B SANP, KZNW and Other Areas

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1 MECHANISMS FOR PLANNING AND COORDINATING NATIONAL RHINO CONSERVATION EFFORTS

1.1 Rhino Management Authority

The situation regarding the control of nature conservation in South Africa is very complicated, and is confusing to many used to a simple model where a single government management agency is responsible for all nature conservation within the country.

While South African National Parks (SANP) control all the National Parks within the boundaries of the old Transvaal, Cape and Orange Free State provinces, they have never been represented within the old province of Natal. The South African provinces also have responsibility for nature conservation within their boundaries, with the exception of SANP's Parks. However, not all National Parks are managed by SANP. Pilanesberg and Bororkalalo National Parks are exceptions since they were created by the then nominally independent homeland of Bophuthatswana, and since its re-incorporation back into South Africa these National Parks have been managed by the local provincial management agency, the North West Parks and Tourism Board.

With the incorporation of the nominally independent homelands back into South Africa at Independence, and the creation of nine new provinces, a number of the old provincial conservation agencies have either amalgamated or ceased to exist. For example, the old Natal Parks Board and Bop Parks Board no longer exist. Many new nature conservation agencies have also been created since independence. In the one province (Eastern Cape), two different provincial agencies manage different parts of the same rhino reserve – fortunately on a cooperative basis!

The model for the different agencies varies. Some provinces and the SANP have parastatal boards that can retain any revenue they generate, while others are government departments. Levels of grants from the State vary considerably from area to area. To complicate matters further, at a national level, the Department of Environmental Affairs and Tourism (DEAT) is the country's overall nature conservation authority, with all the provincial agencies and SANP feeding into it to develop national policies.

In addition, wildlife can be privately owned in South Africa, and there are many white and some black rhino populations on private game reserves throughout the country. Provincial management authorities are responsible for overseeing nature conservation on private land in their areas.

The 10 formal conservation agencies are currently:

- South African National Parks (SANP),
- KwaZulu-Natal Wildlife (KZNW),
- North West Parks and Tourism Board (NWPTB)
- Eastern Cape Nature Conservation (ECNC)
- Gauteng Directorate of Nature Conservation (GDNC)
- Northern Province Dept of Land, Agriculture & Environment, Chief Directorate of the Environment (NPCDE)
- Free State Department of Environmental Affairs and Tourism (FSEAT)
- Western Cape Nature Conservation (WCNC)
- Mpumalanga Parks Board (MPB)
- Northern Cape Nature Conservation Service (NCNCS)

The first three organizations, SANP, KZNW, and NWPTB manage most (but not all) of the larger AfRSG rated *Key* and *Important* rhino populations on state land, and for this reason are examined in more detail. The separate report by Keryn Adcock details the situation in NWPTB while this report deals with the rest of the country. With the exceptions of Western Cape, which does not currently have any rhinos, and the Free State (where attempts to contact Free States RMG representative Dr Pierre Nel were unfortunately unsuccessful) representatives of the other eight management agencies were contacted.

An NGO, the African Rhino Owners Association (AROA) has been representing the interests of many private rhino owners. However, recently AROA has largely been inactive, while discussions continue to see whether it should continue in its present form, or whether rhino owners should get-together to form a company to manage their industry. Dr Kobus du Toit (who has been dealing with much of AROA's business since the resignation of the previous Chairman Clive Walker), and Mr Daan Buijs were also contacted with regard to the latest situation in the private sector.

The Rhino Management Group of southern Africa (RMG) was formed in 1989 to implement the conservation plan for the black rhinoceros in South Africa and Namibia. This plan was adopted early in 1989 with the support of 19 conservation agencies and NGOs in the two countries. Participation was extended to Swaziland and Zimbabwe in 1996, thereby strengthening the RMG's regional character although Zimbabwe only commenced active participation in October 2000. The original joint South African/Namibian black rhino conservation plan has since been succeeded. While South Africa and Namibia now operate under their own country plans, the RMG member countries continued to benefit through the development and sharing of rhino conservation philosophies, strategies, and information. To date Namibia has never missed an RMG meeting. The RMG also continues to guide and give effect to the implementation of the revised 1997 South African black rhino conservation plan (Annex 1.1). The RMG comprises representatives of all state and provincial nature conservation authorities in each country, as well as private rhino owners and custodians and rhino experts.

Since its inception, the RMG has met regularly to discuss strategic issues and review progress towards meeting rhino conservation goals. Its 13th meeting will be held in October 2000. The group coordinates status reporting, and synthesises standardised annual status reporting throughout all black rhino populations in the original RMG region, enabling progress towards metapopulation management goals to be assessed every 1-2 years. For security reasons the individual reserve status reports and status report summaries are confidential, although biological information can be used to the benefit of rhino conservation.

