

PART I SUMMARY

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Introduction

This document is a compilation of the detailed country reviews of rhino conservation in SADC rhino range states, carried out during the second semester of the SADC Regional Programme for Rhino Conservation (24th March to 23rd September, 2000). This was an important information-gathering exercise in preparation for the process of identification and selection of projects to be funded and implemented by the SADC consortium and the rhino range states over the remaining semesters of the programme.

The country reviews were written by representatives of SADC consortium members and external rhino consultants, and edited and compiled by Rob Brett (Programme Co-ordinator) and Raoul du Toit (WWF SARPO). With the exception of Angola, the reviews were written following information-gathering visits to the rhino range state (or province of the range state) in question. The reviews share the same format: a structured list of information required, drawn up in advance as terms of reference for the reviews (Task 1.2 – 1.1 of semester 2), and presented below.

This is followed by a summary table containing the main points in brief recorded from each range state during the review process, under each of the headings of the terms of reference for the reviews. This allows comparison of factors relevant to rhino conservation in each range state. These include:

- Unique or interesting features of legislation, wildlife policy or resources of particular range states, including factors that enable, or are catalysts for a successful approach or model for rhino conservation.
- Activities or structures that are clearly needed for individual range states to develop their rhino conservation programmes effectively, particular if input from the SADC region (through the SADC Rhino Programme) can assist.

Finally, a brief overview of the results of the process is presented in the form of salient issues or points of regional interest from the review of each country. This section highlights the regional rhino conservation linkages and co-operation already in progress, which may serve as models for similar linkages between SADC rhino range states in future.

Terms of Reference for Review of Rhino Range States

1 MECHANISMS FOR PLANNING AND COORDINATING NATIONAL RHINO CONSERVATION EFFORTS

- 1.1 Establish whether a national rhino strategy (outline of rhino management principles and policies) has been developed; if so, when, by whom, with what level of official authorization/endorsement, etc. Establish whether this is still current (i.e. being implemented) or in need of updating.
- 1.2 Establish whether this documentation incorporates or is separately reinforced by an action plan that specifies required rhino conservation activities with timings, responsibilities, allocation of resources, etc. Establish whether this action plan is still current or in need of updating, what the updating process will be, and whether there are impediments to this updating process.
- 1.3 Describe the composition and functioning of any formalized planning structures (committees, etc., at national or local level) that have been established to coordinate rhino conservation.
- 1.4 Specify any individual(s) who act as co-ordinator(s) for rhino conservation and/or act as focal point(s) for the SADC Rhino Programme, RMG, etc.
- 1.5 Establish whether there are any possibilities for the SADC Rhino Programme to facilitate the development or updating of the national rhino strategy and/or action plan (e.g. by mobilizing appropriate expertise).
- 1.6 Obtain copies of any national strategy, action plan or other relevant documentation.

2 EXISTING MECHANISMS FOR COLLABORATION WITH OTHER RANGE STATES

(Excluding SADC Rhino Programme).

- 2.1 Establish whether the range state is coordinating its rhino conservation activities in any concerted way with any other range state(s). Clarify whether any such coordination arrangements are formalized through high-level bilateral agreement or are more informal. Outline the background to, achievements to date from, and anticipated evolution of such arrangements.
- 2.2 Establish whether there were any previous commitments or interactions between the range state and any other(s), such as commitments to transfer rhinos or to undertake joint law-enforcement, that have been curtailed or have lapsed; comment on apparent reasons for any inertia or reduction in cooperation (note: if comments on this topic are diplomatically sensitive they should not be included in the report but should instead be given to the Programme Co-ordinator in confidence).

3 RHINO POPULATION STATUS

- 3.1 Provide current summary statistics on rhino numbers, distribution and population trends.
- 3.2 Outline the current approaches to and levels of detail of rhino monitoring, population status reporting, rhino poaching incidents, and penalization of people who are arrested for such incidents.
- 3.3 Specify any requirements for surveys and/or demographic monitoring to improve information on the status of rhino populations, where lack of such information is a definite constraint to the development and implementation of a national rhino conservation strategy and action plan.

4 MANPOWER AND OTHER RESOURCES FOR RHINO CONSERVATION

- 4.1 For each rhino area, or at least for major or representative rhino areas, obtain summary statistics on anti-poaching resources (scouts per km², recurrent annual expenditure excluding salaries per km², four-wheel-drive vehicles per km², salary levels for scouts and junior officers).
- 4.2 Ascertain the availability of expertise for specialized aspects of rhino management, notably for rhino tracking, capture, veterinary work, ecological evaluations and demographic monitoring.
- 4.3 Ascertain the availability of specialized equipment for rhino management, notably for rhino capture/translocation (recovery trucks, helicopters, crates, etc.).

5 PARTICIPATION OF NON-STATE AGENCIES IN RHINO CONSERVATION

- 5.1 Summarize any existing or proposed initiatives for direct community involvement in rhino conservation.
- 5.2 Outline the involvement of local and international NGOs in rhino conservation, specifying the general thrust of such involvement with indications of the levels of activity and financial contribution of each NGO.
- 5.3 Summarize the direct involvement of the private sector in rhino conservation. If there are any positive or negative aspects of this involvement that warrant comment, provide details.

6 PROPOSED PROJECTS

- 6.1 Outline concepts for projects that the range state feels meet the criteria for implementation within the SADC rhino programme, either within the country itself or as a regional project. Indicate lead agency, collaborative agencies (including potential funding agencies), budget levels, timetabling. If there are any additional potential projects that the reviewer has identified, these should also be outlined, but making it clear which concepts are suggested by the rhino management authority and which are suggested by other individuals or agencies.

