

THE LINK BETWEEN CONSERVATION AND HIV/AIDS –WHAT CAN BE DONE?

Report of a Special Side Event, World Parks Congress, Durban

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Introduction

Is HIV/AIDS an environmental factor that conservationists ignore at their peril? A number of conservationists in and beyond Africa think so, because the pandemic is already affecting the capacity of some parks to be sustainable.

Nature reserves and parks are particularly vulnerable. They depend on the smooth co-ordination of a diverse range of activities, from research through to policing to tourism & hospitality management, and rely heavily on skills that individuals acquire through experience. Start losing individuals through sickness and death caused by HIV/AIDS and the system feels the pressure. These days many park managements are struggling to find ways to meet basic management needs with limited budgets, and replacing skilled staff is difficult and expensive.

But the threat is not only internal. HIV/AIDS knows no boundaries. Africans know well that the pandemic is ravaging rural communities leaving people poorer and bereft of breadwinners and family support networks. In response, many people are becoming more dependent on natural resources. Harvesting plants for medicines, hunting for ‘bushmeat’, making charcoal, fishing, and keeping more livestock are alternatives to labour-intensive arable farming and salary-earning. And these are all activities that cause concern to parks managers.

The links between HIV/AIDS and conservation are evident, but action by conservation agencies generally has been slow and inadequate. In 2002 the Africa Biodiversity Collaborative Group (ABCG) commissioned an initial consultancy to look at the impacts of HIV/AIDS on conservation capacity and natural resource use¹. It organised a workshop in Nairobi in September 2002 to open debate amongst colleagues in the world of conservation. The theme at that event was ‘HIV/AIDS and natural resource management linkages’² In September 2003, they used the opportunity of the World Parks Congress being held in Durban, to take this initiative further. They joined forces with two local organisations, the Ezemvelo KwaZulu-Natal Wildlife (EKZNW), a provincial conservation authority, and the Health Economics and HIV/AIDS Research Division

¹ Dwasi, J. 2002. HIV/AIDS and Natural Resource Management in Africa: Findings from Kenya, Namibia, South Africa and Uganda. www.abcg.org

² Africa Biodiversity Collaborative Group 2002. HIV/AIDS and Natural Resource Management Linkages. Workshop Proceedings, 26-27 September 2002, Nairobi, Kenya. www.abcg.org

(HEARD) at the University of Natal, to hold a session for interested delegates on ‘The links between HIV/AIDS and Conservation –What can be done?’

The meeting was an independent intervention, for HIV/AIDS was not on the formal agenda of the congress. Nonetheless, an outcome of the session was that HIV/AIDS was incorporated into official the ‘Emerging Issues’ output of the World Parks Congress.

Objectives of the session

The general aim of the session was to show that the HIV/AIDS pandemic is a substantive threat to global biodiversity initiatives and that conservation agencies can contribute to mitigating its impacts. The session had three principal objectives:

- 1) To highlight the links between conservation and the HIV/AIDS pandemic;
- 2) To illustrate coping strategies and best practices developed by some conservation agencies;
- 3) To encourage conservationists to mitigate impacts.³

Form and content of the session

The intention was to hold an interactive meeting; drawing on short presentations by conservationists who are confronting the pandemic in their organisations to stimulate round-table discussions by delegates. The programme consisted of three short presentations with the view to enabling participants to discuss the issues raised over lunch, then for a rapporteur from each table to present key conclusions from the discussions, and to conclude with a general discussion (see Appendix 2).

In the event, space and time constraints forced revision of the plan: lunch was provided before the presentations which were followed by a short question and answer period, before concluding with round-table discussions amongst the participants who chose to stay rather than attend the afternoon programme of the Congress.

The presentations

a) Introduction

Judy Oglethorpe, Director of the Conservation Strategies Unit, World Wildlife Fund and representative of the ABCG, welcomed delegates and highlighted efforts to move beyond acknowledging the problems posed by HIV/AIDS in the management of conservation areas, to ‘what can be done’.

b) The Dynamics of the HIV/AIDS Pandemic - Su Erskine (Researcher, HEARD)

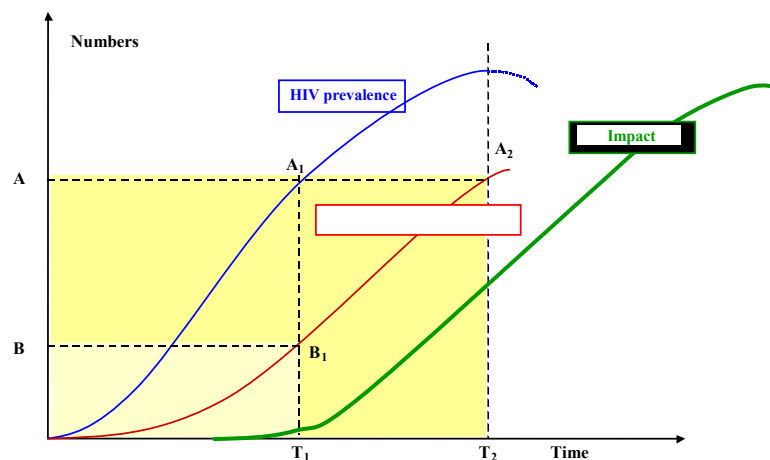
³ A practical objective was to draw attention of individuals at the congress to the personal threat of HIV/AIDS in view of the high prevalence rate in South Africa and KwaZulu-Natal in particular (11-24%; variation in estimates of different surveys) and heterosexual intercourse being the principal mode of transmission. Pamphlets advertising the session endorsed the general principle of ‘safe sex’ (see Appendix 1) and condoms were also distributed.

