, and what kinds of people were suited to perform these duties for the benefit of the

people. One of the most important breakthroughs, as I see it, in contemporary American Indian culture is the emphasis upon education and the offering of traditional language classes to Indian students.

If young people can learn their traditional languages then they can begin to find some sense of identity and pride ... something that is so difficult for many American Indians who are trying to live with a foot in two distantly contrary worlds.

I feel as though singing and dancing are important elements of indigenous cultures that should be discussed as they serve such a vital role in the expression of indigenous cultures. My Indian brothers and sisters say that there is a song for almost every aspect of daily life. There are songs for singing the sun into the new day ... there are social songs, religious songs, ceremonial songs ... there are songs for death and there are songs of life. Music is evident in almost every aspect of American Indian life. Music and singing is one of the doors that was opened for this author to learn and participate in American Indian culture and truly fostered a sincere respect and love for this culture.

Dancing is also a very prominent way that the people express their Indianess, and just as there are songs for many things in life, dancing is similar. There are religious dances and social dances. Each tribe hosts their own dances and styles of dancing. Over the years dances and songs were shared and traded and this is even more prominent today with the use of modern tape and video recorders. A good example of how one version of a traditional dance has served to unite American Indian nations is the inter-tribal style of dancing known as "Pow-wow". This style of dancing has been adopted by almost every tribe in America and has truly influenced many traditional and non-traditional tribal people in a way that promotes cultural pride and identity.

Pow-wow, originally a societal dance that was adopted from the Omaha tribe, became a formal social event and gathering that features certain styles of plains inter-tribal dancing and singing. It grew out of the Oklahoma area, which some refer to as the melting pot of Indian America, as a means of many different tribes getting together and expressing their Indianess through dance and song. Elements that help make up the formal structure of the Pow-wow are feasts, rodeos, princess contests and give-aways. The give-away is a solid example of how Indian cultures have been able to adapt traditional values into the modern world. Then someone is honored by the community by being asked to serve in a leadership role at a Pow-wow, such as a head dancer or a head singer, that person and their family have a give-away. The give-away illustrates that the person who has been asked to serve the community in turn is showing their respect by recognising with gifts, sometimes monetary in nature, prominent people in the community as well as people and families in need.

Almost every tribe in North America today has pow-wow. There are some downsides to this pan-Indian celebration and that is that some people get so involved in the social structure of pow-wow that they neglect their tribal responsibilities and / or identity. To many of the city Indians that I dance and sing with, pow-wow is the most available opportunity for them to express their Indianess through song and dance, and it is vital in maintaining their identities as Indian people.

The next key that I have found in understanding indigenous cultures is the presence of poverty. Just as poverty affects any culture that is burdened with its pressures, so is it true all over Indian America. In fact, some of the most impoverished places in America are Indian reservations and rancherias. But poverty is not limited to the outlying reservation areas by any means, it also reaches into the inner-city populations of most of our big cities and towns. The reason that I speak of poverty as a key to understanding indigenous cultures is that poverty changes the way people do things, and for this reason poverty manipulates culture. It can warp and diminish cultural values, and the way one thinks and acts, and unfortunately it is a real problem for many indigenous communities around the world.

It is ironic though, that some American Indian people who by governmental standards live well below the national poverty level do not feel as though they are all that poor. You see, Indian people as is true of many indigenous cultures, do not possess the same materialistic values of non-Indian societies. They do not need a fancy VCR, colour television, and a new sports car in the driveway. They are content and thankful if they have their family around them, food to eat, clothes on their children's backs, and a place to enjoy the land and practice their religion. We as a society could learn a great deal from these simple values. None the less, poverty has beleaguered Indian cultures ever since the onset of the reservation days and continues to be one of the most conspicuous issues facing Indian America today, as well as many native cultures throughout the world.

If one is serious about wanting to sincerely understand any culture it is imperative that one finds out what is important to the people of that culture ... what their values are. Values are usually learned in an informal manner and practiced unknowingly from what I have experienced. American Indian values are in many instances very

different than those of non-Indian people as is explained above, concerning the value of materialism. Differing values are in many instances at the root of conflicts between Indian and non-Indian people. If a balance of understanding can be found concerning differing value systems, it is realistic to expect that many of these conflicts could be resolved and discarded.

Finally, the last element that I would like to discuss that I feel has strong connotations to understanding Indigenous cultures is humour. American Indian people have a tremendous sense of humour although this is rarely captured in movies or stories that depict Indian people or life. Movies such as *Dances with Wolves* and *Little Big Man* have done a fair job of portraying Indian humour, but for the most part, the American people still do not have a good understanding of this aspect of Indian life. I will explain my point by sharing an experience of mine that I enjoyed a few years ago.

I had been living in Phoenix Arizona for about two years and had been going to pow-wow with my Indian friends and family most of that time. One night at a dance my Ponca/Creek friend introduced me to the lead singer of a very popular traditional Northern style drum group. My friend courteously mentioned that I was a singer, and the young man who led this group asked if I was looking for a drum group to sing with,

I politely acknowledged that I was, and he invited me to the next practice session. Now, although I have been singing most of my life, many of the songs were new and of course I made some mistakes along the way as everybody did while learning new songs. Well for the first two or three months, much to my surprise, not one person in the group ever laughed or made fun of me during my times of embarrassment. After a few more months, they began to tease me a bit, but still very tactfully and sensitively. But after about six months of singing with the group, I would not only hear about it when I would make a mistake, but I would hear about it for six months afterward, and so would everybody else.

It was at this time that I realised I was a real part of the group, as I was being teased as much as everybody else was. I learned that there was a time to be serious and focussed, and that there was a time to have fun and enjoy life. Indian people truly enjoy life and have a good time with each other. It is for this reason that I add humour to the list of keys in understanding Indian or indigenous cultures.

In summary: understanding any culture can take years of time-consuming research and dedication. If one truly is committed to learning about or working with any culture then they must sensitively and politely seek out people who are willing to share of that culture. From my experience, Indian people believe that if it is meant to be it will happen. The fact that it is difficult to find one term that refers to the many native cultures of the world in a way that suited all peoples, should send a message that dealing with and trying to comprehend any form of cultural heritage is complex and challenging at least.

Stereotypes and misperceptions can, and have, drastically shaped the way people perceive Indigenous people and their cultures. I am afraid that it will take many years to undo the many injustices that have been dumped upon the American Indian people and the indigenous peoples of this world through prejudice. The media has just in the last few years begun to paint a more positive image of America's original inhabitants, and I can only hope that this line of reasoning continues into the millennium, so that our children's children will be able to better understand the beauty and integrity of American Indian and native cultures.

The keys that I presented: kinship, connections to the land, language, song and dance, poverty, values, and humour have all been instrumental in my experiences in learning about, participating in, and understanding American Indian cultures. I have been honoured to have participated in a variety of different tribal cultures and these keys have helped me to better grasp the concepts and cultural elements that seem important to the people. It is my truest desire that we all as human beings can open up our minds and hearts and begin to truly understand what is important to us as individuals, and as different cultures, so that we can find the common ground that links us all together. My Indian relatives believe as I do, that we are all related. I sincerely hope that the information presented in this paper will be used to attain the crucial world goals of living in harmony with each other and our precious Mother Earth.

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F.l.t.r: D. Densham, I. Player, V. Martin, T. Cooper, P. Weingart

(Photo: Paul Weingart)

WILDERNESS MANAGEMENT TRAINING PROGRAMS:

PANEL DISCUSSION

PANEL MEMBERS: *Paul Weingart (Chairman); Chris Ryan; Drummond Densham*

Paul Weingart: In the United States there was a lot of energy put into evaluating areas for designation as Wilderness, after the Wilderness Act. There were many pieces of legislation that added Wilderness to the National system through State Bills for Wilderness. The emphasis was so much on designation, evaluated by managers for areas to be recommended for Wilderness, that we got to the point in the United States that we thought we should take care in managing those areas that were designated for Wilderness. And even when that decision was made, implementation usually resulted from individual initiative on units, whether they are in Regions, National Forests or Ranger Districts. It usually was committed people on those units that gave priority to Wilderness Management Training, and as I understand it, it was sort of the same situation with the National Park Service and the Bureau of Land Management. A lot depended upon those individuals within the organisation that gave Wilderness Management a priority, and implemented it.

The Pacific North West Region of the Forest Service was early on one of the few that did have some training of Wilderness Managers in the Wilderness environment, and that was about the only one for some years. In 1983, the first Wilderness Management Workshop was conducted at the University of Idaho. That workshop included all agencies having responsibility for Wilderness Management, all N.G.O's in the United States that had an interest in Wilderness, and it was a very successful workshop. As a result of that workshop in 1983, a taskforce was assigned to develop a Five-Year Wilderness Management Action Program. That taskforce consisted of representatives of the four Wilderness managing Agencies in Federal Government and N.G.O's from around the country. What they came out with at that time, was a five-year Management Plan for Wilderness Management. It was a five-year Management Plan because the intent was for it to be updated by a taskforce again at the end of five years. In the plan they had five major recommendations, and I will just mention the five. Educating the public; education and training of managers; capacity and concentrated use; inter-agency co-ordination and consistency; and Wilderness management practices. I feel, because of this plan, there became an increase in emphasis on Wilderness management training for the managers. The effort to update the five-year plan occurred eleven years later, in 1994 at a conference at Sante Fe, New Mexico. We have a draft of that effort at this point in time.

Training in the agencies like I said, was accelerated after 1983. In Region 3 of the Forest Service, (which is the Southwestern U.S.), we initiated training in Wilderness prior to 1983, involving not only Forest Service personnel in the South West, but also Bureau of Land Management personnel, National Park personnel and selected N.G.O's. These sessions were usually held once a year. I am not going to intrude any more on Chris's area of Wilderness Management Training in the United States.

In 1987, at the request of Ian Player, we included Drummond Densham of Natal Parks Board in the training in the South West, in the Superstition Wilderness in Arizona.

My involvement in Wilderness Management Training in Africa began after attending a conference on Wilderness in Southern Africa in 1989 in Durban, at the invitation of Ian Player. Following that conference I offered to help with Wilderness Management Training in Africa since I had retired from the U.S. Forest Service in 1988. That offer was made to Ian Player. And he through several innovative ways involving the Wilderness Leadership School, the Wilderness Action Group, Rotary in South Africa and Rotary International made it happen. That started my professional association with Drummond Densham who you will hear from later in our panel. It is now my pleasure to introduce Chris Ryan who is the Assistant Director of the Arthur Carhart Inter-Agency Wilderness Training Centre. Chris will talk about Wilderness Management Training in the United States.

Chris Ryan: Thank you Paul, that was an excellent introduction. The Arthur Carhart National Wilderness Training Centre, is an inter-agency organisation that develops Wilderness training materials and training sessions for our four Wilderness managing agencies, the United States Forest Service, the National Parks Service, the Fish and Wildlife Service and the Bureau of Land Management. We have only been in existence for about four years, and we were established in response to a recognised need for trained Wilderness rangers, managers and decision-makers in our agencies. We started off as a Forest Service organisation, with a budget that came from the Forest Service, which funded three Forest Service employees. Then about two years ago there was a Memorandum of Understanding that was signed by the heads of our four agencies, that essentially identified the need for Wilderness training in all four of our agencies, and recognised the Carhart Centre as the entity that would develop and disseminate that information and those materials. I am happy to say that in the era of downsizing, the Carhart Centre has grown in the past year, from three Forest Service employees to eight

employees. And we now have a full inter-agency staff with representation from all four of our agencies.

You can imagine how difficult it was for Forest Service employees to try and develop training materials for all four of our agencies, when our mandates and policies were so different. But I think that, although all four of our agencies have very different ways of managing lands outside of Wilderness, the important thing that came of this Training Centre is the first true opportunity to provide consistent management across the National Wilderness Preservation system, across all four agencies. So it really has worked beautifully and we are looking forward to a long history.

We are located in Huson, Montana, which is about twenty-five miles West of Missoula. We have essentially no training facilities. I know it seems odd to have a Training Centre, where there are no training facilities. I would give anything to have a facility like this, at the Carhart Centre. But we have one training centre that is about half the size of this room and other than that, the classrooms that are available to us are, the barn, the blacksmith's shop, the loft. The Centre is located on the Nine Mile Ranger District and is a full-blown working Ranch and Forest Service Ranger District. So our facilities are very rustic and we have no accommodations for overnight stays or meals, and therefore we host only one training session a year at the Carhart Centre. And all of our other training we take on the road, to wherever there is an identified need.

Since we have been in operation, we have completed about eight major projects and I have brought several of them with me this week to share with you. And the reason that I have selected these three, is because between the three of them, they provide a very broad base training for agency personnel.

The first one that I want to talk about, is our Wilderness Ranger Training Module. And this training module provides Wilderness rangers with an understanding of Wilderness history, concepts and values, and provides the field skills necessary for them to implement Wilderness management on the ground. Now this session is taught generally, at the very local level, and it would be taught by people like Greg Hansen, John Kramer and Laurel Munson Boyers. As a general rule it would be taught every year at the beginning of the season. And the participants would be new Wilderness rangers, seasonal Wilderness rangers, and volunteers.

The second one that I want to talk about, is a Wilderness Awareness Training Module. This one provides a framework to increase understanding of Wilderness values, policies and stewardship. But the beauty of this one is, that the framework is flexible enough that it can be designed for whatever the audience is. As a general rule, it is used to train resource managers, whose primary duties are not Wilderness, but have some involvement in Wilderness management. These people could be range conservationists, wildlife biologists, they could be law enforcement people, or they could be our front-liners, which are receptionists and the people who greet the public in our offices and our visitor centres.

The last one that I want to mention, is our National Line Officer Training. And this is the notebook that we used this year; we have just finished our course just a few days before I got on the plane. This is the one course that we host at the Carhart Centre. And we kind of consider it to be the cream of our crop. This session has been given for seven years. And it was not developed originally by the Carhart Centre, but by a group of Wilderness Managers, which included Greg Hansen. It is really a very fine course. The reason that we started doing this course, (and again this was started by the Forest Service), was because the Chief of the Forest Service and Congress were not particularly pleased with some of the decisions that our line officers were making that affected Wilderness and what was happening as a result.

We have talked a lot this week about decision-making and Wilderness, and it is different making decisions with other resources. What happens with our line officers, as with many of you, is that you are managing a full array of resources and Wilderness is one very small segment of your program. And so what was happening with our line officers was, because they lacked the training and the understanding and the awareness of Wilderness, they were not thinking differently when they were making decisions that affected Wilderness. Essentially what we wanted them to do was to step out of their usual decision-making box and consider things differently when their decisions were affecting Wilderness. So in this particular session, though we cover things like the Wilderness Act, policy, values, those kinds of things, we really spend the bulk of the time talking about decision making. We spend a lot of time on Wilderness Management Principles, and we spend a lot of time in small groups, where they have an opportunity as peers, to discuss real life case studies, and go through those decision screens that I shared with you the other day. And I think there are still a stack of those little cards over there on that table.

The structure of the session is really I believe, the key to its success. This session is geared to our upper-level decision-makers in our four agencies. It started off as a Forest Service session and I am happy to say that this year, we had a very good mix of line officers from all four of our agencies. The way the week works is, they arrive

in Missoula on Friday evening, Saturday morning we hit the trail and take them out for a three day Wilderness trip. For many of these people this is a major event in their life. Many of them have never camped out and some of them have never been on a trail. So for three days we take them out into the Wilderness. We don't preach to them, or shove Wilderness down their throats. We let Wilderness do the magic and then when they come back after three days, Wilderness is in their hearts. After the field trip we bring them back to the Carhart Centre. As I mentioned before, we don't have any accommodation for anybody at the Carhart Centre, so we set up what we call a Wilderness Camp on a beautiful bench that sits above the Training Centre. When I say we set up a Wilderness Camp, it is not our usual idea of a Wilderness Camp. This is a very comfortable camp, with canvas wall tents, wood stoves, cots, and as many sleeping bags as it takes to keep them warm the first week in June in Montana. We provide them with hot showers and we hire a cook who provides them with wonderful meals that are almost as good as Trish Cooper's, but not as good, throughout that week.

And I really related to what Tryg Cooper was talking about yesterday, with bringing people and making them as comfortable as possible, that is really the key to the success of this week, and the reason is that we don't want these people to be worried about whether or not they are going to be able to get a comfortable night's sleep. Whether or not they are going to be warm enough, whether or not they are going to have decent food. We want them to focus on Wilderness, so we make them as comfortable as possible, lay out the red carpet and do anything we can for them throughout the week, so that they can absorb themselves in Wilderness.

This is a very successful course and as you can tell we are very proud of it. We have seen direct positive results in the decisions that are made on the ground, as a result of this course. The Carhart Centre is also involved in differing levels with Regional Line Officer Training. As I mentioned the training we have at Carhart Centre is National where we brief speakers from all over the nation and focus on case studies from all over the nation. The regional ones, are more locally and regionally based and are geared to more of a middle- management decision-maker, rather than the upper level decision-makers. And in those sessions we bring in speakers from that regional area and focus more on local issues and local case studies.

Some of the other projects that the Carhart Centre has been involved in, are a Wilderness Planning Training Module, a Wilderness Site Restoration Training Module, Wilderness Fire Planning Guide Book, and we also are the coordinators of the Wilderness Management Distance Learning Program. I had a brochure that I was going to hold up, and it is sitting on my clipboard right next to Tryg. We did not have very many of these so I could not bring very many of them to show to you. But essentially there are six Wilderness Management Courses that are offered by correspondence, through the University of Montana, and if anybody is interested in these courses, I would be happy to take your name and address and send you one of the brochures on it.

We are also involved with the Leave No Trace Program. John Kramer gave you an excellent program yesterday, an excellent over-view of the Leave No Trace Program. The Forest Service national coordinator is a Carhart Centre employee. Our mission also includes educating the public. We spend most of our time focusing on agency personnel, but we did develop a kindergarten through to eighth grade Wilderness Education curriculum that has just been a wonderful opportunity to get Wilderness Education into classrooms. Prior to this curriculum our best opportunities, were to have people like Greg or Laurel or myself, go into classrooms. Our personnel is very limited and we are not nation wide, but there are big chunks of the United States where there are no Parks or Forests, and this was the first opportunity that we really had to take the curriculum and teach it to the teacher. Then the teachers take this curriculum into the schools. We are in the final stages of developing a high school Wilderness Education and Ethic curriculum. I think that is about all that I have. I did bring some information on the Carhart Centre that is on that table at the back of the room.

Paul Weingart: Thank you very much Chris. Now I will turn to Drummond Densham to give you the perspective of Wilderness Management Training in South Africa.

Drummond Densham: As Paul said, he offered to get involved in training in South Africa, after the Wilderness Symposium in 1989. And it took us the whole of 1990 to plan these courses. Under some pressure from Dr Ian Player sitting over there, who asked me...." when are we going to do something? I have got the money, I can get things done." And of course that is how it started.

The course started off as a basic course, as Chris has said. If she thinks she has logistic problems with a base, Paul and I don't have a base. We don't have a fund; we don't have anything to run these courses on. I approached Wayne Elliott's Department of Nature Conservation, because his Department has a Wildlands Trust, and over the last few years, the Trust has given us bridging finance, as a loan, to run the courses. The Wilderness Action Group returns the money after the conclusion of the courses.

The first Basic Course was conducted in 1991, in the Umfolozi Game Reserve, which was of historical significance, in that that was the first Wilderness Area in South Africa. Then Paul went off to the Transvaal and the Eastern Cape in that year and ran courses there. We have now run the courses for four years. There was one year that we were not able to put them on. These have been under the auspices of the Wilderness Action Group, who have taken the training under its wing.

In the four years, we have run eleven Basic Courses and three Advanced Courses. We have had some two hundred people attend the courses, a hundred and fifty on Basic and fifty on Advanced. We started the Advanced course in 1992. The manuals came along later. I think it was in the second or third year that we put the courses on, and we had a very dedicated person, (his name was Roy Jennings), who was able to produce them for us.

If you would like to look in your Conference programs you will see a Basic Wilderness Management Course program that we will be doing straight after this symposium. Paul and I working together and also listening to the course participants over the years, have developed this. There are five topics, there is Why Wilderness, History of Wilderness, Wilderness Management Principles, Wilderness Zonation, Use of Wilderness areas and then Wilderness Interpretation. Paul and I always re-iterate to the participants that, we are facilitators, we are not there to lecture to them, we are not there to talk to them, we are not there to tell them what they need to know. If we were to do that the course would be over in a day-and-a-half. The most important part of the course is to get people to interact with themselves and with us. The way we do this, is we give a short presentation of the topics and then allow some discussion about the topic and questions. We then give them a case history study, which we have collected from the participants. We now have a number of case studies from KwaZulu-Natal and the Cape and the Kruger National Park. We will be asking Namibian people to give us case studies, so that we will be able to work those into the course. In this way we take what comes from America and add the African perspective, which is probably one of the successes of these courses. We have developed the courses as the participants have given feedback to Paul and I. We do this by giving post course questionnaires to them, which we go through and pick up any suggestions made.

In the Advanced course, we review the principles of Wilderness Management again. We ask the course participants to bring a real-life planning exercise with them, with the maps, with the information on that area. The course is divided into small groups and they actually apply the principles to a planning exercise. Some participants are able to return home with some more ideas in respect of what they should be doing in Wilderness Planning and Zonation. If I can go back to the case history studies in the Basic course: we break the course up into small groups and we give them case studies, and we ask them to apply the management principles discussed in the course to the study, from a Wilderness point of view, and to try and be sensitive to the Wilderness ideals and the concepts and use the principles. We have had some very interesting discussions, because when they have gone out and done their exercises and discussions in the field, they come back, report to a plenary session, and we get them to talk and present their ideas without any interference, and then it is open for discussion. Paul and I often play the devil's advocate and ask the "what if" questions, and see what kind of responses come from this. And I think it is the most important and the most valuable part of the courses. We do that both in the Basic and Advanced Courses.

The International perspective, that Paul Weingart brings, is a very important element. One of the things that I was asked to do in 1994, because we had problems with funding and trying to cover all the costs, by the Wilderness Action Group, was to assess the need for the American International input into these courses. Could the Group now do it themselves? I just stood back intentionally and deliberately from two Basic courses that we ran. It was very evident from the rapport that was built up very quickly between Paul and the course participants, and the interaction that came from them, that we could not do without it. If the Group had decided not to bring Paul to South Africa, I believe the courses would have failed and not met the course objectives. This is really because Paul not only knows what he is doing, he was a Wilderness practitioner in America, and also has come over to Africa a number of times, and has been to many of the countries in Southern Africa. He understands the situation, he is able to translate his experience into an African perspective and this is very important. Paul and I discussed his continued involvement in these courses and it may come to an end pretty soon, but that depends on his program and how busy he is. The Wilderness Action Group will need to find somebody else who is a hands-on Wilderness Management practitioner to assist us with our courses.

The challenges that we have had are to cover the costs of traveling, which have escalated. Wilderness Leadership School has come to the rescue on a number of occasions, because we could not charge too much for these courses. We are now charging in South Africa R400-00 per person, for the course, where participants receive a manual, accommodation and they get three meals a day for that. But travel expenses from the stations to wherever we are holding the courses is becoming more and more expensive. And just before I left to come here, there were only four people registered for a Basic course, straight after I get back to South Africa. The reasons

that prospective participants from national conservation agencies give, is that they don't have the budget anymore, on their training votes.

As a direct result of the courses, the Natal Drakensberg staff are developing a Recreation Opportunity Spectrum Zonation plan. The Umfolozi Wilderness Area now has an approved management plan. In the Eastern Cape, staff have led the way in applying the lessons learnt during the courses. Japie Buckle has led this process.

One of the problems is that many of the course participants are no longer involved in Wilderness Management either because they have left the organisation or are in another posting.

Paul Weingart: Thank you Drummond. I think that we are ready for questions now, for the rest of the time except for the last minute or two. You can direct your questions to individuals on the panel or to anyone in general.

Ian Player: I would just like to comment and to say that, that program would be without precedent; one of the most important milestones in the whole history of Wilderness in Southern Africa. It has sensitised officers that I knew, who didn't know anything at all about Wilderness and cared even less, to really start looking at it seriously. So I would just like, in this forum, to thank both Paul and Drummond (and Wayne Elliott who has helped enormously with quite a few Wilderness programs), and I just pray to God that we keep these things going because they are of the utmost importance.

Q. Len le Roux: I have a number of questions about the issue. The first one is in terms of institutionalising these programs. How do you actually go about it in terms of acceptance within the broader slot of development plans, that either Parks or agencies have taken up. Are these courses accredited? In other words are they recognised within the structure, within the promotion plan? And I think particularly in South Africa, (because we share very similar experiences), is the institutionalising of this into (in our case our Ministry, in your case the Parks Board,) - how do you go about that so that this gains recognition? And then the training function. So often it is just an add-on that develops out of something, and after this people who were not trained, will get pulled in to actually do this sort of training. What have you done in America to tackle this particular issue because I am sure you face the same kind of issue? What are we looking at in South Africa in terms of tackling it? If you do face the long-term sustainability problems, how do you build it into the actual structure so that it becomes part of the ethos of that organisation?

A. Chris Ryan: First of all, probably the hardest one to become accepted has been the Line Officer Training. The other ones are geared to Wilderness management. Line Officers are decision-makers. All of the other ones for the Wilderness Ranger, all of those, those people were hungry for training, they couldn't wait to get their hands on it. The Line Officers were another story: the first few years in the Forest Service it was a real struggle to get people to come, and in many cases they were told that they had to come. Then it got to the point, where the whole Wilderness Management program in the Forest Service evolved to the point that Wilderness became a critical item on a lot of Line Officers' evaluations. And they recognised that the Chief was serious, and that they needed to get out and get some training, so that they could build a stronger program. Now that it has evolved into an inter-agency training session, we are running into the same thing with the other three agencies. We always have a lot more Forest Service people that want to come, than we have room. That is not necessarily true of the other agencies. So it is just growing, it's a growth thing. As far as the second part of your question, which was getting good skilled trainers. You tell me if you have a solution; we go through it every year. We essentially are bringing in the resource managers to do our training, and some of them are really good and some of them are not. All of them have a real strong knowledge of their topic, but they don't necessarily do good training, and that is something that we really struggle with. Each year we try new people and weed them out and that is a struggle.

Q. Len le Roux: Are you budgeted? Do you have Forest Service and agency budgets for this kind of course?

A. Chris Ryan: The Carhart Centre is budgeted. 40% of our funding comes from the Forest Service, 20% from each of the other three agencies. That money is used to fund our salaries and our projects. Our training sessions are funded by tuition, which is another problem; in low budget years, it can be a real struggle to get people to come, if they have no money for training tuition.

Paul Weingart: Drummond, why don't you respond from the South African perspective.

Drummond Densham: Our training courses are not institutionalised at all: we have not got to that point. To answer your question, "is it taken into consideration for promotion prospects for the staff of various organisations?" I can't speak for National Parks, because we have had something like seven state agencies sending staff to us. I can't speak for them. Within the Natal Parks Board? Yes, it is taken into consideration if there is a

Ranger wanting to go to Umfolozi as a Section Ranger or as a Trails Officer, and he has gone through the course. I, as the then Chief Conservator, would look and see whether in fact he had put it into his application, but it is not a formal thing, it is not formally entrenched into our organisation, nor is it part and parcel of our training section which does quite a lot of in-service training, and outside training as well. I go through the training section to get people to come onto the courses, because that is the way that I have to do it, but that really is as a Parks Board member on the Wilderness Action Group, that I do it because it is coming from the outside.

I hope (and it is something I have been talking to the Wilderness Action Group about - we need to do something about it), that we will be able to get the Technicons to see whether they can't put Wilderness Conservation into the curriculum. Whether they will be able to do it, I don't know. I have talked to Technicon Natal, with the people who do the Nature Conservation Diploma. They are interested, but have got such a full program they don't know what topic or subject to drop off.

Looking for trainers? Paul and I again two years ago, held a facilitators course, as we were trying to encourage other people in the various organisations around South Africa, to become involved in training as well. I think we had about ten or fifteen people, and we ran it over a day or so, just to give them an idea of what is involved, and what they would have to put into it. I tried to call on some of these facilitators last year and I was not able to find anyone to help, because they had something more important to do at the last moment. This year, I am going to be calling on one of the facilitators. Out of the ten or fifteen, I think, four responded positively. You can't take anyone to run this sort of course as it's got to be somebody who wants to be involved with background to share with the participants. I rely on some of my experience in the course, and when I ask those "what if" questions, it's also what Paul does.

Q. Willie Jankowitz: (the Polytechnic of Namibia). I have just two questions. How long is this course normally? The second question is. Is it possible for a student to take up the level of expertise, especially taking into account that many of the students are straight from school? Is it not more relevant to make this another institution like the polytechnicon, sort of a short course available to existing staff instead of a formal program? What are you suggesting?

A. Drummond Densham: Well the first question. The courses are run over a three-day period. Participants arrive at about lunchtime on the first day, and then we get into the course on the first afternoon, and by mid morning on the fourth day it's all wrapped up. It is basically a three-day course. We found in the early days, when we ran it over five days participants found it was too long, and they really wanted to get back.

Now, for your second question. I really don't know how to answer that one really, if you are looking at people coming straight out of school, going to Technicon and having it as a subject. I think that then you are looking at it from a very basic point of view, getting the concept, the philosophy of Wilderness across to them, you might even get some of the principles of management through. But they would have to be in a Wilderness Area, and be involved in Wilderness management work, to be able to benefit from it.

A. Paul Weingart: I would like to answer also, because I can't constrain myself, because one thing is very critical and it ties right back in to what Chris said about getting people out into Wilderness. It's also about the sessions you attended Drummond, in the Superstitions, and our philosophy for a number of years, in South Western United States, in Wilderness Training. And it's also what we usually do for the Basic course taught in Africa. It's the fact we feel very strongly that you have to take these people going to the course at least into an unstructured environment. Like next week, we are not going to be in this room, we are going to be outside in the bush somewhere while we are talking about Wilderness and it's management. The reason for this it to instill in these people a sensitivity to their environment as a basis to build upon or even starting to build a Wilderness philosophy. We feel from our experience, it can't really be done the most effectively in a classroom. Out in the environment, in the Wilderness, is the best place to really build this philosophy. So I feel quite strongly and I think Drummond and I both do, especially in the Basic course, it's important to be out in that atmosphere. Now a Technicon could do that incorporated into a field trip. In other words you would have the setting where it would be more conducive to being receptive to what was being taught.

One more thing I will just mention quickly, and then turn back to all the questions. As I said in my opening, initially in the United States, the Wilderness Training depended upon dedicated people in various areas, that would give priority, while in other places you would have whole regions that wouldn't even program training because they had no-one there that was motivated to conduct it. For instance we have heads of Departments or Boards that really don't care, they couldn't care less about it. They don't even care about having any of their people going to Wilderness Training. We have others that do care and I will even mention one because he has been such a

stalwart over time, and this is Nick Steele, the Director of the Department of Nature Conservation for KwaZulu. If he were to hear that we were not getting enough enrollments for a course, he would say "You are going to have that course, we can't go without it". And he would send people so we always filled the courses. That's the kind of leader he was for that particular Department. In other places you have to get to the people out there on the ground. You want to hook the people at the top, but if not, the people on the ground can do wonders. And if motivated no one stops them. I have to refer, like Drummond did, to the Cape people, what they have done with the basic people out there on the ground, and what they have accomplished and also what has been accomplished in Natal Parks Board. More questions please.

Tryg Cooper: Just as we do the Annual Horse Course, for the third year students at the Technicon, I think that we can quite easily accommodate the third year students on a Wilderness Trail. To me, that would be sufficient, until the guys are ready and they are working in that area. I would be more than prepared to do Wilderness Trails as part of your third year program, like the horse course.

Willie Jankowitz: Thank You Tryg, I will really take you up on that one. As this indicates, one of our major problems is good instructors, good teachers.

Tryg Cooper: And I would like it to be built into your program, that it is not just going to be an excursion.

Willie Jankowitz: And the thing is that, and that is why I asked the time length, we do a lot of excursions, to expose students to the veld conditions, and it is now in our curriculum that we spend just about every holiday somewhere on a course, through the whole of Namibia. It is expensive, but so far, fortunately the Government allows it. But getting experienced university trainers, is a problem, the thing of getting people university trained but with no experience or field knowledge. That's the type of thing that Tryg has offered. It's very hard, and I hope some of his colleagues will help there with other aspects of Nature Conservation. Although I must say here that the Ministry plays a very important part in creating models, and many of them contribute enormously to the success of the training program, so I just want to say thank you to every one of you who is contributing. Again if it is that short it can be easily fitted into the program.