7 NATIONAL LEGISLATION AND POLICIES OF RELEVANCE TO RHINO CONSERVATION

7.1 Provide an overview of legislation and policies relating to penalties for poaching rhinos, possession of rhino horns, hunting of rhinos, live sales of rhinos, etc. Draw particular attention to aspects of national law or policy that either preclude or reinforce models for rhino conservation such as community-based rhino projects or private ownership or custodianship options. Obtain copies of legislation, documented policies.

8 DATA SOURCES

8.1 List names, addresses, titles, and affiliations of all informants/interviewees.

8.2 Compile a list of the relevant reports and publications. Provide the Programme Co-ordinator with as much of this information as possible.

9 TRADE AND IMPORT/EXPORT OF LIVE RHINOS

9.1 Detail CITES management authority/authorities and veterinary requirements for import and export of live animals. List past translocations of rhinos into and out of the range state, sources and destinations, and transaction type (donation, sale, deposit, etc). This must include past translocations between SADC range states that have given rise to, or have augmented existing populations.

10 HORN STOCKS

10.1 Describe mechanisms within the range state and management authorities for control, storage and identification of horn stocks.

10.2 Indicate whether there has been official involvement of the range state in the AfRSG rhino horn fingerprinting project and what the attitudes are towards providing further samples for this project.

Summary Table of Results of Detailed Country Reviews

| RANGE STATE | ANGOLA | BOTSWANA | MALAWI | MOZAMBIQUE | NAMIBIA | SOUTH AFRICA | SWAZILAND | TANZANIA | ZAMBIA | ZIMBABWE |
|---|--|--|--|---|---|---|--|--|---|--|
| PLANNING AND CO-ORDINATION | | | | | | | | | | |
| Rhino Management Authority | <i>Instituto de Desenvolvimento Florestal</i> (IDF), Under Ministry of Agriculture | Department of Wildlife and National Parks (DWNP). Under Ministry of Commerce and Industry | Department of National Parks and Wildlife (DNPW). Under Ministry of Tourism | <i>Direcção Nacional de Florestas e Fauna Bravia</i> (DNFFB). Under Ministry of Agriculture | Ministry of Environment and Tourism (MET) | SANP: KZNNS, NWP/PTB and six other provincial authorities. Department of Environmental Affairs and Tourism (DEAT) | Big Game Parks. Under Office of the King of Swaziland. BGP replaced Swaziland National Trust Commission in 1998. | Wildlife Division (only authority for <i>D.b minor</i>). Also TANAPA, NCAA. Under Ministry of Natural Resources and Tourism | Zambia Wildlife Authority (ZAWA). Under Ministry of Tourism | Department of National Parks and Wildlife Management (DNPWLM). Under Ministry of Environment and Tourism |
| Rhino Conservation Strategy (Year) | None. | Black and White rhino (1991-99): Old draft, in need of updating and endorsement | None. | None. | Black and White rhino (1997): current. Updated twice since 1989. Confidential. | Black rhino (1997): endorsed. SANP has its own conservation plan for black rhino. White rhino (2000): endorsed. | None. | Black rhino (1998): a revision of the first national plan of 1993, but still not yet formally endorsed | None at present. 1992 strategy for black and white rhinos was not formally endorsed, and is now out of date. | Black Rhino Policy and Management Plan (1997): endorsed. |
| Action Planning | None. | None, except for actions (no timing specified) in old strategy | Formal planning for Liwonde sanctuary only | None. | 5-yearly and annual action plans, endorsed by RAC | Action planning by individual authorities | No formal action planning. | None, although there are indicators/timings in the 1998 plan | None. | Stalled. No implementation of past annual plans. |
| Co-ordinating Committees | None. | Committee (RMG) specified in 1991 strategy, but has not yet met. | None. | None. | Rhino Advisory Committee (RAC). Also member of RMG | RMG, RESG. KZNW has a Rhino Security and Management Committee. | RMG, RESG | Rhino Conservation Steering, Rhino Management Committees (1 meeting to date). | None. Research and Law Enforcement divisions will be responsible in future | Yes, and met in November 200 for the first time since 1996. Member of RMG |
| Focal Point for SADC programme | Nkosi Luta Kingengo, IDF | Moremi Tjibae, DWNP | Dr Roy Bhima, DNPW | Felismina Longamane Langa, DNFFB | Rudi Louit, MET | Dr Mike Knight, SANP | Ted Reilly, BGP | Matthew Maige, TWD | George Kampamba, ZAWA | Florence Msipa, DNPWLM |
| COLLABORATION WITH OTHER SADC RANGE STATES | | | | | | | | | | |
| Existing collaboration with other SADC range states | Quiçama NP and Kissama Foundation, with South Africa (NWP/PTB). Kissama foundation has confirmed that they are interested in acquiring white rhinos. | South Africa (NWP/PTB): formal provision of white rhinos. Past introductions of white rhinos were from the NPB (1960-80: 94), who also assisted with recovery of the 8 remnants (1994-96). | Agreement with SANP (RSA) for Liwonde NP, including construction of fence and tourist camp, and provision and transport of rhinos. Not a formal high-level agreement, mainly Director-level comms. | Present TFCA areas, e.g. the Gaza-Kruger-Gonarezhou area includes black and white rhinos. Cross-border co-operation with Kruger NP, with which parts of Coutada 16 could form larger PA for rhinos. | None. Historically extensive with SANP, including sales of white and black rhinos, and exchanges for other species. | Malawi (DNPWV): formal. Botswana (DWNP): NWP/PTB Mozambique: cross-border security comms with Kruger NP. Tanzania (WD) <i>D.b. michaei</i> /from SANP. Zimbabwe (Maliangwe): sale of <i>D.b minor</i> . | No formal links with other range states, although working closely with SAP ESPU. Past introduction from KZNW/NTP of black and white rhinos. Initial black rhino founders came from Zimbabwe. | Informal, with South Africa: translocation of <i>D.b. michaei</i> /from (6 rhinos) and to (1 rhino) SANP (Addo NP), with veterinary and technical support from SANP. | None, except for informal contacts with Zimbabwean authorities. Past co-operation with NPB in early 1960s (translocation of white rhinos) | None, except for ongoing security contacts with Zambian counterparts. |
| Commitments to other SADC range states | No information available. | 2 black rhinos from Namibia (1990). | 2 black rhinos from SANP. 50 Niassa wildebeest from Tanzania. | None, beyond existing TFCA programme(s) | Presidential commitment of 2 black rhinos to Botswana (1990). | 2 black rhinos to Liwonde from South Africa (SANP). | None. Delay in Lusaka task force has hindered cross-border law enforcement. | 50 Niassa wildebeest for Malawi (agreed by presidents), postponed 2001 | None. | None |