This presentation highlighted three key points:

- 1) Why HIV/AIDS is a significant threat to conservation agencies
 - AIDS will push 51% of people in Burkina Faso, Rwanda & Uganda into extreme poverty by 2015;
 - A child born in Lesotho in 1985 has a 74% probability of becoming infected with HIV by his/her 50th birthday;
 - In 2000 in Botswana it was estimated that 1 in 4 people was infected with HIV
 - South Africa: every day 600 people die of AIDS;
- 2) The need for countries that have not yet noticed substantive impacts of HIV/AIDS to begin to address the threat:
 - 'next wave' countries include those in eastern Europe including Russia (360,000 people infected in 1999; 1 million in 2001) and east Asia (530,000 infected in 1999; 1 million in 2001);
 - The HIV/AIDS pandemic appears to have been contained in much of South America, but it is spreading noticeably in the northern areas of that continent and in Central America;
- 3) The dynamics of an HIV/AIDS epidemic:

The dynamics can be graphically and simply displayed as is indicated in the figure below.

Figure 1: The HIV/AIDS epidemic curves



There are, in effect, three ‘epidemics’. The first is that of HIV infection in a population, in which the epidemic starts slowly, moving through a susceptible population, infecting some and missing others. At a certain stage, a critical mass of infected people is reached and the growth of new infections accelerates and the epidemic spreads rapidly through the population. In the final phase of the epidemic the rate of infection decreases; the number of infected people dying outnumbers the new cases.⁴

The second ‘epidemic’ is that of AIDS. The onset of AIDS-related illness and death amongst HIV-infected people is delayed in time due to the fact that the incubation period of HIV is 5-8 years in individuals generally. However, as more and more people become infected, so too unusual rates of illness and death in that population become more evident. For instance, the most noticeable impact is the unusual death rate amongst 25-40 year old individuals.

The third ‘epidemic’ is that of the socio-economic effects of HIV-infection and, in particular, of AIDS illness and death. Initially, due to the incubation period of HIV, there is little noticeable effect. In time, as more and more people fall ill, notably adults, so too there are impacts at multiple levels from the household through to the labour force and even the macro-economy. For example greater absenteeism from work means:

- ✘ households changing livelihood strategies to cope with loss of labour and the loss of income from paid employment. Poor households become poorer and eventually the poorest households simply disappear as the burden of maintaining the unit becomes too great under the pressure of medical costs for infected members and loss of labour capacity, such that individuals disperse (e.g. children to grandparents).⁵
- ✘ Companies and organisations have reduced productivity and increased costs associated with providing health insurance. When an employee leaves the workforce there are termination costs incurred and costs associated with replacing the individual.

c) Impacts of HIV/AIDS on Natural Resource Use and Conservation-based Mitigation Measures - Daulos Mauambeta, Executive Director of the Wildlife and Environmental Society of Malawi (WESM).

This presentation highlighted two sets of points:

⁴ A useful reference is Barnett, A and Whiteside, A. 2002. AIDS in the Twenty-First Century: Disease and Globalisation. Palgrave Macmillan, Basingstoke.

⁵ More details of the impacts of HIV/AIDS were provided in the presentation which can be viewed on the ABCG website (www.abcg.org). A summary of the results of much recent empirical research in and beyond Africa is available from the HEARD website (www.heard.org.za) in the publication, ‘Report on the Scientific Meeting on the Empirical Evidence for the Demographic and Socio-Economic Impact of HIV/AIDS’, 28-31st March 2003, Durban.

- 1) The effects of HIV/AIDS that spurred the WESM to take action:
 - increased poaching (e.g. marked decline in numbers of nyala and warthog since 1983);
 - Loss of productivity (e.g. parks and community conservation guides work less due to illness, having to attend funerals, care for family members);
 - Unsustainable exploitation of medicinal plants, of timber for coffins, fuelwood for funeral rites and, as easier income means, for charcoal making;
 - Rapid and evident change in land use (e.g. conversions of forest and farmland into grave sites);⁶
- Diversion of conservation funds to treatment and care of staff.

