

AHEAD-GLTFCA WORKING GROUP- 4TH MEETING

Record of the 4th Meeting held on the 7-8th June, 2004,

Hotel Avenida, Maputo, Mozambique

1. OPENING REMARKS AND WELCOME

The Chair of the meeting, Dr. Bartolomeu Soto, introduced Dr. Macamo Deputy Director, National Directorate of Livestock, and invited him to formally open the meeting.

Dr Macamo extended a warm welcome to participants. He drew attention to the important issues that had been raised at the preceding meeting of the Conservation and Veterinary Sub-Committee of the Joint Management Board of the Great Limpopo Transfrontier National Park. He considered it important that the proposed research and development programme being developed by the AHEAD-GLTFCA Working Group should move forward as rapidly as possible. He expressed his pleasure that the meeting was being held in Maputo and so enabled many of his colleagues to participate and wished the participants stimulating and productive deliberations.

Following Dr. Macamo's opening remarks the Chair invited the 30 participants to introduce themselves. The names and contact details of those who attended the meeting are provided in Annex 1.

2. INTRODUCTION AND BACKGROUND (Steve Osofsky)

Steve Osofsky, WCS Senior Policy Advisor for Wildlife Health, briefly reviewed the history of the *Animal Health for the Environment And Development* (AHEAD) initiative since its inception at the World Parks Congress in September 2003. Groups such as the IUCN Southern Africa Sustainable Use Specialist Group (SASUSG), Veterinary Specialist Group (VSG), AU-IBAR and others worked with WCS to co-organize that initial forum. Much of the material generated at the Durban meeting is available at www.wcs-ahead.org, including video of all formal talks and copies of all slide presentations given. Dr. Osofsky explained how approx. 80 participants in Durban (veterinarians, ecologists, economists, wildlife managers and other experts from Botswana, Kenya, Malawi, Mozambique, Namibia, South Africa, Tanzania, Uganda, Zambia, Zimbabwe, France, the United States, and the United Kingdom) delineated landscapes of conservation priority across Southern and East Africa with significant disease issues at the wildlife/livestock/human interface, and how the Great Limpopo TFCA emerged as the group's highest priority. The hope is that progress can be made in the GLTFCA through international and interdisciplinary collaboration, and that a successful effort here could also potentially serve as a useful model for other places facing similar challenges in Southern and East Africa, and potentially elsewhere. Dr. Osofsky expressed sincere thanks for the hard work and warm hospitality that made a Mozambican venue possible for this 4th meeting of the AHEAD Great Limpopo TFCA Working Group. Jorge Ferrao, Bartolomeu Soto, and Carlos Lopes Pereira had done a wonderful job arranging for this forum. He briefly described the Wildlife Conservation Society's work as a not-for-profit US-based wildlife conservation organization with programs in over 50 countries. He described WCS' role in AHEAD as that of catalyst, to help support meetings like this so regional colleagues could more easily share information and work together. WCS is also happy to support the coordinating role David Cumming was asked to take on by the group assembled in Durban.

Hard copies of the latest draft of the concept paper, “**Sustaining animal health and ecosystem services in large landscapes – 2nd Draft** – Concept for a programme to address wildlife, livestock and related human and ecosystem health issues in the Greater Limpopo Transfrontier Conservation Area,” were distributed to the group in case some attendees had not received it by email. Dr. Osofsky briefly mentioned some suggested goals for the meeting, including discussion of the issue of an eventual institutional home for the AHEAD GLTFCA initiative, the idea of some sort of an MOU to help better define a cooperative alliance for those agencies and individuals interested, and the need to pursue funding for further developing and carrying out the R & D work the themes and modules the group has been outlining over time imply.

3. OVERVIEW OF AHEAD-GLTFCA CONCEPT AND NEXT STEPS. (David Cumming)

A summary, using power point, of the themes and modules of AHEAD-GLTFCA concept was presented (See Annex 2). The last three slides of the presentation outlined matters of coordination and suggested “next steps” and the main focus of the current meeting, namely, to start the process of developing proposals, building a collaborative research programme and seeking appropriate support and donors. To recap on the content of these final three slides (Annex 2) it was noted that:

1. Coordination

- **Existing initiatives:** there were existing research and development initiatives in the GLTFCA and it was important to complement these, avoid duplication of effort, and build synergies.
- **Government:** Veterinary Services and Institutes were present in each country and they were directly responsible for surveillance and monitoring of diseases and also carried out specific research programmes.
- **NGOs:** A number of NGOs were actively engaged in research and/or development projects within the GLTFCA and many of these were listed.

2. Coordination

- A collaborative partnership was still to be formed
- Potential partners in Mozambique, South Africa, Zimbabwe, and Internationally were tentatively listed.

3. Next Steps

- Project proposals to be developed within Themes and Modules of the concept.
- Building a collaborative programme
 - MOU
 - Committee/Steering Group
- Potential Donors.

After some discussion it was agreed that these would form the main business of the current meeting and as outlined in the draft agenda.

4. ROLE OF PEACE PARKS FOUNDATION (Prof. Willem van Riet)

Professor van Riet briefly outlined the vision and mission of the Peace Parks Foundation and its work in southern Africa. He emphasised that PPF was concerned with developing conservation as a legitimate and sustainable form of land use in the region. A central component of such an endeavour is proper landuse planning and that involves and requires the extensive use of GIS. PPF has a well developed GIS database on transfrontier parks in the region would be happy to make this available to the programme and to collaborate in developing the GIS databases that will clearly play an important role in the programme. PPF was not directly involved in research and development itself - it's primarily role was to act as a facilitator in the development of Peace Parks in the region. In this capacity it wished to see the AHEAD-GLTFCA programme develop and move forward, and he regretted any unclear signals that may have inadvertently come from PPF earlier in the year. PPF was in the process of developing an MOU with SANParks and the University of Pretoria to assist in furthering the contribution it can make to the development of the GLTFCA and other TFCA's in the region. Professor van Riet regretted that he would have to leave the meeting early to return to Pretoria that afternoon.