Q. Ekkerhard Klingelhoef: I keep harping on this specific concept and I would like to ask. Specifically, which group are you targeting? Or are you taking from the top managers right down to the ground levels, or is there a specific group that you target? And not just the target group, do you just look at Conservation or do you look at the Forestry Department, Fisheries Department or any other sector? Or do you only focus on Conservation?

A. Drummond Densham: We offer the courses to anyone who is interested in Wilderness Conservation. And we have had private individuals, staff from private game lodges such as, Mala Mala, and Phinda Resource Reserve, come onto the courses. We target people specifically those in the agencies who are actually working in the Wilderness Areas.

At what levels? We would like to target the senior management and the executives of various nature conservation agencies in South Africa. They will never come to a three-day course, due to their time schedules. This is because participants to almost all the courses have stated that the senior and executive staff must attend these courses, so that they will become aware of the issues facing Wilderness Managers. There is a need to develop a program to present to senior and executive staff. Because, as I said yesterday in my paper, you can have the best well trained Wilderness Ranger out on the ground, but if he hasn't got support from the upper echelons of the organisation, he's dead. He can do so much and after that, that is as far as it goes.

Wayne Elliott: The hard lesson is, that amongst executives, you are only going to get a handful in South Africa that are actually committed. And you have got to acknowledge that, so you have got a chance in the rest of South Africa, but not a very good one. Nick Steele and others are committed, so that is why there is support. But you have got to target your senior management. You have got to more than target, you have got to put their names on the courses, because you know that is what people are doing now in our country. Because when you ask someone, "Do you want to go on a Wilderness Trail?" They say "Why are you punishing me, what have I done?" So you can't persuade them about it, you actually have to be pro-active. The other thing of course, is that the Wilderness Training does instill or helps instill the field ethic, which we are losing in our country, most of our field managers and in other conservation departments. It's a very real problem. Which is why the Wilderness courses and Wilderness ethic catalyze that type of dilemma. But in terms of the tertiary education there is hope on the horizon, because the University of Stellenbosch, Environmental Ethics Unit, are actively pushing things to get an environmental ethics component to the Diploma Course. And that's an avenue which the Wilderness Movement should get into, that course, not through Wilderness per se but through environmental ethic teaching and

that's the way to move forward. So there is some hope, but you have got to work at it.

Paul Weingart: I think that it is time to sum up. Just a couple of things that I want to say. One is that to survive, anything must have value. That has already been brought out here and it is one thing that we pursue very strongly. What are the values of the Wilderness? Are they in certain areas? Spiritual? Economic? Experiential? Scientific? You have to determine that, especially with peoples that live around the Wilderness. I just want to emphasise that, because it's too important. Another point is, that you cannot manage Wilderness in a vacuum. You cannot just look at the Wilderness and talk about managing only the Wilderness. That's the reason we apply the principles of Recreation Opportunity Spectrum. How are the lands around it going to be managed and what are the inter-relationships? How do they effect each other? Management Plans have been developed in Umfolozi, the Baviaanskloof and others, that consider those aspects.

In summing up I must refer to my old District Ranger. He attended school through grade nine, and rose all the way up in the Forest Service to Regional and National positions. He is retired now and 77 years old. Until two years ago he was still out trapping in the Wilderness. He also has Honorary Doctorate degrees, he writes, and is active in his community. What Bud Moore maintained was that, "Wilderness Management can only rise to the level and expertise of those dedicated Wilderness Managers". That is the major reason why you have to have Management Training and find those people that are dedicated to that extent, to manage that Wilderness. Bud also said Wilderness Managers have to have Wilderness in their heart and sand in their craw. So that is what you are after. You are after developing that philosophy in your people, that they are dedicated to Wilderness and they are going to do a good job of managing it. You have Tryg Cooper here, who has more sand in his craw than almost anyone else I have ever seen, because he is dedicated. So with that, thank you so much.



Front: Ben Ulena and Paul Weingart - middle background: Hu Berry

(Photo: Dirk Heinrich)

ATTITUDES OF TWO RURAL COMMUNITIES TO WILDLIFE AND WILD LAND

Garth Owen-Smith

Director: Integrated Rural Development and Nature Conservation (IRDNC)

SUMMARY

The attitudes of rural people to wildlife and wild land are complex, diverse and dynamic. This paper presents case studies of two rural communities in NW Namibia, documenting the remarkable changes in their attitudes to big game and its land requirements that have occurred over the past 14 years. The key factors that the author believes have contributed to this positive change in attitude are discussed. Many other rural communities in the Kunene and Caprivi regions of Namibia have also clearly demonstrated increasing support for the conservation of wildlife and wildland. The two case studies, Bergsig and Purros, were chosen because the author has had a close association with these communities since 1982.

The paper does not address the people's attitude to wilderness in its purest sense, as it was seen to be inappropriate to communities in daily conflict with natural forces to achieve their social and economic aspirations in a climatically marginal environment. Nevertheless, both communities live in the Kaokoveld, a region which has frequently been described by conservationists as Southern Africa's last wilderness.

HISTORICAL PERSPECTIVE

Prior to colonisation, all African societies had an intimate relationship with their natural environment which provided them with a large part of their economic, cultural and spiritual needs. During the colonial period, however, they were progressively alienated from these valuable resources by land expropriations for national parks and game reserves, and by nature conservation legislation which excluded them from the decision-making, management and exploitation of wild animals and many plants. Formal, Eurocentric schooling and scientifically based approaches to natural resource conservation have also contributed to this alienation by discrediting indigenous philosophies and practices, thereby marginalising local opinion forming structures and undermining the self-esteem of the community at large.

In Namibia, colonisation began with the occupation of territory from 1885 onwards by imperial Germany. After an initial *laissez faire* attitude to game hunting the first nature conservation legislation was introduced just after the turn of the century. These early proclamations, which related primarily to the establishment of game reserves and restrictions on elephant and ostrich hunting, were followed up by the South African administration with laws that made all wildlife the property of the State. In effect, this meant that a farmer, even on his own private property, had to obtain a permit from the local magistrate to hunt any wild animals, either for domestic consumption or because they were directly competing with his domestic livestock for scarce grazing or water resources. This interference of the state in what were regarded as a farmer's right to manage and exploit his own natural resources, led to many farmers taking the law into their own hands or inviting biltong hunters from the towns or neighbouring countries, to kill as many wild animals as they wished on their property.

The end result was a rapid decline in game numbers on private property throughout the country. The situation was only reversed when the nature conservation ordinance was amended (1967) and then re-written (1975) to give farm owners and leasees conditional ownership rights over commercially valuable game species. These pioneering changes in the nature conservation legislation have promoted local responsibility for wildlife protection, a proliferation of game farms and the establishment of a thriving wildlife based-industry in Namibia.

CASE STUDY 1: THE BERGSIG COMMUNITY (WARD 11)

Physical Characteristics

Most of the area comprises rugged basalt mountains rising to 1600 metres a.s.l. with deeply incised valleys of the Huab, Koichab and Uniab rivers and their tributaries. Sweet water springs are common, mainly along the foot of the basalt ranges. The bottomlands and lower slopes are dominated by *Colophospermum mopane* and *Euphorbia damarana* with *Faidherbia albida*, *Acacia* spp, *Salvadora persica* and *Tamarix usneoides* forming a relatively luxuriant riparian vegetation along the Huab river. *Commiphora* spp. predominate on the steeper slopes.

The average annual rainfall is approximately 100mm/annum which falls mainly between January and April. The area was struck by a very severe drought in 1980 and 1981.

Recent History

Prior to 1970, Bergsig was part of the white farming area surveyed and allocated during the 1950's, that was bordered in the north and west by the then greater Etosha Game Park. On the recommendations of the Odendaal Commission, these farms were bought out by the South African government to create Damaraland and the western extension of Etosha was deproclaimed. During the 1980's a veterinary cordon fence was erected more or less along the old Etosha boundary (the Red Line) and the area to the south of it, around Bergsig, was established as Agriculture Ward No 1 with its eastern and southern borders approximately along the Klip and Huab rivers.

Wildlife

Elephant, black rhino, giraffe, Hartmann's zebra, kudu, gemsbok, springbok, klipspringer, steenbok and duiker are present. Large predators include spotted hyena, leopard and until recently, lion. Ostrich are plentiful as are other desert-adapted birds. After good rain large numbers of migratory birds come into the area to breed.

Human Inhabitants

In 1974, a group of smallstock farmers from Riemvasmaak in the NW Cape were moved into Ward II by the South African government. After the democratic elections in South Africa, many Riemvasmakers chose to take up an offer of repatriation to their former home area in the Cape. The remaining community of Riemvasmaker and Damara people are primarily sheep and goat farmers, with a few head of cattle. Their farming practices are largely modelled on those of white small stock farmers in similar climatic zones. Bergsig has a primary school, clinic, church and two general dealers. Although some families have members who have obtained work here or in larger centres, unemployment is a major problem in the area.

Nature Conservation

During the 1970's the area around Bergsig was one of the main illegal hunting areas for government officials and others from Khorixas and further afield. A trophy hunting concession was also granted here in 1977. The first Namibian government nature conservation official was stationed in Damaraland in 1981. The Namibia Wildlife Trust (a local NGO) started operations from a base camp at Wereldsend, 25kms west of Bergsig, in 1982. By this time, drought and illegal hunting had drastically reduced all wildlife numbers - some species by up to 90%. Because of the severely reduced numbers of prey species, predator problems escalated during 1982. In one case alone, a pride of 14 lions killed 96 sheep and 17 goats in a kraal during a single night. In neighbouring Ward 12 a child was killed and at Wereldsend a dog was taken at the foot of a bed by starving lions.

Attitudes to Wildlife 1982-1992

Although government conservators and NWT staff carried out extension work in the community and did their best to assist with predator problems, many people in Ward II were openly hostile to nature conservation while most of the rest remained sceptical of our motives or just indifferent to wildlife. In the past they had often watched whites coming onto their farms to hunt and seen them returning with truckloads of game carcasses while they, the residents, had been prohibited from killing anything for the pot. Where were the nature conservators and NGOs then? If we now wanted wildlife to be conserved, they concluded, it was simply to allow the numbers to build up so that the whites could start hunting again!

As the veld-waters from the good rains in 1982 and 1984 dried up, elephants also became a major problem in Ward II by visiting and sometimes damaging borehole installations at stock posts. They were also regarded as a threat to human life. At the time, the general attitude of the Bergsig community was summed up by the frequently heard complaint: "We don't want to farm in a zoo." Nevertheless, by the concerted efforts of the government and NGOs and the at least passive support from most of the community, game numbers steadily increased.

In 1989, three rhino were poached by Pierre Jankofsky, an outsider, in Ward II. Before this, most of the community members conceded that the rhino posed little direct threat to the people. However, the vigorous interrogations carried out in the area during these investigations resulted in the general feeling that all the rhino

should be translocated to a place where no people lived. Many people now also added that all predators should be killed and the elephant numbers severely reduced or kept away from their homesteads or water installations. The other species could remain but nature conservation should take sole responsibility for their protection and not harass local people whenever they suspected a problem.

By the early nineties Ward II was once more in a dry climatic period and the now numerous springbok, zebra, gemsbok and ostrich in the area were starting to compete directly with the people's domestic livestock for grazing. With virtually no poaching for almost a decade, the elephant had also become more relaxed and, with many natural springs having dried up, were now coming to drink from reservoirs right next to homesteads - sometimes in broad daylight. Although the Ministry of Environment and Tourism and Save the Rhino Trust made efforts to keep the elephant away from homesteads they were unable to cope with the extent of the problem in Ward II and elsewhere. As bitter complaints came from the region's farmers, the issue soon became national with opposition politicians demanding that the government take immediate action. The matter came to a head when, in defiance of the nature conservation legislation, a Ward II farmer shot and killed an elephant as it approached his reservoir to drink.

To address these and many broader conservation issues a socio-ecological survey was carried out by the MET and local NGOs in central Damaraland in November 1992. During a day long meeting at Bergsig, community representatives emphasised that they would be prepared to actively support wildlife conservation in Ward II if the government was prepared to:

- i) Grant permanent tenure rights over the land they occupied
- ii) Grant them rights to manage their own natural resources
- iii) Effectively address the serious elephant problems in the area
- iv) Allow them to get direct economic benefits from the wildlife on their land.

Relevant Conservation Development 1992-1996

During the 1992 socio-ecological survey, MET Directorate of Planning (now Environmental Affairs) officer Brian Jones, informed the Bergsig representatives that the MET was in the process of changing their policy and legislation to give communal area residents equivalent rights over wildlife to those already granted to farmers on private land. The proposed mechanism for granting these rights - the establishment of conservancies, managed by a representative community structure - was fully discussed. The democratic, consultative process adopted by the MET to remove the past discriminatory legislation on wildlife use was appreciated by the community and gave them hope that their grievances would be addressed.

In 1993, the MET granted Ward II and other communities in Kunene Region a quota to harvest abundant game species for local consumption. The harvest would be monitored by MET officers, but the hunters were to be chosen from the local communities. The fact that the hunting would be organised and carried out by local people, under the auspices of their respective traditional leaders, had considerable symbolic value. A second community game harvest was carried out in 1995.

After negotiations with the Save the Rhino Trust, who had previously operated in Ward II (as part of the Huab project), the BMZ/WWF sponsored Integrated Rural Development and Nature Conservation (IRDNC) programme appointed a community liaison officer and five community game guards in the Bergsig area. IRDNC also provided a vehicle to assist the liaison officer to mobilise the community to form a Residents' Trust, manage the community game guards and facilitate the communities efforts to obtain PTO's (Permission to Occupy) for sites within the Ward suitable for tourism development.

Once these PTO's had been granted to the Ward II Residents' Trust, the first joint venture contract with a private sector tourism operator (Namib Wilderness Safaris) was signed. A second joint venture contract is presently being negotiated with an investor wishing to develop an upmarket lodge near Bergsig. During these negotiations, IRDNC has also held many training workshops for Ward II residents to upgrade their capacity to address the problems and meet the challenges of modern conservation and tourism practice. Legal and economic expertise has also been accessed to assist the Residents' Trust in their negotiations with the private sector.

In June 1996, the enabling legislation for communal area residents to establish conservancies was finally passed by the National Assembly and gazetted.

Present Attitude to Wildlife and Wild Land

The abundant wildlife in Ward II is now being conserved by a motivated team of community game guards enthusiastically supported by the community as a whole. The thriving black rhino population around Bergsig is also being regularly monitored by the community game guards in conjunction with MET and Save the Rhino Trust field staff.

Although elephants now drink regularly from water points near many homesteads, the great majority of the community members tolerate their presence, in spite of the periodic damage to water installations and gardens as well as the physical danger they pose to the residents. An example of this was the tragic death of a popular member of the community who was killed by a cow elephant when returning to his home after dark. At the funeral, attended by about 200 people from throughout Namibia, his death was described as a bizarre accident and during the many eulogies at the ceremony, not one person spoke out against the elephants or called for action to be taken against them.

The Bergsig community has set aside more than 15 000 ha of valuable rangeland with many springs and two boreholes for the exclusive use of wildlife. More areas to be set aside are being considered.

CASE STUDY 2: PURROS AREA

Physical Characteristics

Purros is a strong spring in the lower course of the Hoarusib riverbed about 55 km from the coast and therefore well within the Namib desert. The scenery around the spring is spectacular basalt and schist mountain ranges, dissected by the broad valley of the Hoarusib river which is fringed by a broad band of riparian woodland dominated by *Faidherbia albida*, *Acacia erioloba* and *Hyphaene petersiana*. The surrounding plains and hill slopes are sparsely vegetated with desert-adapted plants characterised by *Euphorbia* and *Commiphora* spp. After occasional good rains the lowlands support a good variety of predominantly annual grasses. The average annual rainfall at Purros is about 50 mm.

Wildlife

Elephant, black rhino, giraffe, mountain zebra, gemsbok, springbok, steenbok and ostrich are present. Larger predators include leopard, cheetah, spotted and brown hyena. Lion periodically visit the area.

Human Inhabitants

In the past, Purros was only periodically visited by nomadic Himba pastoralists who utilised the grasslands after good rain and the riparian vegetation during dry years. During the 1970's a few Herero families from Sesfontein migrated to the area and settled permanently. During the severe drought of 1980/81, when nearly all cattle and many small stock died, Purros was used as a food-aid distribution point by the International Red Cross and Rotary from Windhoek. The result was that by early 1982 approximately 250 people had settled at Purros. About half of these people returned to their home areas when the drought was broken.

The remaining people built their subsistence economy on their surviving livestock feeding on the riparian vegetation along the Hoarusib river, small maize gardens irrigated from the Purros spring and some food aid that still arrived at the settlement. As tourism to the area increased, hand-outs from tour operators and payments for photographs became a significant part of their income.

Nature Conservation

During the 1970's large-scale illegal hunting took place in the Purros area with the last elephant being killed in 1981. The first community game guard was appointed in 1983 and since this time wildlife numbers have steadily increased.

Attitude to Wildlife 1982-1988

Although the residents of Purros area were generally pleased to see ungulate numbers increasing, they were

very hostile to elephants, rhino and all predators. When the first elephants visited the area from the Hoanib river in 1986, the people saw them as a threat to their maize gardens and the lives of their womenfolk and children and demanded that the government and NGOs drive them away. Although the people welcomed tourists for the hand-outs they received they complained about the bad manners displayed by many visitors and their lack of recognition of the local people's rights in the area.

Significant Conservation Developments 1988-1996

In 1988, after negotiations with the residents of Purros, all Endangered Wildlife Trust tours visiting Purros paid the community a levy of N\$25 per tourist. The following year, Skeleton Coast Safaris also paid a levy to the community, for visiting Himba villages to take photographs. The manufacture of local crafts for sale to tourists was also encouraged and soon became a valuable addition to the local economy. The fact that both tourist operators recognised the local people's authority over the area by negotiating with them before bringing clients, and making a contract with them regarding activities and payments, considerably improved their attitudes towards tourism in general. The people also saw for the first time that they could "farm wildlife". Instead of getting meat and other products from wildlife, they could now get money from the tourists who came to see them.

In 1990, after negotiations with the Himba-Herero headman's council in Opuwo, the MET submitted a proposal to the Namibian Cabinet to proclaim the western part of Kaokoland (now NW Kunene Region) as a contractual park. The proposed park would be managed by a joint committee comprising senior headmen of the area and MET officials and the revenue from tourism, after covering management costs, would go to a fund set up for community development in the area. The Purros community supported the contractual park in principle, but were unhappy that negotiations had only been at senior headmen level and that no consultations had taken place with the residents of the area. The MET's proposal was not accepted by Cabinet.

Taking up the initiative of a local resident, in 1995, IRDNC assisted the Purros community to build a campsite which, from its first year in operation, has proved extremely popular with tourists. The income from the camp will be divided between the manager and staff, the Purros development committee, running and maintenance costs, and repayment of a loan taken out for materials purchased.

Present Attitudes to Wildlife and Wildland

The abundant wildlife at Purros is actively conserved by the community game guards supported by the community as a whole. A group of 14 elephants has taken up permanent dry season residence in the Hoarusib river around Purros. Although the elephants sometimes approach very close to villages, the people no longer see them as a threat but rather as a source of income through tourists visiting the area. In 1996, the Purros community agreed to leave an area of nearly 200 000 ha between the Hoarusib and Hoanib rivers for exclusive wildlife and tourist use.

CONCLUSIONS

In both case studies, communities that were previously hostile or just indifferent to big game (particularly elephants) are now actively conserving all wild animals and promoting tourism in their areas. Both communities have also agreed to keep livestock out of considerable tracts of their land and use it for tourist development only. The Purros community has also stated that they do not want any lodge or fixed campsites in their wildlife area, in effect creating a 200 000 ha wilderness zone with abundant big game including elephant and black rhino.

The author believes that the key factors that contributed to this change in attitude were:

1. No attempt was made by the government or NGOs to expropriate land from them for conservation purposes.
2. The communities have started receiving tangible financial benefits from their wildlife through tourism and consumptive use on terms negotiated by them.
3. The community was given the opportunity to develop their own vision of their future relationship with big game species such as elephant, black rhino and predators. They could only do this by having meaningful control over the management and use of their natural resources.

WILDERNESS AND THE PRESERVATION OF BIODIVERSITY IN NAMIBIA

Mike Griffin

**Senior Conservation Scientist - Directorate Specialist Support Services
Ministry of Environment and Tourism**

The concept of preserving Biological diversity has been around for a long time. Before modern linguists took it up, the process was called nature conservation, wildlife preservation, or any number of other combinations of words, generally referring to the safekeeping of wildlife and preserving the (presumably) unaltered natural environment.

By the turn of the century, the concept hadn't progressed far past the control over the hunting of game species in many countries. In Namibia for instance, the first legislation, in 1892, was directed at just that - controlling the over-hunting of game. By 1907 however, when South West Africa's first three game reserves were established, reality had set in and concerned officials realised that what was really needed were specific areas set aside for the game - preferably with secure fences to keep game in and people out. These places were called game reserves, and the overseers were called game rangers and game wardens. Emphasis was placed on the protection and management of game species. Even today in these "enlightened times"; management emphasis is often placed on game species because of popular, sentimental, practical and economic reasons. All too often, the preservation of the other 99,999% of biodiversity is either sacrificed, ignored or presumed to fare well, along with the management of the large and conspicuous mammals.

However, the intense management of a specific area, for a limited spectrum of species is surely not the best strategy if the primary goal is the maintenance of the biodiversity status quo, and to allow natural evolutionary processes to take place.

Apart from fulfilling some spiritual needs of mankind, I suspect that wilderness is by far the best option for the long-term maintenance of the broadest spectrum of biodiversity.

Since resources are always limited, the selection of wilderness sites should be done with as much knowledge, foresight, and wisdom as possible. All too often, as was the historical case in Namibia, areas available for conservation commitment were marginal areas that were of no foreseeable use for any other purposes. As it turned out however, we did quite well, as perhaps populations (albeit fragmented and possibly non-viable) of approximately 90% of Namibia's species-diversity is now under formal protection.

Presumably, the first criteria to consider when choosing wilderness areas is the presence of suitable physiographic sites, and subsequent criteria would focus on the usefulness of the area for other reasons, for instance, as long term biodiversity safety-deposit boxes.

Priority species for national biodiversity preservation programmes, aside from those species people want to see and/or eat, can be broken down into three broad categories:

1. Keystone species - those species which are essential elements to the maintenance of the ecological status quo; these are primarily philosophical taxa at this time, as we don't know much about them, especially in Namibia.
2. Threatened species - those species which are either locally, nationally, regionally and/or internationally threatened: this includes those species which initially started out with broad ranges with shared national conservation responsibilities, but for historical reasons, the majority responsibility has fallen on Namibia, for instance Black Rhino and Cheetah: by default Namibia has become the majority shareholder of these and several other species. Some of these species are considered to be flagship species - species whose sentimental value may outweigh their ecological value, but are nevertheless extremely valuable in economic ways, for instance fund-raising and eco-tourism.
3. Endemic species - and for several practical reasons we define them as those species that have 75% or more of their entire population within Namibia, and the sole responsibility of preserving Namibian endemic species falls directly on Namibia.

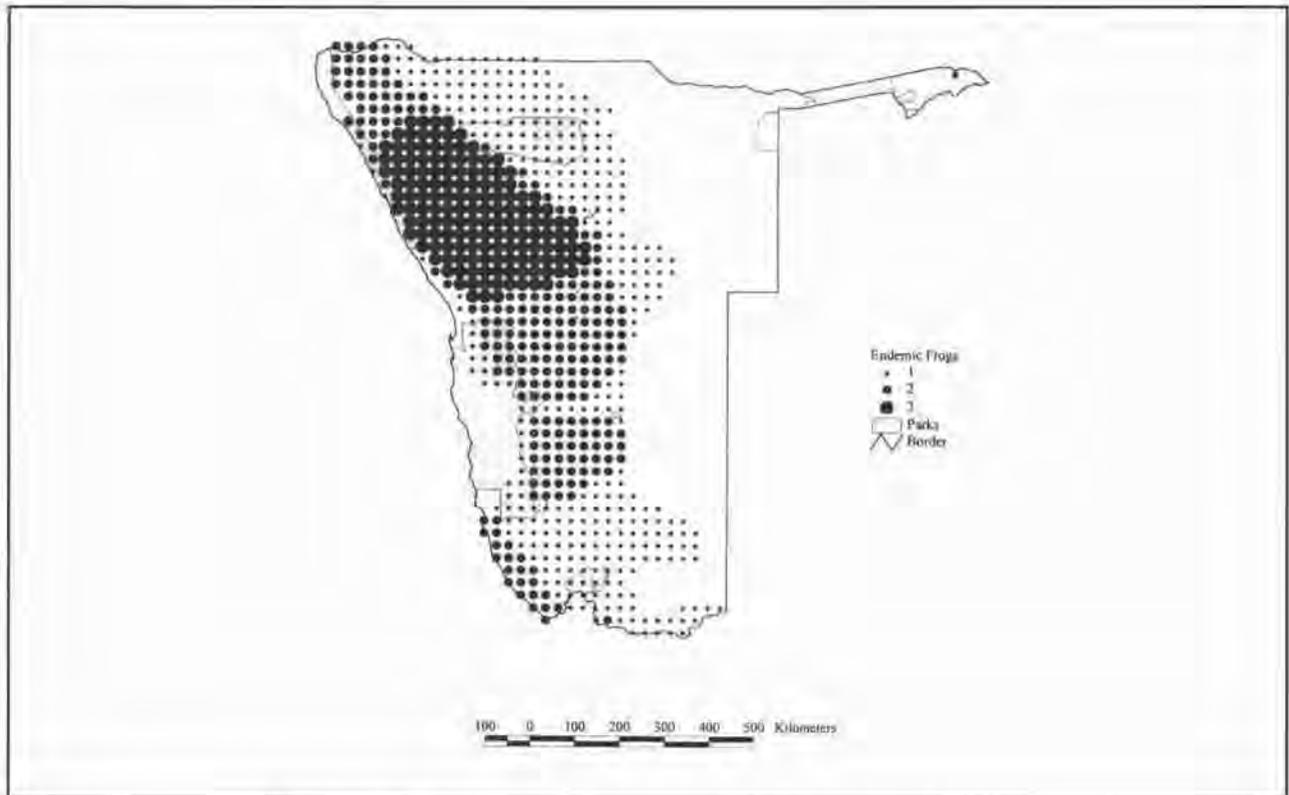


Figure 2: Potential distribution of 6 endemic Namibian frogs.

As figure 2 illustrates, Namibian endemic frogs are an arid - adapted group, and a major threat to them may be increased aridity (desertification). A couple of species are well protected in the Namib-Naukluft Park but the rest are without adequate formal protection. Marginal populations do occur in some smaller parks (Daan Viljoen and the Waterberg for instance).

The most endangered frog in Namibia is the desert rain frog *Breviceps macrops*, which also happens to be, by definition, a Namibian endemic. Not only are they genuinely rare under normal conditions, but they also have a built-in evolutionary fatal flaw: their preferred habitat is coastal dune hummocks along the "Diamond coast" of the Sperrgebiet, the same dune hummocks under which diamonds are found. Needless to say, neither the frogs nor their habitat survives the diamond-extraction process. I estimate that less than 5% of this habitat is left undisturbed within the Namibian range of this species. This is particularly irksome, as these frogs have taken a major evolutionary bypass and eliminated their dependence on free water for breeding (the tadpole stage is contained within the egg). This dependence on free water is the usual limiting factor on frog distribution, and the usual cause of conservation problems, for instance chemical pollution, and over-abstraction.

This area however, the Sperrgebiet, would be a prime physiographic setting for a wilderness area. Although it is probably too late to help the desert rain frog, other endemic species also occur there, and would benefit from formal long-term protection.

Figure 3 illustrates the biogeography of 55 species of endemic Namibian reptiles. Nearly 25% of Namibia's reptile fauna is endemic, and again it is clear that they are concentrated in the arid western section, particularly in Kaokoland and Damaraland (the Kunene and Erongo regions). Lizards are a major component of Namibia's vertebrate diversity, and the majority of endemics are lacertids and gekkonids. Only one endemic reptile (a small arboreal gecko) occurs in eastern Namibia, and the Caprivi is totally free of endemic reptiles.

The Namib-Naukluft Park provides refuge to a large proportion of these endemics, but the northern Namib Desert fauna is fairly distinct, thus leaving a significant proportion of Namibia's endemic reptiles without adequate formal protection.

Whether you favour the concept of "hot spots" or not, you cannot help but notice the significance of the Brandberg area - with a potential community of 27 endemic reptiles it is a very important area to consider for future conservation action: and coincidentally, it is also one of Namibia's most appropriate venues for a wilderness area.

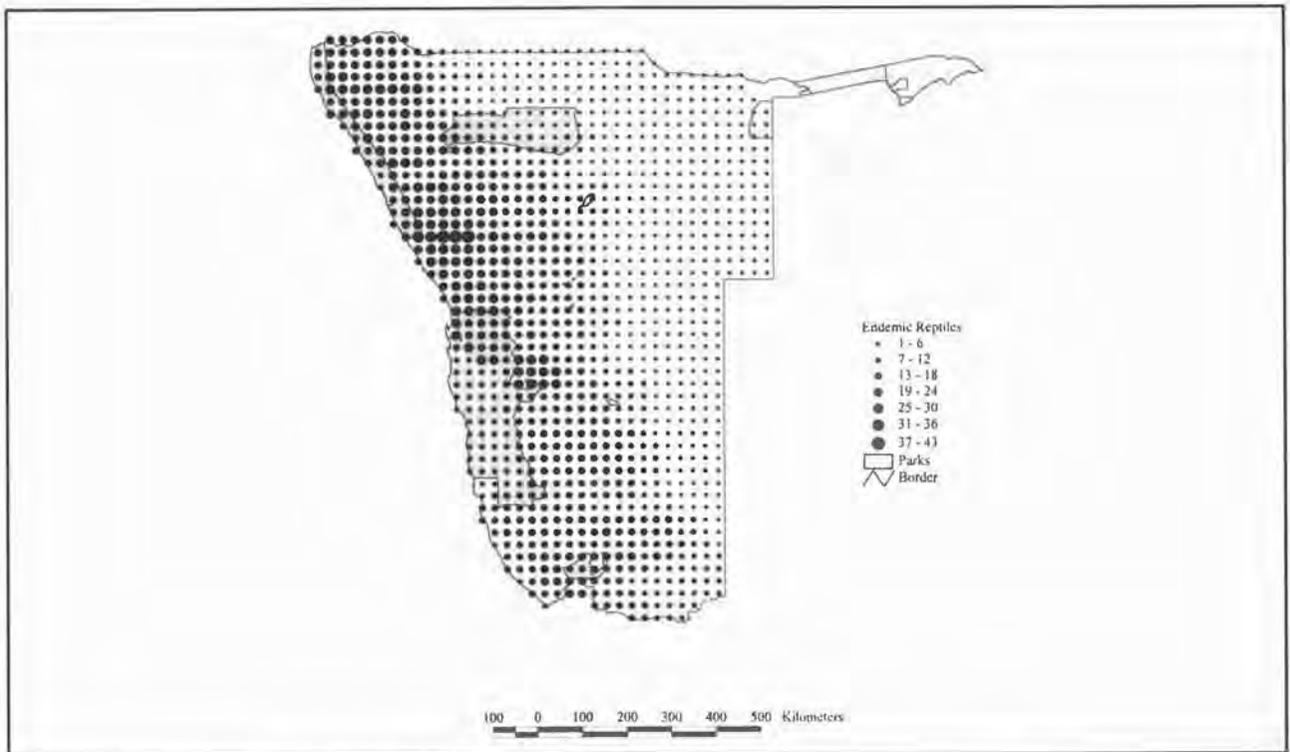


Figure 3: Potential distribution of 55 endemic Namibian reptiles.

Namibian endemic mammals (figure 4) follow much the same biogeographical patterns as the endemic reptiles and amphibians - primarily a west coast, Namib, pro-Namib and escarpment pattern. All endemic mammals with the exception of two gerbils occur in rocky areas, and the "hot spots" have extended south to the region of the Brukkaros and Hunsberg Mountains.