Summary Table of Results of Detailed Country Reviews

| RANGE STATE | ANGOLA | BOTSWANA | MALAWI | MOZAMBIQUE | NAMIBIA | SOUTH AFRICA | SWAZILAND | TANZANIA | ZAMBIA | ZIMBABWE |
|--|--|---|--|--|---|---|--|--|--|---|
| RHINO POPULATION STATUS AND MONITORING | | | | | | | | | | |
| Rhino numbers (ARRSG 2000) | <i>D.b. minor</i> : extinct (last reports 1989-1990). <i>C.s. simum</i> : <i>C.s. simum</i> : extinct (twice) | <i>D.b. minor</i> : extinct | <i>D.b. minor</i> : 7 (Liwonde NP sanctuary) | <i>D.b. minor</i> : 0? (isolated reports) | <i>D.b. bicornis</i> : 697 Confidential pops | <i>D.b. minor</i> : 1074 <i>D.b. bicornis</i> : 42 | <i>D.b. minor</i> : 10 Confidential pops | <i>D.b. minor</i> : 15 (min. estimate Selous GR) | <i>D.b. minor</i> : 0? (isolated report of 1 rhino in 2000) <i>C.s. simum</i> : 5 (not indigenous?) | <i>D.b. minor</i> : 434 <i>C.s. simum</i> : 208 |
| Monitoring and reporting | No official information on rhinos on Angola since independence, although survey indicated 30 black rhinos in Iona NP in 1971 | Adequate in fenced areas, using individual ID. Sporadic reports of outliers (white rhinos) in Moremi GR and Nata area (presumed to be temporary migrants from Zimbabwe) | Liwonde sanctuary: Individual ID, daily patrols by 2 armed scouts and fence staff. Patrol reports compiled. Initial problems with surrounding communities and fence destruction. | Little or no rhino monitoring activities. Isolated reports of rhinos from villagers, hunters and/or scouts. However, some recent arrests of poachers made and horns recovered (Coutada 16) | Adequate for conservative metapopulation management: Individual ID, Waterhole surveys, ear-notching, radio-telemetry. Databases (National and Kunene) and status reporting, also to RMG | Adequate. Aerial surveys, individual ID, ear-notching. Routine status reporting to RMG. | Adequate. Individual ID, black rhinos sighted every 2-3 days. No written status reports produced by BGP. | Ground surveys and patrols with some individual ID. Selous GR Kidal area: patrols and occasional sightings. Lukuliro: surveys including dung DNA (1997-98), with only one sighting made. | Individual ID, white rhinos at Mosi-oa-Tunya confined in the 11 km ² fenced area, and monitored daily. | Adequate for conservative metapopulation management, though inadequate monitoring of IPZs in recent years. Individual ID, ear-notching, semi-intensive monitoring, radio-collaring, spoor recording |
| Requirements for surveys and monitoring | No recent reports of any rhinos in Angola to provide the basis for any survey. | Inadequate monitoring capacity within DWNP areas, including outliers. Ear-notching now required in Khama RS. | No requirements for surveys. Possible need for improved rhino monitoring and specific training. | Surveys and monitoring required in all areas with plausible reports of rhinos. Initial confirmed evidence of rhinos required. | Better information needed on black rhino populations in Etosha NP and Kunene. Limiting factor of suitable areas for new populations. | No population surveys required. Assistance requested for review of rhino CC estimates and browser stocking levels | Urgent need for improved surveys and monitoring, including specialised tracking, patrol effort, spoor ID, dung DNA ID. | Ground surveys for black rhinos in 2-3 remote areas. Need to investigate lack of breeding in Mosi-oa-Tunya white rhinos. | Routine and systematic approach to monitoring and status reporting. Ear-notching. | |
| MANPOWER AND RESOURCES FOR RHINO CONSERVATION | | | | | | | | | | |
| Scout density | No information available. | Fenced areas: 1 per 2-7 km ² . Chobe/Moremi: 1 per 250 km ² | Liwonde NP: 1 per 20 km ² | PA's: 1 per 22-400 km ² . Coutada 16: 1 per 1000 km ² | Confidential. | NWPTB mean: 1 per 19.6 km ² KZNV mean: 1 per 8.8 km ² | BGP: 1 per 5-14 km ² | Selous GR (50,240 km ²): 1 per 170 km ² | ZAWA (Mosi-oa-Tunya): 1 per 2.75 km ² for the 11 km ² fenced area, 1 per 8.25 km ² for the NP | DNPWLM (indicative): 1 per 100 km ² . Lowveld conservancies: 1 per 25 km ² |
| Vehicle density | No information available. | Information not available. | No vehicles attached to sanctuary. | No information available. | Confidential. | NWPTB mean: 1 per 240 km ² KZNV mean: 1 per 73 km ² | BGP: 1 per 5-30 km ² (including tourist patrol vehicles) | 3-7 for each of 7 sectors in Selous GR | Mosi-oa-Tunya: 1 4WD vehicle for the 11 km ² fenced area. | DNPWLM (indicative): 1 per 500 km ² |
| Operating budget (US\$) | No information available. | Private fenced areas: \$1,163-4,400 per km ² . DWNP areas: unknown | Liwonde sanctuary (38 km ²): \$16 per km ² | No information available. | Etosha NP: \$11 per km ² | NWPTB mean: \$238 per km ² KZNV mean: \$232 per km ² | Information not available. | Selous GR (50,240 km ²): \$30 per km ² | Information not available from ZAWA. | Lowveld conservancies (incremental cost of rhinos): \$31-57 per km ² |
| Salaries (\$ p.a.) | | | | | | | | | | |
| Warden | N/A | N/A | \$578 – \$698 | N/A | N/A | \$15,963 | Confidential | \$1,355 | ZAWA (pending) | \$5,412 |
| Ranger | N/A | \$3,739 – \$4,498 | \$340 – \$574 | N/A | \$2,903 – \$3,903 | \$6,665 | Confidential | \$979 | \$2,727 | \$3,528 – \$3,996 |
| Scout | N/A | \$3,120 – \$3,710 | \$225 – \$299 | \$540 – \$600 | \$1,720 – \$2,473 | \$5,655 | Confidential | \$828 | \$1,636 | \$1,056 – \$1,176 |