5. WORKING SESSION ON THEMES AND MODULES AND THE DEVELOPMENT OF CONCEPTS. (Facilitator: David Cumming)

Participants worked through and changed and edited the table (**Table 1** – see below) of themes and modules projected onto a screen. Each of the concepts that had been previously offered or suggested was presented briefly by the researchers concerned.

The following commentary captures some of the main points that emerged in the plenary discussions on particular concepts.

1. National agencies were already doing much of the work and therefore covered part of the programme. There was thus an opportunity to form research partnerships between government agencies and researchers.
2. Following on from this was the need to establish coordination and priorities.
3. The proposals and headings in the table needed to be more “sexy”
4. A distinction was needed in terms of dealing with alien and indigenous diseases.
5. Was the TFCA process being analysed and tracked through formal plans with Objectives and Indicators? These would provide a basis for monitoring and assessment and result in appropriate adaptive management. Was this topic dealt with in the IUCN TFCA Toolkit? These considerations might properly form part of the activities concerning TFCA scholarship under Theme #1.
6. Policy. The TFCA process was new and it was still finding its way in terms of policy development both at national and international level. This situation provided an opportunity for the programme but it was as well important to be aware that it involved very complex landuse/planning issues and many cross-cutting issues.
7. Communications. Community Radio could be a very important medium to tap into and techniques such as carrying messages about rabies in tapes that are played in taxis. A web site would be a very important tool for the programme and would provide a basis for ensuring open access to studies and their results.

8. The Table needed additional columns to indicate the status of projects e.g. ongoing and funded or not funded. And associate projects (e.g. RESTORE) might be reflected to give a fuller picture of what was happening- making it clear which projects/implementers were defining themselves as working within the AHEAD framework.

List of current Kruger NP projects related to the AHEAD-GLTFCA programme

1. Bovine tuberculosis biannual survey
2. Longitudinal study of BTb by Paul Cross
3. BTb vaccination project
4. Comparative study of infective and non-infected lion populations
5. BTb molecular epidemiology
6. BTb in kudu
7. Passive surveillance
8. Development of diagnostic techniques for pachyderms
9. Diagnostic of Theileriosis
10. Continuing surveys of a range of diseases in Kruger
11. Genetics of buffalo

Mozambique studies and monitoring

1. Monitoring of BTb, FMD and Brucellosis
2. Ongoing data processing and analysis of the incidence of diseases in the country using TAD-info the programme developed by FAO.
3. Tsetse surveillance and monitoring

Zimbabwe studies and monitoring activities

1. Preliminary survey of the incidence of BTb in the Sengwe communal land
2. FMD in kudu and impala
3. Tsetse surveillance and monitoring

AHEAD-GLTFCA - Programme: Project development outline - suggested and existing projects (June 8, 2004 Meeting with some follow up editing/tidying up by David Cumming)

Theme	Module	Potential research proposal/Activity	Lead Agency/person respon.	Status	Potential Donor
#1 <i>Overarching conceptual framework to facilitate integrated and inter-disciplinary approaches</i>	a) Coordination and project start up	1. Support for the coordination and development of the AHEAD-GLTFCA programme	WCS/ Osofsky	Proposal ready	
	b) Development of inter-disciplinary frameworks and models	1. Develop conceptual models to link the six programme themes through a series of meetings/workshops involving full range of researchers/disciplines and stakeholders in the GLTFCA (Start with a model asp – one day session of a few people)	WCS/CASS Cumming	Proposal ready	
		2. Furthering TFCA scholarship (open for further discussion) ? NSF grants, Ford Foundation support to MSc. Students., UCN/PLAAS short course	CASS Inst. Nat. Res. Centre Environ. & Development.	Initial note from CASS	
	c) Baseline indicators				
#2 <i>Animal health and disease</i>	a) Epidemiological studies	1. BTb, FMD and Brucellosis in Sengwe Communal Land Zw.	Vet Wildl. Unit, Zw/ Foggin	Proposal ready	PPF
		2. Status of BTb, FMD and Brucellosis in Limpopo National Park	DINAP/Carlos/ Cobus Tanner	Initial note	KfW
		3. Serological studies of FMD in wild and domestic ungulates in the GLTFCA (Links to Theme #4 need to built in and be explicit) and link to development NGO?)	OVI Vosloo		
		4. BTb and zoonotic implications	OVI / Michel		
		5. Coordinating pathological data/sample analyses in GIS database	Lane		
		6. JMB priorities - particularly notifiable diseases – concepts still to be developed			
	b) Alternative animal health management and disease control strategies	NOTE: No offer of concepts yet Primary health care measures, Cultural practices and indigenous knowledge, links with epidemiological studies, community based strategies			
	c) Preventative/pro active measures in disease control and management	7. SOPs/Contingency plans/Risk assessments/Scenarios for priority diseases (e.g. Distemper) as a way of helping to define research and management priorities (?Alien invasions!) – links to National Depts., Joint MB – Vet & Wildl. Committee	Cobus Raath		
	d) Theoretical/fundamental studies (Needs further development in terms of key or strategic additional studies/ideas)	1. Examining the relationship between social structure and the spread of diseases in ungulates and viverrids using modeling approaches and empirical data from general sampling of disease presence in a range of species in these groups. (also question of <i>Brucella</i> in small ungulates)	Cross MRI/UCB	Initial note	NSF
		2. Spatial models of disease risk between KNP and Mozambique using village livestock and wildlife densities and also examining the risks of diseases spreading from dogs to wild carnivores	Cross	Initial note	NSF
3. Study of tick-host-pathogen ecology at several spatial and temporal scales involving wild and domestic ungulates and humans. A key area of focus would be on determining thresholds of transmission and how these may vary under differing management regimes.		Cumming GS WEC/UFL	Initial note		