Over the years, the RMG has also held a number of workshops that have provided direction and standards for rhino monitoring, boma construction, property assessments, habitat evaluation, private ownership, field ranger training, and security issues. The Southern African Rhino and Elephant Security Group (RESG) grew out of what was originally a subcommittee of the RMG dealing with security, and whose chairman sat as an RMG member. The chairman of the RESG sits on the RMG.

The South African Police Service has a specialised Endangered Species Protection Unit (ESPU), which investigates many of the rhino related cases, and assists and works with many of the provincial nature conservation agencies and private rhino owners.

1.2 National Rhino Strategy

The current South African black rhino conservation plan (Annex 1.1) has been endorsed by the relevant agencies, and the RMG gives effect to the plan.

Until recently, despite its Conservation successes, South Africa has not had a white rhino policy. Although the RMG deals only with black rhino, it was asked to, and did facilitate a workshop, attended by all relevant stakeholders, to develop a national white rhino conservation strategy for South Africa. The draft version of the strategy produced at this workshop is found in Annex 1.2. All those who attended the workshop were requested to start implementing the strategy as soon as possible. This document was submitted to DEAT who then sent it out widely for comment. The strategy (with slight modifications) has recently been approved at a meeting of the national minister and provincial ministers for conservation (MINMEC). A copy of this revised version of the strategy is found in Annex 1.3.

Internally, SANP has its own species conservation plan for black rhino. An outdated draft version (August 1998) of this plan is found in Annex 1.4. While this is still in draft form and needs to be updated to take into account subsequent developments concerning Addo in effect much of this draft plan is being implemented.

1.3 Action Planning

Within South Africa, the detailed day-to-day management is controlled at an individual reserve/ conservation agency/rhino owner level. With so many management authorities, a national action plan would be seen as completely inappropriate. Most rhino conservation management issues are dealt

with at a reserve or management agency level, and those of a more national level (pertaining to black rhino) are dealt with through the RMG and its activities. The national black rhino conservation plan however is fairly detailed in its recommended strategies, but the responsibility for implementation of planning still rests with the individual agencies themselves.

1.4 Coordination Mechanisms

The RMG has been described above. The RESG has not been functional recently but there is much support to resuscitate it. Lack of finance had been the major constraint preventing meetings from taking place.

KwaZulu-Natal has a KZNW Rhino Security and Management Group. This group meets every four months and includes officers from each KZNW reserve, investigators, and the head of the SAPS ESPU (Peter Lateghan), who attends every second meeting. SANP's Ken Maggs and NWPTB's Rusty Hustler are routinely invited and attend. This meeting provides a link between field management and the undercover wildlife investigators, and is used to help coordinate pooled KZNW rhino funding applications to WWF. In KZNW parks, reserve based management meetings of management and research staff make recommendations on annual rhino offtakes. Final decisions on rhino offtakes and where the KZN rhinos are to go are made at an annual meeting at KZNW Head Office. Those wanting to bid for black rhinos on auction have to have the suitability of their properties assessed before they are allowed to bid. Occasional meetings are held at park level to review and discuss rhino monitoring data and programmes. Park researchers and management staff attend these meetings.

In the SANP an annual game capture forum meeting is held at the end/beginning of the year. This meeting includes park wardens and scientific staff and decides on capture, selling and movement of rhinos for the year. Any money raised from rhinos sold on auction is deposited in a development fund and used to buy more land. Thus for SANP, rhino sales are a form of asset-swap – game for land.

SANP's Kruger National Park has a standing committee for Nature conservation and this committee reviews requests for animals. It is made up of wildlife managers, senior research staff, regional rangers and the chief ranger. A KNP Management Committee also sits and is a decision-making body. Other SANP rhino parks (generally termed SANP Southern Parks) have a rhino steering committee, which meets once every two months. This committee comprises senior staff including Dr Anthony Hall-Martin (to be succeeded by Dr Hector Magome), Dr Mike Knight, Dr Pete Morkel and Park Wardens. Meetings of this committee are usually held at Addo NP.

1.5 Focal Point

Dr Martin Brooks of KZNW is the chairman of the RMG. Dr Mike Knight of SANP is the elected official South African representative on the AfRSG and should therefore be the focal point person for the SADC rhino programme. Mr Clive Walker is a focal person who can be contacted regarding rhino conservation on private land. Annex 1.5 gives the latest contact details and names of all members of the RMG (including Drs Brooks and Knight, and Mr Walker). Each formal nature conservation agency has one representative on the RMG.

1.6 Potential for facilitation by SADC rhino programme

None is required.