Summary Table of Results of Detailed Country Reviews

| RANGE STATE | ANGOLA | BOTSWANA | MALAWI | MOZAMBIQUE | NAMIBIA | SOUTH AFRICA | SWAZILAND | TANZANIA | ZAMBIA | ZIMBABWE |
|--|--|--|---|---|--|--|--|---|--|--|
| Expertise | Presumed to be limited, although translocation of elephants to Quicqama NP must implies capacity for protection and monitoring | Very limited or inadequate (rhino monitoring, veterinary). Private vet/capture, and ecological evaluation expertise available. | Limited. Liwonde Rhino protection unit trained in rhino tracking at Kruger NP in RSA. No capture expertise. Ecological evaluations and monitoring by Wildlife Res Unit. | Inadequate. Several qualified vets, but limited or no experience with rhinos. Some DNFEB staff have trained in wildlife management at SAWC and Mweka. | Adequate and extensive in all areas. vet/capture, monitoring, ecological evaluations), available within MET, although monitoring may need outsiders. | Adequate and extensive. NWP/PTB: rhino monitoring, ecological evaluations in house. Vets and rhino capture contracted. | BGP uses rhino vets and capture units from RSA. All eight appointed game rangers are able to handle drugs. Assistance with ecological evaluations requested. | Limited (tracking) through Rhino Co-ordinator. TANAPPA vet has some rhino experience, but external vet input required. Also for ecological evaluations. | Limited or non-existent. There are posts for two vets in the new ZAWA structure, and 1 appointed. Research division has ecologists for monitoring | Adequate (tracking, veterinary, capture, ecological monitoring) |
| Equipment | No information available. | Adequate aircraft in DVNP, but inadequate or unserviceable capture vehicles or equipment. Good bomas at Khama RS | None in DNPW. All capture and translocation equipment supplied by SANP and donors. | None. | Adequate, fully including MET equipped capture unit, with fixed-wing and helicopter support. Bomas in all areas. | Adequate. NWP/PTB: has bomas, but aircraft & capture equipment contracted | Limited capture vehicles and equipment available. Other resources unknown. | One 4WD Merc truck available for rhino moves. NCAA has two crates. Previous donated rhino truck plus crane: location unclear. | None in ZAWA. | Adequate. Limited DNPWLM vehicles, equipment and aircraft, but available from NGOs and private contract. |
| PARTICIPATION IN RHINO CONSERVATION | | | | | | | | | | |
| Community | None. | Khama RS was set up as community project, with village headmen as trustees, but limited revenue to share. Mokolodi NR works as educational establishment. Otherwise limited or non-existent. | No direct community involvements. Collaborative approach at Liwonde through advisory committee, with community reps. Ultimate intention to release rhinos into park, with cooperation of community a necessity. | Several initiatives (Tchuma Tchatu, Catuane, SGDRN (Niassa Development Society), but none with rhino component. GKG TFCA requires substantial community involvement, and will depend on successful participation. | Long-standing and successful community participation in conservation of Kunene population (communal land), dependent on NGO funding & employment (SRT/IRDNC). Several conservancies in development across range. | NWP: none direct, but active liaison, economic, employment and entrepreneurial opportunities. KZNV: visitors charged community levy paid to traditional authorities. Local boards set up for many rhino reserves. SANP: unknown. | No direct community programmes around parks. Support offered by BGP for a co-operative community conservation programme around Hlane NP, conditional on community commitment of providing cattle. | No formal schemes linked to rhinos, though some informer rewards given. More general community schemes in Selous GR, but one major hostile community of traditional poachers. NCAA has community involvement in management. | No formal community involvement in rhino conservation. The present ADMADDE programme operates outside Protected Areas, and any rhino introduction would likely to be into National Parks. | No rhinos left alive on communal land. Plans for community wildlife stake-holding in the white rhino population at the Save Valley Conservancy. |
| NGOs | Kissama Foundation, devoted to Quicqama NP, could fund introduction of white rhinos to Angola (for the second time) | Khama Rhino Sanctuary Trust, and Mokolodi Nature Foundation, mainly supported by local donors. | The J & B Circle of Friends has supported the Liwonde project from the start, including reconstruction and recurrent costs. Funds mostly raised locally (\$25,000 pa). Also FZS, WWF-US, WSM. | WWF was involved in 1998 rhino surveys in Tete province, currently advising on planning in Niassa GR. USF&W, Tusk Trust, etc have supported SGDRN, including funding law enforcement. | SRT, IRDNC (Kunene), WWF (Etosha), AWF, SRI (Waterberg). Most areas still entirely funded by MET. | Minor donor funding for monitoring and translocation in NWP. WWF provides major support for projects in Kruger NP and KZNV reserves. USF&W RTCF supported numerous projects in RSA | BGP has been supported by numerous local and international donors, including WWF, EU, GDUK Rhino Rescue Trust and many local companies (e.g. Suzi candles that). Donor support is encouraged by BGP. | Sand Rivers Project, with EU funds (\$550,000 over 2 years) through GTZ, also supports Selous GR. WWF support for E sector Selous (\$200,000 p.a.), incl. salaries. SRI supports Sand Rivers project (ranger post). | Save the Rhino Trust (local) is the only NGO directly involved with rhino conservation, although FZS is seeking to support rhinos in N Luangwa NP. International NGOs: NORAD, FZS, WECSZ, CLZ, ECZ | WWF SARPO & Beit Trust (Conservancies, Vet Services), Maltlangwe Trust, SRI, IRF (Vet, Capture & Management), Marwell Trust (captive breeding, re-intro research), Zambezi Society (Matusadona IPZ). |