Theme	Module	Potential research proposal/Activity	Lead Agency/person respon.	Status	Potential Donor
#3 <i>Landuse, ecosystem goods and services & animal health</i>	a) Spatial and temporal relationships between ecosystem processes and disease prevalence	NOTE: No offer of concepts yet Requires remote sensing studies linked to epidemiological work in Theme #2 Climate change and cycles in relation to disease spread and prevalence			
	b) Landscape level resource use and impacts by wild and domestic ungulates on ecosystem goods & services	NOTE: No offer of concepts yet Requires remote sensing studies and detailed ground survey work at appropriate scales e.g. impacts of elephant damage, overgrazing, trampling on run off, nutrients, water, non timber forest products	INR?		
	c) Effects of landuse scale and pattern on animal health	NOTE: No offer of concepts yet Requires links between 3a & b and 2a. What minimum sets of data are needed?			
	d) Linkages between animal and human health	1. Disease risk assessment of people living in villages in the TFCA	Follow up on LNP Survey by Cobus & Carlos	?	
		2. What happens when fences are taken down in the wake of dispersal of wildlife from NP and vice versa for livestock dispersal (also linked to water distribution)?			
e) Understanding animal husbandry practices	1. Role of livestock in household production, community differentiation, collective management and institutional factors affecting these	CASS/ + INR Mugabe & Murphree MW	Initial note		
#4 <i>Human livelihoods, animal health and ecosystem goods & services (Ecosystem health)</i>	a) Scenario planning and participatory exploration of land use options	1. Scenario planning and modeling at local community and village levels and developing approaches and methodology for "local adaptive scenario planning" – a 5 yr programme at least	CASS/ Mugabe & Murphree MW	Initial note	
		2. Issues of larger scale landuse planning, placement/removal of fences etc. (Biosphere Reserve concept for SEL of Zimbabwe?)	WWF-SARPO?		
	b) trade offs between alternative landuse enterprises	NOTE: No offer of concepts yet			
c) Effects of alternative policies on development, adaptability and resilience	NOTE: No offer of concepts yet				
#5 <i>Policy support and capacity building</i>	a) Support for policy development on animal health and linkages between animal and human health and ecosystems		WCS/Kock		
	b) Exploring consequences of alternative policies using scenarios	NOTE: No offer of concepts yet			
	c) Capacity building in policy analysis				

Theme	Module	Potential research proposal/Activity	Lead Agency/person respon.	Status	Potential Donor
#6 <i>Communications and outreach</i>	a) Communication between research workers and agencies engaged in the programme	Series of workshops and seminars	WCS/ Osofsky (See Theme #1)	Proposal ready	
	b) Information flow between scientists and Govt. and implementing agencies and policy making agencies	Workshops and seminars	WCS & CASS		
	c) Participation of landowners, communal farmers etc. in the programme & information flow	NOTE: No offer of concepts yet	(Resource Africa ?)	Existing project using new technology in rural communication	
	d) Production and distribution of research results, syntheses, policy briefs, etc	NOTE: No offer of concepts yet			
	e) Community and Village outreach including theatre linked to PRA	Transfer of information and research findings to communities and feedback on their views, perceptions and needs	Kock & Theatre for Africa	To be developed	?

6. PROPOSAL FOR THE ESTABLISHMENT OF THE WILDLIFE VETERINARY UNIT WITHIN THE VETERINARY SERVICES IN MOZAMBIQUE (Dr. Carlos Lopes Pereira)

The establishment of a Veterinary Wildlife Unit (VWU) in Mozambique is essential for the proper surveillance, prevention and control of wildlife diseases, and management of the wildlife/ livestock and livestock owners interface.

The SADC Protocol on Wildlife Conservation and Law Enforcement, which was ratified in 1999, acknowledges the need for co-operation between Member States in enforcing laws governing wildlife, in sharing information about wildlife resources and wildlife law enforcement, and in building national and regional capacity to manage wildlife and enforce the laws that govern it.

The creation of the VWU responds also to the common vision of the national veterinary authorities that, the standards of monitoring and control of diseases that may be transmitted between wildlife and domestic livestock must be maintained.

Without international boundary fences, with contiguous wildlife populations, it is predictable that any infectious disease present in any one of the participating conservation areas will eventually spread throughout the entire transfrontier conservation area, unless containment or control measures are put into place.