2 EXISTING MECHANISMS FOR COLLABORATION WITH OTHER RANGE STATES
(Excluding SADC Rhino Programme)

2.1 Co-ordination with other range states

SANP have taken six *D.b.michaeli* up to Tanzania, bringing one orphaned bull back to introduce some new blood. SANP has been the key player in the founding of the population of *D.b.minor* in Liwonde in Malawi, although NWPTB recently also donated an additional black rhino bull. In the past the old Natal Parks Board assisted Botswana search for, catch and consolidate outlier rhinos. NWPTB have also donated some white rhino to Botswana. A breeding group of 28 black rhino was sold by KZNW to Malilangwe, Zimbabwe in 1998. All the southern white rhino in world are derived originally from Umfolozi animals. These animals have been translocated widely around the world, including re-establishing the species in areas where it had gone extinct.

Formalised structures meet to discuss shared security concerns between Tembe and Ndumu Game Reserves in South Africa and the Mozambican authorities. Ken Maggs of SANP's ECIS also works with closely on law enforcement matters with Mozambican authorities outside the eastern Kruger NP boundary.

2.2 Existing commitments with other SADC range states

Details were not available.

3 RHINO POPULATION STATUS

3.1 Summary Statistics on rhino numbers, distribution and trends

The following are the latest statistics for South Africa (compiled by the AfRSG). The private reserves are not named for security reasons.

Black rhino:

SOUTH AFRICA *(3 subspecies)*		Area	RC/PE	Prob	SG	Total	Trend	Density	
D.b. bicornis									
Addo E. NP (Buffelskuil area)	S	67 km^2	6			6	Stable	0.090	
Addo E. NP (Elephant camp)	S		14			14	Stable		
Addo E. NP (Modderfontein)	S		7			7	Stable		
Hei!-Garib NP (Vaalbos)	S	181 km^2	5			5	Stable	0.028	
Private #	P	680 km^2	10			10	Up	0.031	
(Subtotal D.b. bicornis)		**928+** km^2	**42**			**42**	**Up**		
D.b. michaeli									
Addo E. NP (Bomas & Botanical R)	S		5			5			
Addo E. NP (Kleinvlak & Paddock)	S		9			9			
Karoo NP	S	7 148 km^2	6			6	New		
Private #	P	300 km^2	12			12	New		
(Subtotal D.b. michaeli)		**7448+km^2**	**32**			**32**	**Up**		
D.b. minor									
Atherstone Game Reserve	S	229 km^2	8			8	Up	0.035	
Gt Fish River Reserve (SK/AV	S	220 km^2	48			48	Up	0.218	Imp1
area)							Up	0.013	Key1
Greater Kruger Nat. Park (State	S	19 485 km^2	82	148	(49)	230	Up	0.011	
area)	S	965 km^2	385			385	Stable	0.399	Key1
Hluhluwe-Umfolozi Park	S	297 km^2	42			42	Down	0.141	Imp1
Ithala Game Reserve	S	600 km^2	24			24	Up	0.040	Imp1
Madikwe Game Reserve	S	420 km^2	18			18	Down	0.043	
Marakele National Park	S	368 km^2	78			78	Down?	0.212	Key2
uMkhuzi Game Reserve	S	101 km^2	24			24	Down?	0.238	Imp1
Ndumo Game Reserve	S	550 km^2	48			48	Up	0.087	Imp1
Pilanesberg National Park	S	300 km^2	21			21	Down?	0.070	Imp1
Tembe Elephant Park	S	104 km^2	12			12	Stable	0.115	
Tewati Wilderness (E..Shores)	S	48 km^2	8			8	Down?	0.167	
Weenan Nature Reserve	P	160 km^2	19			19	Up	0.119	
Private #	P	22 km^2	10			10	Down?	0.454	
Private #	P	135 km^2	9			9	Stable	0.067	
Private #	P	25 km^2	5			5	Down	0.200	
Private #	P	100 km^2	6			6	Stable	0.060	
Private #	P	50 km^2	5			5	?	?	
Private #									
(Subtotal D.b. minor)		**24 179+ km^2**	**852**	**148**	**(49)**	**1000**	**Up**		
Total All subspecies		**32 555+ km^2**	**926**	**148**	**(49)**	**1074**	**Up**		

White rhino:

		Area	RC/PE	Prob	SG	Total	Trend	Density	
SOUTH AFRICA									
Andover Game Reserve	S	70 km^2	16			16	Down	0.229	
Atherstone Game Reserve	S	229 km^2	26			26	Up	0.114	Imp1
Bloemhof Game Reserve	S		1			1	New		
Borakalalo National Park	S	120 km^2	40			40	Up	0.333	Imp1
Botsalano Game Reserve	S	80 km^2	26			26	Stable	0.325	Imp1
D=Nyala Game Reserve	S	80 km^2	3			3	Down	0.038	
Dweza Nature Reserve	S	39 km^2	8			8	Up	0.205	
Great Fish River Res. (Double Drift)	S	230 km^2	13			13	Up	0.057	
Greater Kruger NP (State Area)	S	19 485 km^2	5073			5073	Up	0.260	Key1
Vaalbos National Park (Hei!-Garib)	S	181 km^2	3			3	Up	0.017	
Hluhluwe-Umfolozi Park	S	965 km^2	1649			1649	Up	1.709	Key1
Ithala Game Reserve	S	297 km^2	60			60	Down	0.202	Key2
Koppies Game Reserve	S		7			7	Up		
Letaba Ranch	S	414 km^2	13			13	Down	0.031	
Ligwalagwala	S		1			1	New		
Loskop Dam Nature Reserve	S	133 km^2	34			34	Down	0.256	Imp1
Madikwe Game Reserve	S	600 km^2	98			98	Up	0.163	Key2
Mafikeng Game Reserve	S	50 km^2	22			22	Up	0.440	Imp1
Manyaleti Game Reserve	S	256 km^2	23			23	Down	0.090	Imp1
Marakele National Park	S	420 km^2	19			19	Stable	0.045	
Maria Moroka National Park	S	60 km^2		4		4	?	0.067	
Mkuzi Game Reserve	S	368 km^2	112			112	Stable	0.304	Key1
Mpofu Game Reserve	S	85 km^2	9			9	Stable	0.106	
Mthethomusa Game Reserve	S	80 km^2	17			17	Down	0.213	
Ndumo Game Reserve	S	101 km^2	50			50	Stable	0.495	Imp1
Nwanedi National Park	S	70 km^2	10			10	Up	0.143	
Parani Conservancy	P		5			5	New?		
Pilanesberg National Park	S	550 km^2	166			166	Stable	0.302	Key1
Pongolapoort Biosphere Reserve	B	58 km^2	19			19	Up	0.333	
Rolfontein Nature Reserve	S	50 km^2	8			8	Stable	0.160	
Sandveld Nature Reserve (Josina & Lake Warden)	S	147 km^2	11			11	Stable	0.075	
Soetdoring Nature Reserve	S		2			2	New		
Songimvelo Nature Reserve	S	350 km^2	33			33	Stable	0.094	Imp1
Spioenkop Nature Reserve	S	30 km^2	21			21	Stable	0.700	Imp1
Tembe Elephant Park	S	300 km^2	25			25		0.083	Imp1
Thomas Baines Nature Reserve	S	10 km^2	3			3		0.300	
Tsolwana Game Park	S	100 km^2	16			16		0.160	
Weenan Nature Reserve	S	48 km^2	39			39		0.973	Imp1
Willem Pretorius Game Reserve	S	120 km^2	21			21		0.175	Imp1
Greater Kruger (Pvt Reserves)	P	1 928 km^2	266			266		0.138	
Other Pvt & biosphere res. (N=140)	P	4 428+ km^2	1001			1001		0.226	
Private new #1 (#73)	P	300 km^2	92			92		0.307	Key2
Private new #10	P	400 km^2	34			34		0.392	Imp1
Private new #11	P	300 km^2	37			37		0.123	Imp1
Private new #12	P	100 km^2	35			35		0.350	Imp1
Private new #13	P	46 km^2	17			17		0.370	
Private new #14	P	100 km^2	16			16		0.160	
Private new #15 (#69)	P	59 km^2	24			24		0.407	Imp1
Private new #16	P	70 km^2	19			19		0.271	
Private new #17	P	353 km^2	22			22		0.062	Imp1
Private new #2 (#76)	P	50 km^2	40			40		0.800	Imp1
Private new #20	P	100 km^2	20			20		0.200	Imp1
Private new #of24	P	25 km^2	27			27		1.080	Imp1
Private new #26	P	80 km^2	38			38		0.475	Imp1
Private new #3 (#152)	P	168 km^2	52			52		0.310	Key2
Private new #4	P	320 km^2	56			56		0.175	Key2
Private new #5 (#89)	P	70 km^2	40			40		0.571	Imp1
Private new #6	P	55 km^2	40			40		0.727	Imp1
Private new #7	P	40 km^2	41			41		1.025	Imp1
Private new #8 (#79)	P	25 km^2	18			18		0.720	
Private new #9	P	120 km^2	33			33		0.275	Imp1
Zoo nature reserves (N=7)	Z	68 km^2	24			24		0.353	
Municipal reserves (N=7)	M	?		39		39			
Defence Force reserves (N=2)	D	50 km^2	17			17		0.34	
Total		**35 431 km^2**	**9 711**	**43**		**9 754**			

3.2 Population monitoring and reporting

Rhino monitoring approaches vary depending upon the species, size of the area and local vegetation and topography. For the most part black rhino populations are monitored using individual ID techniques. In a number of larger populations where all animals are not known, and a fraction of so-called clean animals (without any obvious identification features) occur, Bayesian Mark-Recapture RHINO software has been used to derive population estimates with confidence levels. ID work is normally ground based but aerial ID photography has been routinely used in some parks (e.g. Pilanesberg & Madikwe and most SANP parks). In Hluhluwe-Umfolozi Park, the white rhino are monitored using distance sampling to analyse sighting data obtained along cut lines walked throughout most of the park. Point based distance estimation is used in the Park's Wilderness Area.