- 2) Interventions by the WESM to combat the HIV/AIDS epidemic:
 - Improve local economies by encouraging alternative conservation based enterprises (CBE) (e.g. guinea fowl farming, bee keeping, fruit juice making) with low labour requirements;
 - Research quantified impacts of HIV and understand the relationship between the pandemic and the environment;
 - Promote policy changes to ensure sustainable natural resource use in the context of HIV/AIDS.

d) *HIV/AIDS and the Environment: What are the linkages? Impacts on Conservation capacity - an Institutional perspective* - Barbara Meier, Human Resource Manager of Ezemvelo KwaZulu-Natal Wildlife (EKZNW)

This presentation reiterated points made in the previous presentation, but drew attention also to the challenges common to many conservation agencies. Three sets of points were made:

- 1) The context of the threat of HIV/AIDS to conservation efforts in KwaZulu-Natal:
 - The province is the location for 96 protected areas including two world heritage sites and six RAMSAR sites;

⁶ Changing land use amidst general vulnerability of populations in southern Africa in particular, is an established source of major concern in the region. Mozambique, for instance, has been and is the location for several workshops and conferences in 2003, in view of relatively high HIV prevalence rates in the south of the country (12-20%), endemic scarcity of labour due to migration of men to industrial centres in South Africa, and a second year of drought. The meetings include: the workshop of the Southern African Vulnerability Initiative (SAVI) amongst environmental scientists, 18-22nd June, Maputo (contact: vogelc@geoarc.wits.ac.za; karen.obrien@cicero.uio.no; michael_brklacich@carleton.ca); 'Mitigating the effects of HIV/AIDS on Food security and agriculture in Eastern and Southern Africa', 3-7th November 2003, Maputo (contact: emmasb@teledata.mz); and the Metropolitan AIDS conference, 3-5th November 2003, Maputo, which is focusing on food security, 'mainstreaming' HIV/AIDS and 'corporate-community AIDS programmes' (contact: Nur Samuels: nsamuels@metropolitan.co.za). In addition, there is innovative work on food security issues emerging from Malawi (contact: Michael Loevinsohn, Coordinator for RENEWAL (Regional Network on AIDS, Rural Livelihoods and Food Security) m.loevinsohn@cgiar.org; www.isnar.cgiar.org/renewal).

- Most protected areas are in rural areas where there is a high level of poverty and limited access to health facilities;
 - EKZNW is responsible for conserving most of the protected areas in the province
- 2) EKZNW has noticed the following effects of HIV/AIDS on its internal operations:
- increased absenteeism, higher staff turnover, loss of labour capacity;
 - threat of compromised customer service (visitors do not like to be served by noticeably ill persons);
 - increased demand amongst staff for employee assistance;
 - increased HR administration.
- 3) EKZNW's systematic interventions to combat the threat of HIV/AIDS to its operations:
- Initiation of education and awareness programme amongst staff, including basic education about HIV/AIDS and information dissemination, training of peer educators, condom distribution and voluntary counselling and testing (VCT);
 - Review of staff training material and inclusion of HIV/AIDS as a subject;
 - Capacity building of Local Boards to address HIV/AIDS;
 - Review of staff benefits with current consideration of available options (e.g. to cap benefits or to introduce member-level choices of extent of cover in the health insurance scheme);
 - Recruitment of a 'Traditional Medicine Co-ordinator' to co-ordinate EKZNW's contribution to the development and implementation of a medium- to long-term strategy to conserve medicinal plant and animal species
 - Conduct an institutional audit in collaboration with HEARD to quantify internal effects of HIV/AIDS on EKZNW.

Feedback from the groups

Interventions by conservation sector

- 1) Practical illustrations of interventions by conservation organizations included:
- Providing staff family living quarters in parks, rather than the usual model of rangers and guards living military style lives away from their families for extended periods (potentially increasing their vulnerability to HIV transmission through increased numbers of sexual partners).
 - Providing material security for orphans and other family members of staff who have died.
 - Educating the communities inside (employees) and outside (communities around the area).
 - Providing medical care for employees that are infected.
 - Including an HIV/AIDS budget in strategic plans.
 - Training parks management staff on HIV/AIDS and its impact on the workplace.
 - Encouraging Voluntary Counselling and Testing (VCT).

- Liaising with the Durban Accord to promote awareness of the implications of HIV/AIDS and conservation in the African countries and beyond.
- 2) Trans-boundary park initiatives are potentially positive opportunities for extending HIV/AIDS interventions.
- 3) The South African context was outlined as one in which the conservation agencies have to demonstrate greater attention to socio-economic issues and benefits to the country's primary social concerns if they are to access funding. South African agencies are now significantly affected by HIV/AIDS, but not having considered the potential impacts and responses until a problem arose, they are now doing crisis management and have not been able to step back and plan their response.