1. PROPOSED FUNCTIONS AND OBJECTIVES

The VWU will develop its activities in line with the short, medium and long-term objectives of the SADC Wildlife Veterinary Unit, in order:

- a) To ensure that wildlife conservation and utilisation in Mozambique does not lead to the spread of disease in other wildlife, in domestic stock or in man, or vice-versa, nationally or internationally.
- b) To interact with the various stakeholders such as the Ministry of Tourism, the Ministry of Environment, other Government Institutions and the private sector to ensure that veterinary control is effectively implemented.
- c) To provide a timely, accurate and efficient veterinary service to National Parks and Conservation Areas.
- d) To provide veterinary assistance for the conservation of wildlife in National Parks, and for specially protected animals on private concessions;
- e) To assist in the management of problem wildlife through veterinary measures.
- f) To undertake research as required to achieve the above objectives or as requested by the SADC Wildlife Veterinary Unit, DINAP or by stakeholders.
- g) To provide training for the National Parks staff in, data and sample collection for diagnostic and surveillance purposes.
- h) To influence legislation... in the direction of helping to implement the SADC protocol and other regional and international agreements.
- i) To provide a paid service to large-scale, small-scale and communal wildlife producers and managers.

2. MANAGEMENT AND INSTITUTIONAL ARRANGEMENTS

The establishment of the VWU is seen as a strong step into the direction of assisting the Directorate of Veterinary Services (DINAP), in building the capacity to deal with veterinary matters related to wildlife and consequently reinforcing its authority in these matters.

It is proposed that the Wildlife Veterinary Unit in Mozambique be a new unit with operational autonomy at its inception. This will ensure that the objectives established for the unit will be pursued, the interests of the stakeholders will always be taken into account, the decisions will be taken expeditiously, and that the use of technical and financial resources will be carried out in the most appropriate and transparent manner and governed by appropriate agreements and MOU between the unit and donors

The Unit will be administered by a Head of the Unit recruited and paid by the Government, with experience in Public Veterinary Services and wildlife who will respond directly to the Director of Veterinary Services (DINAP) and consult periodically with a steering committee composed of representatives from the National Directorate of Areas of Conservation (DNAC), National Directorate of Forests and Wildlife (DNFFB), Veterinary Research Institute (INIVE), Veterinary Faculty, GLTP Conservation and Veterinary Management Committee.

The VWU will carry out its main activities according to the SADC Protocol on Conservation and Law enforcement and other relevant international and regional legislation and proceeds.

The VWU will liaise and coordinate the activities related to the Peace Parks Initiative with the SADC Veterinary Wildlife Unit, and will establish cooperation links with other institutions.

The unit will evolve to a fully recognized entity within the organizational framework of the Ministry of Agriculture and Rural Development.

3. STRUCTURE AND STAFF ESTABLISHMENT

The unit will be established and supported in the initial stages by donor's funds and donor organizations, which will help to set up the basic operational infrastructure, equipment, expertise and training.

Technical advice and training of national staff will be carried out in the form of consultancies and in-service training.

The VWU will start operating with one Veterinarian, one ecologist, one research assistant and one accountant paid by the Government. One socio-economist will be contracted in part-time basis.

The recruitment of additional staff will depend on the progress achieved, demand and tasks foreseen.

4. FINANCING

The Government will progressively leverage the funding provided by donors to run the VWU from the second year onwards, and assume the total responsibility for recurrent financing by the end of the 4th year. Some financial aid will be raised from donor individuals or groups for specific purposes. Additional funds to support the unit will be raised from services provided to private owners and from research projects.

7. Building a collaborative programme (Facilitator: David Cumming)

After considerable discussion a consensus was reached that the most appropriate institutional arrangement would be a cooperative alliance that would emphasise collaboration and information-sharing without being institutionally constraining and that an MOU reflecting this view should be developed (See Fig. 1 below).

Members of the Veterinary and Conservation Subcommittees of the tri-national GLTP Joint Management Board (JMB) suggested that an MOU be developed between the *AHEAD* GLTFCA alliance (as it will be defined above) and the JMB. This would facilitate responses from participants in the *AHEAD* GLTFCA initiative if and when the JMB requested assistance for input on their delineated priority needs related to research, outreach and/or science-based policy

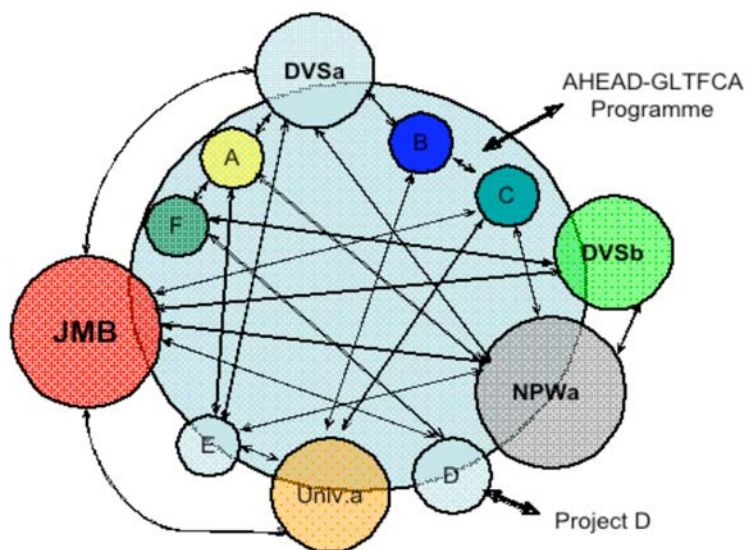


Figure 1. Diagrammatic representation of a **collaborative research programme** discussed at the Maputo meeting. It depicts projects (A- F) some of which are entirely within the AHEAD-GLTFCA programme (A, B, C, & F), and others that have components that fall within the AHEAD-GLTFCA programme and components that are unrelated to it (E & D). The JMB is reflected as a major component interacting with projects and government agencies such as Veterinary Services and National Parks & Wildlife (DVSa, DVSb, NPWa). For these agencies, and the universities (e.g. Univ.a), only a part of their activities may fall within the GLTFCA or form part of the collaborative research programme.