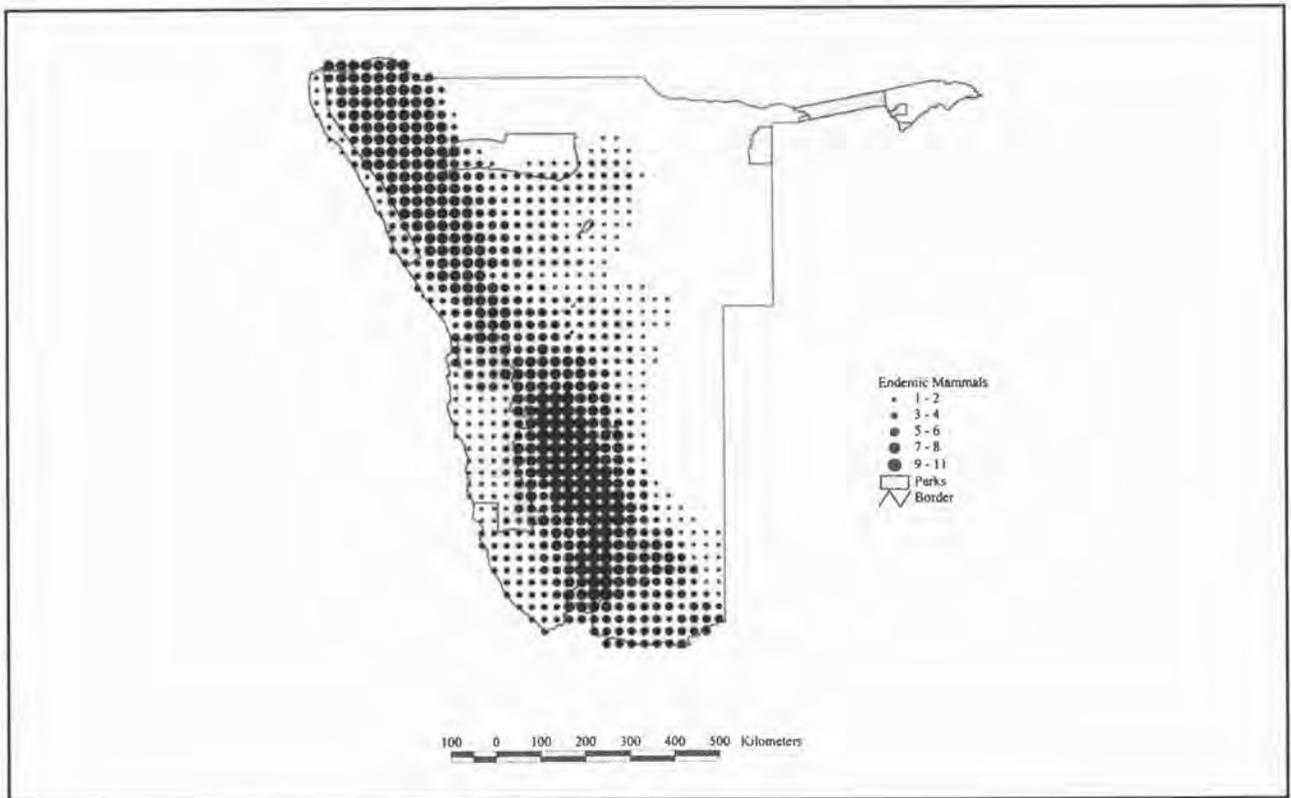


Figure 4: Potential distribution of 14 endemic Namibian mammals.

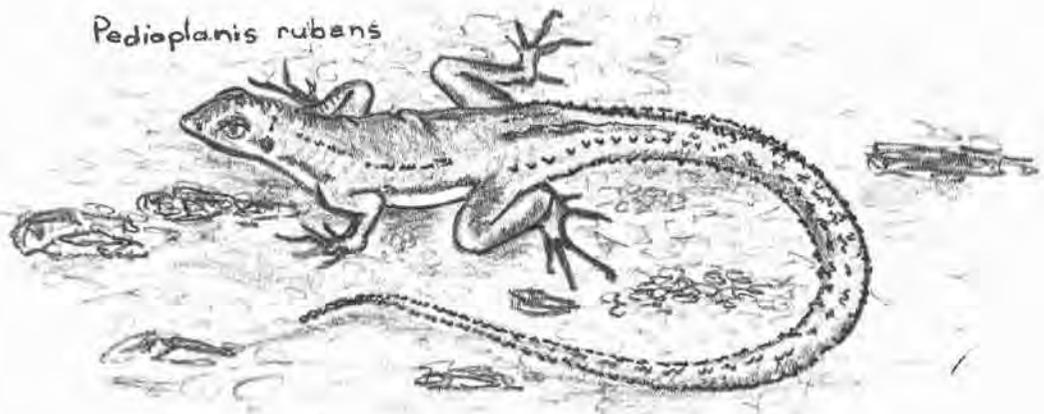
As you can see, evolution has cleverly avoided the Waterberg (where this conference is being held). There are

a few Namibian endemics here but the Waterberg is clearly not a "hot spot". One lizard though, the Waterberg sand lizard, *Pedioplanis rubens*, is endemic to the Waterberg massiff exclusively.

So, these are examples of the types of criteria that should be considered during the process of selecting geographic areas for protection. That is, to optimise the implementation of separate but non-conflicting and compatible conservation or preservation interests.

In summary, there are two parks in Namibia with wilderness trails, the Skeleton Coast, and the Waterberg. These trails have contributed substantially to the Namibian wilderness experience of many hikers, both local and foreign. In addition, Namibia's legacy of biodiversity is also reasonably well preserved within the formal parks system.

These successes however are good motivation for even further action. In my opinion, the Namib, pro-Namib, and escarpment are the most likely places to contain areas which can be physiographically described as wilderness. In addition, this region has unarguably high biodiversity significance for Namibia, much of it still outside the formal preservation network. And that is an unbeatable combination for future consideration.



WILDERNESS: THE AFRICAN WILDLIFE FOUNDATION PERSPECTIVE

Mark R. Stanley Price
African Wildlife Foundation - Nairobi - Kenya

INTRODUCTION

Current concepts of wilderness in conservation have generally been developed in the western world. Little has originated in Africa, with the notable exception of South Africa with its Wilderness Leadership School. This balance, or imbalance, is of interest to the African Wildlife Foundation, because it is a USA-based membership, non-governmental organisation with its Field office for Africa in Nairobi, Kenya, that focuses all its conservation action into Africa. Because AWF tries to identify the critical issues in African conservation, and then to be part of developing innovative solutions, it is naturally interested in the scope of wilderness as part of the formal conservation estate in Africa.

This paper will explore how the concept of wilderness means a variety of things, both at different levels of society, and according to personal perspective and experience. It also tries to put this into the context of how relevant the concept of wilderness is to Africa, as a component of the continent's evolving conservation of nature.

WILDERNESS AT THREE LEVELS

Wilderness as a concept crops up in three contexts or levels of society. These are (i) at the international level, as a category of protected area, (ii) as an element in, or influence on, national psyche, and (iii) at a personal level. These three levels are illustrated here to hint at the complexity surrounding the idea of wilderness.

Internationally-recognised wilderness

The IUCN General Assembly of 1987 recognised wilderness as a category of protected area. Interpretation has developed subsequently. In 1990, IUCN declared that Scientific Reserves and Wildernesses are largely free of human intervention. They were available for scientific research, environmental monitoring and non-mechanised, non-disruptive forms of ecotourism. Apart from incorporating all the objectives of scientific reserves, wildernesses also had to be of a size that "protects the natural environment which serves physical and spiritual well-being".

In a 1994 revision, IUCN recognised Strict Nature Reserves and Wildernesses as the two categories of area both requiring the strictest protection. The definition of wilderness was "Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition". It is significant that for the first time, there is an almost apologetic mention of the possibility of a marine wilderness.

In the same document, the Objectives of Management and Guidance for Selection contain more detail, but the bland definition barely expresses any of the qualities that are most commonly ascribed to wilderness. This points to the need to distinguish between the idea of a wilderness area and the concept of wilderness. Some of these aspects are explored further below.

Wilderness at national level

The USA probably has one of the world's largest system of formally recognised wildernesses, with the Wilderness Act 1964, which defines the conditions for wilderness and enables wilderness establishment. The classic book, "Wilderness and the American Mind" (Nash, 1982), attempts to explain the factors that contribute to the national view of wilderness, and its role in the national psyche. It is complex, but shows clearly why "wilderness" meets a spiritual need, or exists as a concept or attitude in the mind of the American public.

Amongst the determinants of American views are factors that have shaped human perspectives from the recent past, from many millennia ago, and even over geological time. Among them are:

- man's earliest antecedents, and the influence of the habitats occupied by *Homo sapiens*, and even other, earlier *Homo* spp.

- the attitudes and writings of the ancients of Rome and Greece
- European religious development, its spread to the New World, and its diversity and local evolution
- the nature of the earliest American settlers, and their reasons for migrating to North America and settling there
- the ecological conditions encountered on the east coast of America, and subsequently as settlement moved westwards
- the occurrence of indigenous inhabitants, their cultures, ways of life, density etc.
- the pattern of development of American society, from being primarily agricultural to industrial and manufacturing
- the progressive urbanisation of America, which accelerated after 1945
- the role of the frontiersman in American mythology
- the need in the second half of the twentieth century to find alternative frontiers, and wildernesses to subdue, exemplified by the space race
- the effects of huge immigrations of different ethnic groups to make America now so diverse

The factors that shape national attitudes towards wilderness must include both genetic and cultural history, the results of systems of government, government policies, any experience of colonisation (both as coloniser and colonised), immigration and multi-ethnicity, the nature of the economy and the role of primary or natural resources in the national economy. Analysis of these factors for an African state would undoubtedly reflect great complexity.

Wilderness at the individual level

To explore the concept of wilderness, a sample of 8 AWF personnel and one marine conservationist from IUCN were asked the question "What does wilderness mean to you?". The results are shown in Appendix I. These are excerpts from what was written. Standard questions, such as "Should human habitation be allowed in a wilderness?", were not asked, and so the most distinctive sections of each response are reproduced.

The responses indicate a wide diversity of view, split between attempting definition of a wilderness, and what the respondent felt he/she wanted to do in a wilderness, or gain from it. Thus, this confirms the dichotomy between wilderness as a place and as an experience or attitude.

Views are diverse as to whether people should be allowed to live in a wilderness, and with what restrictions on lifestyle. There is a strong bias to the terrestrial, with only the marine biologist conceiving of a marine wilderness, even though the mountain-walker acknowledged one might travel by river through the terrestrial wilderness. There is not agreement on the place of danger in wilderness. There is a sense of approval for wide, open landscapes, with fear of closed forests. There is a strong sense of large scale, remoteness, pristine nature, large wildlife. There is one observation that such areas will soon only be found in Africa's protected areas, in contrast to another view that conservation in Africa's protected areas does not foster a pristine environment.

The strongest sense of activity within a wilderness comes from the Maasai field officer. The language ki-Maa has a word which translates as wilderness. This is the silent (and, hence, remote) place in which meat-eating for specific purpose must occur.

These views show that there is a clear distinction between wilderness as a place and as an experience. The place can be formally declared or defined by certain key attributes, but the wilderness experience is very personal. In the latter, there are obvious influences of nationality, background, culture, individual attitudes to danger, traditional inhabitants and so on.

ISSUES OF WILDERNESS IN AFRICA: AN AWF PERSPECTIVE

Preceding sections suggest that wilderness is a complex concept, with interpretations of it highly influenced by the culture and individual perspectives of those considering it. Most thinking and writing on wilderness has been done in the western world, which also contains many of the world's finest wildernesses. Many of the western world's greatest advocates for wilderness are also only recreational users of it. Their survival or lifestyles do not depend on efficient use of wilderness resources. Thus, when wilderness in Africa is contemplated, some fundamental questions arise, for example:

1. To what extent is wilderness an acceptable idea in Africa?
2. How realistic is it to expect areas in Africa to be declared wilderness?

The case of Tanzania National Parks

In East Africa, wilderness has formal existence in Tanzania. The official policy of the parks authority states that the management of natural systems will be based on a park's management zones as established in an approved General Management Plan or Environmental Impact Assessment (Tanzania National Parks, 1994). Large zones have the primary objective of the protection of natural resources and values for appropriate enjoyment while ensuring their availability to future generations. Natural resources will be managed with a concern for fundamental ecological processes as well as for individual species and features. Very significantly, "TANAPA will not seek to preserve natural systems in natural zones as though frozen at a given point in time". This policy is to be the basis for new national parks legislation, to be enacted in early 1997 (L.Melamari, pers. comm.)

Wilderness is not a category of protected area, even within the 236,000 sq. km, or 25% of the country's surface area under formal conservation protection, but it is a management zone within national parks. This concept was introduced to the TANAPA planning unit by a planner seconded from the US National Parks Service. Wilderness zones now exist within those Tanzanian parks for which management zoning plans have been completed. These include Kilimanjaro, Serengeti, Tarangire and Ruaha national parks. Over 50% of Ruaha or 582,555 ha, has been designated wilderness.

Wilderness is defined in Tanzania as a zone in which "the influence of man will continue to be minimal". In practical terms, one of the most significant aspects in the Tanzanian effort is not to try to define "carrying capacity" for use and development, but to create, instead, "limits of acceptable use". This places emphasis on the physical and social conditions desired, rather than on the maximum amount of use and development that the zone (or park) could tolerate. Management actions will then ensure these limits are not exceeded. Setting these limits inevitably requires at best a semi-qualitative assessment of what level of activity is acceptable within wilderness, and hence reflects both subjective and aesthetic considerations. These are important components of views of "wilderness".

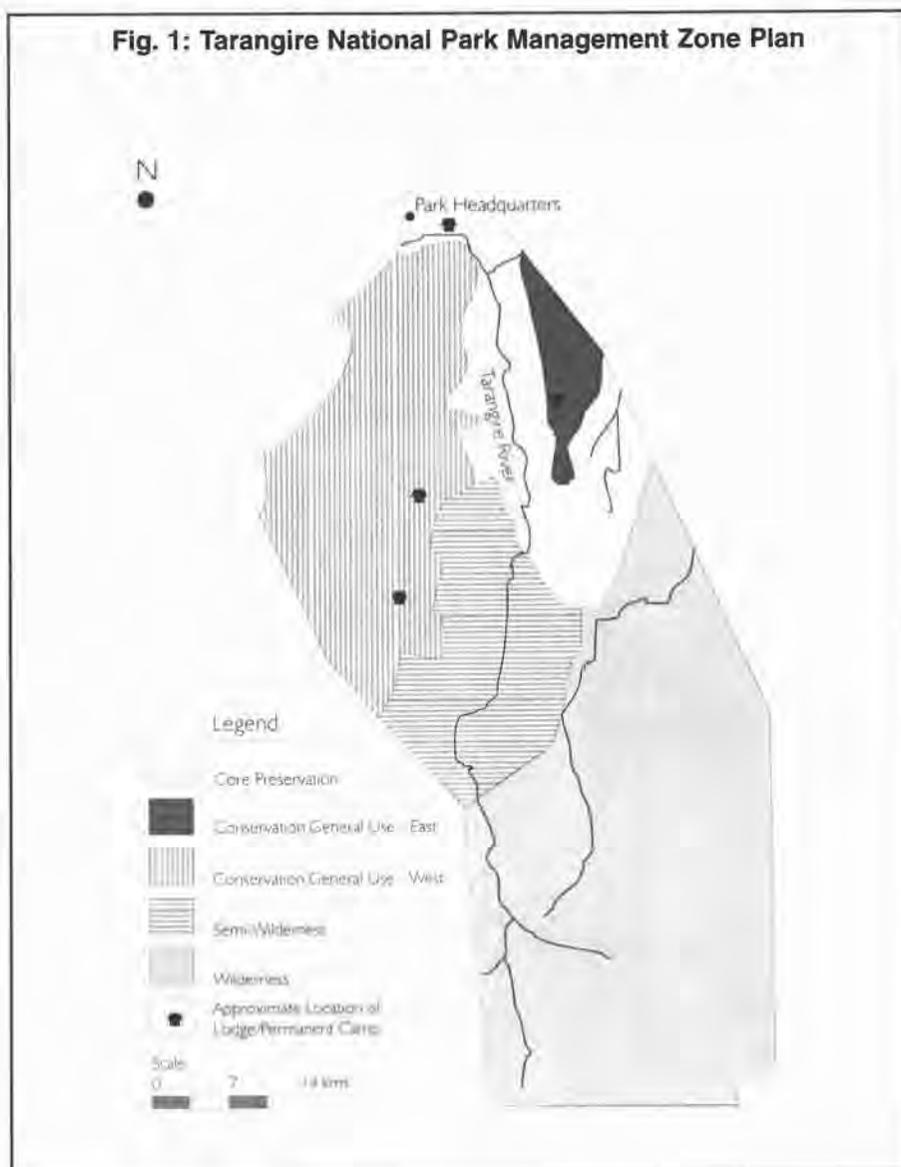
Tarangire National Park (Fig.1) has a wilderness zone of 126,653 ha, 48% of its total area. This was a result of a multi-disciplinary planning exercise, that included the park authorities, representatives of the tourist industry and others.

It is significant that the wilderness zone in Tarangire does not include representation of all the habitat types of the park, protected against greater development. It is an area of lower wildlife carrying capacity, more difficult of access because of seasonal flooding, and distant from the park's fixed lodges. Thus, it is ideally suited for low-intensity use, in ways that require minimal or no infrastructure.

Compared to the central zone of high daily use by mini-buses from the lodges, the wilderness zone has low limits of acceptable use placed on it, with strict rules as to permitted methods of use and enjoyment. From the limits of acceptable use, the size and distribution of current and planned tourist accommodation, and the fee structure, the earning potential of each zone can be calculated. On this basis, the earning power of the wilderness zone is a very small fraction of the high use zones. This difference is increased when differential occupancy rates over the year are applied. These run at about 60% for the lodges in the high use zones, to less than 10% in the wilderness.

Thus, the wilderness' earning power is very low in Tarangire. Defining the wilderness alone allowed new activities into the park, namely walking, but the limits of acceptable use have also deliberately limited this earning capacity. Maintenance of the zone also has obvious costs: clearing a large boundary adequately to keep out frequent fires, boundary patrols and some anti-poaching work. The wilderness zone is large, meeting one clearly-stated characteristic of wilderness. Revenue could be increased by raising the entry fee to be higher than that of the rest of the park. But, tourists currently pay \$20 per day to be in the park and, if at a campsite exclusive to their party, a further \$40 per person per night. There is no basis for thinking that tourists from overseas are yet ready to pay extra for some privilege of being in the wilderness zone. The case of Tarangire indicates that creating a wilderness zone may be an economic luxury until or unless a discerning demand for high-end nature tourism in Africa is created. It is notable, though, that at a time that tourism in East Africa is declining, the most expensive end of the market is thriving: it is characterised by operations that make least use of park infrastructure of roads and fixed accommodation, with clients who crave relative isolation from mass operations. These may pay up to \$500 per person per day to have a luxury temporary camp, but they are not the average ecotourist who is allowed only to walk through a wilderness zone, with all equipment being carried by themselves or porters.

Fig. 1: Tarangire National Park Management Zone Plan



Costs and values of wilderness

Tsavo National Parks in Kenya provided an instructive comparison as contiguous parks with a very large, informal wilderness area. Tsavo East and West National Parks were created in 1948. As an infra-structure was progressively developed across the total area of 20,000 sq. km., a huge wilderness zone (approximately 8,000 sq. km.) was left in Tsavo East National Park, Kenya, north of the Athi river. It never had anything but a basic road network. Strict regulations allowed access only by a few, specially-outfitted safari groups. But, when in the late 1970's intense poaching of elephants started, the lack of infrastructure hampered anti-poaching efforts, and elephants were almost exterminated from this wilderness.

It must be generally true that wildernesses cannot maintain themselves without management inputs. IUCN categorises wildernesses as requiring as much human intervention for management as do national parks, or natural monuments (IUCN, 1990). The wilderness zones in Tanzania's national parks will require establishment of a basic infrastructure, and patrolling for law enforcement. Hence, they will incur costs, and it is likely that any management authority will have to demonstrate how these costs can be justified by some values of the wilderness, whether these are captured as economic returns, or in some other form.

Clearly, this economic potential of wilderness will be greatly influenced by the terrain and climate. In the Namibian context of large, arid landscapes with high air temperatures, little shade or water, walking tourism will be limited. Motorised transport for tourists becomes almost essential for access and spreading use throughout large areas. It follows, then, that desert wildernesses must have particularly strict rules about vehicle use.

The question of whether wilderness can pay is too simple. The question should really be "Can wilderness resources be valued adequately?". The growing area of environmental economics and natural resource ac-

counting (e.g. Barnes, this volume) attempts to answer questions like this. It is an area of technique that AWF has been applying in a regional project in East Africa. The selected habitat, and of priority conservation need currently, is indigenous forest. Government forestry policy in Africa often remains focused on the neat plantations of commercial, exotic trees. In contrast, the multiple values of indigenous forests as providers of diverse resources to neighbouring peoples are hardly recognised, and rarely quantified. Their role in essential ecological processes is usually only recognised when the forest has been cleared and untoward consequences become apparent.

AWF's Forest Environmental Accounting Service attempts to stimulate recognition of the importance of such forest in government and amongst senior planners. AWF works through national institutions such as university forestry departments, environmental secretariats and so on. The task of creating awareness of the diverse ways to perceive, describe or quantify the values of indigenous forests has led to activities in each of the three countries which have now taken off on their own. AWF envisages acceptance of more sophisticated approaches to the valuation of natural resources in national planning. These same principles can be applied to wilderness or desert resources.

The feasibility of wilderness as a concept in Africa must face one major issue: whether wilderness can include indigenous inhabitants or not. The visions of wilderness from AWF personnel contain very differing views on the presence and lifestyle of people living in wilderness. There is clearly no common agreement on this. Here, AWF's experience in community conservation and the role of rural people in conservation is relevant:

Community conservation is characterised at its very simplest by 4 inter-related aspects:

1. who bears the costs of wildlife?
2. who gains the benefits from wildlife/ natural resources?
3. how can responsibility for these resources be handed to those in (1) and (2)?
4. how can economic opportunities based on wildlife or wilderness be developed?

Africa presents three basic situations concerning indigenous peoples and protected areas. These would be relevant to any formal African wilderness:

The post-colonial legacy of Africa, where relevant, is likely to ensure that if the wilderness has national park status, there will be no resident peoples, and little attention will be paid to claims to the land based on prior occupation. In this case, the management authority is unlikely to feel the need to consult with the neighbours on management issues, and revenues arising from the park or wilderness will go to the authority headquarters, and then usually to central Treasury.

In an intermediate stage, some community, usually living outside the protected area, has

- (i) either been moved out to create the wilderness,
- (ii) or only used the area seasonally, or
- (iii) has agreed not to occupy the area in the interests of its conservation status, and perhaps revenue-earning ability.

In each case, such people would seem to have fair claim to revenues or benefits arising from the protected area.

At the other end of the spectrum the protected area or wilderness has always had traditional occupants. This is the clearest case of their bearing the costs of wildlife, and the strongest need for them to receive the benefits, with least going to Treasury.

AWF would regard moving traditional occupants in the cause of conservation as unacceptable, and an unimaginative solution, unless the community clearly indicated its wish to change location. But, the continued presence of people in an area that is to be designated with the IUCN Class I status of wilderness presents some obvious problems:

1. Any people living in wilderness are clearly expected to live "traditional lifestyles". What does this mean? Are domestic donkeys, a species exotic to Africa, allowed in wilderness to carry water? If so, are their owners then consigned always to use donkeys, and never a pickup truck? Are the tracks and sounds of donkeys more acceptable in wilderness than tyre tracks and the noise of the internal combustion engine? (This is clearly the case in north American wilderness).

2. Most human communities increase in numbers: Africa has many examples where pastoralist population growth has outstripped the ability of pastoral resources to support the traditional way of life. To what extent can lifestyles in a wilderness change? Is the wilderness manager obliged to stimulate creation of employment opportunities in more "developed" surroundings, outside the formal wilderness?
3. Whether people are living in the wilderness or are shareholders while living outside it, they will receive benefits from the area's status. The seeds of a major problem lie in how the beneficiaries spend their money. The Maasai Mara National Reserve in Kenya offers an example of very large sums now finding their way to Maasai families on the borders of the reserve, and in adjacent ranches which, often because of the very high grazing pressure of cattle, have shorter grass and hence far more wildlife than the reserve itself. The opportunities to the Maasai for these incomes have been greatly opened up by the political decision to sub-divide the communally-held group ranches, thereby giving individual title deeds. These newly-rich Maasai are building non-traditional houses: not just a tin-roofed hut within the ring of domed, dung huts, but villas of more than one storey. The visibility and increasing density of non-traditional buildings is starting to impact the aesthetic value of the reserve and surroundings. It is difficult for the Maasai to understand the concerns of the western tourist culture regarding aesthetics, yet this is a value that could be critical to the continued tourist trade, and hence the Maasai's revenues into the future. If inevitable development within a wilderness proceeds thus, then minimal management of the wilderness will increasingly escalate into landscape management, emphasising again that most wilderness can not be allowed to look after itself.

There is a further potential damaging border effect: as an important way of cycling conservation benefits to communities in key areas, principally those next to protected areas or in dispersal areas, the Kenya Wildlife Service offers grants from its Wildlife for Development Fund. These are mostly for enterprise and community development. Although there are rigid criteria about the expected conservation merit of successful applications, it is conceivable that after a few years, business activity and infrastructure are so superior in these areas of prime conservation value that they may be to the detriment of conservation over the long term.

Appropriate planning is essential: there are initiatives in East Africa of community-based land-use planning. To the east of Tarangire National Park, AWF is working with the Maasai community, which is now aware of the damage done by allowing outsiders to develop large-scale agriculture, mostly for seed beans. Increasingly, the Maasai wish to control use of their own land. Interestingly, although government has surveyed and adjudicated each village's land, the Maasai themselves wish to plan use based on their traditional units and scale of land management, which is likely to have greater ecological realism.

Around the Bwindi Impenetrable National Park in south-west Uganda, AWF has been involved in creation of a Park Management Advisory Committee (PMAC). This contains elected members for each neighbouring parish. Its main aim is to develop an equitable method for sharing the proportion of revenue from gorilla-trekking tourism in the park, that Uganda National Parks sets aside for communities. Gorilla-trekking is a closely-regulated activity, limiting exposure of two groups of gorillas to a total of 10 tourists per day for one hour. Tourists currently pay US \$120 each for this hour-long, world-class wildlife experience, which is run on the strictest Leave No Trace principles (this volume).

Currently, the community share of gorilla tourism receipts is about \$50,000 per year. The projects developed by the PMAC members themselves are very impressive. Although the PMAC works, further refinement is necessary to escape the sense that the PMAC is merely a tool of the park authority. But, the point is that a community, living at very high density next to a park, is organised and motivated to work with the park for their mutual benefit.

4. People living in any African wilderness will expect services of their government. Most African governments cannot afford a uniform level of services or facilities to all their citizens wherever they live. On the other hand, policies to concentrate people in fewer centres have not worked well e.g. the "Ujamaa" effort in Tanzania. Government is also less likely to spend much on wilderness dwellers if the latter are retaining locally-created revenues from the wilderness. The Government of Botswana is grappling now over the question of Basarwa dwellers in the huge remote "wilderness" of the Central Kalahari Game Reserve, stating that these people will have a choice of staying or moving, with the implication that to stay is "anti-development".

CONCLUSIONS: WHAT ARE THE PROSPECTS FOR WILDERNESS IN AFRICA?

Africa is a huge continent, and it is undeniable that it contains many areas, mostly desert, in which the effects of man's activities appear slight or non-existent. These areas are de facto wilderness. But, there are further vast areas which are increasingly affected by man and his short-term interests. In many cases, they are caught in a downward spiral of exploitation of nature's capital leading to over-use, the degradation of natural resources and loss of productivity. These areas lose their natural ecosystem processes, are subject to unplanned development, which results in loss of the natural landscape and appearance, and - to many - their aesthetic appeal. Does this matter?

1. There is a need to conduct more suitable environmental accounting and economic assessments of areas that might be called "wilderness". The techniques exist for more balanced and inclusive approaches. But, such exercises must be conducted collaboratively, so that the very different perspectives of, for example, the national planner, wilderness dweller, environmentalist, and non-resident wilderness-user, are all accommodated, and are mutually understood. As one contribution to trying to gather together the range of stakeholders in planning for sound land-use and the appropriate role of communities, AWF is about to open a Community Conservation Service Centre, in Arusha, Tanzania. It is expected to develop a regional role. The Centre is intended to become a resource centre and focal point for community conservation, providing technical expertise and advice to a range of clients, such as Tanzania National Parks, local NGO's, hunting companies, local communities, regional authorities, other branches of government and so on.

2. At the same time, politicians and decision-makers must be sensitised to the concept that wilderness, in the sense of a natural landscape with its traditional inhabitants, is not a wasteland until modified by mechanised man in the interests of conventional "development". This is an area where schools that promote awareness and understanding of wilderness among key government personnel must help.

3. Many African peoples have lost or are losing their cultural heritage due to development and changed lifestyles. Many of these losses are regretted, and could have been avoidable. How true is this also of the natural heritage, which is harder to define and see, but which is also very hard to replace?

4. African wilderness areas are unlikely to be set up as strict nature reserves for research (cf. above), but to anticipate society's future demands. Much American wilderness was set up through far-sighted wisdom at a time the country was changing fast. This anticipated a response to wilderness many years later. An investment now in natural area, that will be kept unspoiled, will provide benefits for many people and generations to come. While it is still very feasible in Africa to have a wilderness experience outside a formal wilderness area, changes in human numbers, distribution and lifestyle across the continent are whittling away such opportunity.

5. The wilderness of the outsider is the "wild lands" for many rural dwellers. As the basis for sustainable livelihoods into the future, wilderness needs careful planning and management to maintain the array of values, whether directly economic, or as productive ecological processes, or aesthetic as a basis for ecotourism.

6. Namibia is an arid country, and this will shape its approach and potential for formal wilderness. Ecological conditions mean that resources are easily over-used, and key, localised resources such as surface water, become foci for competition and conflict. But, on the positive side, arid areas have low human densities, allowing more scope for community-based management systems. Moreover, desert dwellers tend to be very adaptable to new opportunities, and resourceful in the face of unexpected situations, perhaps because of the marginal nature of their existence in the desert. On the other hand, desert wildernesses must be very large, to accommodate events such as spasmodic rainfall, and other ecological processes, not just scenery.

7. Perhaps the simplest conclusion derives from the very diversity of view over "wilderness" or the "wilderness experience". The prospects in Africa for the long-term existence of large areas of pristine nature, with any human occupants living enduring traditional lifestyles may not be great; the wilderness experience means different things to everybody, and so probably would views on the ideal future for wilderness in any country. With this diversity and ambiguity, it must be risky for anyone to prescribe what a country should do about wilderness without assessing first how the concept is regarded by its citizens. Perhaps, it should first establish that local cultures do, indeed, have the concept for wilder-

ness and a precise word or definition for it in their languages. The information from this approach might indicate the way forward for national policy, establishment of wilderness areas or zones of least modification within protected areas. There is a wealth of thinking and comparative experience to draw upon but, at the same time, the AWF would counsel that no African country should pick up someone else's model and apply it uncritically to their country and circumstances.

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Appendix 1. Responses by 9 Conservationists and/or AWF staff to the question:

"WILDERNESS; WHAT DOES IT MEAN TO YOU?"

1. *Community Conservation Co-ordinator; Irish, Kenya-based*

"Truly uninfluenced by man, whether through gathering, hunting, subsistence moving to economic use, traditional pastoralism, to commercialisation; conservation in Africa's protected areas does not foster a pristine environment".

2. *Programme Co-ordinator; American, US-based*

"Danger is not part of my definition, with the exception that wilderness, if it is a place where nature is allowed to exist unregulated, certainly changes the nature of known risk in people's lives ... still, wilderness is a concept - it is a state and 'place' of mind. Wilderness doesn't have a morality. Life and death take place in natural cycles, as do other forms of creation and destruction".

3. *IUCN Marine Conservationist; Dutch, East/Southern Africa work*

"My experience of wilderness .. or almost anywhere underwater.. An extensive area devoid of human settlement and obvious sign of human activity or impact, visited only occasionally by few people, and suffused with natural sounds. In keeping with the context, the flora appears intact and natural, and there is a variety of wildlife, especially megafauna (this includes marine forms)".

4. *Head of Programme Operations; English, Kenya-based; mountain walker and explorer.*

"Remote pristine, a place that represents some sort of danger to self; it can't be a place you live in - you have to go to it, access is not easy; one can't be there with a lot of people; a perfect wilderness would be free of people, but one might accept pastoralists; no sedentary life style obvious; wilderness is dry land - although one might travel along a river through it".

5. *Head of Finance and Administration; urbanised Kenyan*

"The wilderness is not for the habitation of man, for it is exclusively for wild animals who shelter in, on and under the flora, and where survival of the fauna and flora is each moment's pursuit".

6. *Head of Programme Development; English, Kenya-based; formerly field gorilla conservation*

"You risk destroying the whole concept of wilderness by development, but am not sure this matters, especially if the developments are environmentally and 'socially' sensitive ... wilderness in Africa includes African people, but those living traditional lifestyles. An element of risk not for me. I look for isolation and peace..".