In Kruger NP white rhino numbers are estimated using a 15% aerial sample survey count analysed using distance-sampling methods to estimate undercounting biases and confidence levels. Black rhino in the park are intensively monitored annually by helicopter in study area of approximately 1000 km^2, with photos being taken of black rhino in other areas during other park wide elephant and buffalo surveys. It is shortly hoped to synthesise and analyse the available data and photographs to come up with an improved population estimated for the park.

Every year each black rhino population is expected to submit an annual status report to the RMG. Thus for black rhino it has been possible to produce and/or population estimates since 1989/90. From time to time these status reports are then synthesised and a summary report compiled which provided much useful comparative biological data. With the exception of the biological data that can be used for the benefit of rhino conservation, these status reports and summary reports are confidential and therefore cannot be appended as part of this report. However, if the RMG Chairman gives permission, a copy of the latest confidential status report summary for South Africa will be made available to the SADC rhino programme co-ordinator for his personal information. Status reports are submitted according to set formats that are available upon request from the chairman of the RMG, Dr Martin Brooks. White rhino numbers on private land are assessed from time to time, with the last survey being undertaken just over a year ago. WWF has assisted AROA undertake these surveys. Nationally, white rhino numbers are compiled by the AfRSG country representative about every two years, just prior to each AfRSG meeting.

KZNW has been successful in arresting and convicting a number of rhino poachers and dealers. Sentences of 10 years, 6 years and R100, 000 have been handed down in recent years for rhino crimes. In Kruger NP there have also been a number of successful convictions for rhino poaching and one poacher convicted of killing an elephant and two rhinos was sentenced to 30 years (maximum 10 years on each count) without the option of a fine. Some poaching in Kruger and in adjacent private reserves has been by Mozambicans. In one case near Crocodile Bridge in KNP a rhino was shot for both horns and meat. While there has been no rhino poaching in SANP's other rhino parks some horn tips were removed from a vet's drug box. However, the thief was found, arrested and dismissed and a court case is now pending.

In Northern Province a ranger has been arrested for illegally trading in rhino horn. There has been no rhino poaching in the Eastern Cape or North West Province. In Gauteng there have been 8 cases of attempts to deal in horn, but sentences have been low (R15,000). The future use of expert witnesses may help increase sentences in future. Wildlife investigators continue to detect a real interest by criminals in getting illegal horn, and feel it is therefore imperative that existing law enforcement efforts be maintained to keep a lid on the situation. Numbers of rhino poached in South Africa by year are given in Annex 1.7 while numbers of rhino and elephant poached in KNP are given in Annex 1.10.

3.3 Requirements for surveys and monitoring

Extra funding is required for activities such as ear-notching to help improve/add to existing rhino monitoring programmes. Although it would be nice to have more information on black rhino in Kruger outside the Park's large intensively monitored black rhino study area, given the low density is relative to carrying capacity this is not a constraint to the development and implementation of the national rhino conservation strategy. However a synthesis of all available photographs and data would improve the quality of the park's black rhino population estimate. The status of white rhino on private land also needs to be assessed at regular intervals. Buijs estimates a survey would cost in the region of R15,000.

4 MANPOWER AND OTHER RESOURCES FOR RHINO CONSERVATION

4.1 Anti-poaching resources

Tony Conway compiled the following data on manpower and other resources for KZNW rhino areas:

Protected Area	*Area (km^2)*	*Field Rangers*	*km^2 per Field Ranger*	*Operating Budget (USD)*	*Operating Budget (USD) per km^2*	*4WD Vehicles*	*LDVs*
Hluhluwe	300	38	7.9	66,667	222	4	1
Umfolozi	660	46	14.3	96,794	147	4	0
Ithala	297	34	8.7	52,520	177	4	1
Weenen	50	5	10	14,512	290	1	1
Tembe (Incl Sileza	300	31	9.7	63,725	212	6	0
Ndumo	101	29	3.8	46,928	465	3	3
Umkhuze	370	52	7.1	40,974	111	6	2
Mean			8.79		232	4	