Summary Table of Results of Detailed Country Reviews

| RANGE STATE | ANGOLA | BOTSWANA | MALAWI | MOZAMBIQUE | NAMIBIA | SOUTH AFRICA | SWAZILAND | TANZANIA | ZAMBIA | ZIMBABWE |
|--|--|---|---|---|--|---|---|---|--|--|
| Private Sector | None. | Botswana's present rhino conservation effort almost entirely on private land; (Khama RS and Mokolodi NR) with only one animal controlled by DWNP (Gaborone GR). Although generally positive, one possible negative aspect is the reduced incentive for the DWNP to manage rhinos. | Private sector involvement very important, including J & B Circle funding. Private sector can also be involved through system of honorary rangers within DNPW. | Grupo Madal is one of the constituents of SGDRN, and is obliged to contribute minimum annual funding to Nlassa GR, which may still contain some black rhinos. Development of Mapulangwere may involve substantial private sector involvement in tourism, with future plans for stocking black and white rhinos. | Innovative and successful custodianship scheme for black rhinos on private land areas, which are evaluated for habitat, security & management. Approved properties sign MOU with MET, backed by comprehensive info & guidance. Founder groups of 3m:3f. Rhino numbers have doubled since 1993. | Very extensive private ownership of white rhinos, with total numbers now difficult to determine. Black rhinos also privately owned, sold groups of 6 by KZNW hitherto. Excepting Kruger NP, additional land area for rhino conservation dependent on incentives to private owners. Minor support from lodges and volunteers for rhinos in NWP/TB. | BGP is privately run, and the main park is privately owned and managed. Most of BGP's operating expenses are covered by profits from cattle herd operations and tourism. Some land included in Hlane NP has been acquired through land swaps, with additional revenue derived from a sugar company now able to traverse swapped land. | No involvement. All <i>D.b. minor</i> in Selous GR. No private game ranches. | Involvement only in the form of honorary rangers. No other information available. | 70% of black rhino held on private land in successful custodianship scheme: a catalyst for change of land use from cattle to wildlife. Threats from political and ownership issues. |
| LEGISLATION FOR RHINO CONSERVATION | | | | | | | | | | |
| Protected status of rhinos | Rhino are listed as protected species under the <i>Regulamento de Caça</i> (1955). | Rhinos (any colour) are listed as protected game animals (Wildlife Conservation and National Parks Act 1992, 6 th schedule) | Legislation is National Parks and Wildlife (No 11 of 1992). Rhinos are listed annually as protected species, e.g. the NP&W Protected Species Order of 1994 | Rhinos are listed as protected species under still-used 1955 legislation. <i>Caça</i> Legislação, with list updated in Modalidades de <i>Caça</i> 1978. New legislation in preparation. | Rhinos (both colours) are designated 'specially protected game' under Nature Conservation Ordinance No 4 of 1975. | Provincial legislation, to be superseded by national Endangered Species Act. NWP: offences for black and white rhinos carry different penalties | Black and White rhinos are 'specially protected game', under the Game (Amendment) Act of 1991 (1 st schedule) and Game (Amendment) Order 12 of 1993. | Black rhinos are protected as National Game under the Wildlife Conservation Act 1974, National Game Order (274) of 1974, and Economic & Organised Crime Act (13) of 1984 | Rhinos are specified as protected animals under the Wildlife Act (No 12) of 1998. There is also a Policy for NPs and Wildlife in Zambia (1998) | Black and White rhinos are 'specially protected species' under the Parks and Wildlife Act of 1975 (Chapter 20:14) amended 1990. Statutory instrument 362 of 1990 |
| Penalties: poaching of rhinos, and illegal possession of rhino horn | No information available. | Fine of \$20,000 and 15 years imprisonment. These penalties are also prescribed for failing to hand in horns, or failing to report circumstances of a rhino killing. | Illegal killing of rhinos, or trade in or illegal export or import of rhino horn: 5 years imprisonment and fine of MK10,000 (\$125). These penalties under new policy likely to be increased to 10 years imprisonment and fine of MK 50,000 (\$625) | Disturbing wildlife is an infraction: \$120-6,000 fine, but increased by factor of 10 if it involves species threatened with extinction (max fine of \$60,000). Crime & Imprisonment only specified if failure to pay. No provision for rhino trafficking offences. | Fine of R1,150-2,500 (\$148-320) or 2-6 years imprisonment specified for hunting without permit (1975). Fine of R200,000 (\$25,650) and/or 20 years for possession, utilisation, export, import, trade or transportation in rhino horn (1990 amendment). | NWP: White rhino: \$6,400 fine or 5 years imprisonment. Black rhino: \$12,800 fine or 10 years. Subsequent convictions: no option of fine. NP Act: white and black rhino offences are not separated. \$3,800-\$12,800 fine or minimum of 3 yrs. | 5-15 years imprisonment, without option of fine, specified for hunting rhinos without a permit. 7-17 years imprisonment, without option of fine, for trafficking. Offender also required to pay replacement value of rhino, falling within 2-6 further yrs imprisonment. | Poaching: 10-30 years imprisonment, or fine of 10 times the sport-hunting value of the rhino. The Wildlife Conservation (Dealing in Trophies) Regs 1974 specify penalties for illegal trading in CITES animals, including rhinos. | Poaching: 5-20 years imprisonment, no option of fine (1 st offence); 7-25 years, no option of fine (2 nd offence) | Mandatory sentences of 5-15 years imprisonment (1 st conviction) and 7-15 years (2 nd conviction); and/or maximum fine of Z\$15,000 (with devaluation of Z\$, fine currently US\$283, compared with US\$5,700 in 1990) |