Need for collaboration

- 4) Although HIV/AIDS is not on the agenda of many conservation agencies, the experience of Ezemvelo KZN Wildlife suggests that the same may be said about government HIV/AIDS units in relation to conservation agencies. The EKZNW described an uphill struggle in making contact with the provincial AIDS action unit.
- 5) There is some indication that major international environmental NGOs are beginning to link, or are receptive to linking, environmental management and HIV/AIDS issues.
- 6) Conservation agencies need to come up with innovative ways of assisting current and planned HIV/AIDS programmes, rather than to focus only on the detrimental effects the pandemic on natural resources. The reported loss of 6 rangers of the Mountain Gorilla Conservation programme in Rwanda (period not specified) highlighted the importance of adopting a broader perspective. A suggested key to collaborative efforts is the deep rural reach of conservation agencies. They often work in isolated rural areas and with rural communities that do not have access to HIV/AIDS programmes. Collaboration between health and conservation sectors could help to improve access to health services, through use of conservation agencies' facilities. HIV/AIDS practitioners could also make use of conservation agencies' deep knowledge of land tenure issues and plant use for traditional medicine, both of which are critical aspects of HIV/AIDS impacts and responses.
- 7) The importance of collaboration was described not only between HIV/AIDS and conservation sectors, but also across other sectors. Work done in the education sector in some countries to address impacts of HIV/AIDS was used as an example. It was felt that it would be useful to look at lessons learned from these experiences.
- 8) Other areas for collaboration that were discussed included working with agricultural sector organisations, who often have a relationship already with conservation agencies, may have good community relations with extension services and are a key to ensuring food security for those affected by HIV/AIDS.
- 9) Conflict over natural resources among people was considered relevant to HIV/AIDS prevalence rates. It was noted that on the South African/Lesotho border where there has been a significant increase in cross border violence and stock theft, prevalence rates have also increased significantly. Environment,

- agriculture, legal and HIV/AIDS organisations all have a role to play in collaborating to address these inter-linked problems.
- 10) Conservation agencies should work with traditional healers, for example, in promoting reduced-impact harvesting techniques, on improved efficiency of extraction of active ingredients, and in cultivation of medicinal plants, to reduce unsustainable harvesting of naturally occurring stocks.
 - 11) Collaboration with the private sector, for example with the tourism industry, is also an option that needs to be explored.

Research

- 12) The lack of quantitative evidence on the impacts of HIV/AIDS on natural resource use is a constraint for promoting mitigating actions, and for fundraising. The need to quantify impacts was discussed, along with the possibility of overlaying data from conservation agencies on natural resource use with data on HIV/AIDS prevalence/impacts (excluding other major factors where possible). Research planning emphasis should be on identifying gaps in knowledge, and collecting information on mitigating measures.

Funding issues

- 13) The sectoral nature of major donor agencies and lack of communication between those funding environmental programmes, and those working on HIV/AIDS was identified as a barrier. The need for a central information source where sectors could learn about each other and communicate was considered to be essential. Group members felt that donor awareness-raising about these linkages would be effective in releasing funds.

Overall the feedback emphasized that HIV/AIDS needs to be mainstreamed into conservation programming, and that natural resource issues also need to be addressed in all HIV/AIDS responses. Pilot projects that enable collaboration, for instance between agriculture, conservation and HIV/AIDS groups would allow problems, issues and challenges to be explored and to provide a basis for more thorough collaboration and co-ordination of activities.

Achievements

The noticeable, principal achievement was to get HIV/AIDS inserted into the official output documents of the WPC as an 'emerging issue'. The issue was included in the following terms:

The HIV/AIDS pandemic is starting to seriously affect conservation success in Africa, and is likely to have big impacts in next-wave countries such as Russia, China, India and Eastern European countries. It is reducing the biodiversity management capacities of protected area staff, local communities and mobile peoples. It is also resulting in increased and often unsustainable offtake of natural resources and greater poverty, as AIDS-affected households lose salary earners and capacity for heavy agriculture labor.

The conservation community needs to acknowledge the problem, work to understand conservation impacts better, and take action to mitigate impacts in affected countries. This includes promoting HIV/AIDS prevention in protected area staff and communities; finding solutions to relieve unsustainable harvesting (e.g. through non-labor-intensive micro-enterprise to support community livelihoods); developing HIV/AIDS strategies in protected area authorities; and collaborating with other sectors including health and agriculture.

Conclusion

The 'Conservation and HIV/AIDS' session at the World Parks Congress was a small intervention. It drew attention of the global conservation body to the significance of HIV/AIDS for many aspects of natural resource management. Notably, in view of the emphasis today on community participation in the conservation of biodiversity, HIV/AIDS is a factor that cannot be ignored. Inclusion of this factor in the WPC official outputs has established a formal foundation for conservationists and others interested in biodiversity to elaborate in the future. This urgent work should be carried forward at local, national and international levels, in both Africa and next-wave regions while there is still time for action.

APPENDICES

Appendix 1: Session pamphlets

HIV/AIDS and Conservation ~ What's the link?

'Some rangers (in the tracking unit) do not want to work with a colleague they believe is HIV positive' (A Park manager)

- HIV/AIDS threatens protected area and natural resource management through:
 1. Loss of human capacity, skills, knowledge
 2. Changes in community demand for and use of natural resources,
 3. Diversion of conservation funds for AIDS associated costs.
- Illness and death of staff mean:
higher absenteeism, lower productivity, higher recruitment and training costs, loss of skills and experience
- Illness and death in families mean:
loss of labour, lower wage remittances and, in turn, greater reliance on natural resources (bushmeat, medicinal plants, charcoal-making)

Useful resources:
www.abog.org
www.und.ac.za/und/heard/AidsBriefs/AidsBriefs.htm
http://www.kznwildlife.com/muthi_trade.htm

HIV/AIDS and Conservation ~ What can be done?