Manpower densities are much lower in the large Kruger NP (state area = 19,485 km^2), which has approximately 200 field rangers, 18 section rangers and four regional rangers. SANP's Environmental Crime Investigation Service is also based in KNP. Each of the 18 section rangers and four regional rangers has 2 vehicles giving a total of 44 for park field staff. Field rangers receive a bicycle allowance enabling them to always have a fully working bicycle. Field patrols alternate between walking and bicycle patrols. On average a KNP section is about 1,083 km^2 and has 6 field rangers on duty, 2 on leave and 1 section ranger translating to an effective field ranger density of 120 km^2 per field ranger. Patrols are more concentrated around Park boundaries so effective manpower densities vary throughout the KNP. Salaries for field rangers in KNP range from R20,556-33,600 p.a.; for Corporals from R21,900-37,700, for Sergeants from R23,300-42,600 and for section rangers from R58,400-R87,100. The total budget for wildlife management in KNP is R24m of which about R17m are salaries.

The Great Fish River Reserve is spilt in two by a major river. The southern Sam Knott/Andries Vosloo area of 220 km^2 is managed by Eastern Cape Nature Conservation and only has 9 field rangers. The 200 km^2 Double Drift area across the river is managed by the Eastern Cape Tourism Board and has 30 field rangers (including gate guards). The two management agencies cooperate and rangers from the Double Drift area have assisted Eastern Cape Nature Conservation Staff. Limited budgets result in Eastern Cape Nature Conservation vehicles standing idle for periods when budgets run out. Northern Province indicated it was understaffed. Declining government subsidies may impact on future expenditure and staffing levels in a number of management authorities.

4.2 Expertise available for specialised aspects of rhino management

South Africa is well off with regards to available expertise. There are a number of experienced rhino vets, rhino capture teams, a builder and developer of rhino radio-collars, and number of ecologists experienced in rhino ecological evaluations, and there is specialized expertise in the field of rhino population estimation and monitoring. There are also experts skilled in investigating the scene of a rhino crime and in obtaining forensic evidence. In addition to the ESPU of the South African Police Service many conservation agencies have their own specialised investigative staff and informer networks. A number of parks in North West, Mpumalanga and KZNW have the capacity to routinely identichip both rhinos and horns using the same make of transponder.

4.3 Specialised equipment available for rhino management

South Africa is well off with regards to available equipment in terms of bomas, capture trucks, darting equipment, transponder readers, transporters that can move 6 rhino at once etc. Helicopters are widely available but are normally hired for such operations.

A new Centenary Game Capture centre has just been opened in Hluhluwe-Umfolozi and includes new R5 million rhino bomas, which replace the old Umfolozi rhino bomas. Kruger National Park also has a very sophisticated game capture centre with the capacity to handle large numbers of rhinos while Pilanesberg has boma facilities for routine handling and treating of rhino.

5 PARTICIPATION OF NON-STATE AGENCIES IN RHINO CONSERVATION

5.1 Community Involvement

In KZNW visitors pay a community levy, which goes to the traditional authorities (meeting of Amakhosi) to decide how to spend the money. So far R9 million has been raised provincially in KZNW with R1.4 million coming from Hluhluwe-Umfolozi Park. Local Boards are about to be set up for many of the major rhino reserves in KZN These local boards provide away to legislate for community involvement in being part of Park management planning and deciding how to use the community levy. Relevant sections of the KwaZulu-Natal Nature Conservation Management Act can be found in Annex 1.8.

SANP has a social ecology section which liases with local communities. Effort is being targeted towards to exploring ways to economically empower local communities and create opportunities in tourism. Recently moves are being made to enhance communication with communities around Kruger NP through political channels and elected community representatives and development forums. In SANP's other parks most community initiatives are ad hoc except for Addo, which has a Forum with representatives from Industry, Agriculture, Eastern Cape Nature Conservation, SANP and local communities.

5.2 Local and International NGO Involvement

This varies from organisation to organisations and Park to Park. Of the more major funders, WWF provides significant support to rhino conservation projects in both Kruger National Park, and KZNW rhino reserves. A Danish NGO assists with rhino monitoring in NWPTB. US Fish & Wildlife's Rhino and Tiger Conservation Fund has also supported the number of rhino conservation projects in Kruger NP, SANP's southern Parks, as well as parks in KZNW, NWPTB, Mpumalanga and Eastern Cape, although the upper level for most individual RTCF grants is US$30,000. The Rhino and Elephant Foundation, Leslie-Hill Trust, IFAW and the Humane Society of the US have funded some SANP land purchases. NGO's and private individuals in particular have and are playing a major role in the expansion and consolidation of the Greater Addo N.P. with at least R14m being spent on land purchases to increase the size of the conservation area. The long-term goal at Addo is to consolidate an approximately 3,500 km^2 area of land covering 6 terrestrial biomes to create an area with the potential for a large population of *D.b.bicornis* outside of Namibia.