Summary Table of Results of Detailed Country Reviews

| RANGE STATE | ANGOLA | BOTSWANA | MALAWI | MOZAMBIQUE | NAMIBIA | SOUTH AFRICA | SWAZILAND | TANZANIA | ZAMBIA | ZIMBABWE |
|---------------------------------|--------------------------------------|--|--|--|---|--|--|--|---|--|
| Safari Hunting of rhinos | Safari hunting suspended since 1976. | All hunting or capture prohibited, except if permit is issued by the Director of Wildlife 'in the interests of conservation' | Hunting of protected species, including rhinos, prohibited. | Hunting of rhinos is prohibited by the 1965 hunting law. | Safari hunting of white rhinos is regulated under 1975 legislation. White rhinos can be hunted and trophies exported to several countries, and non-lethal hunting is also permissible under certain conditions. | NWP: Safari hunting of white rhinos permitted. | Safari hunting of rhinos allowed by special permit. Trophies can be exported and imported with permit. | National Game animals (including black rhinos) are protected and hunting is prohibited, except under President's licence. Special rules apply to the registration and marking of rhino horn. | Safari hunting of rhinos prohibited, except under special licence. | Safari hunting of white rhinos allowed, on issue of permit. Any horns recovered are state trophies, but precedent for issue of permits for possession of horns from owned rhinos. |
| Live Sales of rhinos | No information available. | No possession or keeping of rhinos permitted without a permit from the Director of Wildlife. White rhinos have been purchased by from South Africa by Mokolodi NR and Tholo Ranch. | Trade in protected species except where animal is lawfully acquired under licence by a person in possession of valid certificate of ownership. | Live sales of rhinos presumed to be permitted under conditions of ownership, where rhinos would have to be re-introduced to a game farm or concession area. | Live sales of white rhinos are permitted. Black rhinos belonging to the state can be sold to private individuals and exported from Namibia. White rhino prices (du Preez Auctions August 2000): \$21,200 each. | Live sales of black and white rhinos are permitted internally. White rhinos can be sold abroad to approved destinations. White rhino prices (KZNV 2000): \$29,200 each (mean). Black rhino (KZNV 2000): \$54,750 each. | Information not provided. No clause relating to live sales of rhinos in 1990 and 1993 legislation. | Sale of 'government trophy' is illegal, this including CITES animals, and consequently black rhinos. | Certificate of ownership for protected animals may be issued by the Director of Wildlife. Written permission of Director is required for all live sales. Trade and movement are regulated by the Minister of Tourism. | Live sales of white rhinos are allowed, on issue of permit. Imports of white rhinos to Zimbabwe have all been through private purchase. In 1992, Black rhinos were banded for a helicopter and running costs with USA and Australian zoos. |
| Custodianship | No information available. | White rhinos recovered from Moremi/Chobe in 1994-96 are held in Khama RS under a clear custodianship arrangement (by MOU between KRS and GoB). Rights of ownership of offspring of GoB rhinos and those purchased and imported from outside (e.g. KRS) are not entirely clear. | No provision for custodianship of rhinos, or any wildlife species under legislation. | No provision for custodianship of rhinos under legislation. No provision for rhinos or large mammals as flagship species under Biodiversity Strategy and Action Plan (1987). | Framework document for private sector involvement details Namibia's custodianship scheme, with MOU signed between land owner and MET. | No information available. | Effectively, BGP are managing Swaziland's rhino on behalf of the King and Government, by Royal Warrant. The King may gazette areas for protection of game, including rhinos. | No provision for custodianship on the existing legislation. | No provision for custodianship of rhinos under legislation, although the Wildlife Policy 1998 (section 2.7.1) provide for establishment of licensed game ranches, and a contract agreement with ZAWA for such establishment(s). | Black rhinos allocated to private landowners under custodianship scheme, although inconsistency exists between landowners over issue of permits. |