The Africa Biodiversity Collaborative Group
Ezemvelo KZN Wildlife
The Health Economics & HIV/AIDS Research
Division

Will be hosting an interactive discussion

Date: 12th September 2003
Venue: Mistrals (Durban Exhibition Centre)
Time: Discussion and lunch at 12:30

Please join us!

Kindly sponsored by:
The John D. and Catherine T. MacArthur Foundation
and US AID

HIV/AIDS and Conservation ~ What's the link?

'Some rangers (in the tracking unit) do not want to work with a colleague they believe is HIV positive' (A Park manager)

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www.kznwildlife.com/muthi_trade.htm

TRAVEL TIP Travel insurance for free in South Africa..... use a condom when having sex



- Important information
You **can** contract HIV from:
 - having unprotected sex with someone who is HIV+
 - sharing needles with someone who is HIV+
 - receiving blood containing the HI Virus during a blood transfusionYou **cannot** get HIV from:
 - sharing food or cutlery with someone who is HIV+
 - sharing toilet facilities with someone who is HIV+
 - shaking hands, hugging or kissing someone who is HIV+

Protect yourself
Using a condom during sexual intercourse can protect you from contracting both HIV & other sexually transmitted infections.
Post-exposure prophylactic treatment (PEP) is available if you are concerned that you have come into contact with HIV. Consult a private doctor/hospital or
eCord Hospital (031) 207-2978

Useful resources:
IDS Toll Free Helpline (South Africa): 0800-012-322
www.unaids.org.za
www.aidsinfo.co.za

Appendix 2: Session programme

1200 – 12.45	Lunch served from 12:00
12.45 – 12.50	Welcome <i>Regional representative East Africa</i>
12.50 – 12.55	The dynamics of the HIV/AIDS pandemic <i>Ms Susan Erskine; Health Economics & HIV/AIDS Research Division (HEARD)</i>
12.55 – 13.05	Conservationists responses to HIV/AIDS in Malawi <i>Dr Daulos Mauambeta, Wildlife & Environmental Society of Malawi (WESM)</i>
13.05 – 13.15	Internal and external impacts of HIV/AIDS on a Conservation organization in South Africa <i>Ms Barbara Meier, Ezemvelo KZN Wildlife</i>
13.15 – 14.00	Group/table discussions <i>Facilitator: Judy Oglethorpe, Africa Biodiversity Collaborative Group (ABCG) / WWF</i>
14.00 – 14.30	Group report back
14.30 – 14.45	Question and answer session

Closure

Group / table discussion themes

1. Discuss the possible implications of HIV/AIDS for the internal operations of a protected area/ nature reserve. You might wish to consider aspects such as hospitality, maintenance; policing, research, recruitment and training.
2. Discuss the effects of HIV/AIDS on Community Based Natural Resource Management (CBNRM).
3. Consider the main impacts of HIV/AIDS and then identify emerging key research issues.
4. Identify what options (if any) exist for inter-agency and inter-sectoral collaboration to combating HIV/AIDS considering fundraising, policy design and conservation practice.
5. Discuss the usefulness of plant medicines (uses, scope and limitations) and implications this might have for species protections and preservation.

Appendix 3: Presentations

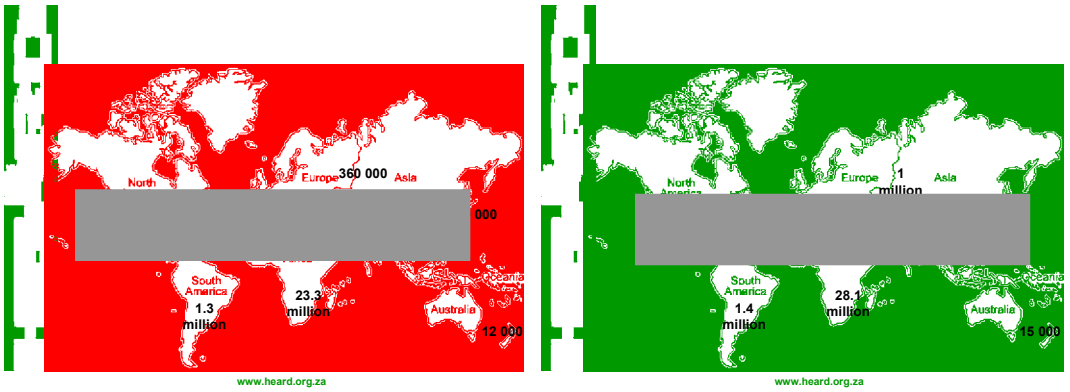
The dynamics of the HIV/AIDS pandemic

Susan Erskine
HEARD
erskines@nu.ac.za

The Human Immune Deficiency Virus

What are HIV and AIDS?