5.3 Private Sector Involvement

Both black and white rhinos can be privately owned. In 1999 the private sector in South Africa conserved an estimated 1990 white and 76 black rhino. With the necessary provincial conservation agency approval and permits, bought sold or moved around the country. White rhino can also be sold overseas to approved destinations. Record white rhino prices were fetched at the 2000 Hluhluwe Game Auction.

At this year's Hluhluwe Game Auction in KwaZulu-Natal, South Africa, the 42 white rhinos sold fetched record prices averaging R200,238/rhino (~$29,200) ranging from R 125,000 (~$18,250) to R345,000 (~$50,365) per animal. This represents a four and a half fold increase in price since 1996 and an increase of almost 70% on last years price. The founder breeding group of six black rhino also fetched the highest price since 1992 at R375, 000 ($54,750) each. The total turnover at the auction was R8.41 million (~$1.23m) for the 42 white rhino and R2.25 million for 6 black rhino. Rhino accounted for 70.65% of turnover. White rhinos sold at an earlier auction in 2000 by SANP fetched about R150,000 each.

The total area of land are available for rhino conservation, and hence overall white rhino carrying capacity will to some extent depend upon economic incentives for the private sector and local communities to conserve game and in particular rhino. There is an urgent need to improve the controls and recording of horn stockpiles on private land. AROA is currently not functional and there is also a need to build a body to represent the private sector as well as undertake surveys of the status of rhinos on private land at regular intervals of. In the case of Kruger NP, the fences between it and a number of large private reserves on its western boundary have been taken down increasing the effective area of the Park. A joint KNP/Private Sector Management Committee oversees this cooperative arrangement.

6 PROPOSED PROJECTS

All relevant projects suggested during the review have been added to the SADC rhino co-ordinators list of projects for the consortium meeting (Semester 2 report: Annex H). There was very strong support from the field and wildlife investigators in many conservation agencies for the continued development of horn fingerprinting techniques. There was also strong support from the field for the revision of RHINO software (not just from South Africa). Projects were proposed to develop the technology to analyse DNA in rhino horn and tissues both for security reasons (to match horn to carcass for use in court cases) and for genetic analyses of small populations as an aid to improved metapopulation management. A copy of one of these proposals can be found in Annex 1.12.

The development of a possible regional intelligence database building on existing KZNW work was supported and may involve other countries. The need to facilitate the holding of the next RMG meeting was identified and in Semester 5 funds will be required to produce the next RMG Status report summary. The need for the development and operation of a regional rhino transponder database was identified. Kruger's Danie Pienaar was keen to study post release behaviour of black rhinos in Kruger are to receive additional animals. Kobus du Toit and Daan Buijs identified the need for another white rhino status survey on private land. Gauteng wished to share lessons learnt in court cases and to obtain information on sentences handed down to assist in getting bigger sentences in court.

7 NATIONAL LEGISLATION AND POLICIES

The provinces and National Parks have their own the wildlife legislation, although in recent years there have been increasing attempts to harmonise wildlife legislation and make it consistent at a national level. In terms of rhino penalties, those convicted face of find of up to R100,000 and/or 10 years imprisonment. Annex 1.9 gives details of the relevant penalties for rhino crimes under the 1976 National Parks Act.

8 DATA SOURCES

8.1 Names, addresses and contact details of all informants/interviewees

Kruger National Park
Mr Danie Pienaar, Manager, Scientific Services, Kruger NP, dpienaar@parks-sa.co.za
Mr Wikkus van der Walt , Rare Biota Biologist, 013 735 4325 wikus@parks-sa.co.za
Dr Willem Gertenbach, General Manager Nature Conservation, Kruger NP
Mr Ken Maggs, Head Environmental Crime Investigation Services (ECIS) for the whole of SANP

Southern National Parks Office (all other SANP National Parks excluding Kruger)
Dr Michael Knight, Manager, Scientific Services, Southern National Parks, South African country representative on the AfRSG, SANP rep on the RMG. mknight@upe.ac.za 041 845 1471
Dr Guy Castley, Animal Ecologist Scientific Services, Southern National Parks (Annex 1.6)
Dr Graham Kerley, Director Terrestrial Ecology Research unit, University of Port Elizabeth (Annex 1.6)

KwaZulu-Natal Wildlife
Mr Tony Conway, Chief Conservator, Zululand Reserves and Chair of KZN Rhino Management and Security Group – who obtained information from Wardens of individual reserves. 033 845 1327
Mr Drummond Densham, Regional Head, and Chairman of the Rhino and Elephant Security Group of Southern Africa (Annex 1.5) 033 845 1394
Mr Rod Potter - Head Law Enforcement, Zululand 033 5620011 or 082 732 8843
Mr Simon Pillinger – Investigations c/o 031 206 1533
Mr Bradley Poole – Zululand Administrative Officer 033 845 1342
Miss Sharron Hughes – Permits Officer 033 845 1324