Summary Table of Results of Detailed Country Reviews

| RANGE STATE | ANGOLA | BOTSWANA | MALAWI | MOZAMBIQUE | NAMIBIA | SOUTH AFRICA | SWAZILAND | TANZANIA | ZAMBIA | ZIMBABWE |
|--|--|---|--|--|--|--|---|--|---|--|
| Ownership | No information available. | Ownership related to the ability of a land owner to confine the animal (as Zimbabwe), Rights of ownership of rhinos purchased from within or outside Botswana not clear in legislation. No provision for community ownership. | Ownership of all wild animals, existing in their wild habitat, is vested in the President. Act makes no specific reference to wildlife on private land or private ownership. | Game can be privately owned, if re-introduced to game farm or concession area (1999 framework law). Otherwise all game is owned by the Government of Mozambique. | Ownership of white rhinos within Namibia provided for in legislation, although black rhinos can only be sold for export. | Black and white rhinos can be privately owned. | Information not provided. No clause relating to ownership of rhinos in 1990 and 1993 legislation. | Possession of 'government trophy' is illegal, this including CITES animals, and consequently rhinos. | Ownership of wildlife is vested with the President. However, ownership is provided for those licensed for legal capture. A landowner has rights of use of animals in his land. Provision for ownership of rhinos needs to be clarified in policy document | Rhinos can be owned by private individuals who are appropriately licensed, but demonstrated control of the animal on his/her land required. No expectation of ownership of black rhinos under custodianship. |
| TRADE AND IMPORT/EXPORT IN RHINOS | | | | | | | | | | |
| CITES authority | <i>Instituto de Desenvolvimento Florestal (IDF)</i> | Department of Wildlife and National Parks | Director of National Parks and Wildlife | <i>Directorio Nacional de Florestas e Fauna Bravia</i> | Ministry of Environment and Tourism | National CITES authority in Gauteng | The Kingdom of Swaziland's Big Game Parks | The Tanzania Wildlife Division | Zambia Wildlife Authority | Department of National Parks and Wildlife Management |
| Licences required | No information available. | CITES import and export permits. Veterinary authority also required for import, also permit to capture in Botswana. Receiving properties are approved by DWNP | Import and Export licences from CITES authority. Vet requirements: certification from exporting country (e.g. RSA), not from an area with FMD or Anthrax. quarantine for 21 days, inspection | Import and Export licences from CITES authority, all through National Director. Licences also required from the National Directorate of Animal Production (Vet Services) | Import and Export licences from CITES authority. MET. Permit required from Veterinary services. | Import and Export licences from CITES authority. Veterinary licensing requirements not known. | Import and Export licences from CITES authority. No other information available. | Import and Export licences from CITES authority. Certificate of good health from a Veterinary Officer required for export. Veterinary requirements for import are not clear. | Import and Export licences from CITES authority. Veterinary requirements not certain, but quarantine and inspection certainly required. | In addition to CITES permits, an import/export veterinary protocol from wildlife unit, DVS is followed, including removal of parasites. Internal transfers of rhinos require vet movement permit. |
| Past translocations: Exports | None. | None. | None. | None. | Black rhino (<i>D.b. bicornis</i> , 1980-95): 9 (Tswalu, Lisbon Zoo) & >3 (SANP) | Black rhino (1994-1999): 51 White rhino (1994-1999): 206. All <i>C.s. simum</i> worldwide descended from translocated NPB founder stock. | None. | Only recent export has been one <i>D.b. michaelsi</i> to SANP (1997-98) | None. | Black rhino (1964-1992): 54 White rhino (1962-1998): 5? |
| Past translocations: Imports | White rhino (1968): 10 from Natal Parks Board to Quicçama NP (all died). | White rhino (1967-1980): 95 (1989-1999): 19 | Black rhino (1993): 2 (1998): 2, from Kruger NP to Liwonde NP. | White rhino (1969): 83. 71 to Maputo GR. 12 to Gorongosa (all died). | White rhino, include (1995): 10 to Etosha NP from Kruger NP | Black rhino (1994-1999): 18 White rhino (1994-1999): 2 | Black rhino (1987-1999): 12 (6 from Zimbabwe, 6 from KZNW/RSA) | Only imports have been of <i>D.b. michaelsi</i> from SANP (6 in 1997-98) | White rhino (1960s): 5 to Mosi-oa-Tunya (all died) White rhino (1994): 6 | Black rhino (1962-1998): 28 White rhino (1962-1998): 169 |

Summary Table of Results of Detailed Country Reviews

| RANGE STATE | ANGOLA | BOTSWANA | MALAWI | MOZAMBIQUE | NAMIBIA | SOUTH AFRICA | SWAZILAND | TANZANIA | ZAMBIA | ZIMBABWE |
|--|-----------------------------------|---|--|--|--|---|--|--|---|---|
| RHINO HORN STOCKS | | | | | | | | | | |
| Stock | Unknown. | 124 horns (ca. 210 kg); October 2000. | No stock of rhino horn. | 1 pair, seized in 2000 (originating from Coutada 16, or Kruger NP) | Unknown quantity, complete register provided to TRAFFIC (2000) | Unknown quantity. | Unknown quantity. | Unknown quantity. | 24 full horns (total 17 kg) and 6 pieces (2.5 kg). | Unknown quantity. |
| Control | No information available. | Horns stored and secured in DMNP strong room/ivory store. Register of all horns maintained; also in spreadsheet table. Horns marked with permanent black marker only. | Horn (would be) stored in main ivory storeroom in Lilongwe, with recording using CITES format. Horns tagged and numbered for identification. | Horn is stored in the Maputo strongroom (believed to be on Floor 16 of Depart of Agriculture). Horn also stored at provincial level. ID codes for horns provided by central government. No information on marking. | Horns controlled and stored in two places (MET strongroom and bank strongroom in Windhoek). All horns marked with permanent marker, but no transponders. MET Policy on control of rhino horn (1999) horn followed. | Horns are auditable item for NWP/PTB and KZNW, NWP. Secured in secret vault, and implanted with microchip transponders. Urgent need to improve controls and recording of horn stockpiles on private land. | Recovered horns all secured and controlled by BGP. No other information available. | Horns recovered by the Wildlife Division are stored in Dar-es-Salaam. Horns are marked with a number, showing district of origin and year of recovery. | Horns held in strongroom at old National Parks HQ at Chilanga. Horns have serial number punched into them, all recorded on register. Records in register do not include source information. | Effective control of horn stock, with guidance of TRAFFIC, using database and field registers. All horns stored in DNP/WLM strongroom. Marked with indelible pen. |
| Horn fingerprinting project involvement | No involvement in the FP project. | No samples provided to project to date. Considerable benefit to SADC region would follow from this provision. | No involvement, as no horn stocks. Samples taken from horns of Liwonde sanctuary offspring could be interest. | No involvement to date, no horn in stock until recently. | Extensive involvement in FP project, with samples supplied from all representative areas, showing valuable results | Many RSA conservation agencies and private reserves have participated. Strong support for methods. | Samples were provided to the FP project, and BGP have been very supportive. More black rhino samples required. | While support had been obtained from past Directors of Wildlife, no samples have been obtained. | No involvement to date. | No cooperation with first phase of FP project, but agreement that horn samples can be provided (October 2000) |

Salient Points and Issues

SOUTH AFRICA

A North West Parks & Tourism Board

The linkage between NWPTB and its counterpart agency in Botswana is an example of the kind of intraregional cooperation that the SADC Rhino Conservation Programme should encourage. This cooperation has led to the donation of eight white rhinos to Botswana, in two batches, but it is important to note that this was not merely a grand political gesture that ignored conservation realities; the donation of the second batch was dependent upon the demonstration of sound conservation measures for the first batch.