Major points captured during discussions (i.e. recorded on the flip chart):

1. Government agencies were signatories to the formal agreement establishing the Transfrontier National Park and were thus fully represented on the Joint Management Board and its sub-committees to which the AHEAD-GLTFCA programme could be linked through an MOU. A letter circulated by Markus Hofmeyr and Roy Bengis, "Issues Regarding the GLTP: Mandate and Responsibilities of the Veterinary Sub-Committee of the Joint Management Board," refers.
2. Another possibility was the exchange of letters of understanding between the JMB and agencies involved in the programme.
3. There may be a need for a mix of letters of understanding and MOUs depending on the agency and the nature and magnitude of their involvement.
4. Capacity building in research and natural resource management needs to form a central component of the programme and also needs to link with community based organizations in, or involved in the TFCA.
5. On the question of establishing or forming an institutional home the following main points emerged:
 - a. It may be premature to select an institutional home at this stage since many of the issues were being dealt with by existing organizations
 - b. There may, however, be a need to provide a interim secretariat at a neutral venue (e.g. Skukuza)

- c. The AHEAD-GLTFCA programme could be linked to the development of a Wildlife Unit in DINAP
- d. The newly established office of the LTER in Phalaborwa was another option that might be investigated as a base for the programme.
- e. TOR/Needs?

8. POTENTIAL DONORS

The following points were captured:

1. There was a need to be fully prepared and very clear on the programme and its components before approaching a major donor for funding. (A concept could perhaps be submitted to GEF , NIH or HEED to explore their level of interest)
2. This required fairly urgent follow up on developing concepts and proposals to fill the gaps in the table.
3. The important cross linkages that existed between themes and modules needed to be drawn out with a possible view to developing research teams.

9. NEXT STEPS

Action Points:

1. One page concepts and development of proposals. (All interested parties were asked to submit one-page project concept descriptions to David Cumming so that the AHEAD-GLTFCA concept document's themes and modules can continue to be fleshed-out.)
2. Examples of letters of understanding to help in drafting an MOU to be sent to David Cumming to help in drafting the MOU
3. Comments on the draft MOU circulated at the meeting
4. Record of meeting
5. Follow up on the gaps that still exist in the table
 - a. Zoonoses and related public health aspects need attention
 - b. Gaps between the Ministries of health and agric need to be bridged and to involve groups such as the medical research council
 - c. OIE and zoonoses and emerging zoonoses
 - d. Start at ground level in communities and disease risk assessments at the village level
6. Funding options to be further explored

10. CLOSING REMARKS

Jorge Ferrao said he has been very pleasantly surprised and pleased that a group that met at the World Parks Congress is following through on an initiative such this. As the GLTFCA Coordinator he wishes to offer his assistance and support to the programme as it goes forward and fits into the GLTFCA process.

Special thanks were expressed to Jorge Ferrao, Carlos Lopes Pereira and Bartolomeu Soto for all the work they did to organize and host such a productive forum and assembled colleagues thanked David Cumming for facilitating the working sessions, and WCS for support and the hotel staff for their excellent service.

The Chair thanked participants for attending and for their valuable contribution to the discussions and to the further development of the AHEAD-GLTFCA programme and he wished them a safe journey home.

Appendices:

Annex 1: List of participants.

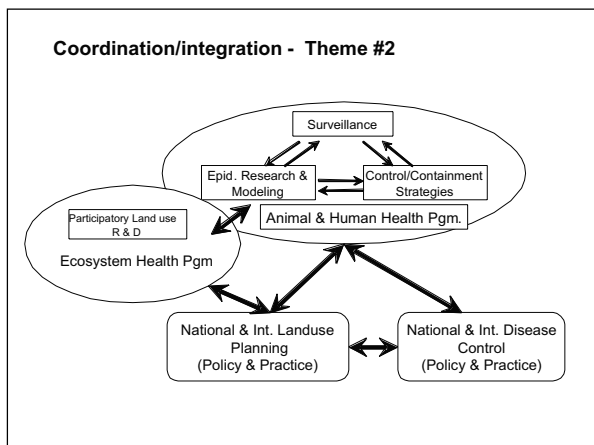
Missing – Deputy Director who opened the meeting

Bar-David, Shirli	University of California, Berkeley	bardavid@nature.berkeley.edu
Bengis, Roy	State Veterinarian, Kruger N.P.	royb@nda.agric.za
Biggs, Harry	Kruger National Park	biggs@sanparks.org
Bila, Samuel, J.	Veterinary Faculty (Wildlife Section), Univ. Eduardo Mondlane, Maputo	sjbila@hotmail.com
Cross, Paul	University of California, Berkeley/MRI	pcross@nature.berkeley.edu
Cumming, David	Consultant/TREP	cumming@icon.co.zw
Diaz, Paula	National Veterinary Research Institute, Maputo	iniv@cfmnet.co.mz
Ferrao, Jorge	GLTP/TFCA Coordinator, Maputo	ljferrao@tvcabo.co.mz
Hofmeyr, Markus	Kruger National Park	markush@sanparks.org
Lundstrum, Elizabeth	University of Minnesota & UEM	Luns0026@umn.edu
Kharika, Jones, Muleso	Dept. Environmental Affairs and Tourism, South Africa	jkharika@deat.gov.za
Magalo, Simone, I.	National Veterinary Research Institute (INIVE)	iniv@cfmnet.co.mz
Magane, Samiro	IUCN, Mozambique Office, Maputo	samiro.magane@iucn.org
Macandza, Valerio	Dept. Forestry, Mozambique	Vmacandza2001@yahoo.com
Michel, Anita	ARC Veterinary Research Institute, Pretoria	anita@moon.ovi.ac.za
Murphree, Michael	Institute of Natural Resource, University of Kwazulu-Natal	muprhreem@ukzn.ac.za
Osofsky, Steve	Wildlife Conservation Society	sosofsky@wcs.org
Penzhorn, Banie,	Faculty of Veterinary Science, University of Pretoria	Banie.penzhorn@up.ac.za
Pereira, Carlos, Lopes	Directorate of Veterinary Services, Mozambique	vetline@tvcabo.co.mz
Pienaar, Danie	Kruger National Park	dpienaar@sanparks.org
Raath, Cobus	Private Veterinarian/Consultant	jpaaath@iafrica.com
Soto, Bartolomeu	TFCA Unit, Mozambique	bsoto@tvcabo.co.mz
Theron, Piet	South African National Parks	Piett@sanparks.org
Venter, Freek	Kruger National Park	freekv@sanparks.org
van Riet, Willem	Peace parks Foundation	dfvriet@mweb.co.za
van Schalkwyk, Louis	Faculty of Veterinary Science, University of Pretoria	louis.vanschalkwyk@up.ac.za
van Wyk, Arrie	Limpopo National Park	Limpopo@wol.co.za