7. *Head of Information Services; urbanised Kenyan*

"Remote, isolated and potentially dangerous, middle of nowhere out in the bush, absence of human habitation but having fauna and flora, wild and natural landscapes, as opposed to developed land, at times think of bushy/forested areas, fascinating for man to go and see, but dangerous".

8. *Community Conservation field officer; Maasai*

"In Maasai, wilderness is called Enkop Metel meaning an uninhabited countryside. To me, wilderness is a part of a country where very little human activity takes place e.g. a reserved dry season grazing area or forested mountain... I would also consider Olpul, meaning a meat eating camp in Maasai, to be wilderness, ... in that such activity can only take place where no other human activity takes place i.e. a place with total silence. For instance, a warrior who has a personal problem would take a well-selected group of age-mates to such a place to discuss his problem while eating meat. Most people spend between one and two weeks on such activities.

9. *Species and Ecosystem Programme Co-ordinator; Kenyan, Ph.D. from UK*

"Unmanaged natural habitat, with no human development or infrastructure, and very low levels of human use - mainly traditional; picture in my mind is low bushland / grassland rather than forest: are forests "wilderness"

Unlikely that areas outside protected area network will remain wilderness in Africa".



Greg Hansen shares Native American culture

(Photo: Paul Weingart)

WILDERNESS AND THE NAMIBIAN CULTURE

BEN ULENGA

Former Namibian High Commissioner to the United Kingdom

(At the time of the Symposium, Deputy Minister of Regional and Local Government and Housing and earlier, Deputy-Minister of Environment and Tourism)

I promised you a few days ago that when my turn comes we shall be doing some singing together and I hope that everybody is ready for that. I hope to get us through a bushman dance somewhere halfway through my speech. So when we come to that just be ready!

In this talk I would like us to look at Namibia then and Namibia now. And in doing so we should try to see what sense can be made of the current observable lethargy or an eco-indifference amongst many of our people and finally if there is enough time, for us to agree on what should be done.

When I got the letter from the Minister of Environment and Tourism and I looked at the area of discussion that I was supposed to concentrate my paper on, I asked myself whether pre-colonial indigenous Namibian culture really can make relevance for a Wilderness Conservation concept. And I thought the answer is definitely YES. Before the days of the gun and the days of the motor car, before the days of the beer bottles, before the days of the plastic bags, the territory of Namibia was once an intact piece of Wilderness. Though it already represented the diversity of cultures then, Namibia had a traditional approach to nature and the environment that was characterised by reverence, respect and circumspection. According to the then prevailing religions, nature was generally believed to be charged with forces or inhabited by extra-human beings, some superior to humans in power and in morals.

Namibia is of course the home of the Bushmen, whom in the words of another language group have the tree bark only as their home and the tree gum their evening meal, that is what the Ondongas used to sing about the Bushmen. According to Bushman belief and practice their entire world is a Wilderness: The Bushmen do not make roads, they don't even make paths, they leave that to the elephant and to others in the Wilderness to do. They don't build houses, or any elaborate permanent shelters or structures, nor do they take anything from the forest. They refuse to push over even a dead tree. For the Bushman does not believe in dominating his or her world. He chooses rather to learn forever from the world and from nature, whereas the Bible and Christianity teach humanity to be fruitful and multiply and replenish the earth and subdue it and have dominion over the fish of the sea and over the fowl of the air, and over every living thing that moves upon the earth, as it stands in Genesis 1:28. The Bushman creed is paraphrased in the following Bushman admonition, "*Walk lightly in the forest*". (That is a Bushman proverb).

When I was a boy of about twelve, I once attended a threshing party. Now some of you who have lived in this country especially in its Northern parts, that's Caprivi, Kavango, Owambo - will know what I am talking about. I attended this threshing party and it was mainly dominated at least in numbers by a local Bushman community. Throughout the threshing activity the party sang repeatedly, sang a fascinating concentrated chant to the accompaniment of the threshing clubs' rhythmic thuds. Now you know that when people come together to thresh *mahango* or sorghum they do it with singing. I am sure a few others will know what I am talking about; the thump that they made with the threshing clubs would be like the drum and then they will do it with song and the work goes easier. Now at this party, there was quite a number of Bushmen people. These were Bushmen who were living amongst the Owambos, but they were living as a community. And they sang a song of about three words only, throughout the work. They sang two words actually, two words because the second and the third word have the same meaning, and I want us to sing that one now. It went "*Talomtju talomonde witulita*". This is in Oshihanjera, it's in one of the Oshiwambo language dialects, but the people who were singing it were actually Bushmen. And it simply means, "Look at *Omtju*". *Omtju* is a certain acacia tree. As you know there are several of this type of tree in Namibia and *Omtju* (it's also here in this area, I have seen one of the bushes here) and what it means actually, is just "look at the *Omtju*," look, watch the acacia of the low pods, *itulitha* is the fruit or the feed that you see or you find on this tree, so the song actually just said, "Look at this tree". And it was sung right through the evening almost, and it was sung repeatedly without any change. It was a mesmerising chant, this "looking at the podded acacia". And as we shook and sweated and sang and threshed, there were suddenly a thousand messages and meanings in the two-worded chant, at least for me that evening.

Not that the Bushmen or other people in Namibia lived in mortal terror of nature, rather it was to them a realm of ancient spirits, closely related to humans in feeling and emotions. As some of you will remember the Bushmen hold the wide expanse that is Etosha, to have been formed by the tears of a distraught Bushwoman who had

lost all her kin in a raid including her child. Now you can sit and imagine what amount of sadness, and what amount of emotion and what amount of weeping can form that huge lake.

Other people in Namibia have expressed and have lived by the same wonderment of nature, and have observed similar rights of aching recognition and acknowledgment. The Oshiwambo term for desert is for example, "*Ombura*". Now this translates into English, like "the silent expanse", or the "musing Wilderness or the musing emptiness" in English. The Kwambi who are from central Owambo sing, or once sang about the Kunene River and again we get into another song which means, "The water of the river of *mkumbi* is not to be noisily lapped up. Never fetch it in a calabash, lest you should be fed on by crocodiles chanting the dance of victory, lest you should hear as if from within the earth there is speaking, saying *child don't muddy the pool*."

The dance cry of victory was obligatory for anyone who had shed blood, human or animal, lest they or the shed blood should overwhelm them, because it was actually wrong to do any killing. Do you want us to go through this one as well? I am sure I will be stopped very soon by Jo!

The appearance of the gun and the horse and other modern implements and tools changed the values completely and these were the days of *Kalungumishona*. *Kalungumishona* means the "narrow mouthed one". And this is how the Bushmen praise-named the gun: the narrow mouthed one. When *Kalungumishona* appeared on the scene of course, many things changed. For example the Kwambi whom I have just referred to a few minutes ago, who are the ethnic group from where I am, the Kwambi, who sang so beautifully of the river, of *Mkumbi*, were saying after they had guns and horses, "The Kwambis are non-stoppable, they must not be stopped, they must be allowed to go and loose their anger, because they were more powerful than any natural thing, they were more powerful than the flood waters, even though the flood waters had crocodiles and all sorts of fishes". So now with the gun and the horse they considered themselves to be more powerful than the Kunene River, that they sang about as being holy.

Now the white men had come, and the people were just ready to hand over and to surrender at the feet of his immeasurable cleverness and power, most of what they were. Indigenous culture could not argue back successfully against the powerful religion and the strong technology of the new culture. They were told through word and through deed, that they were an inferior race, with an inferior ignorant culture and they concurred.

The Kwambi again sung about the German Captain Victor Franke, who visited them from Outjo in 1908, "Franke, who came with a motor car, a small little gadget we do not understand, he found us in the morning sleep, and as you know that is very sweet". And so when Franke arrived and found them, they themselves accepted and acknowledged they were asleep. And as you know the morning sleep is the most sweet sleep. They thus were beaten and had to surrender not only lands but also beliefs, not only lands but also morals. They had to surrender their Wildernesses and their stewardships. They went to burn their flesh and sweat for the new god at his altar; they went to fight nature according to the white man's methods.

For example on the mine they sang "When I have push-forced metal into the rock," (that is pushed the jack-hammer into the rock), "so much that the rock roared with pain, and so much that *Ngondo*," (that is now the young man's mother) "clapped her hands with admiration, and so much that *Shende* (that is now the young man's wife) smiled with wonder". Or they sang about the aeroplane, and about the wonder that the white man could produce: I think they failed a little bit, because they spoke about this plane that stopped right in mid-air between the clouds there, and the pilot of course had to open the doors and get out to see what was wrong - it was a white pilot - so in the song they are actually indicating all the wondrous things that white people could do and how the culture was really superior.

With colonialism came the defeat and the actual defeat in battle, and the expropriation and alienation of men and women from their lands and from their environment. After that they felt that they had nothing absolutely to do with anything that is connected to the land. The declaration for example of the Parks in this country, the role that was played by Von Lindequist, Bernabe de la Bat and others, did not mean a thing to the black people; they had nothing to do with anything as they felt they were relieved of all responsibility.

Meanwhile the reserves, the homelands or the communal areas as they are called now, were gradually being turned into the dump heaps of civilization's trash. The former Wildernesses, yes that is exactly what they were, the flood plains of the Kunene for example, those were now fenced in and they were now filling up to the brim with paper, with scrap metal, with plastic, with beer bottles, with wine bottles, with cans, with all sorts of dubious chemicals. The children of these huge ghettos looked through the fence to the white city and to the white world and they yearned for the neon lights and for the money and for the glitter.

The call back to the Wilderness was not for them to hear and answer, and that was more or less about the time that the fight started.

Now I just want to go away a little bit from the speech because Jo introduced me and gave a bit of my C.V. and he said he would fill in the gaps, but I see he hasn't really done enough. I want to get back to my C.V.

Half way through my matric when I was 19, I asked my father if I could go to fetch salt. Now fetching salt is one of the most ancient practices that my people have carried out. You know, some of you, where the salt pans are, just on the boundary of Etosha. And as a young man between 16 and 20 you had to go and walk and fetch salt. In the old days it was on your shoulders, later it was either by donkey cart or with donkeys. I went there in 1972 and I experienced my first real walk through the environment, I mean through the Wilderness. It is an experience that I haven't been able to forget so far. I discovered that time, that there were still areas in my country, which were worthy of going to. But anyhow, as you know this was the time of apartheid and after finishing my matric I decided to come to Windhoek to look for work and of course it was just to come away from the countryside and to come to the city lights. Unfortunately I was already getting politically conscious and somehow I refused to carry the pass that we all had to carry by that time. It was already starting to come through the policies of Government that a place like Windhoek didn't actually belong to a person like me, because I was born in Owamboland and I had to live in Owamboland. So I ended up being arrested because I didn't have a pass and I went to court and they gave me 40 days in prison. I was just turning 20. Now, what I want to convey to you is that I went to prison - it is a safe prison, the Windhoek prison - and the people whom I found who were running the prison are actually the same people who are running it now. There was a lot of beating and I was very young and there were a lot of other big criminals, and there were a lot of things happening there - a lot of intimidation, physical fighting - and it was just a very unpleasant experience. Then of course as it was said here, I joined the war later - not immediately after that; I went actually and got a job in Government, and later I left and I went to Zambia and joined PLAN (People's Liberation Army of Namibia), and went up to the Soviet Union and trained and came back in PLAN and I was wounded in one of the battles that we had with the South African Army. I was later taken to prison in Windhoek, and again the same people that I already knew now, were there. These were youngsters, more or less the same age. The only difference, actually the only dividing line that was there, was that they were mostly white guys. There were also some black guys and the one thing that really kept us apart was the almost physical hatred that they emanated I felt, towards me. I was tried, I was sentenced, I was transferred to Robben Island later, and then in 1985 at the end, we were again transferred back to Windhoek. That was after about 8 years (I was sentenced in 1976/77) and coming back to Windhoek prison, again there were *the very same guys* that I knew, so we are getting to be actually almost good friends now!

What I want to emphasise is, you know we talk about reconciliation and somebody said a few days ago actually that the one reason that we are not fighting is that we are about to forget, you don't get reminded about these things and you don't hear actually who were the people who were committing these things, but in my case I know these people, I know the police, I know who shot me in the war, I know the people who took me to court, they are still here. Most of them still work for the Government. We meet in the street, we meet sometimes even officially and the guys at the prison, I know them all. And you know what happened to me in 1977: there was a solar eclipse and we were locked up all the time in the cells, but we had to be opened up and come and have food at about two o'clock, so when I came out it looked funny and I didn't know because I didn't read newspapers, I was all the time in my cell and didn't realise immediately what was happening, although from school I had heard of an eclipse, and I looked and looked and looked. For the rest of the week for about seven days, I had this glare in my vision, and I actually burnt both my eyes and I could not focus properly. The rays emanated by the sun during the eclipse, burnt both my eyes. And the next morning when I told the medic about this, he laughed and enjoyed himself and said, "You're stupid. Didn't you know that this thing could burn your eyes?" and as he stood there I really felt that though he was there with us all those days before the eclipse, he never warned us there would be one.

Apartheid was itself a crisis of race relations, racial oppression, exploitation, and hatred had reached breaking point. Our only point of contact, at least from my black point of view, with the white people, was the police, the uniformed people, the army, the prison warden. We didn't see anybody else. I didn't know that there were people like de la Bat, I had never heard of him before. I had heard about Von Lindequist, but as a German Governor, not as a nature conservationist, not as anybody who loved the land. As a matter of fact when I went to fetch the salt in 1972, I saw the Etosha fence, and I looked at it as the white man's fence, I didn't look at it as part of the conservation of the land: to me it was always a sign of dominion by other people that I didn't really understand and I didn't have any contact with. This despite the fact that I was at school - actually my teachers were white - and I read so much in the library and the books were exclusively about white people. But when it came to the world on the ground, the actions and the result of the actions like fences and so on I just couldn't

associate myself with them because they were done by people who had no physical contact or no social contact with me.

So I don't think that it should be a surprise that in Namibia today especially with us who have been abroad, (some of us lived for many years in exile and so on), when we see many of the white people, especially Government officials, we usually look at them and we see those uniformed people that we used to know, the only contact point between us and the white society or community.

In 1993 I took a few colleagues of mine after having a chat with Tryg Cooper, and we agreed that it was in order for me to bring three or four members of Parliament or Cabinet Ministers to places like the Waterberg and I was surprised, (it was two and a half years after I had been with the Ministry of Environment and Tourism), that some of these colleagues of mine, didn't actually know that this place was a National Park. Some of them believed that this was just maybe, some white establishment that was here: that is how they looked at it. So they were actually surprised to find that this was actually something that they were administering and maybe it was one thing to know, or to hear about and it's another thing completely to be convinced about, that this is really a National Park. One thing that is very, very clear, is that conservation in this country is very much white dominated. Look at this crowd here, it could at least be half black, half white. But it is not, and I think it is a very powerful message out there to the people, because for people who have gone through that kind of history that we have gone through and decided to quit because they couldn't just go alone, with the way things were going - I am sure they couldn't live together with the feeling of rejection, the suspicions and the distrust or mistrust, which was there, and they decided no, it is not worth it and they go. But look at Tryg here - you can't tell if he is black or white: he's a true Namibian. But you can just imagine people like Dr Player here, and Tryg and many others, many of us here, if they were to go (and as you know Mr. Swart just left the Ministry, retired), - if they were to go right now without converting and transferring all that they have, not just in terms of skills and in terms of experience, but actually in terms of the love that they have for the earth, if they cannot transfer this to the black and white youngsters of this country, what is going to happen to conservation? What is going to happen to Wilderness? We are sure to fail if that is going to be the trend.

The one definite thing that we need to do is changing of the guard. And I hope that you will understand me properly, with this. And I hope the extension of the Conservancy concept to the communally - held territories might play a role here. The perception that yearning for the silent expanses is a white madness must be tackled, and so does another appearance, namely that conservation is actually a white or Western conspiracy against Africa. We had a very good lesson here: as the Bushmen sang, we need to turn and look at *Omtju*. We need to look at the acacia tree. And we need to look at the Bushmen and at the indigenous values regarding nature and the Wilderness. When the black people were confronted with the aeroplanes and with the guns and with the motor cars they decided that it was time for them to quit. They had to hand over, it was very clearly so. That culture was superior; they had to leave everything that they were and listen to what the white man was saying. And when Western culture fails, we need to turn to the natural, the indigenous values, and we need to look as the Bushmen tell us, at the *Omtju*, even if we have to spend our whole evening, our whole lives just looking at nature.

Now at the end of this I wanted to change my direction a little bit and tell you about some marvelous animals that the Namibian environment and the Wildernesses out there have been able to come up with. And I hope that people like Tryg and some others who are in here will assist me in identifying some of these animals. There is an animal called '*Emwanka*', I have always heard about this and I am told it is "out there", it's not just an illusionary animal, it's not in fables, it's an animal that people talk about everyday. When I grew up in the countryside - but I have never been able to see somebody who has been able to say actually that he has seen it themselves - they always talk about this without having seen it themselves - I remember for example one time at night in our village, the dogs at a certain homestead were barking and then they started crying and in about ten or fifteen seconds the dogs at the next house which was about half a kilometre away, started barking and then crying and it went on like that and I was told that was '*Emwanka*'. It is such a fast animal that it takes it only a few seconds to go through a whole village and I was told later, it kills dogs and buries them with only one leg protruding from the ground and so on. Have you heard of that animal? You have heard of it? You haven't heard of it?

Then there is another. There is '*Ngwarungwangwa*', another animal. I don't know what it looks like, but my uncle when he did his own praise-name, said it is like the leopard, or the ratel (honey badger), or '*Ngwarungwangwa*'. And I understand that this is an animal that, when it fights, lies down on the ground on its back and it fights its enemies lying down on the ground. Maybe you have heard of this animal also? But it seems that it is not listed in the books, not even in the list of rare species.

Ladies and Gentlemen, when I prepared this speech somehow I overlooked the fact that there is going to be a panel discussion, where you are going to talk about Wilderness and the Namibian Reality. So in my speech, I actually mixed the two because I didn't know there was going to be a special time for that, but this is as far as I prepared and I am looking forward to taking part in the next session, because I see that my name is also listed there. Thank you very much.



F.l.t.r: Pieter Mostert, Bill Quissenberry, Trygve, Tristan and Zane Cooper, Noéla Garny
(Photo: Paul Weingart)



Greg Hansen and friends: North American Indian dance songs
(Photo: Pieter Mostert)

WILDERNESS -THE NAMIBIAN REALITY

Panel Discussion

Panel Members: *Dr. Hu Berry (Chairman); Hon. Ben Ulenga; Dave Cole*

Hu Berry: To follow on from the Honourable Deputy Minister Ben Ulenga, who is part of the panel: (we are going to include you from the floor Sir, if that is all right. You are very welcome to come and join us up here if you would like). But we will co-opt people as we need them for opinions.

I could not surpass what Ben has given us here on the indigenous side. It is left to me with my unfortunate scientific background now, in deference to you, to supply you with the cold hard abiotic facts before we start bringing humans into this equation. Namibia as you have heard from Ben, is "the bare place, the empty place." It is also the rainless place. We have a fairly detailed map up there, displaying the rainfall of Namibia, which is prepared by Mary Seely and her group from the DRFN. Mary is here with us today as well.

I will try and simplify this a little bit, just to set the scene. Here we find that 16% is the Coastal Namib, against the West Coast of the Atlantic. It is hyper-arid: that is a scientific term which you all know, meaning less than 100mm of rainfall per year. To convert that for the Americans, this is less than 4 inches of rain per year. This is by International definition of climate. Almost half, 49% of Namibia is defined as being arid, receiving between 4 inches and 16 inches or 100mm and 400mm of rainfall a year on average. And, as you know in biology, "on average" is a very dangerous term to use. As nature does not recognise averages, it is simply an arithmetical method we use, but nature does not adhere to it. A third, 32% of Namibia, is semi-arid, receiving from 16 to 24 inches of rain a year, 400mm to 600mm. And only 3%, the Eastern Caprivi, jutting into Central Africa, is defined as sub-humid, where you can with relative safety, grow crops. Don't be so sure of your crops in the rest of the country as we have learnt. So with that in mind, Namibia is a dry country.

But let us look a bit further. Rainfall, and this is from work which our own Department of Agriculture and Water Affairs has done, shows that when rain falls in this country - when it falls! - 80% of rain evaporates from the surface back into the sky within 24 hours, 17% goes in evapo-transpiration through the leaves of plants, a further 2% is run-off down the rivers, when they are running, and into dams and 1% of our rainfall goes to replenish our groundwater. Now, if Waterberg has 400mm of rainfall a year, that to me means that 4mm of rainfall a year, on average, goes in to replenish subterranean ground water. Namibia is a dry country and we have up to 3500mm or 3.5 metres, (you can convert that to feet and inches,) potential evaporation every year. So if you fill a dam or a water trough or reservoir with 3.5 metres of water and you do nothing to it, you don't touch it or take a drop for use, it will be dry at the end of the year, in some parts of our country. Consequently, I would like to start a discussion, proposing - and this is a recommendation - not a resolution, that the word "drought" should be removed from the Namibian vocabulary. It fits in the precise English Oxford dictionary, which they use in a place called England, where it rains fairly consistently. It does not fit into the Namibian context. And I hope that you people will support me. Namibia is a dry country and we occasionally get good rain. Okay, I'd like to set the scene for that and give you over to the rest of the panel.

Dave Cole: This is rather short notice; I have also been given and am grateful for Brian Jones' presentation, but I think it is more important that we actually discuss these issues rather than me talking about them. And I think one of the most important issues, and the Minister really brought that out, is that if we are going to succeed in Namibia, in terms of preserving or conserving Wilderness or nature areas, we really have to look within Namibia for our own solutions for this problem. And we have a wealth of knowledge in this country, especially within indigenous peoples, and we can learn a lot from that. And we have to try and marry these different concepts together, because if it is seen as a European or Eurocentric point of view, we are not going to succeed in our task of looking after our Wilderness. And Wilderness should include people as well. So I think I would actually like to open it up for discussion rather than carry on talking.

Ben Ulenga: I will just briefly try to take a few points further from what I was saying a few minutes ago. And I want to mention further for example, that Namibia is quite a poor country; sometimes it doesn't show immediately, but it is a poor country. At the present moment you have quite a few pressing problems regarding the economy. One of these is the rate of unemployment, which is between 40% and 50%. And you have other issues, which are equally pressing, that is for example, the issue of the land. I have tried not to mention land in my speech here, although I mentioned it once or twice. But there is this view normally in this country - people say we went to war for land, and it is true, but the war is over now, and the people don't yet have the land. Actually nobody has land, and it is funny that each and every Namibian believes that they are good farmers; or they would make good farmers, if they were given land. So everybody out there thinks, even the people who

are in town - anybody, money or no money - they want to have some piece of land somewhere, where they can farm. And there are of course other pressing issues which people look at, before they can even come to consider the environment and conservation.

Before I leave it up to the house, I want to relate to you for example, the story of this young journalist, not those who are in here today of course. We went with a journalist to the Skeleton Coast Park, at the time when there was this controversy of the Olympia Reisen versus the Skeleton Coast Fly-in Safaris of the late Mr. Schoeman. That was actually a year after the start of the controversy I think, because by that time Mr. Steinhausen had already taken over. And when we were there, together with Mr. Steinhausen and many other people, the journalist looked at the whole place, and he said, "Oh my, we have been hearing about this place so much, and I see there isn't even one properly developed hotel. What has he been doing here now, this Mr. Schoeman? Why didn't he develop the place, why didn't he put up let's say, hotels and sky- scrapers somewhere?"

I know many young people in Katutura for example. And I have worked with them away from the towns, and they do not appreciate, they don't appreciate the emptiness and lack of concrete and tile and sky-scrappers and the glitter of metals. They don't appreciate. They *want* the lights, the noise, the disco music, they want that everywhere. And that is actually what we experience, and I think it is also like that with white kids. It's not really only the blacks, it's like the people have at first the yearning to be amongst glitter, gold and light and everything. They don't want to be with nature. It's not that they don't want, but it's like trying to feed a person who hasn't been eating for many years; you never stop feeding, he feels that he must eat and eat and eat. Thank you.

Dave Cole: To follow on from that. At the moment tourism is being seen as the only growth industry in Namibia. And I think we have to be really careful about Wilderness and nature and nature conservation being driven solely by tourism. One of the problems now, which I would like to highlight, is for instance the privatisation of Parks and campsites within Parks, and I think someone else referred to the killing of the goose that lays the golden egg. And we have to really be careful in Namibia that tourism in a sense does not direct us in the wrong way.

Hu Berry: All right, that is all from the panel. Then would anyone like to take it up further? And the people from the Ministry are more than welcome to contribute at this stage.

Ian Player: My suggestion on the subject of privatisation. I think Wayne Elliott can comment because KwaZulu have already done quite a lot in that way. You could get something from the Americans because as you may know not very long ago the Japanese tried to take over Yosemite, until they, the Americans, realised that they owned it.

Hu Berry: Wayne, have you heard what has been asked of you? Could you comment on tourism and potential dangers inherent in letting tourism drive nature conservation, possibly in directions which it should be wary of?

Wayne Elliott: I think that in South Africa, we face the challenge of the conservation body, or tourism, having an over-zealous desire to develop a National Park in particular areas for tourism's sake: a real danger in the Province that Drummmond Densham and I, and others have just come from. It is very much a fact but one of the models that we are finding that is working very well is involving the private sector. First of all, tourism doesn't work in a Government organisation. There is not enough entrepreneurial spirit and your money seems to go into a governmental bottomless pit. Your conservation staff who are in a government type of organisation, don't have any interest in making tourism work effectively in a business sense. So your first decision is to give it an entrepreneurial spirit, and you've got to do that by maybe not privatising it, but by linking it to the conservation body in such a way that the tourism component can be run as a proper business. That's the first important thing. And we used to debate about that from the conservation point. If you do that then the role of the private sector becomes quite meaningful. And the private sector, we are learning in our part of the world, in certain instances, but not in all of them, but in some cases, should be allowed to operate some of the tourism facilities - for the simple reason that that is their business and they know what they are doing.

But there is a challenge in the connection between the private sector operators and the conservation bodies that protect the land. And one of the models we are using in KwaZulu-Natal is to create Section 21 companies, which are non-profit companies, which are tri-partheid business arrangements. In other words you have the conservation body (the protectors of the land, the custodians of the land), you might have the private sector that operates certain, only certain of the tourism initiative and very importantly you allow the local communities to become business partners in those operations. And that is a big mind shift from what historically was not the case. Neighbours to those protected areas are also involved in the business arrangement, through legal and

other ways, with those tourism initiatives. And then of course the old saying, "from the kitchen to the board room" becomes much more relevant. So you form business co-operatives with the local people, and that is one of the routes that we are going. But underlying all that, is a very important aspect whether you have the private sector, or not; whatever form your tourism should be. And it should be peripheral development, and nothing should be developed in the heart of the protected area, and that is the mistake we are making (referring to some of the parks in America), that there is a drive by certain conservation officials who want to develop hotels right in the middle of the Game Reserve. That may be very well for foreign tourists, but how do you service those places, you have the internal and access roads busy with trucks that take anything from supplies to rubbish every day in and out of the Game Reserve, and also it doesn't allow the local community any real chance of becoming partners in a tourism venture that is right in the heartland of a Game Reserve, while peripheral development would work much better. So these are the basics we are dealing with. We are not necessarily in my organisation, against privatisation; but the way in which you do it. That's important.

Hu Berry: Thank you very much Wayne. I think just now, Namibia's people will comment on that, because we are probably going that way as well. What about the suggestion from Ian that we have some opinion from the U.S. people here. Anybody like to comment?

Gordon Stevenson: On the question of tourism: my family has been traveling in Namibia, and in our discussions with Namibians and other tourists, there is a concern, let's say, using this metaphorically: backpackers versus low-density high income - type tourism. That's the concept, low-density high quality tourism. That's a new concept to most Americans. We are used to what we call the "silver service safari" type of affair. In fact it is very difficult for us to be served in that sort of way. The American tourism market, I think is rather large. The American tourism market I think, that is interested in what Namibia has to offer, are Leave No Trace people. I do not necessarily believe that high quality, low-density tourism is synonymous with "Leave No Trace". I think there is a need to define, redefine what the American market is.

Hu Berry: Thanks very much, I don't think we have anybody from our Tourism Directorate here unfortunately. Would anybody else for the Directorate of Resource Management like to comment?

Laurel Boyers: I would like to comment. In Yosemite, the situation was that the concession that had been in the Park became available and the Japanese made a bid to take it over. It came as quite a shock to the Americans, that a crown jewel of our National Park System and culture, and something special to most of the world and particularly to the Nation, could be bought by foreign capital. You know people were taken aback by it. I think it is something to be aware of in conservation, what Parks mean, in terms of National pride and National benefit, and the country has that resource, and the meaning of that resource to the economy of the country, and in Yosemite, that concession crisis brought it home.

Ian Player: In Yosemite there is a golf course. Of course my brother's a golfer. And Kruger National Park have also gone and put one in, the worst thing they could have imitated. They go and stick a golf course in the middle of the Kruger National Park and when the animals walk across it, they want to shoot them.

Laurel Boyers: That was the point I was making. Our early effort to encourage use of the park was to produce infrastructure inside the park, and now we are actually trying to separate that and desperately trying to limit the development pressures inside the Park - and the impact.

Len le Roux: Two comments here, on the tourism issue. I hear the concern and I think we need to be very careful in terms of privatisation initiative, and the pressure that privatising resorts is going to put on Resource Management. Because I think Resource Management is so stretched, that if they are going to have to deal with the huge step-up in terms of tourism, which the private sector will bring in, because they are there to make money, it will put a lot of pressure, I think, on your Resource Management component - managing the Park and managing it maybe, with a whole lot of multi-users and things like that. That will be counter-productive. Not that I am against it, but I'm just putting it as a case. The second point of comment that I want to make, and I think that it goes back to the Deputy Minister's speech and I think the spirit in which he made that; I found it incredibly motivating I thought, to members of the Ministry. It is a subject that really should be shared with more people, because I mean at a time when I think morale might be quite low, I think coming from another Ministry, coming from another Minister, it was very moving in that sense. And I want to make a comment on it, in terms of returning to the Namibian Reality. The reality that struck me about this meeting, is that there has been a distinct lack of senior decision-makers at this particular meeting. Ben Beytell, no disrespect meant to him, because I think Ben has been one of the few people in my experience that I have seen, consistently at these meetings, as a decision maker, has been present here. But there has been a distinct lack of other decision makers, Chief executives within this Ministry at such an important meeting, and I know I state this quite honestly, and it's not

the first time I have said it, and I will stand by it. It has been critical that we have as a Namibian Reality, that people are not taking these things seriously enough, not getting involved and not participating enough. And as a result I would imagine it demoralises your field staff.

Hu Berry: Thank you Len. Could I just have the Governor in at this stage, if you would, Sir.

Regional Governor: I'm sorry, I'm not going to comment on the tourist side, but I would like to comment on what the Deputy Minister perceives as the interest of the young Namibians from all walks of life, in nature. I was brought up by an old man who was born in this country, but left the country as a young man, and went to Germany. And what I can recall as I am saying this, is the stories that he used to tell us in the evenings at our fireplace. About the pools of water, when he might have gone on a horse to find water for the cattle, and when we grew up and were following our cattle, we would go out on a quest to discover these pools, these big trees, these grasslands. And I think that is a challenge to Namibian Nature Conservation. Those of us who are elderly, to bring the elderly people to situations like the campfire, which have been shared with us. Its not only the campfire, but if people also share stories at their fireplaces, at their homesteads, or even if it could be organised to get more elderly people involved.

I remember, I shared with a lady, the other evening, (it was my contribution to the future of nature, the night before last, walking from the main gate of the camp to the bungalows), and we were wondering how we can bring the elderly people of the Owambos, the Damaras, the Hereros, the Africans and Germans together, and to tell young people stories about their own culture, and stories about nature and the environment. So I think that is a challenge to look at after the conference. I think many people are interested and I think we could lead them out of the cities. We should find a way to lead them out, to lead them back to nature.

Hu Berry: Thank you for that message Sir. Next up is Drummond Densham.

Drummond Densham: I would like to go back and to take a look at Wilderness in the Namibian Reality. And I would like to make a plea, that Wilderness is not looked at in isolation. One has got to look at Wilderness in the full spectrum, of what you have there in terms of biophysical aspects, as well as the economical aspects. You probably know that by being in isolation you are up against a problem. Also if you can look at and expand on what Jon Barnes said yesterday in his paper, about looking at the other values of Wilderness, and make and concentrate on those rather than viewing Wilderness as a separate issue. Work on the values of Wilderness. And it has got to be in that full spectrum, the whole holistic point of view, not just in isolation.