- ✂ HIV – Human Immune Deficiency Virus
- ✂ AIDS – Acquired Immuno-deficiency Syndrome
- ✂ Stages of HIV infection & disease
 - Acute infection
 - Asymptomatic disease
 - Early symptomatic disease
 - Acquired Immuno-deficiency syndrome (see www.redribbon.co.za)



a

show 51% of people Burkina Faso, Rwanda & Uganda into extreme poverty by 2015

who born 1985 - 74% chance of becoming infected with HIV

in Africa: 1 in 4 people are infected

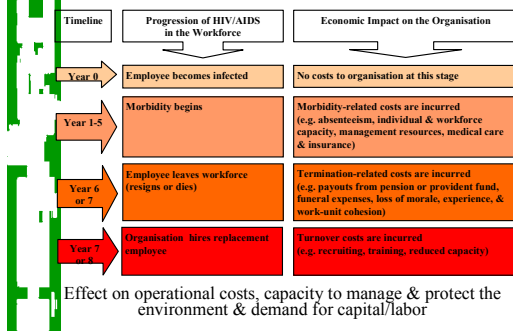
in Africa 600 people die a day

in Africa – 2 million children will lose their parents

www.heard.org.za

www.heard.org.za

Generic Organisational Costs



www.heard.org.za

Rural household responses

FOOD SECURITY	INCOME	LABOR
Eat cheaper foods	Diversify income	Reallocate labor – e.g. children leave school
Eat wild foods	Migrate	Work extra hours
Reduce consumption	Borrow (from informal sector/relatives)	Hire labor & draft animals
Call in social & familial obligations (send children to relatives)	Sell assets (dissaving)	Decrease cultivated areas
Beg	Use savings or investments (dissaving)	Call in social & familial obligations (ask relatives to help)
	Beg	Diversify income

www.heard.org.za

Impacts of HIV/AIDS on Natural Resource Use & Conservation-Based Mitigation Measures



Daulas D.C. Mauambeta
Executive Director
Wildlife and Environmental Society of Malawi
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LIMBE
MALAWI
ddmauambeta@africa-online.net



Why bother with a health issue???

Conservation is all

About people
For People
By People

Therefore, we need to fight HIV/AIDS for conservation to survive

Presentation coverage

- Impacts of HIV on natural resources & Conservation Institutions
- Using natural resources to mitigate impacts of HIV/AIDS
- Conclusion



Impacts

- Increased pressure on natural resources
- Accelerated land use changes
- Loss of human capacity
- Diversion of conservation funds

Impacts: Natural resource use

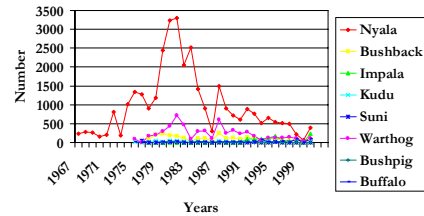
❑ Direct impacts result in overuse of:-

- Wildlife for food & income
- Increased Poaching



Impacts: Wildlife Use

Animal Counts in Lengwe National Park, Southern Malawi



Wildlife Use: Increased poaching & encroachment

- ❖ Loss of human capacity to perform conservation activities
- ❖ Staff or community conservation guides can not patrol due to:-
 - HIV/AIDS-related illnesses
 - Attending funerals
 - Taking care of family members



Impacts: Natural resource use

- ❑ Direct impacts result in overuse of:-
- ❑ Medicinal plants to treat side effects of HIV/AIDS



Impacts: Natural resource use

- ❑ Direct impacts result in overuse of timber for coffins



Impacts: Natural Resource Use

- ❑ Firewood for cooking and keeping warm at funerals & related rituals
- ❑ Charcoal for income



Impacts: Natural resource use

- ❑ Indirectly, changes in livelihood strategies result in overuse of:
 - game
 - wild plants
 - non-timber forest products

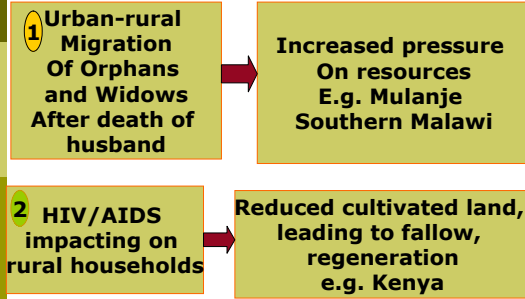


Impacts: Fast Land Use Changes

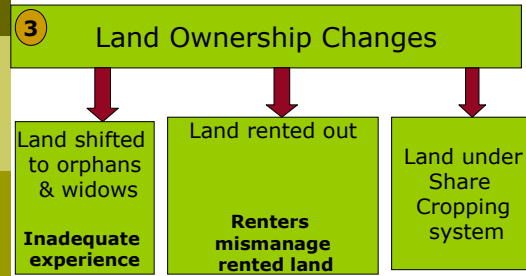
- ❑ Conversion of forests / farm land to graveyards



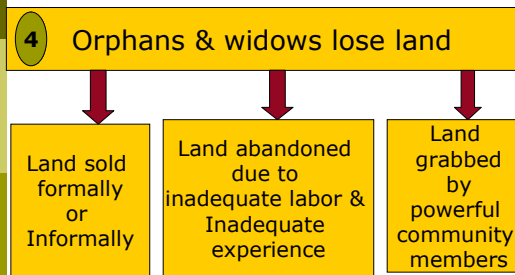
Impacts: Land Use Change Scenarios



Impacts: Land Changes



Impacts: Land Ownership Changes



OXFAM, FAO & HSRC 2002)