ANNEX 2: Slide presentation by David Cumming

Note: Slide #3 showing a map of the GLTFCA has been omitted from the following set of slides.

<p style="text-align: center;">Sustaining Animal and Ecosystem Health in Large Landscapes:</p> <p style="text-align: center;"><u>Wildlife, Livestock and related Ecosystem and Human Health issues</u> In the GLTFCA</p>	<p>Outline</p> <ul style="list-style-type: none"> • Overall objective & themes • Modules within themes • Suggested framework for developing proposals
<p>Overall Objectives & Themes</p> <p>Objective:</p> <p><i>Facilitate development and conservation success in the GLTFCA through</i></p> <p><u>integrated understanding</u> based on innovative inter-disciplinary applied research, monitoring and surveillance</p> <p><i>at the interface between wild and domestic animal health, ecosystem goods and services, and human livelihoods and wellbeing</i></p>	<p>Overall Objectives & Themes</p> <p>Themes:</p> <ol style="list-style-type: none"> 1. Overarching conceptual framework 2. Animal health and diseases 3. Land use, ecosystem goods and services, and animal health 4. Human livelihoods and animal and ecosystem integrity/processes (health) 5. Policy support and protocols on Animal Health 6. Communications and outreach
<p>Themes and Modules</p> <p>Theme #1: <u>Overarching conceptual framework</u></p> <p>To provide:</p> <ol style="list-style-type: none"> 1. Common interdisciplinary understanding of linkages and interaction between the major components of interest (i.e. animal & ecosystem health and human wellbeing) 2. Building a common understanding amongst participants 3. Basis for participatory interaction between researchers and resource managers and spreading knowledge between resource managers 4. Defining core projects <p><i>Alternative? A disparate set of projects that are unlikely to gel or result in clear policy support</i></p>	<p>Themes and Modules</p> <p>Theme #2: <u>Animal health and diseases</u></p> <p>Modules:</p> <ol style="list-style-type: none"> 1. <u>Epidemiological</u> studies of key wildlife & livestock diseases <ul style="list-style-type: none"> • Surveillance, monitoring and spatially explicit epidem. models 2. <u>Alternative strategies</u> of animal health & disease control <ul style="list-style-type: none"> • Biological, social and economic implications? 3. <u>Theoretical studies</u> <ul style="list-style-type: none"> • Anthropogenic interventions on host parasite population dynamics • Effects of interventions/disturbances on virulence, enzootic stability, competitive displacement of pathogenic strains • Influence of landscape scale – host population sizes and dispersion and movements on host/parasite/pathogen dynamics



Themes and Modules

Theme #3: Land use, ecosystem goods & services, and animal health

Modules:

- Spatial relationships between ecosystem health (goods and services) and disease
- Animal impacts on ecosystem goods & services (e.g. elephants and deforestation, overgrazing)
- Scale and pattern of land use & their impact on animal health
- Linkages between animal health and human wellbeing
- Animal husbandry practices, disease and predators

Themes and Modules

Theme #4: Human livelihoods and animal health & ecosystem goods and services

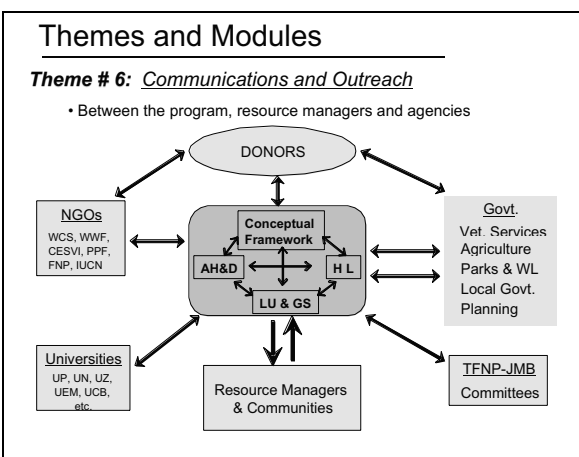
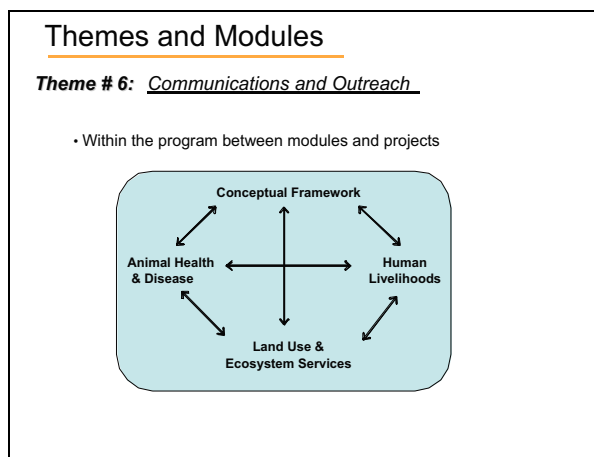
Modules:

- Scenarios to explore alternative futures for land use & development
- Economic, social & ecological trade offs of alternative patterns and scales of landuse.
- Policy and institutional effects on alternative scenarios
- Baseline indicators of wellbeing (ecosystems, animals, humans)

Themes and Modules

Theme # 5 Animal Health policy and protocols

- Facilitate and provide support to local, national and regional (and SADC?) needs in the development of policy related to animal health and the linkages between animal health and human and ecosystem health
- Explore likely consequences of alternative policies using scenarios and related approaches



Coordination

Existing initiatives – building synergies & avoiding overlap

Government:

- Veterinary Services and Institutes in each country – Monitoring, Surveillance and Control & specific research programmes

NGOs:

- CESVI regional CBNRM project
- SELCORE Programme & Resilience in SE Lowveld of Zw (includes CASS, IES and TREP).
- WWF Rhino Conservancies
- Sand County Foundation – landholder monitoring
- FNP – support to Zinave & Banhine
- AWF – Heartlands program
- Co-management programmes e.g. Makuleke
- University research programmes, e.g. MRI
- Peace Parks Foundation
- Resource Africa & IUCN-SA

Coordination

Collaborative Partnership – Still to be formed

Potential partners:

Mozambique:

- University Eduardo Mondlane
- Veterinary Services
- Dept. National Parks & Tourism

South Africa:

- SANParks
- University of Pretoria, University of Kwazulu-Natal
- Dept. Veterinary Services
- PPF

Zimbabwe:

- Zimbabwe Veterinary Services, NPWMA
- University of Zimbabwe – TREP, CASS

International:

- Wildlife Conservation Society
- WWF-SARPO, AWF?, CESVI?

Next steps?

1. Project proposals to be developed within Themes and Modules

2. Building a collaborative research programme

- MOU
- Committee/steering group

3. Potential donors

ANNEX 3: Draft MOU for a collaborative agreement

Draft memorandum of understanding (MOU) between research units and related agencies involved in the AHEAD-GLTFCA programme

The following draft MOU is partly modeled on an existing agreement between Rural District Councils and Conservancies in the South East Lowveld Zimbabwe and research organisations at the University of Zimbabwe. The MOU also seeks to provide a basis for collaboration in which the underlying principle is that of a “*cooperative alliance*” between the parties to achieve joint but multiple objectives while minimizing administrative and other transaction costs. The MOU also has provision to expand its geographical range and to include new members as and when that may be desirable. **It is emphasized that this is a draft MOU that is intended to be no more than a starting point for discussion and negotiation between the parties concerned.**

DRAFT

Memorandum of Understanding

Between

**[INSERT names of the
organisations that wish to actively participate in
the AHEAD-GLTFCA programme]**

e.g.

**Centre for Applied Social Sciences, University of Zimbabwe
Tropical Resource Ecology Programme, University of Zimbabwe
The Wildlife Conservation Society**

To

jointly establish and maintain a collaborative research programme on sustaining animal health and ecosystem services in the Greater Limpopo Transfrontier Conservation Area that serves to

Facilitate development and conservation success in the GLTFCA through integrated understanding based on innovative inter-disciplinary applied research, monitoring and surveillance at the interface between wild and domestic animal health, ecosystem goods and services, and human livelihoods and wellbeing

as its primary objective

1. Preamble.

1.1 Landholders, resource managers and stakeholders in the lowveld areas of Mozambique, South Africa and Zimbabwe falling broadly with the general area of the GLTFCA have recognised the need for targeted research, information and understanding to form the basis of an integrated approach to health, land management and resource use in the region. Wildlife, livestock and human health issues have long been a central focus, and major determinant, of land use enterprises in the area and there is an urgent need for improved knowledge and understanding ***at the interface***

between wild and domestic animal health, ecosystem goods and services, and human livelihoods and wellbeing.