Hu Berry: Thank you Drummond. Let us concentrate on the Namibian Reality. The next Panel Discussion is on "Where do we go to from here", but we want to get to the real Namibian issue now, so thank you for the contributions from outside Namibia, but what about some more local contributions? Rudi, you have been singularly quiet at the back there for the whole time. Rudi Loutit, whom we all know well from within the Ministry, will you please stand up and say something?

Rudi Loutit: I would just like to say from past experience, that I feel that in the Ministry and throughout the country, tourism had a lot do with driving us to where we are today, and not Wilderness. And that comes from a long way, that's from over the last perhaps thirty years. So we will have to be very careful in future developments, and possibly Wilderness, if Wilderness Areas are to become a driving force in Parks, in protected areas and even in communal areas. There are some Wilderness Areas there, merely by the pure fact of being there. It might be a way of approaching this problem of tourist development. I say problem, because it is seen as the only way to go. It might give us a sort of breaking course on how we stand together. And therefore I see Wilderness as being a very positive innovation, but we will have to work out, there might be different ways of having different kinds of Wilderness Areas. They might all not be pure, in the sense that we have heard some of the speakers speak about in the past few days; we might have to mellow some of the attributes of some of the Wilderness Areas.

Walter Piepmeyer: What I would like to say, is that when the Honourable Minister mentioned the Olympia Reisen thing, we must watch out that whenever development takes place, that we involve our own people, our own communities. If one looks at donor projects all over the world, none of them, and I say again, none of them, were successful where they did not work with the community on the ground. They were not involved, and with the strong pressure of tourism in our country, we must ensure that we do involve the local community in the highest degree possible. It may happen that with this privatisation of our rest camps, where there is a lot of money involved, to take over these facilities, foreign companies, (as we have just heard for instance of in America, of Japanese companies taking over), will dominate the way we develop. And in that respect I want to plead that we should look out for that. Our people, the people at grass roots level should definitely be strongly

involved in development influence, if we are going to solve that problem. It's hard to say, I don't want to say it, but I have to - that foreigners dominate how we develop. We must see that our grass roots people are the key people in the way we are developing.

Hu Berry: Thank you Walter. Yes, I think we have also fallen into that trap. Being relatively naive after Independence, and welcoming people, who may not have had the same honourable intentions that we thought they had. This is a possibility. Pieter Mostert please

Pieter Mostert: We are talking about people being educated, and being made aware of some of the issues of peripheral development. But right now, you know what's happening, they are developing a camp, a private camp at Dolomietpunt, right in the Etosha. I don't think they have been prepared enough on the issue of peripheral development. It's going ahead right now, a private camp inside Etosha.

Hu Berry: I am aware of that, thank you Pieter. I am afraid we are going to have to stop this here, because Jo Tagg is looking at me, and I am known to be strict on time.

Khulani Mkhize: I want to just clarify on the issue of privatisation, which some members are wary of. I don't know whether it constitutes privatisation or commercialisation. Actually it's not privatisation it's commercialisation. What is happening, is to introduce the private sector into Parks to take over the camps and allowing the private sector to improve the services. But traditionally, or though I think generally, it seems as if the indigenous culture can be seen as part of the Wilderness as well. Previously the people had been depending on their livestock for example to support them and farming activities were relatively reasonable because a natural balance was encouraged. So the livestock was supporting them and the crop production was supporting them. Currently people are investing a lot in looking after these things, to encourage them. Mr. Godfrey, just when he was concluding his speech, said actually Wilderness cannot exist if surrounded by poverty. And this is the reality. And once again we get back to Mr. Price, who was referring to the Maasai in Kenya, whereby he said, after they had developed previously beautiful areas by building double-storey houses, the Maasai now face the real danger of losing tourist income because of the loss of aesthetic values.

Hu Berry: I am not going to summarise at this point. I have made quite lengthy notes over here, and I will hand these to Tryg, if you will accept that. I think we are going to have to stop here or we will run right behind on our final day. So thank you very much, there is a lot to discuss. We will just have to finish this after hours. Many thanks.

SUMMARY: WILDERNESS - THE NAMIBIAN REALITY: Salient issues raised during the Panel discussion.

1. Unemployment: 40 - 50%.
2. Land Reform: expectations raised. People want land before money.
3. The Skeleton Coast Concession Issue.
4. Young people (white/black) prefer first world luxuries.
5. Danger of driving Nature Conservation by Tourism.
6. Over-zealous development of Parks. Government Tourism control doesn't work - Therefore parastatal with private enterprise (Section 21 companies = non-profit, Indigenous people involved).
7. USA: Backpackers versus high quality tourism. USA tourists favour Leave No Trace Ethic.
8. Tourism privatisation pressure on Resource Management.
9. NAMIBIAN REALITY: ABSENCE OF M.E.T EXECUTIVES AT THIS SYMPOSIUM.
10. Young Namibians' disinterest - reintroduce the indigenous youth to nature.
11. Don't look at Wilderness in isolation.
12. Different types of Wilderness.
13. Top to bottom planning. Danger of foreign company take-overs.
14. "Wilderness cannot exist in the midst of poverty".
15. Make Wilderness meaningful to indigenous people.

WILDERNESS - WESTERN BELIEFS AND AFRICAN REALITIES?

Brian T. B. Jones

Community-based Conservation Co-ordinator in the Directorate of Environmental Affairs, Ministry of Environment and Tourism, Namibia

Wilderness is clearly an important concept in conservation thinking. World Congresses and national symposia are devoted to considering the significance of wilderness not only for conservation, but for the health of humankind. Approaches to protected area management include zones designated as wilderness areas, where management activities and other human impacts are minimal or non-existent. Scientists view wilderness areas as important biological control zones, which can be used to monitor changes in other areas, particularly human induced changes.

A glance through the literature on wilderness leaves the impression of two major strands in thinking.

One is that wilderness should be maintained for reasons related to the spiritual needs of humankind, that without wilderness and the ability to be alone in the wilderness, we are somehow diminished as human beings. This strand of thinking includes placing value on wilderness in terms of the human psyche as well as in religious terms.

Consider the following:

"It is time to speak openly and with a clear voice about the spiritual dimensions of our contact with the natural world. It is time to focus deliberately on and work consciously toward the constructive discovery, exploration, healing, enrichment and growth of the human spirit...Through a combination of physical activity, light, diet, exposure to the cycles and rhythms of nature, and carefully selected individual group processes, we can intensify our experiences both of wilderness and our inner lives...We can move closer to a primal sense of the unity of all creation and, for our effort, be regenerated and renewed at the deepest levels. (Brown 1983: 214-215)

"One more point is that wilderness is necessary. In the wilderness, nature forces are at their strongest. We need wilderness areas to help us remember who and what we are. The purity of nature awakens the purity within ourselves. The peace and beauty and life of nature is essential for our well-being, and any scheme that takes us to the wilderness can take us to God and make us whole." (Maclean 1983: 185)

"The correlation of the microcosm and the macrocosm is itself the best justification for wilderness preservation. In order to remain sane and healthy we need to preserve the balance and harmony between the two, and it is ever so much better to preserve 'wilderness without' than to negate 'wilderness within', which inevitably means that it goes rampant and becomes projected on our fellow human beings, friend or foe. Apart from analysis, I know of nothing better for the maintenance of harmony than to keep 'wilderness without' alive and unspoiled. Those of you therefore who are working for the preservation of wilderness are not only acting idealistically or ideologically, but are also making a vital and substantial contribution towards the health of humanity globally." (Meier 1983: 161)

The above extracts are drawn from papers presented to the 3rd World Wilderness Congress held in Scotland in 1983. They do not pretend to do justice to the complex views and arguments of the authors, but serve as good examples of the way in which wilderness is imbued with mystical properties important for spiritual well-being and mental health.

The other major strand in thinking about wilderness areas is the value that they have for maintaining biological diversity and essential ecological processes and systems. This is a clear theme throughout presentations at the 3rd and 4th World Wilderness Congresses in the section dealing with Science and Management (Martin and Inglis 1983, Martin 1988).

According to Hendee, Stankey and Lucas (1990: 9):

"In today's interdependent world economy, where industrial impacts extend to every corner of the globe, areas where natural processes remain intact are increasingly scarce. Wilderness areas are

valuable assets: as natural baselines that reveal the extent of impacts elsewhere; as sites where scientists can study natural processes; as gene pools maintaining the diversity of nature and providing a gene reservoir we are only now learning to use; and as sanctuaries for certain fauna and flora that cannot survive outside of wilderness."

As noted above, wilderness is clearly in the mainstream of conservation thinking. But whose conservation thinking?

Consider the following:

"For myself, as one who like his ancestors grew up with wild animals and is as familiar with Africa's flora and fauna as his own family's backyard, I do not feel about wildlife as the white man does. He never shared my world. A non-African may describe the hair of an impala or the smell of an elephant with romantic hyperbole. Yet traditional Africans see them with more realistic and practical eyes. The Maasai, for example, traditionally prefer their cattle to graze with wild animals to locate optimum feeding areas. This practice harmonises people with nature. By comparison with the Maasai and other Africans who live as a part of nature and learn from it, Westerners live apart from it. For instance, "nature" in the form of national parks is alienated land, not an intimate part of people's lives" (Kaweche 1993: 8-9)

"Westerners appear to expect that Africa should continue to create conservation estates and maintain those now existing from a sense of responsibility to the world community. There is no contention over this responsibility; indeed, independent Africa has done more for conservation than colonial governments. However, the evidence shows that Western wildlife conservation approaches often are not compatible with the cultural values or aspirations and goals of African people entrusted with serving African wildlife conservation. A majority of Westerners ignore the context in which African conservation exists. Poverty and population pressures together with the frustrated quest for improved standards of life will determine largely whether African wildlife will be spared." (Simbotwe 1993: 20)

Again these extracts do not do full justice to the views of the authors, but they still provide good examples of the gulf that exists between the approaches towards conservation of Westerners and most Africans.

Kaweche in his reference to the Maasai, points to the use of nature by Africans as the mechanism for 'harmonising people with nature'. Anderson and Grove (1989) categorise the relationship between African people and the environment as the relationship "between rural man and his means of production". According to Hendee, Stankey and Lucas (1990), many peoples in developing countries do not have the word 'wilderness' or an equivalent in their language. Urban Westerners, however, are seeking to 'commune' with nature in some sort of mystical experience, while scientists seem predisposed to manage nature according to a set of theoretical principles, which may or may not be appropriate in different contexts.

This gulf in cultural perceptions of conservation needs to be recognised when Westerners wish to promote concepts of wilderness in Africa. Some key questions need to be asked. Is wilderness being promoted in developing countries in order to satisfy the spiritual and mental health needs of the urbanised, developed West (millions of visitors a year to North American national parks and wilderness areas tends to negate the idea of wilderness)? Does the promotion of wilderness in developing countries result in the reduction of development options and means of survival for the rural poor? Is the Western concept of wilderness a cultural construct which is being imposed on less powerful societies?

Many Africans believe the answer to all of these questions is "Yes".

If wilderness is a valuable concept which conservationists wish to pursue in Africa, they need to find ways of bridging the cultural gap in perceptions of conservation that exists between Westerners and Africans. Despite their opposition to imposed Western conservation ideology, both Kaweche (1993) and Simbotwe (1993) point to the way forward. They both believe that a partnership is possible between Westerners and Africans, provided that Westerners do not expect Africans to betray their culture and traditions. Kaweche (1993: 13) comments:

"The manifest benefits of Western culture's scientific and technological talent are being assimilated. But as a young NPWS biologist has observed, modernisation does not mean Westernisation. Always we are Africans."

And Simbotwe (1993: 21):

"To realise effective conservation in practice demands the use of African traditions, ideas, language, and terms to communicate with African people effectively, as well as the use of Western technology where it is appropriate to particular problems. In short, a partnership is both possible and desirable as long as Africans' traditional values can be retained."

If wilderness is to be defined more broadly than pristine zones within protected areas, then many African communities preside over wilderness areas. The northern Kunene region of Namibia, or Kaokoveld, has been described as the "Last Wilderness" by some authors (Hall-Martin, Walker and du P Bothma 1988), yet is inhabited by people who depend on this wilderness for their physical and cultural survival. They are the managers of this land, and its wilderness character depends as much upon them as it does on government policies and development plans. The people who actually manage the land need to be involved in any decisions about preserving it for wilderness purposes.

But even if we look at protected areas and their wilderness components, there are good reasons for reconsidering Western conservation approaches. Many African protected areas are under threat from the activities of neighbouring people, including poaching, encroachment of settlements, grazing of livestock inside the protected area, damage to park property and threats to park staff. (Wells, Brandon and Hannah 1992, Hough 1988). While poverty and population pressure form part of the root cause of these threats, so do imposed concepts of conservation and protected areas (Anderson and Grove 1987, Owen-Smith 1993).

A number of African solutions to conservation problems have been emerging in southern Africa, which deserve attention from those who promote wilderness. Under Zimbabwe's Communal Areas Management Programme for Indigenous Resources (CAMPFIRE), communities have set aside land for wildlife and tourism and as wilderness areas (Hendee, Stankey and Lucas 1990, Murphree 1994). Namibia, Botswana and Zambia all have similar programmes to CAMPFIRE where communities are beginning to undertake their own land-use planning.

Hendee, Stankey and Lucas (1990) recognise one of the most important components of these indigenous conservation programmes: The emphasis is on sustainable economic development and wilderness designation is linked to rural development. Thus local communities are enabled to benefit economically from wildlife, tourism and wild habitats. Wild land is given a value that can compete with other forms of land use. But this is not the only important aspect of these programmes. Equally significant, is the return of rights to use and manage resources such as wildlife to local communities. Local people are once more able to define their relationship with wildlife through legal use and are able to manage their own wilderness areas. They are no longer alienated from nature through loss of use of natural resources and the loss of control over land proclaimed by the State for conservation purposes. All of these programmes build on existing community institutions, local traditional knowledge, customs and tenure systems. They enable rural communities to make their own decisions about land use, development, conservation, and wilderness. These programmes also link Western technological expertise, technical skills and finance with African knowledge and traditions through assistance from donors and international conservation organisations. This is the sort of partnership, which can benefit conservation in Africa.

The approach taken by these indigenous conservation programmes implies that Western conservationists need to be less eager to impose their own cultural perceptions on others and begin to understand the relationships which rural people in developing countries have with their environment. They need to accept that wilderness objectives need to be achieved through solutions that are appropriate to local cultures. Wilderness has to have a realisable value for rural Africans, and the managers of the land and its resources need secure rights in order to make wise decisions about resource use.

Some of the lessons learned from these community-based conservation programmes need to be applied to our approaches to protected area management. Many projects have sprung up around protected areas which aim to include neighbouring people either in benefits from the park or in decision-making (Wells, Brandon and Hannah 1992, Brown and Wyckoff-Baird 1992). These projects focus particularly on protected areas from which the original inhabitants have been removed. Those projects, which place emphasis on benefits, can be categorised as attempts by the State or conservation organisation to build positive attitudes towards the protected area through providing compensation to communities for lost access to land and resources. Projects, which emphasise a large degree of shared decision-making, can be categorised as co-management of the protected area.

Co-management approaches recognise the land rights of either resident or neighbouring communities and that the local people should have a direct stake in park management. They aim at integrating the development needs of people with conventional scientific and conservation goals (Hill and Press 1994). Co-management is not the answer for all African parks, but in communal areas such as north eastern Namibia, it could be the means to secure some of the country's most biologically diverse conservation and wilderness areas. But co-management of protected areas also needs a fundamental shift in approach, not only by Westerners, but also by State bureaucracies. It implies putting faith in communal area residents to protect and manage areas, which might be of regional, national and international importance. It implies a loss of control and power by the State and conservationists, and a shift towards capacity building and extension support to rural people.

In conclusion, if conservationists want to promote wilderness in Africa, they need to complete a fundamental change in paradigm. They need to realise that rural Africans not only should benefit from conservation and wilderness, but should regain control over their land and resources. Conservationists need to develop partnerships with Africans which aim to support indigenous African conservation programmes, recognise and build upon African traditions and culture, support moves to provide rural people with secure land and resource tenure and rights, promote co-management of protected areas on communal land, and build the technical capacity of the land and resource managers.

The challenge for Namibia is to develop its own concepts and definitions of wilderness, whether inside or outside protected areas. In Namibia we need to find our own solutions, relevant to our own circumstances, to protect what we call wilderness.

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THE PROTECTION OF WILDERNESS IN NAMIBIAN LAW

Jan Glaszewski and George Kamseb

Directorate Environmental Affairs - Ministry of Environment & Tourism - Namibia

BACKGROUND

Our task as lawyers is to introduce you to another type of wilderness - not the kind that you necessarily came to Namibia to enjoy - namely, the wilderness of the Namibian legal system and legal approaches to managing protected areas, particularly wilderness.

Although we focus on wilderness areas specifically, we do so in the context of the legal system's approaches to regulating protected areas generally, as wilderness is but one category of protected area. We believe that the legal protection of wilderness must be seen in the context of a whole spectrum of protected areas, for example, Wilderness, National Parks, Nature Reserves, Sites of Scientific, Cultural or Heritage significance, Contractual Parks, Conservancies and so on. We thus outline the current law and then introduce you to some important initiatives and developments in this regard.

Namibia inherited the Roman-Dutch common law as well as a plethora of statutory law at independence from South Africa in 1990. The legislation which the questionable South African legal regime put in place prior to independence was often inappropriate for Namibia and did not take into account its particular needs and circumstances, being passed for South Africa and simply extended to Namibia. Accordingly many of the laws which are applicable today in Namibia are still a vestige of its colonial past, including some of the laws applicable to wilderness. Very simply put, historically laws passed by the South African parliament were automatically applicable in the then South West Africa. However from 1977 only those laws which the Administrator-General specifically proclaimed to be applicable, were so.

It should also be noted at the outset that at independence the groundwork was laid for a progressive and innovative set of environmental laws in Namibia. The constitution of the fledgling nation includes an environmental provision which provides:

"The State shall actively promote and maintain the welfare of the people by adopting, *inter alia*, policies aimed at the following:

...(l) maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilisation of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future, in particular, the government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory" (*Article 95(l)*)

It should be mentioned that this environmental provision is not framed as a fundamental right, as is the case with the environmental right in the recently adopted South African constitution, but is included in a part of the constitution dedicated to "Principles of State Policy".

In line with this exhortation Namibia embarked on a programme to review and revise its environmental legislation in 1995. This is a wide ranging and ambitious project but only two specific initiatives need to be mentioned in this context. Firstly, the idea is to put in place a framework Environmental Act as soon as practicable as Namibia does not have a central environmental act. Secondly, the project includes a programme to review its sectoral environmental legislation. Of particular importance here is the intention to replace the South African imposed Nature Conservation Ordinance (4 of 1975) which provides for the declaration of protected areas, amongst other matters, with a new wildlife act. A new Act will not only reflect Namibia's changed circumstances but will also accommodate new values and approaches to managing natural resources. For example, the trend in Namibia is to complement the traditional "command and control" approach to natural resource management with a Community Based Natural Resource Management (CBNRM) programme.

TOWARDS A LEGAL DEFINITION OF WILDERNESS

We will not attempt to provide the definitive legal definition of wilderness as we believe that wilderness in its absolute form does not exist. From a lay-persons perspective, a wilderness, in contrast to those area where humans and their works dominate the landscape, is an area where the earth and its community of life are untrammelled, where the primeval character and influence are retained, without permanent improvements or

human habitations. The declaration of a wilderness area is important for the preservation of ecosystems, the scenic beauty or simply for spiritual well-being (Rabie in Fuggle and Rabie 1992 at p87).

The Wilderness Act of the United States of America defines wilderness as:

“(c) A Wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognised as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which:

- (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable;
- (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation;
- (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and
- (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value”.

Closer to home, the Natal Nature Conservation Ordinance (15 of 1971) provides for the establishment of wilderness areas. In terms of the Ordinance a wilderness area means “an area where little or no human intrusion is permitted so that the natural processes will take place largely unaffected by human intervention”.(section 2(c))

Both definitions recognise the relativity of the concept and that wilderness cannot be defined in absolute terms. But the question should be addressed: what is the difference to, say, a proclaimed national park.

CURRENT NAMIBIAN LAW RELEVANT TO WILDERNESS AREAS

Given the above background it is not surprising to note that the current law establishing and regulating wilderness areas in Namibia is uncoordinated and haphazard. Two statutes are relevant in this regard:

(a) *The Forest Act (72 of 1968)*.

This is the only Namibian statute in which the term “wilderness” appears (but is not defined). It is an example of a South African imposed statute which bears little relevance to Namibia as its primary focus is commercial forestry - not a major industry in Namibia. The Directorate of Forestry within the Ministry of Environment is in the process of replacing it with a new Forest Act.

The Act empowers the Minister of Environment and Tourism to set aside any state forest or any defined portion thereof as “a wilderness area, on the recommendation of the National Monuments Council, for the preservation of forests, natural scenery and forest produce” (*Section 7A(1)*).

Section 7A(3) provides that “ no person shall cut, disturb, injure, take, collect, destroy or remove any forest produce on any land set aside under subsection (1): provided that nothing herein contained shall prevent the secretary or his deputy from performing on such land any acts from taking there on any measure which, in the opinion of the Secretary after consultation with the National Monuments Council, are not inconsistent with the objects of such setting aside”.

There is nothing in these provisions alluding to the wilderness character of areas concerned. In our view they may as well be forest reserves which are also provided for in this statute. Furthermore it is not clear why wilderness areas should be provided for in this particular act as it limits their proclamation to demarcated state forests.

Many wilderness areas can conceivably appear outside the forestry domain. The draft new forest act sensibly does not refer to wilderness and leaves it for new wildlife legislation to deal with the question.

(b) *The Nature Conservation Ordinance (4 of 1975)*.

This is the central Namibian statutory instrument governing the protection of wildlife and plants whether inside or outside protected areas. It provides for the establishment of the Etosha National Park (a game park) as well as for the declaration of other game parks and nature reserves.

The relevant section provides: "The Cabinet may declare any area as a game park or a nature reserve for the propagation, protection, study and preservation therein of the wild animal life, fisheries, wild plant life and objects of geological, ethnological, archaeological, historical and other scientific interest and for the benefit and enjoyment of the inhabitants of Namibia and other persons" (section 14(1)).

It should be noted that apart from certain restrictions on amending the boundaries of Etosha Park and allowing grazing therein, there is no fundamental difference in law between a national park and nature reserve. Moreover there is no mention of any category of wilderness or any allusion to the wilderness character of protected areas.

This is not to say that wilderness areas do not exist in practise. There is nothing to prevent the Management Plan of a particular protected area setting aside the whole or part thereof as a wilderness. We believe that this is the case with the very park we find ourselves in at this conference. The Management Plan of the Waterberg Plateau Park, *inter alia* provides for the zonation of certain areas as specially protected areas, wilderness areas, natural areas and development areas.

This Management Plan for Waterberg, describes "wilderness area" as an undisturbed area which represents the total plant - and wildlife of the area concerned and where there is little indication of human intervention. Certain activities or uses are prohibited in terms of this Management Plan. Development is limited to utilisation of local materials and no permanent structures are permitted. The total number of visitors is also limited. The Management Plan of the Skeleton Coast Park contains similar provisions.

The Ministry of Environment and Tourism, formerly the Ministry of Conservation, Wildlife and Tourism, approved policy guidelines for Park Management Plans. These *inter alia*, provide for the zonation of certain areas and approval thereof by the departmental Planning Committee. These include specially protected, natural areas and others.

It is clear from the above that the law relating to protected areas generally and wilderness specifically needs to be reconsidered and re-appraised. The opportunity now exists in Namibia in the light of the environmental legislative review programme referred to in the introduction. Before turning to this specifically we briefly allude international recommendations regarding legal approaches to protected areas.

PROPOSED LAW RELEVANT TO WILDERNESS AREAS

In reviewing its environmental legislation generally and its protected area legislation specifically, Namibia is likely to take cognisance of international developments and recommendations, and to adapt these to its own particular needs and circumstances.

The Ministry of Environment & Tourism is affiliated to the World Conservation Union (IUCN) and therefore intends to take cognisance of IUCN Guidelines for Protected Management Categories in formulating new protected area legislation (IUCN 1994(a)). It's worth outlining the six IUCN Management Categories here:

Category 1:

Strict Nature Reserve/Wilderness Area: protected area managed for science or wilderness protection.

Two sub-categories are provided under this head:

1(a): Strict Nature Reserve: protected area managed mainly for science and,

1(b): Wilderness Area: protected area managed mainly for wilderness protection.

Category 2

National Park: protected area managed mainly for ecosystem protection and recreation

Category 3

Natural Monument: protected area mainly for conservation of specific natural features

Category 4

Habitat/Species Management Area: protected area managed mainly for conservation through management intervention

Category 5

Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation

Category 6

Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

It is worthwhile elaborating on category 1(b) which refers to wilderness areas. It suggests the following objectives of management:

- to ensure that future generations have the opportunity to experience understanding and enjoyment of areas that have been largely undisturbed by human action over a long period of time;
- to maintain the essential natural attributes and qualities of the environment over the long term;
- to provide for public access at levels and a type which will serve best the physical and spiritual well-being of visitors and maintain the wilderness qualities of the area for the present and future generations; and
- to enable indigenous human communities living at low density and in balance with the available resources to maintain their life style. (*IUCN 1994 (1a) p18*).

The IUCN also lays down guidelines for selection of each category. In the case of wilderness areas, (Category 1(b)) the following criteria are laid down for purpose of selection of a wilderness area:

- The area should possess high natural quality, be governed primarily by the forces of nature, with human disturbance substantially absent, and be likely to continue to display those attributes if managed as proposed.
- The area should contain significant ecological, geological, physio-geographic, or other feature of scientific, educational, scenic or historic value.
- The area should offer outstanding opportunities for solitude, enjoyed once the area has been reached, by simple, quiet non-polluting and non-intrusive means of travel (i.e. non-motorised).
- The area should be of sufficient size to make practical such preservation and use (*IUCN 1994 (1b) p18*).

Wildlife managers will no doubt have some commentary to deliver on these categories. From a legal point of view we emphasise that these categories are not currently found in Namibian legislation. However the potential and climate currently prevails to adopt these into the Namibian legislation.

However the question must be raised whether we can indeed provide for such discrete categories of protected areas in Namibia. Should we rather not accommodate these areas in the Master Plans or Management Plans of particular declared protected areas?

The legislation could simply provide for a multiple-use managed area concept and lay down principles in this regard which protected areas would have to consider. For example the legislation could include the concept of zoning as part of management. The legislation could also require that zoning arrangements be described in sufficient detail to provide adequate control of activities and protection of resources. Provision could also be made for surveillance of use and for periodic review and zoning plans in order to incorporate desirable modi-

fications indicated from the results of surveillance, monitoring and research. In addition, the legislation ought to also provide for co-ordination of planning and management.

The United States Wilderness Act of 1964 provides for the establishment of a National Wilderness Preservation System "to secure for the American people of present and future generations the benefits of an enduring resource of wilderness". The Act further provides, *inter alia* for the extent of such a System, the use of wilderness areas, prohibition of certain uses, special provisions which authorised certain uses/activities and state and private lands within wilderness areas. Whether this is a model which Namibia can follow is highly debatable given its very different physical and socio-economic circumstances.

CONCLUSION

A window of opportunity currently exists, from both a political and legal perspective, whereby the concept of wilderness could be incorporated into law along with a more satisfactory classification of protected areas generally.

The President of the Republic of Namibia, Dr Sam Nujoma, recently stated that "... we must ensure that the natural beauty of our country is maintained, that our National Parks and Game Reserves are looked after well, and that our wildlife is properly managed..." (Namibia Environment vol. 1 (1996) p 5).

The environmental legislation project is underway and one aspect is to replace the Nature Conservation Ordinance (4 of 1975) with a new Act. Its provisions for the declaration of protected areas generally are being reviewed. This provides an ideal opportunity to give legislative recognition to the wilderness concept in law.

The question to be considered is how this should be done. Should the wilderness concept be recognised as a separate legal category, or should wilderness be incorporated into the Management Plans of particular protected areas. A further consideration is the legal regulation of a zonation system or the introduction of a multiple use concept into the legislation. Wilderness could then be a legally recognised category in the management and zoning plans of particular areas.

Which route Namibia should follow needs to be aired and thoroughly debated between all interested and affected parties. This conference can make an important contribution to this debate.

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WILDERNESS IN NAMIBIA - WHERE TO FROM HERE?

Panel Discussion

Panel Members: Dr. W. Jankowitz (Chairman), Hu Berry; Dr. H. Kojwang; Mary Seely; Rudi Loutit; Gideon Shilongo

Willie Jankowitz: I want to say a special word of thanks to Tryg, for inviting me to the symposium. Now it's difficult for me to pronounce the experiences for me as a Namibian, myself. We have a big problem about Wilderness. Living with Wilderness, you don't really make an issue out of it, because it was a part of you for so long. It is only later on, you come to realise it has disappeared. But I do not want to go into that. Our theme is Namibia - Quo Vadis, our future. I suppose that is why this panel session is probably one of the most important ones. And therefore I am thankful in having an experienced panel behind me.

Just some background briefly. The Honourable Deputy-Minister pointed out that history is a reality. Now I don't want to go into that, but we can't ignore facts of what was pointed out, very correctly. And this we have to take into account. I am especially indebted to Dr. Player for pointing out in his speech the indirect and the spiritual values of the Wilderness principle. We also came to the issue of the direct money values. We must be aware of that. That was clearly pointed out during this symposium.

Here are some ideas that I just want to mention. Firstly, we cannot start this future planning without the involvement of all parties concerned. From the State we tend to work from the top down; in whatever issues we address. Regarding policy-forming matters, we need to have everyone involved. We need the policy makers, both political and financial leaders; financial involvement is vital. Education is very important. With the use of environmental education centres like this, principles of Wilderness can be introduced into the leadership programs. And as the Governor pointed out, involvement of old wise men as part of this institute, to be employed to make sure that those old cultural values could be included into these programs. I would like to start with you, Hu.

Hu Berry: I don't want to say very much Mr. Chairman. I have just put up this map over here, of Namibia, and I highlighted the borders of our fifteen Game Reserves, Recreation Areas, and the one National Park. The Caprivi juts out, as you can see at the top there, this inset here. There are fourteen areas, which we should think of. Just bear in mind that this area from the Cunene River, our border with Angola, stretches virtually continuously right down through the Namib-Naukluft Park, down to the area which we hope to incorporate as a Game Reserve in the future, when diamond mining is discontinued. The so-called *forbidden area* or the Sperrgebiet, right down to the Orange River, with a cross-border Park opposite the National Park of South Africa, the Richtersveld. We have the Ais-Ais/Huns Mountain parks, then we have the smaller parks of Hardap Dam, Daan Viljoen, Gross Barmen and there is Waterberg. Now this is just to set your mind on the areas that are formally proclaimed as conservation areas, recreation areas. And I think we should leave it at that point.

Dr H. Kojwang: Thank you Mr. Chairman. I just wanted to tell the audience this morning, that from the Directorate of Forestry, in the Ministry of Environment and Tourism, we have a much more difficult problem, because we don't have any proclaimed areas as such, except one in the Caprivi, which is the little finger-like strip Dr Berry pointed to. Nonetheless, what we are trying to do through our legislation, is to recognise that fact that people living around the woodlands of Namibia, will forever continue using or putting demands on those forests. So what we want to do is to create areas which differ in degrees of utilisation. To the extent that if you look at our present legislation, we want to recognise community forest areas. We also want to recognise areas where there would be more intensive utilisation by way of timber extraction on a commercial scale. And we also would like to have enclaves of protected areas. I think this fits in very well with the concept of Wilderness that we have been discussing this week. Unfortunately I was not here to benefit from the discussion that ensued, but if I could have, I would have and if I came here, I probably would have apologised elsewhere, just like I am apologising this morning. But I want to tell you that we recognise the fact that we need to conserve some pockets of our woodlands, if possible, in perpetuity. It is a very difficult task, but we think that our new policy and legislation is going to give communities greater involvement in the sustainable use of their woodlands. And I am very glad that we are discussing Wilderness concepts here and after this I am going to have to confer with my friend Jan Glazewski, to see whether in our new forest legislation, we can somehow amplify the Wilderness concept, even though it is about the same thing as a Forest Reserve, managed as a Nature Reserve. Thank you.