Impacts: Diversion of Funds

- Diversion of conservation funds to treat HIV/AIDS patients, arrange funerals and offer condolence



Using Conservation to Mitigate Impacts of HIV/AIDS

Some conservation based solutions



Promote alternatives

□ Timber Coffins	→	• Reeds, Bamboo • Grass, Metal, Fiber • Pine Timber
□ Firewood	→	• Solar energy • Briquettes • Fast growing species
□ Wildlife	→	• Conservation • Propagation • Game farming

Improve Local Economies

- Promoting sustainable use and marketing of natural resources to provide cash income:-
 - Conservation Based Enterprises
 - Wild foods, game farming



Mitigating Impacts: Conservation Based Enterprises (CBE)

- Baobab and Tamarind Fruit Juices

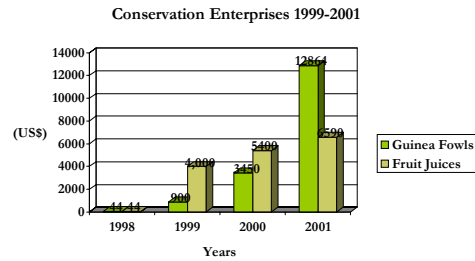


Mitigating Impacts: CBE

- Guinea fowl farming and marketing
- Bee keeping for honey
- Average incomes increased \$43 to \$500



Income from Conservation Enterprises



Ecotourism Opportunities

- Create employment & Generate income
- Create and increase awareness of the pandemic amongst tourists, and those engaged in ecotourism activities



Mitigating Impacts: Proper Land Use

- Promote sustainable livelihoods through sound natural resource use
 - Agroforestry
 - Permaculture
 - Horticulture
 - Game farming
 - Aquaculture
 - Floriculture
- For Food and Income



Mitigating Impacts: Conduct Research

- Quantify the true costs of HIV/AIDS impacts
- Share experiences and best practices in Africa and with other regions
- Document indigenous knowledge of traditional natural resource and land use systems
- Increase understanding of interactions between HIV/AIDS and environment

Mitigating Impacts: Preserve Indigenous Knowledge Systems

- Train and mentor youth in traditional natural resource management issues



Mitigating Impacts: Engender Natural Resource Policies

- Target households affected by HIV-AIDS (women & orphans)
- Mainstream & integrate HIV/AIDS activities in natural resources management issues
- Promote national policies that provide tenure security to widows and orphans to inherit resources



Mitigating Impacts: Commitment

- Set aside budgets for HIV/AIDS issues
- Fight stigma at the work place
- Develop effective partnerships with various stakeholders
- Lobby all levels of leadership for commitment



Conclusion

- ❑ HIV/AIDS has adverse effect on both land and resource use
- ❑ Natural resources can be used to mitigate impacts of HIV/AIDS on rural households
- ❑ Best practices should be promoted to mitigate impacts of HIV/AIDS on conservation
- ❑ More research is required to understand the real linkages between HIV/AIDS and conservation

Zikomo- Thank You-Ngayabonga



HIV/AIDS AND THE ENVIRONMENT :

WHAT ARE THE LINKAGES?

IMPACTS ON CONSERVATION CAPACITY

AN INSTITUTIONAL PERSPECTIVE



EZEMVELO KZN WILDLIFE MISSION



Public Entity (Parastatal)

NOT part of SANParks

MISSION
The sustainable biodiversity conservation and ecotourism management in KwaZulu-Natal in partnership with people



EZEMVELO KZN WILDLIFE CORE FUNCTIONS

Biodiversity Conservation (incorporating Scientific Services)

Conservation Partnerships

Ecotourism

Supported by a range of Support Services such as Human Resources, IT, Technical Services, Finance and Internal Audit



EZEMVELO KZN WILDLIFE BACKGROUND INFORMATION

- 3 International Borders:
 - Mozambique
 - Swaziland
 - Lesotho
- 96 protected areas in KwaZulu-Natal which represents 8% of land of the Province
- 8% of the Province is also given to plantation forestry
- 86% of these protected areas have significant biodiversity value



EZEMVELO KZN WILDLIFE BACKGROUND INFORMATION



2 World Heritage Sites:

- Greater St Lucia Wetland Park (324,441 ha)
- uKhahlamba Drakensberg Park (242,813 ha)



EZEMVELO KZN WILDLIFE BACKGROUND INFORMATION

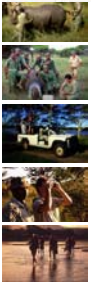


6 RAMSAR sites:

- Ndumo (10,117ha);
- Greater St. Lucia Wetland Park which includes the 3 listed sites of the St. Lucia System, the Kosi Lakes System and Lake Sibaya (240,421 ha);
- Maputaland Beaches and Reefs (84,020 ha), and
- uKhahlamba Drakensberg Park (242,813 ha)



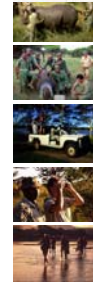
EZEMVELO KZN WILDLIFE



Of great significance is that most of the protected areas are concentrated in rural areas of the Province where poverty levels are high and where there is limited access to public facilities such as clinics and hospitals