- 1.2 The landholders, residents and resource managers of the GLTFCA, whose interests this research programme is intended to serve, comprise rural communities in communal lands, farmers on freehold land, agro-industrial companies, private sector interests related to the wildlife resource, local governments and government agencies managing state land such as national parks and safari and hunting areas.
- 1.3 In each of the three countries national agencies are responsible for national parks and related state-land protected areas, while local government agencies have administrative jurisdiction over land adjacent to national parks, which may be land under freehold title or under communal tenure. Land under both freehold and communal tenure within the GLTFCA may be used for agriculture or for wildlife and tourism, or both. Wildlife Conservancies on freehold land covering one to twenty or more properties have been formed in South Africa and Zimbabwe.
- 1.4 In each country there is a department of veterinary services that is legally responsible for the control and management of animal diseases.
- 1.5 The South African National Parks Board (SANParks) is responsible for the Kruger National Park and supports and conducts research within the Kruger National Park. SANParks also provide ecological management services to the Pafuri region which now falls under the jurisdiction of the Makuleke community.
- 1.6 The Department of Wildlife and Tourism in Mozambique are responsible for the Limpopo, Banhine and Zinave National Parks. etc.
- 1.7 The National Parks & Wildlife Management Authority in Zimbabwe is responsible for the Gonarezhou National Park and the implementation of the Parks and Wildlife Act in the country. etc.
- 1.8 The Joint Management Board of the Great Limpopo National Park etc.
- 1.9 Tropical Resource Ecology Programme (TREP) is a programme within the Department of Biological Sciences at the University of Zimbabwe. TREP is responsible for teaching and research and for the Masters in Tropical Resource Ecology, which was started in 1972. The programme recently established an autonomous trust, The TREP Trust, that employs staff and can receive and disburse research and teaching funds and manage projects in its own right. Together with CASS, the Institute of Environmental Studies, Save Valley Conservancy, the Malilangwe Trust, and the Rural District Councils of Bikita, Buhera, Chipinge, Chiredzi and Zaka, it helps to coordinate the South East Lowveld Collaborative Research (SELCORE) programme.
- 1.10 The Center for Applied Social Sciences (CASS) is an interdisciplinary social science research and teaching department in the Faculty of Social Studies in the University of Zimbabwe. It operates in relation to an independent trust (The CASS Trust) established to develop and advise the department on strategic directions that CASS can pursue in its teaching and research. CASS has a strong tradition of interdisciplinary research and teaching on natural resources management and use in communal tenure contexts, concentrating on the social, political, micro-economic and institutional dimensions of environmental management.
- 1.11 The Wildlife Conservation Society (WCS) has been dedicated to conserving the earth's biodiversity since its establishment in 1898 as the New York Zoological Society (NYZS). Our

efforts are concentrated in the parts of the world where biological diversity is greatest and pressure on nature is most intense. WCS currently conducts over 300 field projects in 54 countries. WCS works most often in the following thematic areas: strengthening institutional capacity, natural resource management, policy development, park establishment and management, landscape conservation, and conservation medicine. The Wildlife Conservation Society initiated the AHEAD (Animal Health for the Environment And Development) program in 2003 in order to foster a sharing of ideas with the potential to lead to concrete and creative initiatives that address conservation and development challenges related to health at the livestock/wildlife/human interface. WCS is a US-based non-profit organization.

1.12 *INSERT - Brief statements on other collaborating agencies*

2. Objectives of the Programme.

The aims and purposes of the AHEAD-GLTFCA Large Landscapes and Animal and Ecosystem Health programme are to foster an inter-disciplinary research, surveillance and monitoring programme that will enhance understanding of the wildlife, livestock and related human and ecosystem health issues in the GLTFCA and thereby improve:

- Adaptive management systems, animal health and the sustainable use of the region's natural resources,
- Policy frameworks for integrated disease and animal, human and ecosystem health management and the conservation of natural resources,
- Animal, human and ecosystem health management capacity, adaptability and resilience of the linked social-ecological systems of the GLTFCA,

in order to ultimately enhance the livelihoods and environmental security of people living in the GLTFCA.

3. Cooperation Between the Parties.

The parties to this MOU will form a *co-operative alliance* where:

3.1 [listed research parties – universities & research institutes, NP Boards/Depts., Veterinary Depts.] will:

- a) subject to the availability of funding, research workers and equipment, endeavour to initiate and undertake, individually or jointly, research that falls within the framework of the overall research programme to be established under this MOU.
- b) endeavour to raise funds and recruit scientists to conduct appropriate and needed research projects and programmes within the GLTFCA.
- c) Assist in building research, animal health and resource management capacity within the GLTFCA.

3.2 The central and local government agencies (listed parties – e.g. Rural District Councils, Depts. of Veterinary Services, National Parks & Tourism) independently, or in conjunction with the Joint Management Board of the GLNP and its Veterinary and Natural Resources Sub-Committee will:

- a) facilitate access to areas, information and facilities that bona fide researchers may need to accomplish agreed research projects and programmes,

- b) encourage their constituents, where appropriate to become actively engaged, and contribute to joint research projects and programmes,
- c) assist in the acquisition of funding for research by providing appropriate letters of support for approved research projects and programmes.

4. Programme management, administration and financial management.

- 4.1 An AHEAD- GLTFCA Programme Advisory Committee of up to seven members will be established comprising elected representatives from signatories to this MOU, i.e. [INSERT list of signatories].
- 4.2 The Committee will meet bi-annually to consider research needs, new projects and proposals and progress on existing or completed research projects. Extraordinary meetings may be arranged as necessary.
- 4.3 WCS will initially act as the secretariat to the committee for the purpose of arranging meetings, agendas, circulating reports and producing minutes.
- 4.4 Funds acquired for the administration and implementation of the programme will be received, managed and accounted for by whichever organisation has raised the funds. This provision does not preclude the transfer of funds from one body to another within the programme or the contracting of non-member bodies to carry out research on behalf of the programme. An institutional home to manage program-wide fundraising an administration will be sought and decided upon based on agreement of the signatory institutions.
- 4.5 This MOU may be made available to other parties and may be used by its signatories to raise funds for research that promotes the aims and objectives of the collaborative research programme.

5. Duration of Agreement.

The period of this agreement shall be for an initial period of three years (xxxx 2004 to xxxx 2007) and may be renewed for further periods of three or more years, as necessary thereafter

6. Termination, Extension and Revision.

Any party on six months notice in writing may terminate their participation in this agreement. It may also be extended to include new members or revised subject to such terms and conditions as may be mutually agreed in writing between the parties to the agreement.

7. Signatories

Listed signatories and their designations.