Mary Seely: Thank you. I am going to be rather audacious, in view of the fact that I have not been here for the last three days. I can see from what is going on here, that I have certainly missed a very interesting

meeting. But I would like to suggest, that if all of us are interested in Wilderness, as we all profess to be, and why we are here, we ought to be spending a lot more time looking outside of the Wilderness, in Namibia. That is where the poverty is taking place. That is where the land degradation is taking place. That is where the population is, that is doubling about every twenty-three years. So this is where the people are and the situations are happening, that are going to impact upon what we consider Wilderness, what we would like to see as Wilderness in the future. And we should be spending more time there already. We are sitting here in the Waterberg, which is in the centre of an area where bush encroachment is a serious problem. In fact there are some books over there, (I just picked up a copy here), which indicate that the beef farmers in this area are losing a hundred million Namibian dollars per year, in lost beef production. Now you can imagine some farmer who is losing a fraction of that, is going to want new land. People are going to want to expand. The same study looked at what is going on in the North, in the former Owambo Region, and they have also found that approximately a hundred million Namibian dollars worth of commodities are no longer available. If people want the firewood, they would have to pay for it, if they had the money.

So we are not going to be able to conserve our Wilderness if we are not looking at what is going on in the rest of Namibia. I am speaking partly from my involvement in Namibia's program to combat desertification, which is a program in which the Ministry of the Environment, the Ministry of Agriculture and the N.G.O's are involved. Some of the things we are looking at which I think are of relevance here, are things like the policies of Namibia, which are going to impact upon Wilderness, existing or potential. For instance, let's look at the Drought Relief Policy. You may have heard that in the last couple of weeks, Namibia has been declared drought stricken, yet if you go to the Weather Bureau, you find out that Windhoek has had more than it's average rainfall this year. Why is it? It's because the productivity is decreasing, the land degradation is increasing, people are getting less out of the land. Therefore, because it's arid, as Hu explained earlier, we all think we are in a drought situation. What do we do? We offer emergency fodder, which means that people can keep their livestock on the land, despite the fact that the grazing might not be very good; despite the fact that there has been no rainfall. So that next time in certain areas, I should say, next time it rains there is going to be even less productivity. Those farmers are going to want to spread out even further. And where is our Wilderness going to go to? We also have what we call emergency boreholes, which are put out to provide water for the people, where the grazing still exists in our drought period times. But of course, when once people live there, they don't move off again. So already we are spreading out further from where we are now. These are all things that were discussed by the Emergency Drought Task Force Seminar, a couple of weeks ago.

We also have policies, such as our Land Policy. But our Land Policy has neglected the fact that as we see here on this map, there is a very variable environment. We want all Namibians to have an equal opportunity, because of our past history. We want black and white people to have the same possibilities for land. But we forget that the land itself does not offer the same opportunity throughout Namibia. There is much more rain in the North and the East, than there is in the South and the West. But that is not catered for in our Draft Land Policy at the moment. We also have a Resettlement Policy, which is somewhat inappropriate in that it only is focusing on resettling crop farmers on former commercial farms. All of which are well below that area, which as Dr Berry pointed out, has over 600mm, and is actually the place where we can have regular crops. There are a number of other difficulties in the areas surrounding Wilderness, which I feel are going to impinge. For instance just planning. Planning about what we do with our land is not really coordinated very well here in Namibia. We are starting towards that, but it is something that has a long way to go. And then something, which was discussed again, by the National Drought Task Force Seminar, was perceptions. And this, Mr. Ulenga referred to. All of us Namibians think we can become farmers. We all think the rainfall should be something similar to Northern Europe, where a lot of Namibians were during the time of exile. And as such we don't have the information about our country available, in our schools and elsewhere. We don't have the awareness nor the education at all levels. So I think all of these things have to be considered when we are thinking about Wilderness. The Regional Governor talked about his grandfather, talking of pools of rain and pools of water, and being aware of the environment. My guess is your grandfather wouldn't be able to find those pools anymore, because the water table has lowered, the land is somewhat degraded. And all of these things, I think, are going to impinge upon our ability here in Namibia, to keep any land other than that which is totally unsuitable for agriculture, such as the Namib Desert as Wilderness. So thank you, I spoke a bit longer than the others did, but I had to make my point.

Rudi Loutit: I would just like to take you back to the map that Hu pointed at earlier, and give you perhaps a case study that you can think about. In the Skeleton Coast Park, we have struggled over the last twenty years, with trying to plan how to use the Park. We have experienced a number of problems with tourism. I think one of the things we all have to realise with Wilderness in Namibia, is that it's going to be related to vehicle traffic, because everybody travels to get to these wild areas in Namibia, in 4 x 4's. That is just part of the culture, so that is something that has not been discussed yet: the vehicle impact on the system we are looking at, and we

have to work out ways of limiting that impact. After many years and with the help of many colleagues, we came up with what was called a Master Plan, but I suppose it was in actual fact a Management Plan. The tragedy is that that plan is being ignored. To go back to the gentleman from KwaZulu-Natal who earlier put this point so aptly, I feel then, that as Mary said earlier, the only areas at the moment where we can be assured of really putting effort and thinking into Wilderness, will be these Namib areas that are so marginal, are so uninhabited, that they don't pose a threat to any of these other political and land use issues. I give you another example quickly, the Brandberg Mountain, which is in the Northern Erongo Region, is an area that is not only of importance to Namibia; it is a cultural heritage site. It has been administered for many years, pre- and post- Independence, through the National Monuments Council, but this has all been benign, it is there in whatever condition it is in today, through luck and benign neglect. And we now have to come up with a plan of what to do with this International Heritage Area, it is that important. It is not just important nationally, it is important internationally. So there is a possible candidate, but the problem there will be that it lies on communal land. How do we put this, to use the phrase I used earlier, this mellowed definition of Wilderness together with that priceless asset, and assure an area around it that can buffer it against whatever comes in the future. So I see these as being the immediate areas that need attention, if we are talking about Wilderness. That's it.

Gideon Shilongo: Thank you Mr. Chairman. Unfortunately I missed out on the first two days, but nevertheless let me start, by saying one day we were discussing with a colleague from a different Ministry the Conservancy concept. It was last week, and this colleague was quite influential in working in these communities. And as we were talking and discussing, he said "You know what, you know this Conservancy thing, these issues of Conservancies? They are all thinking it is a plan of the white man in order to divert the attention of the local people from the land issue. So there is a burning issue and now the people are pressing to have the land issue addressed, and land re-allocated. Now you are coming up with this Conservancy concept to take away that attention". And this refers back to some of the issues touched on by the Honourable Governor, and Comrade the Honourable Deputy- Minister. When you talk to people, you come across these kind of expressions, and yesterday it was indicted from the small survey conducted by Mr. Price, that it seems people have two different kinds of ways of defining Wilderness. Either some perceive it as a space or some perceive it as an experience. And I am sure from our context; we need to do a lot in defining Wilderness within the Namibian context. Whether it is space, whether it is experience, whether it is both. And I think that there are certain areas available previously referred to. If you talk of deserts, nobody inhabits that. If you talk of Parks or Game Reserves you might find it a reasonably easy way of creating Wilderness or putting areas aside for Wilderness purposes. But when it comes to communal areas and looking at the pre-independence history, and the kind of practices of those communal area residents, it might probably not be the right time currently to introduce the issue or subject of Wilderness at the moment. But probably to advocate that thinking, while the communities are coming up with their Conservancies and Forestry Reserves. And then try to build their understanding, to build that kind of advocacy in those approaches. I would like to refer back to Mr. Price's speech, of the Maasai, once again. This is where I tend to say probably our definition of Wilderness in the Namibian context, might be a bit different from what is internationally or U.S.-perceived as Wilderness. Take for example Bushmanland or Koakoland. One day we had a conversation with another colleague and we were talking about the richness of these areas, the potentiality, the variety of resources, cultural, indigenous, all of that. We were talking in terms of development etc. and the colleague said, "Do you think if the Ovahimbas in Koakoland or the Bushmen of Bushmanland - if they develop that, and we find more facilities, will tourists still be interested to go there?" So this comes back to the issue that when the Maasai developed their area or they built three-story buildings, probably it might diminish the interest of the tourist. But the question, which I think is debatable and is still open is that within the concept of Wilderness - natural resources preservation and all of that - do we really think that if you were to have this type of condition or management centred in the Koakoland, the Himba community should remain like a primitive community for the next hundred years to come? Some time in this community, development and all these changes surrounding that community, will have to be present anyway, and it will affect their way of life. What can be done also to change the attitude of the international tourist, who basically just perceives and enjoys things in a primitive setting. So I leave it open. I have no answer. I am not saying I have.

Willie Jankowitz: Thank you Gideon. I am not going to summarise what was said. I think it is so important that all of us get involved in this discussion, that I am just asking you to concentrate on steps to be taken in future. I just have one thing. Jan Glazewski to a great extent in his previous lecture emphasised the importance of creating and structuring a policy that would lead to effective legislation. This is one of the ideas that must come out of this meeting, and some other steps as I indicated of how we can also educate and utilise the ways and means, of the Wilderness concept for all our people. Which is to a great extent an educational thing. But please this is open for discussion.

Achim Lenssen: I would like to point out that as various speakers have emphasised, the desert seems to be

the obvious place to have a Wilderness, because of the fact that it is desert and nobody wants the land. You have the problem however, that our Ministry is not owner of the land, only a custodian, and there are various other Ministries who have higher rights to this land. For instance Mines and Energy, give out claims for prospecting and mining rights; Water Affairs, for dams; you have our electricity utility Nampower, an organisation that can put through power lines wherever they want. These are other effects that are irrelevant with rainfall. And unless Wilderness legislation exists, those areas will never be safe. Thank you.

Ekkerhart Klingelhoefter: Mr. Chairman. Sometimes one becomes very disillusioned when we speak about Wilderness areas, and just listening to what Dr Mary Seely mentioned, and leading on to Achim Lenssen: Wilderness areas in the arid regions. Now you all know last year about June/July, of the newspaper headlines "Etosha is Up for Grabs". And I am looking at a National Park, not even areas outside, and what is happening in Etosha Park. And there is need to mention something like this. We, the Namibia Safari Trails company, we thought, well let's go and grab, so we approached the Ministry, and we went up to Etosha and we looked at the maps and wanted to make our stake also in Etosha, and we found a very nice area and that is in the west near Otjovasandu. A stretch of mountain range, vegetation, and as regards game it's a very nice area but it looks like we are out of luck. If everything goes according to plan, there could be a beautiful lodge with a nice hide put up there. Not outside but in the National Parks, can't we get Wilderness areas proclaimed, so there won't be any further development in areas like the Etosha National Park. Thank you.

Willie Jankowitz: Just a small word here maybe. I just want to add onto what Gideon was saying. The whole problem with a lot of the Namibian people like myself, is that Wilderness is a new concept to many of us. And poverty is the reality as Mary can tell you; we need to balance this concept. On the other hand it is important that we realise that we need to be pro-active in putting things into place. Which will only maybe be understood by other people in fifty or sixty or a hundred years' time from now, then only will they then recognise by looking back and saying thank you for that man or woman who was brave enough to come forward at that point in time to claim that area or put that legislation in place, and recognise his vision. That is the type of attitude that we must take now, because it is urgent and there is a lot of poverty but we must make a compromise somehow.

Andrew Muir: There are wilderness areas in South Africa, as there are here, but to me, we have got to look at the other values, African values, that Wilderness can offer us. The word is perhaps alien because we haven't transformed it in a way that is real for Africa. And I believe strongly in the right of passage, the opportunity to use Wilderness areas and entry points to Wilderness areas, as an opportunity, as a lifeskill and as an experiential education, using old traditions that we are losing. I mentioned in my talk yesterday for those members who were not here - I don't want to bore the rest, but just to mention again - that one of the greatest assets that our wild areas or Wilderness areas have, are these old game guards that are working in these areas their whole lives, and that live outside. They can play an incredible role in the right of passage, in the process, which can rekindle a love for the wild land, and I think this needs to be an added value over and above tourism, recreational and scientific, aesthetic. We need to take other African realities for Wilderness.

Khulani Mkhize: I would just like to make two comments. Personally I think, I have seen this - especially the Wilderness - as two stages. I think for us as conservationists, we have got a responsibility to look after the areas that we have now, without actually seriously impacting on the development side of it. But I think we need the other side, should actually hold the fort, should actually pull the people out there, from poverty and unemployment, to the level where they will start understanding what we are talking about, because it is not going to work (and I have said this time and again), for the person who is worried about the prospect of unemployment itself, to talk about Wilderness. It is irrelevant. I think that what we need is actually, to foster development, to uplift the rights of those people, to get to levels where we are, because it is only at this level, where we are, that we can start appreciating the Wilderness. You cannot appreciate the Wilderness while you are at some level "down there". And the second point I would like to make as a plea is for the Namibians that I have not seen here. I think it is crucial to be able to favour the African way of looking at things in terms of the development of conservation staff and personnel. As the Deputy Minister, I think said, and it is actually criminal as far as I am concerned, when you are coming to talk about the issues such as the Wilderness, no matter even if the black field rangers are junior, how are they going to develop their part of this process like this and people turn around, and why say there is no interest - I don't believe that - because you actually are refusing them an opportunity to come and learn and meet other people, so that they can develop their understanding for what we are talking about here? And therefore in the future those are the people that will be supporting you in the thinking and they will be bringing in the African way of looking at things. I thank you.

Margot Morrison: I absolutely support what Khulani has just said. But there is one other area on what the previous speaker said on looking at the various stages of Wilderness in National Parks and on the scientific and cultural. And in a sense I think perhaps I have a different view of it, which is scientific but also cultural. It

is a very, very westernised concept and it's also very cultural in effect, and I wonder whether the culture, the cultural significance of our National Parks should not really be explored to their absolute utmost, including Wilderness areas, because there whether you are rich or poor, whether your living conditions are such that they allow the opportunity of access and transport to wild places, even with poverty, you have a right to an area which has a cultural or religious significance and tells you something of your history. And I think that is perhaps an understanding of Wilderness, it is not a case of adapting the Wilderness idea to or transforming it for Africa to understand. I think the idea is to be aware of the American concept and the cultural significance of anyone who lives in Africa, so that they have that reality of being truly part of the experience. It has a significance for people in a spiritual sense and is a socio-cultural thing.

Len Le Roux: I am not quite sure where we are going, because we are reiterating a lot of stuff that has been said over the last three days and I think in what we are currently looking at right here, where do we go to from here, the question that comes to mind is how much of this is actually a management issue. And how much of it is an issue of them putting in place the necessary protection or legislation or whatever is required to manage this particular activity. Look at experiences in both South Africa and the United States, and even in Namibian wildlife reserves. Wilderness areas are in Parks, they are in already protected areas and they are part of a management plan. They are zoned as such, and they are given particular protection and they are part of the multi-use plan that one has in a Park. And Tryg has gone ahead and done that to a degree, so in a sense, that is one set of problems, or one set of activities or one area that we need to be looking at. How we manage our Parks, how do we create them for multi-use? How do we introduce the concept of Wilderness into these Parks as one of the options in the Park? And how do we protect that activity, so I think that is one set. Also if you look at our Parks, they are largely bordered by privately owned land. I don't think many of these Parks are under direct threat in terms of land use. Possibly the Parks that we need to look at are maybe the ones that are bordered in terms of communal land. Etosha's Northern border, the Mahango, the Caprivi area, there in a sense, what we have in place there, is another window of opportunity which is the Conservancy Act, which once again is also a management issue, in terms of how are Conservancies going to manage the area that they proclaim as a Conservancy. And how they use it, what is going to come out of that, and how or what do we have in place that can ensure that that management is entrenched. That it is put there and is kept in place and that it is secure and that it is respected and enforced. That you don't have Roads Department putting a road through a Conservancy, an area that has been declared as a wildlife area. And I think those to me are some of the challenges that we should be looking at. And, yes there are issues of how do we then introduce our perceptions, how do we then understand what Wilderness is. How do we make it. I think the next stage is a question of access. How do we access these facilities? In America it is fairly easy for people to get into this, to get two thousand eight hundred people chugging through a Park a day. We don't have that and we need to look at that whole question, of how do people access these facilities. How do people benefit from a wildlife area. So I think those are some of the issues we should be looking at and maybe not going around in some circles. If we are going to lead to some kind of resolution, we must look into that.

Willie Jankowitz: We need to come up now with some active steps. Shall we form a committee, or shall we formulate alternatives so one can get away from them. Now we must do this, and then this, and then this, not to say this is a big problem. The first step is now we must go into legislation or whatever.

Margot Morrisson: Okay the question was, "is there a potential and has it been done, a historical, cultural mapping of the existing natural resources and wild areas in Namibia?"

Willie Jankowitz: That's the question, maybe I must ask my colleagues here.

Margot Morrisson: And if not, do people here feel that there is a need to do that?

Hu Berry: In other words to identify, prior to European influence, areas that were recognised by the indigenous people as being of cultural or aesthetic value to them. Is this what you are saying, because the present conservation areas were European imposed?

Walter Piepmeyer: Mr. Chairman. The question is where to go? I want to rephrase the question, "What to do", while we are racking our brains to find out where we are going to do it. I think we are on the wrong road. What we should start off with is sensitising our public; we should bring this wilderness concept to the public. I do mean the grass roots people, and then they will come back to us, to tell us where they want Wilderness Areas. We shouldn't come up with ideas from here, imposing them on people; let them tell us what is right for them. We need to go to these people, and say what is a Wilderness and promote these things. So what I think is, we should have more centres like these, where we can tell the people, educate the people and they will then come back to us and tell us what we should do.

Willie Jankowitz: Tryg, maybe you have got a solution, because we are stuck now, and I don't think we are progressing.

Tryg Cooper: As a professional ranger I look on things in a practical way and I would just like to see a differentiation here. An understanding between our existing conserved areas and what everyone is worrying about what the outside areas should be. I feel, we would be making a very big step forward, if we could get our own managers to start thinking about Wilderness. And how Wilderness areas can be used within their *existing* Parks, where suitable. To take a Park and start identifying areas that you have got out there, and suggest they would be suitable for Wilderness areas, within those Parks. Particularly sensitive areas, where you don't want that lodge to be put up or those exclusion plots or whatever. It can be used for education of people like for instance, Wilderness Leadership School, or Pieter's Conservation Trails. If we can do that in this country alone, you will have achieved a lot over the last four days.

Secondly, Parks and Game Reserves have caused a lot of strife, a lot of human strife, through their proclamation all over this world, without people being consulted. They are there now, and our Government and His Excellency accept this. So let us just differentiate now. Let us examine the communal areas and conservancies, or whatever you want to call them. I don't foresee moving people off, or just proclaiming an area, because the scientists have suggested that it is required. That is wrong. Although there are a lot of Parks and Game Reserves that have been proclaimed, without consultation with the people in the area, there are very few *Wilderness* areas where this has been the case. Just the opposite, most Wilderness areas in the world, as against ordinary Parks and Game Reserves have been proclaimed by the people *in spite* of the policy makers or business interest. And I believe that people out there understand, and you know it's taken some of you folks with all due respect about four days to worry about this whole Wilderness thing - I will bring in Elias Kasuto, through from the kitchen and in four minutes he will understand the concept. I am not suggesting that we should now think of the area outside, over there in Otjinene or wherever, as a Wilderness area of twenty thousand hectares. No, it will come from the people. Let us concentrate over the next few years in our own Parks, which we still haven't zoned for Wilderness. They are the most insecure places in the country, some of them. Use those areas for Wilderness Trails or whatever. Let us be doing something, instead of just fixing fences. Then by that time fears will be allayed and you will just start to see those areas popping up by themselves, if those communities think they would like a Wilderness. We are not forcing things on anybody. I admire and respect Dr Kojwang's perception. He knows the people will agree or they won't. If they don't or if it doesn't come about, we won't proclaim that Forest Reserve or Wilderness. That's all.

Willie Jankowitz: Thank you Tryg.

Dr H. Kojwang: I just want to give an example. Recently we did proclaim a Community Forest Reserve in the Okongo in Eastern Ohangwena, and it was initiated by the people of Ohangwena. It is about one hundred and fifty square kilometres and this is the sort of thing that we want a Park, once they have proclaimed it. They initiated it; we actually give it a legal basis. So this is the sort of thing we want to push on.

Rudi Loutit: To go back to the Park in the North West there; if that management plan could become properly accepted, if some of the zones could be clarified and legislated as Jan Glazewski spoke about earlier, and other speakers have put across, we are already sitting with fifteen thousand square kilometres of Wilderness. It is already there, it is in reasonably good shape, it has had a few knocks, but it is there for the future. And then we can work on it, to go outside the Park into the communal areas. You heard what Garth Owen-Smith had to say yesterday: people are putting land aside for wildlife, it's happening, it's happening all the time. It is just to coordinate it, and collate it, inventory it and perhaps then look at it further and move on from there.

Mary Seely: I am just a little bit concerned. Who it is we are addressing? Rudi is saying there are all these ideas, but who needs to be informed about all this? Is it the higher-ups in the Ministry of the Environment? Walter is talking about education. Who are we talking to? Are we talking to ourselves, or are we going to go out and talk to the Ministry of Education. We are saying a lot of things, but I am not sure that it is being pinned on anyone and it makes me worried if anything is going to happen.

Willie Jankowitz: Thank you Dr. Seely. I think the next session will deal with the recommendations, where they must go. We are getting that nasty feeling that we are talking to no-one or just to the converted.

Len le Roux: Another issue to consider is the issue of tenure. That people have reclaimed, proclaimed, accessed land and they have done it in different ways. And one of the issues here, is that the Conservancy Act for instance doesn't give people tenure of land, they don't own that land and I think this needs to be made quite clear, if they have ownership of the resource and access to that, they don't own the land. And I think that when

it comes to actual legislating to protect this, these are the considerations that we will have to take. One assumes that the communal land act is addressing the situation, and I am not quite sure what their suggestions are on this particular issue. But it still is all state-owned land at this stage in terms of the communal land. So it is another area that one has to look at, the Conservancies, how they decide to manage areas they don't have tenure over, yet.

Mary Seely: Can I just say something briefly. They don't have tenure over anything other than wildlife and tourism. They don't have tenure over the grazing or the water or anything. So I mean it is very tenuous, it is not just a matter of no tenure, it is worse than that.

Rudi Loutit: But I think by the same token Len, you are under-estimating the willingness. It is such a difficult thing to define, but it is there. We have got to find a way of getting out there and bringing it out of the people. It is there, it is waiting.

Len le Roux: I agree with you, I think the willingness is there, but it doesn't define a land tenure. Define a land, and then you can put in place a whole new range of controls over that land. But the Conservancy Act does not give that. Tenure can be whipped away for that matter.

Rudi Loutit: I think the problem that Achim mentioned, is very relevant, because if we cannot even get the Ministries within the Government to coordinate and plan together and avoid these impacts, and then come with development projects and utilities, then even the Parks and protected areas are threatened.

Achim Lennsen: I would like to strongly support Tryg, and leading onto what Rudi has now said, once again point out that unless we get legal protection, there is no safety for our existing Wilderness Areas. I mean even this Wilderness Area up here is not safe from anything. If Tryg goes away tomorrow, somebody else can do anything up there, there is no legal status. There is no safety for our existing Wilderness Areas.

Willie Jankowitz: Maybe we should confine ourselves firstly, to the existing Parks, to separate the concepts. In our existing Parks, we should be looking towards Wilderness areas, that is one side. And then outside in communal areas, we are talking about a conservancy type of thing. Is this really necessary or are they really apart or should they be covered eventually by different laws, these different categories?

Laurel Munson Boyers: Going through the due process of Wilderness designation in the States, and one of the things that is done first, is an inventory of areas that would suit. And that perhaps could be a start, and that is look at your country, where there are areas that are suitable, and your Parks would be a very good place to start. And then they will win a substantial confidence from your constituency or your public, your people. By you doing a good job in your Parks and the support and the education of Wilderness as a concept. It is not a bad thing; it works in the Parks. And then from there you have these other areas inventoried and defined, and then you can say well, it's working okay at Waterberg, it's working okay in Etosha, let's look at perhaps other areas where it might work in communal areas and get support in other areas, in places like surrounding Tryg's park.

Rudi Loutit: The people will tell you themselves.

Ben Ulenga: There is just one point that I would like to make. I think it is very, very necessary to do it now. To make sure that people are given a chance to talk about it now. Because there are all kinds of people out there. There are people who will not agree. As a matter of fact I am happily surprised to hear of some of the people of Ohangwena, aware of for example SADC to proclaim a section of the land there as a communal forest. I hear from other people, that for example, they want to approach the Government to ask for the deproclamation of part of Etosha for example. Now to me, that is an area within Etosha. There are places that if I could have my way, should be declared as Wilderness areas; the salt pan I referred to earlier should be declared a Wilderness area - a case in point.

You have all these salt pans at Walvis Bay and all over the coast and within these areas, there are people who want to mine the pans with the perception, you know, that we need to go on developing and need to put up industries everywhere. That is an idea that people look at for example. So it is very important now to find a way to have the people in the various localities involved so it becomes acceptable.

Willie Jankowitz: Thank you very much for that. An inventory is a necessity.

Len le Roux: There was an issue of this inventory and looking at consolidating what is happening in the Parks. That is something that we have, and that is something that we can work on, management opportunities

that one can start thinking of in terms of Wilderness areas in the Parks. But I think the Conservancy Act, I think it is going to start moving a lot faster than possibly what could be happening in Parks. We know already that there are a whole bunch of communities out there who are already starting to establish conservancies. Uukwaludi, that whole area is one. Salambala in Caprivi, Ward Eleven, Bergsig area - and there are many more - that communities are already organising, and they are already starting to look at options. They are already starting to look at land-use management plans. And I wonder how ready we are or how are we positioned, we being N.G.O's and Ministry officials, to actually start advising these communities in terms of options that they are facing, and what the implications of this are. And I think that is something we need to look at as well. Because there is a rush of things happening very quickly on this Conservancy Act. The whole Naye-Naye area could be a conservancy area shortly; they are very ready to go on that one. So are we prepared, how are we going to deal with the demands that are being put on us?

Laurie Marker: May I just add on to that too, because you keep mentioning the Conservancy Act. Do we have enough manpower with Nature Conservation or the N.G.O's, to assist these communities involved. Because we are all talking about the education process, and education doesn't have to be educators, it does not just have to be Nature Conservation, it does not have to be one other Department. It is that we have to really go en masse, each and every one of us and solicit everyone else that we know, into this education process and get out there, spread the needs that the people have, that the Wilderness has and we can make acts and we can make laws. But we need the manpower to be activated at this point, and I am concerned about that manpower issue, that we all have to take responsibility for it.

George Kamseb: On the manpower issue, I think it is quite vital, more especially when you look at the example in South Africa and the U.S.: that probably also here, we consider whether to build into our current environmental course the Wilderness exercise or Wilderness subjects, to be able to build or prepare that kind of capacity of manpower to support that process, when it starts to move.

Mark Stanley Price: I think the issue of forming zones of Wilderness in protected areas is something that must be perceived as an administrative measure of that Department. The issue is clearly outside, and as I said yesterday in my talk, I think Wilderness is maybe a difficult concept. It implies pristine conditions and exclusivity and exclusion. And I think for that reason the public is going to be very wary about it here. And also it may not be necessary to call it Wilderness, it may be the Wildlands if you like. To rural dwellers it is their resource base. And it seems to me that you are trying to square-toe things; one the idea of pristine things which has huge aesthetic components on top of it, with the reality, as Mary Seely said, of a degraded environment, decreasing productivity, increasing pressure and so on. What is really needed is a new way to try to restore productivity and ecological processes. Now if that could be done, to many people that would be the Wilderness. Now it seems to me that what we are already hearing from Garth's talk, is that communities are already doing this, they are setting aside land, they are doing their own management planning, they are restricting activities. I am sure there is a lot more to it, but with the idea of restoring natural ecological processes but also allowing access to grazing stock perhaps, they limit the numbers of stock also, so here is a community thinking "Well, how can we get this area productive?" And clearly the Conservancy Act does allow great potential now for communities to take initiatives on land-use and so on. So would some of the objectives of Wilderness outside the Protected areas be fulfilled. Would it be met by trying to create something like community resource areas or community Wildlands or something? Which maybe could interact with the Conservancy Act, so that that type of land-use began to have some form of status. So that when it did become under threat, people could say, "Well, look this is what we want to have as a community Wildland", which would have all of the communities' own cultural significance of their selection and aesthetics built in. It would actually have some real existence, and could be a force against the overriding need for electricity or water production or whatever. I don't know, but I think the essentials of Wilderness could be combined with traditional use.

Jo Tagg: I would like to caution against the crusade into Conservancies, waving a Wilderness plan. I think it would be inappropriate, arrogant and totally unacceptable. Local communities are going to manage their lands according to their needs. They are going to manage these areas according to their life styles and what they want to be, within those other than whatever things we have discussed and we see as Wilderness, they might call "veld food gathering areas". And I just want to warn against crusades. I think it would be absolutely inappropriate and might do Conservancies some irrevocable harm.

Tryg Cooper: I agree.

Paul Weingart: This is just for information. Looking at the United States, of the four hundred and three million acres of Wilderness: there is none of that on private land. There are four agencies, Forest Service, National Park Service, Bureau of Land Management, U.S. Fish and Wildlife Service. The main reason for the

Wilderness emphasis back when the Wilderness Act was passed - before that - was misuse of those Federal lands that were available for timber sales, grazing, mining and all these things. That was the motivation at that point in time, for the Wilderness Act, to stop these uses that were excessive in places, on the public land. There are no Wilderness areas on private land in the United States. Adirondac Wilderness in the State of New York is a different can of worms altogether that is under State Legislation. I just want to mention that. I would tend to support this big input of looking within your Parks to start with. And I think Conservancies are wonderful. I have been aware of the Campfire Program for some time and I think that is wonderful. I think what is happening up there with Garth and other countries, Zambia, - you can go on - those are wonderful. But I think we have to be cautious and go slow on those areas I agree. But you do have the opportunity on the lands already proclaimed in this country. The primary national ownership, if you want to look at it that way, are your Parks in this country. You don't have the other agencies I have mentioned in the United States, but you do, I think have an opportunity there to determine your needs and what you want to do.

Khulani Mkhize: I would like to just support that. I think what we basically need to do, is to get it right. And then stand up and be counted. I think we must get it right and protected within our Proclaimed areas and let it work there. So let us make it work there and then we can later go out to other communities and say, look how it has worked. And we know how it works. And I think we have to start by making a stage further within the Proclaimed Areas and Government land outside the Proclaimed Areas. Communities are not going to trust us, they are going to say, "You guys can't make it work and now you are telling us what to do." Just a simple example from KwaZulu-Natal: taking locals to Conservation Areas. We started from that and then the Chiefs actually started setting aside what we call Community Conservation Areas, then we as a Department helped them to manage them. They actually patrol the area themselves and so on and so forth. We trained their people as game guards. So you cannot at that stage, while they are appreciating the value of setting aside their own area, talk about a low impact productivity of that same land. And what I am saying, is whilst they are still appreciating the values of conservation, you come in with the Wilderness, which says "Hang on a bit, you are not going to touch that, as we used to touch that. You are not going to use it as we used to use it." I think we need to take a concept of Nature Conservation through to the people until it is understood and accepted at everybody's capacity - then, then, the Wilderness, (which is the other stage of Nature Conservation) and bring that through to their society.

Willie Jankowitz: Thank you. I think we are running out of time a bit. So I will briefly summarise. I think that most people here have emphasised that we must look into existing structures and then utilise that as part of our recommendations this afternoon. But maybe, I must point out some of the important things that were mentioned. Our first step is to actually form an inventory, structuring an inventory of the different possibilities, even the ones outside, just to give them a specific status. But the main thing here, to a great extent, is there is a lack of education for a lot of people, and a lot of our people don't understand what this is all about. It comes out quite clearly that there is still a lot needed to educate people and to get more people involved. I don't know how to do this exactly, but we realise that those people even on the short term should be more involved in this type of Symposium, because the dissemination of information should reach those people. The forming of, or structuring of an inventory, and the need for the involvement of everyone in this country on all levels, is needed. Emphasis on political parties, because after all, they make the policy. But at the same time, as Peter was emphasising very clearly, we should do something about activating the Environmental Centres, and utilise the old wise men in the systems, so that the cultural benefits as part of the nation could be carried over to our young people. It was pointed out that this is not going to be very easy even if we succeed in forming the legislation for Wilderness Areas within the Parks. A lot of emphasis was placed on the Conservancy idea; clearly pointed out also was the need for manpower to get these ideas across. I think the next discussion will have to put this into recommendations so that this whole Symposium can be a valuable experience to all and we can move onwards. Thank you very much for your participation.



WILDERNESS IN NAMIBIA: THE WILD FOUNDATION PERSPECTIVE

Vance G. Martin
President: The WILD Foundation

On the occasions when wilderness advocates, professionals and concerned citizens meet to explore the complicated issue of wilderness designation, Americans often tend to dominate the agenda. While this is sometimes a result of the national tendency toward extroversion, it is more often simply because of the significant amount of information and experience contained within the American historical process of designating and managing wilderness areas. This brief paper is addressed to our Namibian colleagues in the hope that it helps bridge the gap between the many years of wilderness policy work in the U.S., and the process just beginning in Namibia. Several basic points are presented in an attempt to clarify some of the underlying principles of the wilderness concept, and assist communication of that concept to Namibians from all walks of life, and thereby build stronger wilderness advocacy.