EZEMVELO KZN WILDLIFE IMPACT ON CORE FUNCTIONS



CONSERVATION

- Increased absenteeism and turnover
- Loss of productivity
- Compromised operational effectiveness of labour intensive law enforcement component
- Loss of institutional memory
- Loss of natural resources
- Reduced pool of human capital



EZEMVELO KZN WILDLIFE IMPACT ON CORE FUNCTIONS



CONSERVATION PARTNERSHIPS

- Compromised operational effectiveness may place donor funding at risk
- Loss of continuity in partnerships which may have taken years to establish
- Loss of indigenous knowledge systems



EZEMVELO KZN WILDLIFE IMPACT ON CORE FUNCTIONS



ECOTOURISM

- Increased absenteeism and turnover
- Compromised customer service
- Customers react badly to being served by visibly sick employees
- Diminished domestic disposable income in target markets affects occupancy rates



EZEMVELO KZN WILDLIFE IMPACT ON SUPPORT FUNCTIONS



- Diminished operational effectiveness
- Increased administration directly related to increased claims experience on benefits funds
- Decreased return on training investment
- Increased demand for Employee Assistance (EAP)
- Increased political and social pressure from principals



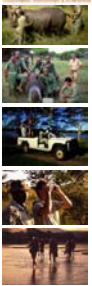
WHAT HAS BEEN DONE TO DATE ORGANISATIONAL VISIBILITY



- HIV/AIDS is included as a separate line item in the organisation's Strategic Plan with specific Key Performance Areas, Key Performance Indicators, Deliverables and Measurables. This Strategic Plan is tabled annually at Provincial Level to the Portfolio Committee and the Public Finance Committee.
- We have, for the first time, managed to ring-fence funding for the specific purpose of improving our HIV/AIDS programme.
- An HIV/AIDS Committee has been established at which both management and organised labour are represented, and who have been involved in the development of the organisation's AIDS policy.



WHAT HAS BEEN DONE TO DATE BENEFIT FUNDS STRUCTURES



- One of our four retirement funds has removed the 3 to 6-month exclusion clause for all permanently and totally disabled employees based on appropriate medical evidence, i.e. CD4 count, viral load, associated medical conditions, etc.
- The benefits structures of our retirement funds are being reviewed and options to either cap benefits or to introduce member-level choice are being considered.
- Examining the implications of the implementation of a State Medical Aid scheme which may dictate the way in which we decide to fund HIV/AIDS interventions in the future. At present, this is being done externally.



WHAT HAS BEEN DONE TO DATE OCCUPATIONAL HEALTH



- 3 Occupational Health Nurses (OHN's) have been employed who either have pharmacological post-graduate degrees.
- Conducting baseline medicals for the purpose of monitoring employees' health status
- Conducting medicals necessary for the processing of disability claims. (The number of admitted claims has begun to decline as claims experience increases and requirements for admission become more stringent.)



WHAT HAS BEEN DONE TO DATE PARTNERSHIPS



- OHN's continue to access rural hospitals and clinics to assess their service and diagnostic capabilities so as to form **partnerships** with them in the care of employees.
- Forging **partnerships** with provincial stakeholders, e.g. Provincial Aids Action Unit in order to maximise logistical efficiency of programmes being rolled out to rural areas
- Conducting an Impact Assessment Analysis and KAP survey in **partnership** with HEARD at the University of Natal.



WHAT HAS BEEN DONE TO DATE PARTNERSHIPS



- Exploring ways in which our distribution network and infrastructure could be used for the benefit of NGO's, CGO's and other agencies as well as for our own employees
- The recruitment of a Traditional Medicine Co-ordinator whose purpose it will be to co-ordinate the organisation's contribution to the development and implementation of a medium- to long-term provincial strategic approach to conserve medicinal plant and animal species and the systems in which they occur, while capacitating those who use the resources.



WHAT HAS BEEN DONE TO DATE "EDUCATION : FROM THE INSIDE OUT!"



- Peer Educators
- Basic Education Programme
- Basic Information Programme
- Condom Distribution Programme
- Voluntary Testing
- Voluntary Counselling
- Wellness Programme
- Review of training material and inclusion of HIV/AIDS as a subject
- Capacitation of Local Boards



THE ROAD AHEAD



- Interpretation of the Impact Analysis to determine the risk exposure of the organisation
- Interpretation of KAP survey results to determine the most appropriate interventions
- Continued training of Peer Educators to increase the quality of information being disseminated in the workplace, and to supplement and sustain the work being done by the Occupational Health Nurses



THE ROAD AHEAD



The battle against HIV and AIDS will only be won by millions of initiatives at grassroots level. Some will be more effective than others, but *every little bit will count.*

AIDS : The Challenge for South Africa
Alan Whiteside and Clem Sunter



EZEMVELO KZN WILDLIFE HUMAN RESOURCES DEPARTMENT



THANK YOU FOR YOUR TIME!

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**Visit our website at
www.kznwildlife.com**