North West Province
See report on NWPTB (A., above)

Eastern Cape
Mr Brad Fike, Eastern Cape Nature Conservation RMG representative 046 662 7909

Gauteng
Mr Daan Buijs (Author of 4 of 5 surveys of status of white rhinos on private land) 083 392 8656 or 011 627 5991
Mr Leon Litter (CITES permits and Law Enforcement) Tel 011 355 1459 or 082 373 7712

Northern Province
Mr Johan Kruger Northern Province's Chief Directorate of the Environment's rep on the RMG.

Mpumalanga
Mr Johan Eksteen, Mpumalanga Parks Board representative on the RMG

Northern Cape
Mr Julius Koen, Northern Cape representative on the RMG

Private Sector
Dr Kobus du Toit, Acting Chairman of AROA
Mr Daan Buijs - Undertaken four out of the five rhinos status surveys on private land.

8.2 Documentation

For national plans and strategies, see Annexes 1.1, 1.2, 1.3, 1.4 and 1.5. For a draft SANP strategy, see Annexes 1.4. For contact details, see Annexes 1.5 and 1.6

8.3 Sources of Digital Information

Neil Langley, Biodiversity Data Manager, KZNW 845 1449
Rose Hamilton, Biodiversity Data Manager, KZNW 033 845 1454
Judith Kruger, Database Analyst, Scientific Services, Kruger NP, SANP 013 7354309 082 921 6981
Ray Shaller, North West Parks c/o Pilanesberg N.P. Further contact details are provided in Annex 1.5 and Annex 1.6, if not given below.

9 TRADE AND IMPORT/EXPORT OF LIVE RHINOS

9.1 CITES Management Authority

The designated National CITES Management Authority is the Department of Environmental Affairs and Tourism (DEAT). However, DEAT does not issue permits but according to KZNW's Sharon Hughes rather refers these to six other management authorities that currently are allowed to issue permits. These are: 1) Western Cape Nature Conservation – Handles permits for Western Cape and Eastern Cape 021-4833 539; 2) KwaZulu-Natal Wildlife – Handles permits for KZN 033 845 1324; 3) Free State department of Environmental Affairs and Tourism - Handles permits for Free State 051 447 0407; 4) Gauteng Directorate of Nature Conservation – Handles permits for Gauteng, North West, Northern and Mpumalanga provinces 011 355 1225; 5) Northern Cape Nature Conservation Service – Handles permits for Northern-Cape province 035 8322 143 ; and 6) Sea Fisheries – does not handle any rhino permit applications. In due course all provincial agencies are likely to issue their own permits. There is no single Scientific Authority and instead scientists working for the various nature conservation authorities throughout the country fulfil this role.

9.2 Veterinary Controls

State Veterinarians working for the Department of Agriculture are responsible for issuing export Veterinary Clearance Certificates, should these be required by the importing country. Issuing of these certificates is not required in South Africa. Tuberculosis is a possible threat to future movement of rhinos and research is currently underway to develop a Tb test for rhinos.

9.3 Past Imports and Exports

A total of 206 white and 51 black rhinos have been exported from South Africa between 1994-1999, while 2 white and 18 black rhinos have been imported. Annex 1.11 contains a list of white and black rhinos exported and imported over this period.

10 HORN STOCKS

10.1 Control, Storage and Identification

Details of horn tracking and auditing in KZNW have been provided as a confidential annex to this report. The Board of KZNW has just made horn stockpiles an auditable item. Horns in KZNW are now all being identichipped in the field and their movement from the field to final storage is documented in detail. Independent auditors have been asked to assess their horn tracking system. Once at head office horns are held in a temporary vault before being boxed and taken to final storage at a secret location.

In Kruger Park each section ranger has a walk in safe, which is used for temporary storage before horns are transported to the main vault. A specific drill exists for handling horn and ivory in the park and the bookwork for horns is in triplicate with copies sent to all regional rangers. There is also an internal park audit of horn and ivory stocks.

In the field in a number of parks, microchip transponders are often implanted in horns of animals immobilised for any reason. As part of the SA national plan a number of agencies have standardised on the make of transponder. In Mpumalanga one illegal horn that had been recovered was directly linked to a poaching incident by linking transponders found in the recovered horn and shoulder of the poached rhino.

10.2 Involvement in AfRSG rhino horn fingerprinting project

Many conservation agencies have participated and some private reserves. There is strong support for continuing with developing the analytical methods and many indicated a willingness to supply additional samples as required. There is a need for increase coverage of private rhino populations.