THE THREE P's

The first principle is that of the three P's – patience, persistence, perseverance. Regardless of the country or the situation, protecting wilderness is a hotly-contested, step by step process. Many non-American wilderness advocates have the perception that wilderness activities in the United States, especially amongst the federal agencies, are well funded and of high priority. To the contrary, wilderness advocacy, planning, management and research fall at the bottom of the priority list in all of the U.S. federal land use agencies, and are currently suffering significant cutbacks due to the budget balancing and belt tightening that is now the annual norm rather than the exception.

Ironically, one often has to exercise the three P's within our own ranks, with those other professional conservationists who chauvinistically cling to their own power, discipline or sphere of influence rather than cooperate with colleagues by taking the bold and correct step of placing the well-being of wild nature at the center of natural resource decision-making, where it belongs. In reality, wilderness advocacy is always a subversive activity – it is more a matter of heart than a state of mind, more a passion than a vocation. No matter which country or which wilderness-related issue upon which we may work, the need for patience, persistence and perseverance is an attribute we all must share if we are to achieve our mutual goals and maintain an enduring and effective advocacy.

CLARIFY WILDERNESS VALUES

As Namibia considers enhancing its wilderness designation, legislation and management, many arguments will be used for and against the concept. Those present at this symposium will be the principal spokespersons, and you will have to defend the wilderness concept by providing valid reasons for legislation to protect wildlands in your country. When you do so, don't confuse valid *reasons* with what are actually appropriate *tactics*. Economics, tourism, patenting of wild biological resources and others are certainly important, but they are all basically tactics and strategies to generate economic return and are not valid, long-term reasons for protecting wilderness. Why? Because they will surely change. Eco-tourism, the current excitement, will give way to something else and will eventually be seen to be as full of blemishes as are some other activities.

Moreover, economics is one of the most capricious and unstable of the modern pseudo-sciences. An economic argument has never been presented which does not have several contradictory and logical arguments arrayed against it, all of them well researched, highly footnoted and delivered by an expert. Following are several items which may be considered enduring values which speak to all people, traditional and modern, in both the Namibia of the present as well as that of the future.

Wilderness is a symbol of democracy and freedom, in both biological, political and cultural terms. Biologically, the concept of wilderness presents us with a seeming paradox. Wilderness designation is seen as the most protective and restrictive of all land use designations, yet the management prescribed for protected wilderness is informed by the ethic of using "the least tool with the least impact," to give nature the most freedom, and to maintain an environment as unfettered as possible by the constraints of modern civilization. Only in wilderness

can freely evolving genetic resources and biological processes continue to create the best options for a future in which human beings can adapt and thrive. What's more, such an environment also provides solitude and a sense of natural proportion, which are essential elements as human society becomes larger and more complex.

The political aspect of freedom and democracy is perhaps that which can speak most directly to the politicians and policy-makers of present-day Namibia. A great struggle occurred here, only just recently resolved in the independence and founding of the Republic of Namibia. As the Honorable Deputy Minister Ben Ulenga so amply communicated in his personal presentation, the wilderness played a major part in the freedom struggle. When a popular movement arises and is repressed, to where do the freedom fighters go? They go to the wilderness, just as the Southwest African Peoples Organization (SWAPO) went to the wilderness of Angola and Zambia. In another popular and classic account of 20th-century Namibia, two Germans took to the wilderness of Kuiseb River region for two and one-half years, to escape possible internment during World War II. Their tale, as recounted through *The Sheltering Desert*, is a modern-day account of Thoreau's *Walden Pond*, albeit less philosophical and more practical. In these instances and many more, the wilderness is a place where, through conscious choice, people can go to live deliberately, in freedom and for democracy.

Finally, the cultural aspect of freedom and democracy is never more clear than when one considers the place to which philosophers and visionaries have retreated since time immemorial. Whether we consider the account of the desert in T.E. Lawrence's, *The Seven Pillars of Wisdom*, or the time of Moses or Jesus in the wilderness, or the emergence of Buddhism from the wild land of Asia, we clearly see that new, guiding concepts which may affect civilization for millennia are born in the creative, evolutionary crucible of the wilderness. In fact, perhaps only one philosophy or ideology can truly be said to have been conceived and implemented in urban areas, and the fate of Marxism is a warning to us all of a society which derives its model from the urban paradigm.

THE FUTURE OF WILDERNESS IN NAMIBIA

When one considers the Namibia of the future, encouragement can be gained from this symposium. Many opportunities lie ahead. Most importantly, each of these opportunities appears to have a distinct advocate. For example, the Namibia Nature Foundation is working with the potential of a large wilderness area on a private farm adjoining the Namib-Naukluft National Park. Trygve Cooper and others in the Ministry of Environment and Tourism are already working with wilderness zones and further enhancement of these areas within existing national parks and protected areas. Further, while it is more problematic, the possibility of designating wilderness or wildland areas on communal lands has been mentioned as a distinct possibility, in its own timing and with a distinct style that befits these areas, not unlike the development of the Mavuradonha Wilderness Area in the CAMPFIRE Program in Zimbabwe. This array of opportunities is even more remarkable when one considers that they have evolved without a strong NGO presence advocating for the wilderness concept. More progress has likely been made in Namibia than any other country, in the absence of a NGO focal point, towards developing and implementing a wilderness concept.

However, this is not to say that one is not needed. To the contrary, a next and necessary step for the evolution and legalization of the wilderness concept in Namibia would be an NGO, or coalition of existing environmental organizations, which dedicates a specific portion of its time and resources to this issue. The reason is clear – things will surely change, and we cannot rest upon any achievements, no matter how significant, without accelerating our organizational and personal focus to enhance understanding and secure the physical protection of wilderness and wildlands. Unless legislative protection is achieved, wilderness will surely wither, either through the simple impact of population increase or the even more subtle yet pervasive and increasing demands upon natural resources caused by any group of people as it improves its lifestyle.

As we consider the future, and the inherent gifts the Namibian desert has to offer the concept of wilderness, we must remember Sir Laurens van der Post's admonition. He contends that as society evolves and lifestyles improve, the biggest sin of modern civilization is the abolition of silence. And certainly, the Namibian desert has that special gift of silence, as do deserts around the world. We have only to consider the traditional Bushman story of the nights in the desert, where the silence is so profound that one can hear the hissing of the stars as they move in the sky. In a more contemporary example, the South Korean adventurer who is believed to be the first person to cross the Sahara on foot from west to east, commented after concluding his seven month trek: "I am disturbed by the noise because I walked through the ultimate silence." (Time Magazine, June 17, 1996.)

Finally, as we consider the Namibia of the future, we must emphasize the value of natural heritage. "Whether

traditional or modern, all people want to save something of the natural world, as their elders knew it, for their children. This can be communicated in numerous ways, but it always translates to the concept of custodianship, or stewardship, and the need to be seen by our children as having made wise and far-sighted decisions which respect nature. Such decisions allow our children and their children to understand wild-ness, to learn humility in the presence of nature, and to experience the mystery of life on earth.

As we contemplate the long and difficult process ahead of us to protect the wild lands of Namibia, let us take heart and inspiration from the Chinese story of the wise man who wanted to plant an orchard. When one of his expert advisers tried to dissuade him by saying that the orchard wouldn't be fully productive for 100 years, the wise man simply replied, "Then we had better begin immediately!"



Above and below: 1996 Wilderness Management Symposium participants

(Photos: Paul Weingart)



SUMMARY

Paul Weingart

This is a very difficult Conference to really summarise and give credit to everyone you should give credit to, because it covered over thirty-five speakers in the course of our Conference. It covered a plethora of subjects.

The tone of the Conference was well set by the reading of President Sam Nujoma's speech by the Honourable Deputy Minister Ben Ulenga, which stressed the importance of the Wilderness symposium, in order to advise on Wilderness Areas within the Parks and even elsewhere, where they conform to the wishes of the people in Namibia.

The support of USAID and Ed Spriggs of that office led the impressive list of co-sponsors that recognise the importance of this event to the country of Namibia, as well as the whole of Southern Africa and really internationally.

The welcome of the Regional Governor Mr. Ua-Ndjarakana, and his week-long participation I might add, was appreciated by all.

I have heard Ian Player give inspirational talks many times in several different countries, but I must say that his address was *the most inspirational and touching of any I have heard him give*. It was apparent the entire delegation was similarly moved by this leader in Wilderness, not only in Africa but also in the world.

Vance Martin of the Wild Foundation contributed greatly in his advice on who to include from various countries, and at an early stage gave inspiration for the necessity of such a conference.

Little did I know when I responded to Vance to arrange an itinerary in the United States for a visitor from Namibia by the name of Trygve Cooper, what it would wind up into; this conference really has amazed me. From the time that people started being told to come, to getting here and finding out the results of that participation which represented seven countries from four continents, just for your information. And they were outstanding representatives, and how can you single out any one in such a group that did so well, speaking not only with knowledge, dedication and hope, but cautious optimism concerning the special resource of Wilderness in Namibia. People brought together by a man with a vision, Tryg Cooper.

We have named just a few because there were some different focuses:

Khulani Mkhize came to mind representing the KwaZulu Department of Nature Conservation. Alan from Scotland destroyed my feeling of the movies *Brave Heart* and *Rob Roy* - I thought all was heather and now I know it should have been trees in Scotland - I will never go see those movies again. Russell Taylor of Campfire, delivered an inspirational talk showing what is done in one country, and I know many countries are following up on that.

Hu Berry gave good examples in Northern Namibia, what's happening there. It's picking up in KwaZulu, South Africa, Zambia; but it is inspirational to see the proper involvement of the community peoples into an effort that really is paying off.

Gordon Stevenson: you know at times you want to say "do other people around the country appreciate and revere Aldo Leopold to the extent that some of us in his home country do?" I know some people do, such as Ian Player, such as Tryg Cooper and others, but once when Drummond and I were putting on a training session at Kosi Bay, for the KwaZulu Department of Nature Conservation up there next to the Mozambique border, there was a special occurrence. Over half the attendees were Zulu managers, and we were staying in a double rondavel with a little room in-between. Drummond and I came back one dark night after supper and Gladman Buthelezi said, "Paul, I want you to talk to us tonight and let's discuss a man in a book", and I said "Fine Gladman, what do you want to talk about?" He said "This book, Sand County Almanac and Aldo Leopold". So there are other people, who know about Aldo Leopold in that community as well; very impressive.

Bill Quisenberry exhibited what can be done through dedication, tenacity and effort in Mississippi; he had everyone talking.

Andrew Muir in his special way got everyone on his side— they wouldn't let him go! — in his presentation.

Greg Hansen moved people by his expression of how important it is to have a relationship with the native peoples, whatever country they may be in. And I can tell you from experience, because I can brag a little about looking at Greg as having mentored him when he was trying to get on permanent staff with the Forest Service. And he has made it in such a big way now, he is in great demand. That person is all sincerity, but I did not have to tell you that.

It was a very moving message by Ben Ulenga today, that moved everyone too; it gave us a real perspective a lot of us probably did not have before and it was really appreciated, Ben.

Looking at the way I can give an overview of how we did here, was the fact that we got an awful lot of people together, people that felt committed to Wilderness in some degree, in one way or another. And I think the major reason this came about was because a dedicated person wanted to create and raise the vision of Wilderness in the country of Namibia. So we had a lot of people here that gave a lot of information; I think the intent was to give information that could be of use for the people of Namibia. To take what was meaningful to them, what would perhaps help them learn from other people's mistakes. So we had people representing the status of Wilderness in different countries. We talked about the economic benefits of Wilderness. We talked about many things. The different values of Wilderness, because nothing, nothing in the world, not only here in Namibia or in Africa, but in the world is going to exist unless it has value. That value may be economic, it can be experiential, it can be spiritual value, but rest assured it has to have value. So that's a task really, of the people here, as in any country that looks at the creation of areas of Wilderness. What are those values that make Wilderness important to you? I have heard a lot of them here this week, but that is one of the big keys that you are going to have to identify to get support of the people. Key in on the values that the people really relate to.

Another very important point is you can't look at Wilderness in a vacuum, and that came out several times during the week. You have to look at the areas outside of Wilderness, not only the other recreation opportunities outside of Wilderness, which offer more latitude perhaps than Wilderness does properly managed, but you really have to get the people who live outside the Wilderness committed to that resource, so they most importantly see the value of that Wilderness resource.

I think it was very astute of this group — people from Namibia— to recognise that you need to concentrate within your designated Parks to begin with. I think that is a very astute move, and I am only reiterating what you decided anyway. You do obviously recognise that you need legislation, but you need to take a look at it and evaluate how you should go about it. So a lot of time was spent today to do that.

Now the work has just begun. You have a Task Force set up; you have a mandate, so to speak, how to pursue this. And if you do this successfully and I sincerely hope and I expect you will, you can be leaders. You can be leaders in this continent, in creating Wilderness that's going to be very special to a lot of people in your country. So I wish you well. I know all the other delegates wish you well in your ventures to see how you can recognise officially the resource of Wilderness. Take care of it for generations who come behind you, and I know, I feel quite assured that they will appreciate it. And they will look back upon you people now, as far-sighted, thinking about the children who follow you and love the country as I am sure you do. Love the country as those of us who have been here visiting these last few weeks, this week —and some are going to stay longer, because you have a wonderful country. You do have opportunities; it's a stark country in many ways, but it is a stark beauty. And you do have areas that can be designated Wilderness without a lot of trade-off's, but that is again up to you.

I want to give thanks to some of the most important people of the Conference, that's Trish Cooper and Tryg. Now he did deserve the biggest round of applause. I am going to mention three others: Victoria Cooper, Tristan and Zane Cooper. I might add just to show the dedication of these kids and it's not because Tryg threatened them, I promise you, but Victoria and Tristan have been a bit under the weather, and Tristan has been up here all the time doing everything that he needed to do to keep us squared away. Now I just want to thank them and have all of us give them a round of applause as well as — the one man that doesn't want me to mention his name — Tryg. Thank you.



FINAL WORD

Dr Ian Player

Mr. Governor, Colleagues, members of the Diplomatic Corps. You know I have been coming to conferences now for 44 years. When I started off I was the youngest. Now I look around and I am the oldest, and it is quite a shock. I always remember the very first one I went to. It was in Zimbabwe and about 20 of us young game rangers went to attend a course at the University. But the University was very stupid, because they had all the girls there: I can tell you it was like hyenas in a sheepfold that time.

You know for the past few days we have been closeted together and we have done nothing else but really just talk about Wilderness. And for me it has been a very inspirational experience, and I have been involved in it a long time, because it is just good sometimes to be with people who think the same way as you do. Right we might have differences, but deep down you know we all have this belief, and there have been far too few gatherings such as this which is a professional gathering, to be able to talk about it. In a way it's been like we have been in a cocoon and a chrysalis and one can only hope that out of this lot, a very beautiful butterfly will emerge, and the butterfly is of course the symbol of the human psyche.

Now I think that we must pay tribute and thank our American cousins for what they have brought to this Symposium. You know the American Parks and Wilderness people are really in the front line. They are the ones who have to deal with the thousands and thousands and hundreds of thousands, in fact millions of people. And when you saw that slide of Laurel's the other day, I mean can you imagine being at the end of that line having to answer the questions those people are going to ask. Absolutely overwhelming. But we can learn a great deal from America.

Now we used to refer to the Americans as *Homo sapiens trans-Atlanticus superbus*, and we can learn from them because they have made mistakes and they continue to make mistakes. And we can make sure that we don't follow the same mistakes; I gave today for example that golf course in Yosemite, which the Kruger National Park people picked up.

One of the things that I think anybody involved in the Wilderness cause should do is to read the *Proceedings of the Wilderness Bill*, which was done in 1957, S1176. Because as I said on my very first day, when I brought Wilderness to Southern Africa, I had hidden it and everybody thought I was a genius because I had every answer for and against Wilderness. It is full of very, very valuable stuff and it should be read by everyone.

I brought Wilderness in 1955 to South Africa. Up until that time the word Wilderness only meant two things: either a little village on the Cape Coast or it was a word in the Bible and the place to which Jesus Christ went. Today it's a commonly accepted word in Southern Africa, but I think that we have to remember what Paul Weingart has said for many, many years which is echoed by Peter Glavovic and others: that Wilderness is a physical place - you cannot get away from that - and you can demarcate it and give it a boundary; but it is also a state of mind, and it's that state of mind which really requires an awful lot of understanding, reading and research.

Now the Minister today referred to parts of his C.V. that are not on the piece of paper. And I would like to share some of mine for the moment. You know we must remember that the human mind evolved in an animal landscape and the way that our imagination works is one of the results of this process. And we see it very much in Africa and in fact all over the world. You know the Tswana people say, "With whom do you dance? With whom do you dance?" "I dance with the *bakwena*, with the crocodile. With the *mkwatle*, with the monkey". And in Zululand where I come from and Khulani Mkhize comes from we talk about the king as *Ngonyama*, the lion. And the great queen *Ndlovugazi*, the great elephant, female elephant. And that's not peculiar to Africa. In South Africa we have rugby teams who are named after animals. In Australia you have the Wallabies, in New Zealand you have the Kiwis, and in Natal we used to have the Banana Boys, but they didn't like that so they now call themselves the Sharks.

Now one of the things that I learnt to be in my time as a civil servant was to be as mean as a snake, and as cunning as a jackal. And I was taught that by old Magqubu Ntombela with whom I really grew up, and in the 22 years that we worked together in the Natal Parks Board, he taught me many, many things. Now he couldn't read and write but he was the wisest man I ever knew and am ever likely to know. But one day he came to me and he said (there was this piece of land between Hluhluwe Game Reserve and the Umfolozi Game Reserve which people had been trying to fence for 60 years to join the two Game Reserves together) "If you don't do

something about it and do something about it in a hurry, like fence it, you will lose it because there are a lot of people, displaced people, coming from Tugela Ferry and others, and they are going to take that land." And he said, "I want it to be Park, because that is where I was born. Now you have got to do something about it. Now." So I said "But Magqubu, what do you expect me to do?" And he said, "That's your job to worry about it."

Well as it happens, fate produced the right person and Douglas Mitchell who was one of the toughest English speaking politicians in South Africa and in the Opposition all his life, brought a Minister from the Nationalist Government up to Umfolozi Game Reserve. And he took me aside and he said "Player, this man likes drink and he likes girls." Well I was too junior to say, "but don't we all?" Anyway a nod is as good as a wink and at that time, (and this is not in my C.V.), I had an Irish secretary who was unbelievably beautiful. And in fact the women in the Reserve used to complain about her, including my own wife, but she really was a stunning woman. So I took her aside and I said, "Look, do you love your work?" "Yes", "Do you love me?" "No". "Are you prepared to do anything for your work?" "Yes". I said, "Right, this is what I want you to do. Tonight we are going down and we are going to be with this Minister," and I told her what Douglas Mitchell had told me. I said "What I want you to do is to make sure that his glass is kept full." He drank brandy. I said "You just make sure you keep filling that glass, and also you get close enough to him that he can smell your perfume - and use the best, - but you don't get that close where he can grab you." Well I tell you, she did a fantastic job. And at one o'clock in the morning, he was so drunk we went to him with a piece of paper and asked him if he would sign to the Corridor being fenced. Well he just said "Ja, ek sal teken". And if you go into Umfolozi Game Reserve that is where the fence is. We started building it the very next day.

You know I have with old Magqubu, in my service with the Parks Board and also with the Wilderness Leadership School, taken more than three thousand people into the Wilderness and there were times when we had black people and white people together. And it was very interesting too, the first night, because the white people were, sort of looking at each other and thinking, you know, "I've actually got to sleep next to this black person." You could see they were worrying about it. Such was the state of our country. But old Magqubu, who was one of the most astute observers that I have ever come across, picked it up, and he just said "*Woza, woza, woza nhlahla*, come and sit, come and sit near the fire". And then he started to tell a story, and story telling is one of the most important aspects of our human culture, but this man could weave a story like no-one I had ever known. And then he would end up the story by saying to these people, "You see, when that *ubejane*, that black rhino comes out of the bush, you think he cares whether you are black or white? He doesn't care. He just comes. Also you *mlungu*, you white man, when you die and you are buried in the earth lying flat, not like us Zulus who are buried sitting up, the worms don't care about the colour of your skin. We are all the same, because if you cut your veins the blood is red."

Well, what I've learnt from that old man is that the individual can make a difference. And that is particularly so in the environmental field, because if you look at the world, and you look at what has been done, it is always the individual who has taken the lead.

Now in African Wilderness, for which we can give any name, but if you look at the history of the Umfolozi Game Reserve, we know that in what was Natal colonial times, it was proclaimed in 1895. But in actual fact, in conservation terms it was there in the 1820's. It had been set aside by Shaka, Shaka Zulu who was the founder of the Zulu people. It was his hunting ground. And God help anybody who went in there illegally; they were killed. And you can take it from me and I have got it in oral culture that Shaka himself used to go there alone to sit at the junction of the White and the Black Umfolozi River, before the big hunts, and he would talk to the *amadhlozi*, he would talk to the spirits of his ancestors; and I have been there with many Zulu leaders and they still do the same thing. So it was an important place for them. It was a spiritual place, because the ancestors, you honour them, you *hlonipa* them. Khulani Mkhize knows.

You heard the Deputy-Minister today, talk about that which really was a combination of the right of passage and a Wilderness experience. He talked about going to fetch the salt: that was when he grew up from a young man into a man.

And you heard the Governor talk about going to the pools of water. And whether the water is there or not as Mary Seely remarked, is immaterial: what he was going for was life, because water is life. He was going to get more than just water; he was going to get life inspiration.

You heard about that Maasai who said the Wilderness was a place where you had to go to spend two weeks to settle arguments. Well I can assure you I have done that; I've taken white and black politicians and Indian politicians into the Wilderness. And I've seen them screaming and yelling at each other, and at the end of that lot, they came out of there friends. So it is such a place. And in fact I always used to say that if we could get

the leaders of the world out into the African Wilderness, I think that we could solve some of the major problems of the world.

In our own culture, in the white culture, in the Celtic culture in particular, we go back three thousand, four thousand years to the Celts. We used to go on long treks, pilgrimages to the nemetons, and the nemetons were the oak groves, they were the sacred oak groves. And the people went there in order to experience the soul mood. And it's fascinating because if you read the 1964 American Wilderness Act, you will see that one of the definitions is the "environment of solitude". So three thousand, four thousand years ago, the Celts were going on their treks to the nemetons to experience the *soul mood*. And in the modern day it's the *environment of solitude*.

So it exists in every single one of us, irrespective of our colour or of our culture. With the Afrikaner - long before they had a church, long, long before they had a church - they went to *nagmaal*. And if you read T.E. Lawrence's, (and anybody who is interested in Wilderness take my advice and read) ***Seven Pillars of Wisdom***, and if you don't want to read the whole book then just read Chapter Three, because in one chapter you are told precisely what Wilderness is all about. ***Seven Pillars of Wisdom***, T.E. Lawrence.

So Wilderness, not matter what you want to do with it, in the end remains and has always been a sacred place for all cultures. And we, who live in Africa now, in my own particular case, six generations on this continent, with English, Scottish and Boere-blood. Now us white people, we have got to do our best to understand, you know, what actually makes Africa work. And I know that I come with a big advantage, because I worked with old Magqubu Ntombela, and in fact as I said on the opening day, he brought me into Africa, he delivered me like a midwife into Africa. But you see what we did, what the white people did, was to upset a pattern. Africa was going on it's own pattern, it's own way, and we upset that. And you have only got to look at the boundaries that were drawn by colonial powers to see how that was done - they didn't care about ethnic groups, culture; the lines were just drawn - dead straight lines. You see it particularly in Tongaland, where there was a dispute between the British and the Portuguese, and they got a Frenchman with a Scottish name to draw a line, and he drew it a dead straight line. But what we have got to do as I was saying to my Karanga friend from Zimbabwe this morning, we've got to take the best out of both cultures. We've got to take the best out of the European culture and we've got to take the best out of the African culture. And we've got to bring those two things together, and it's not going to happen in five minutes, it's going to take five hundred years maybe, maybe a thousand years. But as the Chinese said, a journey of a thousand miles begins with the first step. So we take that first step and we look and we are continually aware. And where there is something good then you use it and you bring it together, you meld it. And then I think within time to come, that Africa could truly lead the world.

Now one of the things that we destroyed, were dreams. And C.G. Jung, the Swiss psychiatrist, tells a story that when he went to Kenya in the 1920's, and was traveling in a train, he looked up out of the window. And he saw a man standing there with a spear, and suddenly he had this tremendous feeling of *deja vous*, that he knew that he had been there six thousand years before. But in his investigations, he asked one of the old Kikuyu people one day; "Do you dream?" "No", the man said, "We don't dream any more". "Why?" Jung asked. "No, no the District Commissioner does that for us now".

Dreams were very important and still are, in African culture. And gradually I am glad to say, coming back into European culture thanks to Freud and Jung. You see in the African people, they used to talk about their dreams every morning. Because the dream is the indicator in which and where we go. Now there is a lot of literature, modern literature being written on Wilderness. And one of them is a paper on dreams and Wilderness, by a man called Buckley - you should read it. Also, I told you about that paper of Schreuder, ***The Spiritual Aspects of Nature***: its not to be missed. I always remember that on the Trails I used to take with old Magqubu, he and I used to exchange our dreams in the morning. We looked at them differently, but he was in touch with his unconscious. And the unconscious part of ourselves plays a very important part in our lives. It is autonomous. It is autonomous; it works on it's own. That is what made Jung a psychiatrist. Because "Suddenly", he said, "I woke up one morning and found that I was not a master in my own house". But I always remember everyone who went out on Trail, who told me their dream, and I see them now 20, 30, 35 years later. And I know that person immediately - I've forgotten the rest, they are gone - but the person, who told me their dreams, I remember them because that dream revealed exactly who they were.

Now we were told by Paul Weingart, about 300 years of American destruction, and then you know, they discovered that they were destroying their continent. And that vote of 373 to 1 in favour (of Wilderness), in the House, in Congress, was pretty clear; and it's an indication to us to how important it is.

And I think that I must tell you I was very moved - and in some instances to tears - by the papers that were read

during the Symposium. But the Deputy-Minister, who told us about his suffering really brought us down to an African reality, and made I'm sure, all of us realise what we have actually done to each other, how we have abused each other because of an ideology. But I was enormously encouraged and extremely moved by Garth Owen-Smith, because there what he described is very clear, and that is that those people are going back into their old ancient pattern - I mean that story of the elephant killing somebody, killing a man who was a popular man and they didn't blame the elephant! Phew! Incredible!

I just want to read one little bit to you, to which I would ask that you listen carefully; some very good words, that come from Jung, who said the following:

"That Western man has infected the world with his greed and his restlessness continues. If our planet is to be saved for future generations of all species, not only our own, then nature must demand an innate romeo", now "*innate romeo*" is going into your opposite, and we've got a classic example in Russia, that went from a communist state to a capitalist state, and another example is in President de Klerk, who went from an apartheid ideology to throwing the whole country open, that is *innate romeo*. So Jung says, "Nature must demand an innate romeo; we must renounce the extroverted rape of the earth by mobilising the transention function and turn inward", in other words start to listen to our dreams, "and invest in an introverted excavation of the self". And that is the physical side of Wilderness. That's what we've got to be doing. We can set the actual ground aside, the land aside, but the *spirit* of it - we've got to examine ourselves to understand what it means. And then he goes on to say, (incredible words), "For anyone who believes that exponential growth can go on in a finite world, is as Kenneth Boulding has observed, either a madman or an economist. We can only pray", he says, "that that internal excavation, that internal investigation, and the stop of the rape of the earth will occur before the gods, sickened by our militant hubris," (our inflation, the Greek word for "inflation"), "visit us with nemesis".

Finally, let me do just one thing. Let me thank the Deputy-Minister today for making us sing and Greg Hansen yesterday for making us dance. I must say I had to smile to myself too, because you know those of us who are brought up in European cultures, sometimes you get a little worried you know, about showing too much of oneself. But old Greg broke something down and the Deputy-Minister today finished it off. But what I am going to do now, I'm going to ask Khulani Mkhize to come here and to teach you a Zulu song...

(Dr. Player's Final Word is concluded with the singing of *Shosholoza*).



1996: First Namibian Basic Wilderness Management Training Course, facilitated by the Wilderness Action Group
(Photo: Paul Weingart)

CLOSURE

Trygve G. Cooper

Thank you Dr Player. We now know the recipe for tenacity: a good mixture of English, Scottish and *Boere-blood!*

Honourable Deputy Minister; His Excellency the Governor; members of the Diplomatic Corps; Ladies and Gentlemen:

I am going to be brief and thank you all for your support, particularly the sponsors for allowing this event to take place. Thank you Ed Spriggs and all the others. Fellow officers, thanks for your support - for being here. I really need to say thank you to Ben Beytell and to Danie Grobler, the Acting Director; and to the former Director Mr. Polla Swart who first gave his blessing for us to go ahead, and to our own Minister of Environment and Tourism as well, for giving their support for this event.

And probably best of all to His Excellency the State President, Dr Sam Nujoma, for his encouraging words and quite obvious support for Wilderness as long as it takes the people into account.

Paul Weingart and Vance Martin, thank you for helping us so much to organise this conference. Drummond Densham I thank for starting it all, way back. And you, Dr Player and other Officers from the Natal Parks Board. To Pieter Mostert, for your ongoing support for this Wilderness Area has really kept it going. You have kept the morale up when we have wanted to give up sometimes.

I'm very pleased about these suggestions, very grateful that we have come to some sort of working direction. I would like to see a workshop take place specifically for Namibian participants, to thrash it all out and see which way we should be going. I'm pleased to see that we have managed to separate the Parks from the Communal Areas in our concept of Wilderness. And that we will probably start with the Parks; see what we can do there as an example to the people, of what we are talking about.

I think Wilderness is not a commodity that you put on the stock exchange and buy and sell and kick around and exchange for anything. It's at the basis of everything. To my mind it's the most important resource and maybe our children will discover that when it's all gone one day. Unless we do something about it now, we will only really fully understand it when it starts disappearing. We must realise that Conservation is not easy and of course when you talk about Wilderness it's even harder. To young people who want to get involved in conservation, any form of conservation, especially Wilderness it seems, I would say: if you want the pipe you had better learn to smoke it, otherwise don't get on the boat in the first place. Conservation needs full dedication, not half-heartedness.

A very big thank you. I am going to leave the last word for Victoria Jane, because she has a few things to say, and I would like you to bear in mind that what Pookie has to say was actually written about 150 years ago and it might sound a bit emotional at times but actually its words are very true for today as well. Unfortunately, unless we do something about it, it's going to carry on being so. It's a dead serious account of what man has done to his fellow man via the rape of his environment. I know that a lot of you have heard this before, but it won't do us any harm to hear it again....



CLOSURE OF WILDERNESS MANAGEMENT SYMPOSIUM - CHIEF SEATHL'S LETTER

Victoria Jane Cooper – age 12 years

*(with kind permission of Dr. Ian Player: the following presentation is from **Voices of the Wilderness** as delivered to the 1st World Wilderness Congress in Johannesburg in 1977, by Mohawk Princess Carol-Ann Brant)*

In 1855, Chief Seathl wrote a letter to the President of the United States. He had never heard of the words *conservation* or *ecology* but made the most haunting and eloquent plea for them. I would like to read this letter to you.

"The Great Chief in Washington sends word that he wishes to buy our land. The Great Chief also sends us word of friendship and goodwill. This is kind of him, since we know he has little need of our friendship in return.

"But we will consider your offer, for we know if we do not do so, the white man may come with guns and take our land. What Chief Seathl says, the Great Chief in Washington can count on as truly as our white brother can count on the return of the season. My words are like the stars - they do not set.

"How can you buy or sell the sky - the warmth of the land? The idea is strange to us. We do not own the freshness of the air or the sparkle of the water. How can you buy them from us? We will decide in our time. Every part of this earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every clearing and humming insect is holy in the memory and experience of my people.

"We know that the white man does not understand our ways. One portion of the land is the same to him as the next, for he is a stranger who comes in the night and takes from the land whatever he needs. The earth is not his brother, but his enemy, and when he has conquered it, he moves on. He leaves his father's grave behind and does not care. He kidnaps the earth from his children. He does not care.

"Our children have seen their fathers humbled in defeat. Our warriors have felt shame. And after defeat, they turn their days in idleness and contaminate their bodies with sweet food and strong drink. It matters little where we pass the rest of our days - they are not many.

"A few more hours, a few more winters, and none of the children of the great tribes that once lived on the earth, or that roamed in small bands in the woods, will be left to mourn the graves of a people once as powerful and hopeful as yours.

"One thing we know which the white man may one day discover. Our God is the same God. You may think now that you own our land. But you cannot. He is the God of man. And His compassion is equal for the red man and the white. The earth is precious to Him. And to harm the earth is to heap contempt on its creator.

"The whites, too, shall pass - perhaps sooner than the other tribes. Continue to contaminate your bed, and you will one night suffocate in your own waste. When the buffaloes are all slaughtered, the wild horses all tamed, the secret corners of the forest heavy with the scent of many men and view of the ripe hills blotted by talking wires, where is the thicket? Gone. Where is the eagle? Gone. And what is it to say good-bye to the swift and the hunt, (it is) the end of living and the beginning of survival.

"We might understand if we knew what it was that the white man dreams, what hopes he describes to his children on long winter nights, what visions he burns into their minds, so that they will wish for tomorrow. But we are savages. The white man's dreams are hidden from us. And because they are hidden, we will go our own way. If we agree, it will be to secure the reservation you have promised. There perhaps we may live out our brief days as we wish.

"When the last red man has vanished from the earth, and the memory is only the shadow of a cloud moving across the prairies, these shores and forest will still hold the spirits of my people, for they love this earth as the newborn loves its mother's heartbeat. If we sell you our land, love it as we have loved it. Care for it, as we have cared for it. And with all your strength, with all your might, and with all your heart preserve it for your children, and love it as God loves us all. One thing we know - our God is the same God. This earth is precious to him. Even the white man cannot be exempt from the common destiny.

"His father's grave and his children's birthright are forgotten. His appetite will devour the earth and leave behind only a desert. The sight of your cities pains the eyes of the red man. But perhaps it is because the red man is a savage and does not understand.

"There is no quiet place in the white man's cities. No place to hear the leaves of spring or the rustle of insects' wings. But perhaps because I am a savage and do not understand - the clatter only seems to insult the ears. And what is there to life if a man cannot hear the lovely cry of a whippoorwill or the arguments of the frogs around a pond at night? The Indian prefers the soft sound of the wind darting over the face of the pond, and the smell of the wind itself cleansed by a midday rain, or scented with a pinion pine. The air is precious to the red man. For all things share the same breath - the beasts, the trees, the man. The white man does not seem to notice the air he breathes. Like a man dying many days, he is numb to the stench.

"If I decide to accept, I will make one condition. The white man must treat the beasts of this land as his brothers. I am a savage and I do not understand any other way. I have seen a thousand rotting buffaloes on the prairies, left by the white man who shot them from a passing train. I am a savage and I do not understand how the smoking iron horse can be more important than the buffalo that we kill only to stay alive. What is man without the beasts? If all the beasts were gone, man would die from great loneliness of spirit, for whatever happens to the beast also happens to the man. All things are connected. Whatever befalls the earth befalls the sons of the earth."



Victoria Jane Cooper

(Photo: Paul Weingart)

SYMPOSIUM RECOMMENDATIONS

PURPOSE

The objective of the Symposium was to deliberate on Wilderness in the context of Namibia's needs and circumstances.

In doing this, the delegates took into account that Wilderness is recognised as a Category 1 by the International Union for the Conservation of Nature and Natural Resources (IUCN). Category 1 is the highest form of protection that the IUCN can bestow on any protected area. Namibia is a signatory to the IUCN Charter.

FINDINGS

The main findings of the four-day Symposium were as follows:

Wilderness is an enduring resource, producing cultural, social, educational, spiritual and economic values for all the people of Namibia.

Wilderness must not be viewed as an area which excludes people, but is in fact for people.

Namibia is blessed with a tremendous potential to pioneer and develop the concept of Wilderness and to be a forerunner in the African context in this regard. Vast areas of Namibia reflect the physical characteristics as well as the spiritual attributes of Wilderness. The concept of Wilderness can be developed both within and outside protected areas, however the focus should initially be to develop Wilderness inside existing protected areas.

Development of the Wilderness ideal must take into account the unique cultural diversity which characterises Africa in general and Namibia in particular.

Any initiative regarding Wilderness must take into account Namibia's colonial past and history of land dispossession. The needs, desires and aspirations of Namibian people as regards land use, must be taken into account when addressing the issue of Wilderness.

The economic value of Wilderness goes beyond financial value. Economists now include all humanly perceived values including financial, spiritual, cultural and heritage in measuring the value of Wilderness. Namibia should maximise these values.

RECOMMENDATIONS

1. LEGISLATIVE MEASURES

Give legislative recognition and legal protection to the concept of Wilderness as a Category 1, according to the IUCN system for protected areas.

Do this in conjunction with the revision of the Nature Conservation Ordinance.

2. INVENTORY

Conduct a baseline study to demarcate candidate Wilderness Areas in Namibia.

Focus initially on areas falling within existing protected areas, and put on hold the promotion of Wilderness Areas outside such areas.

Decisions regarding Wilderness outside protected areas must be Community-based.

3. TASK GROUP

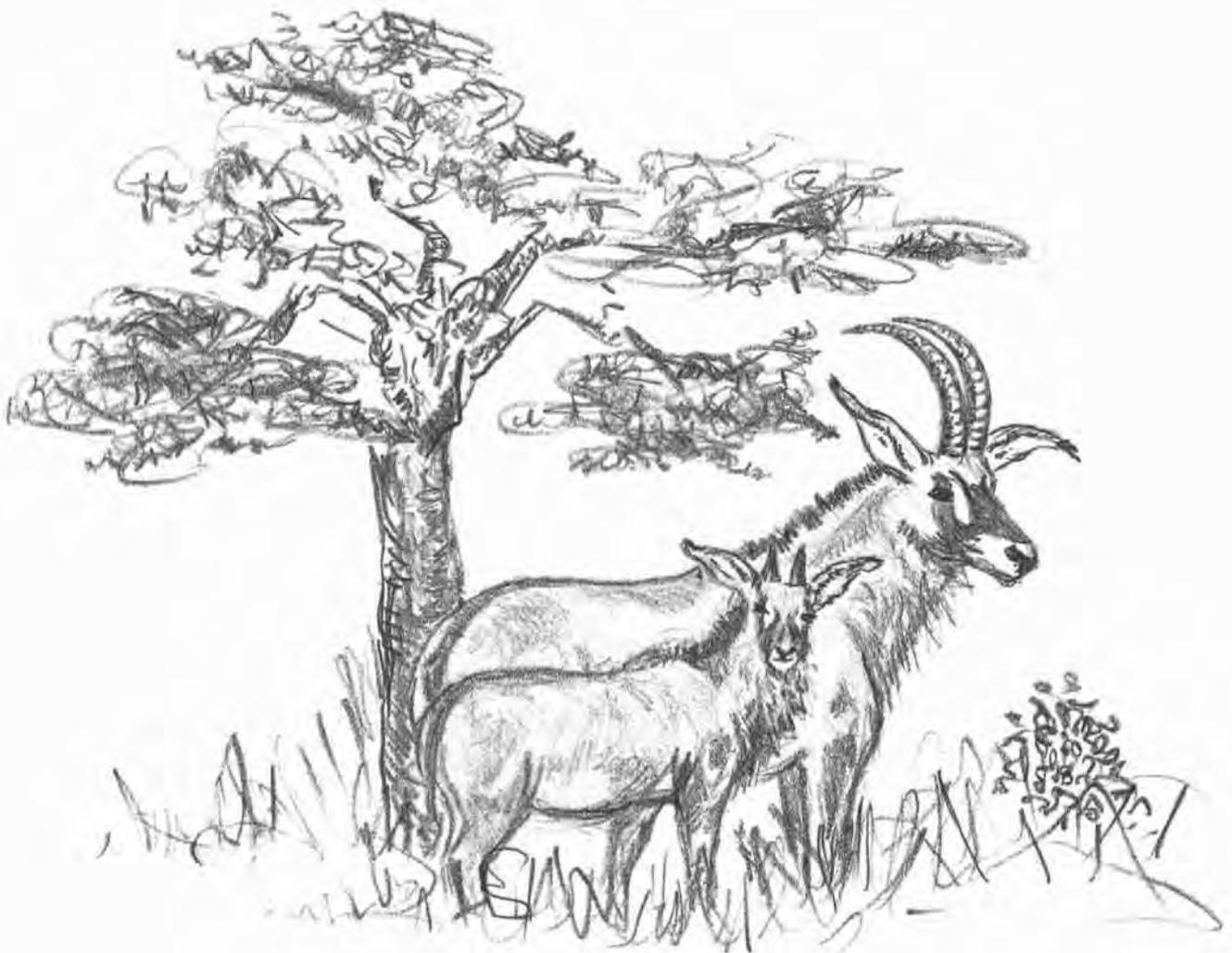
Request the Permanent Secretary to convene a Task Group from within the MET as well as outside members as appropriate.

The Task Group's function, if approved, will be to lay down guidelines for determining criteria to be applied in formulating the Inventory referred to in Recommendation 2.

Suggested members of this task group are: Dr. H. Kojwang, Mr. B. Beytell, Mr. T.G. Cooper and Dr. H. Berry.

4. TOP MANAGEMENT COMMITTEE

Inform the Top Management Committee of the MET of these developments and ask Dr. Kojwang (or Mr. S. Haindongo as appropriate) to table this recommendation at the next meeting of the Top Management Committee.



POSTSCRIPT

Developments in Wilderness issues in Namibia: 1984-1999

- 1984 The Western half of Waterberg Plateau Park in North-Central Namibia is set aside administratively as a Wilderness Area, encompassing 19 000 hectares of the total Park size of 41 000 hectares.
- 1985 Extensive reconnaissance of the Wilderness is conducted on foot and on horseback. Suggestions for utilisation are incorporated in the Management Plan. Antephora and Huilboom Trails Camps are sited.
- 1986 The first Wilderness Trail is conducted in May. Over the next 8 years, 132 Trails take place at Antephora and Huilboom Trails Camps.
- 1993 Okarukuwisa Trails Camp is created. H.E. Dr Sam Nujoma, President of the Republic of Namibia, visits this Camp to welcome and thank Raleigh International venturers tasked with the building thereof.
- 1994 For the next 4 1/2 years, a further 64 Trails are conducted at Okarukuwisa Trails Camp. Vice-President Al Gore of the USA visits Okarukuwisa Trails Camp and walks in the Wilderness Area.
- 1995 The Youth Conservation Corps of the Ministry of Youth and Sport undertake a voluntary long-term program for Namibian unemployed youth involving the re-construction of Antephora and Huilboom Trails Camps on the edge of Waterberg Wilderness Area, that is to stretch over 3 years.
- 1996 The first international Wilderness Management Symposium on the African continent outside of South Africa, is hosted in Namibia at the Waterberg Plateau Park. Over 100 participants are present, from 8 countries.

Immediately following this event, the first Basic Wilderness Management Training Course is held by the Wilderness Action Group of Southern Africa, for Rangers and Wardens of the Ministry of Environment and Tourism.

- 1997 Another Basic as well as an Advanced Wilderness Management Training Course are held in Waterberg.
- 1998 The Polytechnic of Namibia 3rd-year students— Pupil Wardens taking their Nature Conservation Diploma— attend a 3-day Wilderness Trail at Waterberg This is now an established part of the curriculum for final-year students.

The Namibian Academy for Tourism Hospitality (NATH) sends aspiring Field Guides on three Wilderness Trails at Waterberg, to be followed later in the year by a 5-day Wilderness-oriented Field Guide Training Course in the Park. This from now on is compulsory for persons wishing to obtain their Field Guide Badge with NATH.

Otjokuriumo Trails Camp is completed, and Trails begin here in June. To date (August 1998), 200 Wilderness Trails have been held at Waterberg for some 1 400 people, over a period of 12 years.

A third Basic, and a second Advanced Wilderness Management Training Course, are facilitated. This time, both MET staff and NGO representatives and other members of the public are included.

To date then, a total of 59 Namibians, mostly MET staff, have undergone Wilderness Management Training courses over 3 years.

Immediately following this event, the Wilderness Action Group facilitates a 2-day Wilderness Information Workshop at Waterberg, for a total of 33 attendees including MET staff, members of the public, NGO's, Waterberg Conservancy, the Regional Governor's office and the press.

Immediately after this Workshop, on 19th July, concerned participants meet to form the Namibian Wilderness Association, to network on wilderness issues, disseminate information, educate and fund-raise for wilderness training, and generally further Wilderness issues to the benefit of all Namibians.

Ms M. Kapere, Director of Resource Management in the Ministry of Environment and Tourism, hosts a meeting in Windhoek with course facilitators of the Wilderness Action Group from South Africa and the USA, to be better informed about Wilderness issues.

Senior Warden T.G. Cooper, assisted by Dr Hu Berry, delivers a presentation on Wilderness history, principles, protection, management, training and the importance thereof as a resource, to the Regional Meeting called by the Deputy-Director of the Central and Southern Regions, and held at Daan Viljoen Game Park near Windhoek. Mr Haindongo is supportive of Wilderness and is keen to initiate Wilderness zonation in Parks under his control.

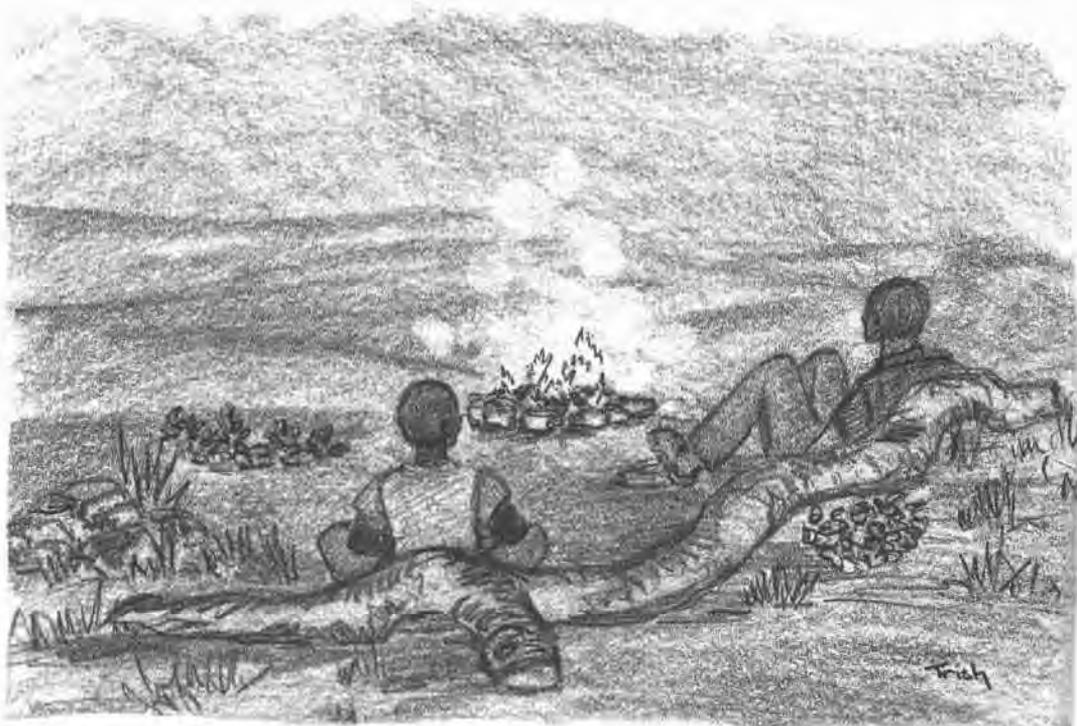
Re-construction of Antephora and Huilboom Wilderness Trails Camps is completed by the Youth Conservation Corps, and by Raleigh International.

Senior Warden T.G. Cooper of Namibia is made a Director of the Wilderness Action Group, and delivers a paper co-authored with Drummond Densham, on behalf of the WAG, as well as another paper dealing with the current and future prospects of Wilderness in Namibia, at the 6th World Wilderness Congress in October 1998 in Bangalore, India.

Namibia is requested to consider hosting the 7th WWC in this country.

The first two issues of *Namibian Wilderness*, the newsletter of the Namibian Wilderness Association, are released.

1999 The Proceedings of the 1996 Wilderness Management Symposium are published.



ADDRESS LIST OF PARTICIPANTS

Jon I. Barnes
P.O. Box 9681
Windhoek
Namibia
Tel: (61) 249015
Fax: (61) 241339

Albi Bruckner
P.O. Box 5048
Windhoek
Namibia
Tel: (61) 236720
Fax: (61) 232890

Glyn & Carmen Davies
British High Commissioner
to Namibia
at the time of the Symposium
8L Burton Road
SW9 6TQ
London - UK
Tel: (171) 2744933

Mossie Basson
Vrolikheid Nature Conservation
Private Bag X614
Robertson 6705
RSA
Tel: (23) 53671
Fax: (23) 53674

Maggie Bryant
P.O. Box 247
Middleburg
VA. 22117. USA
Tel: (540) 687 6269
Fax: (540) 687 6151

Pottie de Bruyn
P.O. Box 927
Windhoek
Namibia
Tel: Cell 0811247290
Fax: (61) 216570

Hu Berry
Gobabeb
P.O. Box 1204
Walvis Bay
Namibia
Tel: (64) 205089
Fax: (64) 205089

Japie Buckle
Working for Water
163 Main Road
Walmer 6070
RSA
Tel: (41) 514670
Fax: (41) 514680

Drummond Densham
KwaZulu-Natal Nature
Conservation Service
P.O. Box 13053
Cascades 3202
RSA
Tel: (331) 8451394
Fax: (331) 8451399

Ben Beytell
MET: Resource Management
Private Bag 13306
Windhoek
Namibia
Tel: (61) 263131
Fax: (61) 263195

Henk Coetsee
MET: Public Relations Officer
Private Bag 13306
Windhoek
Namibia
Tel: (61) 263131
Fax: (61) 263195

Nigel Dickerson
British High Commission
P.O. Box 22202
Windhoek
Namibia
Tel: (61) 223022
Fax: (61) 228895

Connie Botma
Rössing Foundation
P.O. Box 26746
Windhoek
Namibia
Tel: (61) 211721
Fax: (61) 211273

Dave Cole
Desert Research Foundation
P.O. Box 20232
Windhoek
Namibia
Tel: (61) 229855
Fax: (61) 230172

Jürg & Maria Diekmann
P.O. Box 178
Otjiwarongo
Namibia
Tel: (67) 306226
Fax: (67) 306226

Laurel Boyers
P.O. Box 55
Yosemite
CA 95389. USA
Tel: (209) 372 0347
Fax: (209) 372 0577

Trygve G. Cooper
MET: Resource Management
Waterberg Plateau Park
Private Bag 2506
Otjiwarongo
Namibia
Tel: (658) ask for 15321
Fax: (67) 305004

Pierre du Preez
MET: Regional Scientist
Private Bag 2506
Otjiwarongo
Namibia
Tel: (658) ask for 15302
Fax: (67) 305004

Peter Bridgeford
Namib-Naukluft Park
P.O. Box 5021
Walvis Bay
Namibia
Tel: (63) 293312

Zane Cooper
MET
P.O. Box 90452
Klein Windhoek
Namibia
Tel: (61) 250778

Wayne Elliot
KwaZulu-Natal Nature
Conservation Service
P.O. Box 13053
Cascades 3202 - RSA
Tel: (331) 8451515
Fax: (331) 8451399

Noéla Garry
P.O. Box 90452
Klein Windhoek
Namibia
Tel: (61) 250778

Tommy Hall
P.O. Box 201
Outjo
Namibia
Tel: (67) 313509

Lee Jenkins
12 Avenue Road
London
N6 SDW
UK
Tel: (181) 3489690

Gabriel Geigub
MET: Resource Management
Private Bag 13306
Windhoek
Namibia
Tel: (61) 263131
Fax: (61) 263195

Kavee Hambira
American Cultural Centre
P.O. Box 5750
Windhoek
Namibia
Tel: (61) 229802
Fax: (61) 232476

Brian Jones
P.O. Box 9455
Windhoek
Namibia
Tel: (61) 236186
Fax: (61) 236186

Peter Glavovic
Ridl/Glavovic
P.O. Box 4693
Durban
RSA
Tel: (31) 2602554
Fax: (31) 864751

Greg Hansen
P.O. Box 5800
Mesa
AZ. 85205, USA.
Tel: (602) 379 6446
Fax: (602) 379 6448

George Kamseb
MET: Directorate of
Environmental Affairs
Private Bag 13306
Windhoek
Namibia
Tel: (61) 249015
Fax: (61) 241339

Jan Glazewski
Institute of Marine Law
University of Cape Town
Private Bag Rondebosch 7701
RSA
Tel: (21) 6503074/5
Fax: (21) 6898546

H. Hassenflug
Private Bag 2402
Otjiwarongo
Namibia
Tel: (67) 302470

Coen Karsten
P.O. Box 201
Outjo
Namibia
Tel: (67) 313436
Fax: (67) 313593

Jan Glazewski
Institute of Marine Law
University of Cape Town
Private Bag Rondebosch 7701
RSA
Tel: (21) 6503074/5
Fax: (21) 6898546

Dirk Heinrich
Allgemeine Zeitung
P.O. Box 6213
Windhoek
Namibia
Tel: (61) 232300
Fax: (61) 249937

Gert Keding
Buschkino
P.O. Box 40105
Windhoek
Namibia
Tel: (61) 220761/2
Fax: (61) 230116

Mike Griffin
MET: Specialist Support Services
Private Bag 13306
Windhoek
Namibia
Tel: (61) 237552
Fax: (61) 263195

Sandy Hurlbut
195 Trail Rider Way
Georgetown
Texas 7868-4736
USA

Werner Kilian
MET: Specialist Support Services
Private Bag 13306
Windhoek
Namibia
Tel: (61) 263131
Fax: (61) 263195

Mark Griffiths
Care of : B. Kockott
P.O. Box 1234
Hattingspruit 3081
KwaZulu-Natal
RSA
Tel: (341) 24465

Willie Jankowitz
Polytechnic of Namibia
Private Bag 13388
Windhoek
Namibia
Tel: (61) 2072146
Fax: (61) 2072196

Ekkerhard Klingelhoefter
P.O. Box 1946
Swakopmund
Namibia
Tel: (64) 404158
Fax: (64) 406098

Dr H.O. Kojwang
MET: Director of Forestry
Private Bag 13346
Windhoek
Namibia
Tel: (61) 221478
Fax: (61) 222830

Sue Kozacek
US Forest Service
3473 Highway 35 South
Forest
MS 39074. USA
Tel: (601) 824 7704

John Kramer
RT 11 Box 114
Silver City
NM 88061. USA
Tel: (505) 536 2250
Fax: (505) 536 2250

Patrick Lane
MET
Private Bag 2050
Keetmanshoop
Namibia
Tel: (631) 22510
Fax: (631) 23955

Len le Roux
Rössing Foundation
P.O. Box 26746
Windhoek
Namibia
Tel: (61) 211721
Fax: (61) 211273

Achem Lenssen
P.O. Box 47707
Windhoek
Namibia
Tel: (6638) ask for
Namgorab 5702
Fax: (61) 232890

Pikkie Ligthelm
NBC
P.O. Box 24797
Windhoek
Namibia
Tel: (61) 2913239
Fax: (61) 216648

Rudi Loutit
MET: Specialist Support Services
Private Bag 13306
Windhoek
Namibia
Tel: (61) 263131
Fax: (61) 263195

H. Mahenga
MET: Directorate of Forestry
P.O. Box 333
Grootfontein
Namibia
Tel: (67) 242129
Fax: (67) 242128

Laurie Marker
Cheetah Conservation Fund
P.O. Box 1755
Otjiwarongo
Namibia
Tel: (67) 306225
Fax: (67) 306225

Vance G. Martin
WILD Foundation
P.O. Box 1380
Ojai
CA 93024. USA
Tel: (805) 640 0390
Fax: (805) 640 0230

**Ambassador
Marshall McCallie**
AF/ACRI, Room 1802A
Department of State
Washington, DC 20520
USA

Jonathan Miller
Australian Heritage Commission
GPO Box 1567
Canberra
ACT 2601
Australia
Tel: (61) 6 2172062
Fax: (61) 6 2172095

Khulani Mkhize
KwaZulu-Natal Nature Conserva-
tion Service
Private Bag X98
Ulundi, 3838
RSA
Tel: (358) 700552
Fax: (358) 700580

Emma Montzinger
P.O. Box 10032
Windhoek
Namibia
Tel: (61) 211542

Margot Morrison
Wilderness Leadership School
54 Roosevelt Road
Clairemont, 7700, Cape Town
RSA
Tel: (21) 617992
Fax: (21) 6835888

Pieter Mostert
Rössing Foundation
P.O. Box 26746
Windhoek
Namibia
Tel: (61) 211721
Fax: (61) 211273

Andrew Muir
Wilderness Leadership School
54 Roosevelt Road
Clairemont 7700
Cape Town - RSA
Tel: (21) 617992
Cell: 0834410532
Fax: (21) 6835888

Clement Nawa
New Era
P.O. Box 902
Tsumeb
Namibia
Tel: (67) 221984
Fax: (67) 221983

Joseph Nekaya
NAMPA
P.O. Box 61354
Katatura
Namibia
Tel: (61) 221711
Fax: (61) 221713

N. Nghidinwa
NAMPA
P.O. Box 61354
Katatura
Namibia
Tel: (61) 221711
Fax: (61) 221713

Colin Nott
IRDNC
P.O. Box 1715
Swakopmund
Namibia
Tel: (61) 228506
Fax: (61) 228530

Trevor Nott
P.O. Box 285
Omaruru
Namibia
Tel: (64) 570032
Fax: (64) 570594

Garth Owen-Smith
IRDNC
P.O. Box 1715
Swakopmund
Namibia
Tel: (61) 228506
Fax: (61) 228530

**Ambassador
Katherine Peterson**
American Embassy
P.O. Box 333
Maseru 100
Lesotho
Tel: (266) 312 666
Fax: (266) 310 116

Walter Piepmeyer
MET: District Forestry Officer
Private Bag 2506
Otjiwarongo
Namibia
Tel: (67) 303307
Fax: (67) 303309

Ian Player
The Wilderness Foundation
P.O. Box 53058
Yellowwood Park 4011
RSA
Tel: (31) 4622808
Fax: (31) 4624656

Mark Stanley Price
African Wildlife foundation
P.O. Box 48177
Nairobi
Kenya
Tel: (2) 710367
Fax: (2) 710372

Bill Quissenberry
MS. Dept. Wildlife,
Fisheries & Parks
P.O. Box 451
Jackson.
MS 39205. USA
Tel: (601) 364 2000
Fax: (601) 364 2008

Johnny Roberts
Townhead Cottage
Conistone
Skipton
North Yorkshire BD23 5HS
UK

Chris Ryan
2032 Remount Road
Huson
MT 59846. USA
Tel: (406) 626 5208
Fax: (406) 626 5395

Harry Schneider-Waterberg
Private Bag 2208
Otjiwarongo
Namibia
Tel: (67) 302223
Fax: (67) 302223

Sid Schultz
Gwathmey, Pratt, Schultz,
Architects
1000 South Frontage Road West
Vail
Colorado 81657. USA

Lindsay Scott
N.B.C.
P.O. Box 24797
Windhoek
Namibia
Tel: (61) 2913239
Fax: (61) 216648

Mary Seely
Desert Research Foundation
P.O. Box 20232
Windhoek
Namibia
Tel: (61) 229855
Fax: (61) 230172

Gideon Shilongo
MET: Directorate of Tourism
Private Bag 13346
Windhoek
Namibia
Tel: (61) 2842284
Fax: (61) 221992

Tom Sikuvi
MET: Resource Management
Waterberg Plateau Park
Private Bag 2506
Otjiwarongo
Namibia
Tel: (658) ask for 15321
Fax: (67) 305004

Ed Spriggs
Director: USAID
P.O. Box 2427
Gaberone
Botswana
Tel: 324449
Fax: 324404

Gordon & Trish Stevenson
4380 Blue Mounds Trail
Black Earth
WT 53707. USA
Tel: (608) 767 2686
Fax: (608) 267 2800

Jo Tagg
Directorate of Environmental
Affairs
Private Bag 13306
Windhoek
Namibia
Tel: (61) 249015
Fax: (61) 241339

Peter Tarr
MET: Directorate of
Environmental Affairs
Private Bag 13306
Windhoek
Namibia
Tel: (61) 249015
Fax: (61) 240339

Russell Taylor
World Wildlife Fund
P.O. Box CY 1409
Causeway
Harare
Zimbabwe
Tel: (4) 730599
Fax: (4) 730599

Timothy Towell
1333 New Hampshire Ave., N.W.
Suite 700
Washington
DC 20036. USA
Tel: (202) 862 2237
Fax: (202) 862 2400

Ben Ulenga
P.O. Box 3573
Windhoek
Namibia
Tel: (61) 256960
Fax: (61) 256960

Paul Weingart
108 Circle Drive
Bozeman
MT 59715. USA
Tel: (406) 586 8625
Fax: (406) 587 3138

Peter Tyldesley
P.O. Box 80405
Olympia
Windhoek
Namibia
Tel: (61) 233221
Fax: (61) 233221

H. van Alphen
MET
Private Bag 2050
Keetmanshoop
Namibia
Tel: (631) 22510
Fax: (631) 23955

Dermot Whyte
37 Copley Avenue
Elson Hill 2196
Johannesburg
RSA
Tel: (11) 4403436
Cell: 0826517521

M. Ua-Ndjarakana
P.O. Box 1526
Otjiwarongo
Namibia
Tel: (67) 304168
Fax: (67) 302760

Jim Walters
11 Calle Tangara
Sante Fe
NM 87504. USA
Tel: (505) 988 6022
Fax: (505) 988 6123

Bernhard Zeiss
Edith-Steinstrasse 13
79110 Freiburg
Germany
Tel: (761) 87329
Fax: (761) 203 3661

Alan Watson Featherstone
Findhorn Foundation
The Park
Forres
IV36 OTZ
UK
Tel: (1309) 691292
Fax: (1309) 691155

Additional Relevant Addresses

**Ministry of Environment
and Tourism**
Private Bag 13306
Windhoek
Namibia
Tel: (61) 263131
Fax: (61) 263195

Namibia Nature Foundation
P.O. Box 254
Windhoek
Namibia
Tel: (61) 248345
Fax: (61) 248344

USAID
Private Bag 12028
Windhoek
Namibia
Tel: (61) 225935
Fax: (61) 227006

Save the Rhino International
Winchester Wharf
Clink street
London
SE1 9DG
UK
Tel: (171) 357 7474
Fax: (171) 357 9666

**Namibian Wilderness
Association**
P.O. Box 178
Otjiwarongo
Namibia
Tel: (67) 306226
Fax: (67) 306226

Notes:

WILDERNESS

June 1996 saw the first International Wilderness Management Symposium to be convened on the African continent, outside of South Africa. It was held in the Republic of Namibia, at the Waterberg Plateau Park, and was attended by over 100 delegates from Namibia, South Africa, Zimbabwe, Kenya, Scotland, Australia and the USA.

The positive impressions offered at the Symposium are reflected in the following quotes taken from some of the Namibian participants' presentations:

"The Wilderness Areas concept introduces a measure of balance in our approach to eco-tourism on the one hand, and respect for the environment on the other. We are proud of our growing eco-tourism industry, but we must be careful not to kill the goose that lays the golden egg."

His Excellency Dr. Sam Nujoma, State President of the Republic of Namibia

"Wilderness does not exclude people. It is for the people."

Beuta Ua- Njarakana, at the time of the Symposium, Otjozonzupa Regional Governor.

"... I asked myself whether pre-colonial indigenous Namibian culture really can make relevance for a Wilderness Conservation concept. And I thought the answer is definitely YES."

Ben Ulenga, former Namibian High Commissioner to the United Kingdom. At the time of the Symposium, Deputy Minister of Regional, Local Government and Housing; and previously Deputy Minister of Environment and Tourism.

"Apart from fulfilling some spiritual needs of mankind, I suspect that Wilderness is by far the best option for long-term maintenance of the broadest spectrum of bio-diversity".

Mike Griffin, Ministry of Environment and Tourism.

"I see Wilderness as being a very positive innovation."

Rudi Loutit, Ministry of Environment and Tourism.

"Resource use in Wilderness should have the lowest environmental impact of any, but use opportunities should be maximised within this context."

Jon Barnes, Directorate of Environmental Affairs, MET.

"We need to realise that nature in general, and Wilderness areas in particular, are inherently worth preserving just because of what they are and what they represent.

"Without Wilderness Areas for people to re-discover their souls therein, there is no hope at all.

"... Wilderness Areas are not besieged fortresses to be defended – they are the seeds of fundamental change, both scientifically and spiritually."

Dave Cole, Desert Research Foundation of Namibia.