Another model for rhino conservation is shown in the way that NWPTB interacts with and depends upon a wide range of stakeholders and external agencies to get rhino conservation needs attended to. There is a tendency for African conservation departments to feel that it is somehow improper to get vital rhino conservation functions undertaken by non-governmental agencies or individuals, but because the departments do not have the resources or the expertise to do all these tasks themselves, they often do not get done at all. NWPTB obviously remains in the driving seat for rhino conservation but has developed a support network involving volunteers, honorary officers, private lodges, private capture units, private veterinarians, etc. The development of a trust fund to sustainably meet the monitoring costs in Pilanesberg is one of the progressive outcomes of this support network. Contracting private operators for certain jobs (including fence maintenance and rhino captures) shows a businesslike approach that is likely to entail far lower costs than if NWPTB tried to do everything in-house.

The concept of an “audit” of wildlife, as is undertaken annually for the wildlife assets that NWPTB is responsible for, is another progressive, businesslike approach that could be followed elsewhere in the region. This approach helps to ensure accountability on the part of the rhino management agency. Such accountability might well include critical assessments of the extent to which the rhino management agency is productively managing rhinos for maximum return (population growth equating to “profitability”), just as the performance of an investments manager is related to the increase in value of the investments portfolio that he manages.

B SANP, KZNNCS AND OTHER SOUTH AFRICAN AREAS

The South African rhino management agencies (provincial and national) have shown how a range of such agencies can find a pragmatic balance between their joint efforts and their individual efforts. On the one hand, some joint effort is required to share expertise and information, and to ensure that national conservation goals are defined, but on the other hand each agency has to have a reasonable degree of freedom for decentralized decision-making and field action. Through the SADC Rhino Conservation Programme, it should be possible to reach a similar balance at the regional level.

There appears to be a need to rationalize some of the terminology. In the South African context, the term “conservation plan” appears to apply to an outline of rhino management goals, principles and policies. It could be argued that this type of framework should be termed a “strategy”, while a plan (or “action plan”) operates at a subsidiary level to specify required rhino conservation activities with timings, responsibilities, allocation of resources, etc. This may seem like semantics, but it may well be worth clarifying terminology within the SADC Rhino Conservation Programme.

The Rhino and Elephant Security Group (RESG) has apparently lapsed into an inactive state and the South African range state review has highlighted calls for funding from the SADC Rhino Programme to help resuscitate the RESG. The SADC Rhino Programme was designed to avoid overlap with RESG and the issue of funding support should only be considered following a thorough review of the role and achievements of RESG to date, along with the clear specification of its potential ongoing role and a justification as to how this fits the funding parameters of the SADC Rhino Conservation Programme. South Africa provides major lessons for the region regarding the positive role of the private sector in rhino conservation, and regarding the development of market values for rhinos leading to the generation of significant conservation funding and incentives for wildlife production as an economically viable land-use.

ZIMBABWE

A negative lesson from the Zimbabwean experience, of relevance to regional rhino conservation efforts, is that a rhino strategy is unworkable without political commitment. Although a national strategy was developed in 1997 with international expertise and local stakeholder contributions, this strategy was “left on the shelf” for several years and it is only recently, following administrative changes within the Department of National Parks and Wildlife Management, that rhino action planning is being taken seriously.

The concept of rhino “custodianship” was first established in Zimbabwe in 1986 and has since become a significant element of the Namibian rhino conservation strategy. This concept may well have applicability elsewhere in the region. A significant outcome of the Zimbabwean experience is that when allocating rhinos under the custodianship scheme, these animals (and some of the donor support that was available for this scheme) were used as leverage to get landowners to amalgamate their properties into conservancies. This has created extensive rhino conservation areas within which rapid population growth has been possible without overstocking problems or inbreeding problems. The rhinos became the flagship species or catalysts to these conservancies that have created major opportunity for the conservation of other wildlife species.

BOTSWANA

The Botswana situation parallels the Zimbabwean one in that the paperwork for rhino policy has been done but implementation has lapsed. Thus, to the extent that the SADC Rhino Conservation Programme funds the provision of expertise for strategy development in SADC range states, there must be some assurance that words will be translated into action in these countries. Perhaps the way to do this is to ensure that the strategy specifies an ongoing action planning process to set management targets that are measurable and which are subject to periodic review. The issue of what numbers of rhinos, and of what species, might be straying from Zimbabwe into Botswana appears to be an issue that might be investigated within the SADC Rhino Programme.

The Khama Rhino Sanctuary appears to be regarded as a “stepping stone” for the re-establishment of rhinos in the more extensive reserves. This concept of breeding rhinos, and gaining the necessary management experience, within a smaller area before embarking on more ambitious rhino restocking programmes is likely to be applicable in other range states such as Zambia and Mozambique, but the social and ecological problems associated with rhino management in small areas will also need to be taken into account.

NAMIBIA

Given that South Africa unavoidably has a complicated multi-agency administrative framework for rhino conservation, the smaller and well-integrated framework in Namibia is a more appropriate model for the rest of SADC. The concept of barter trading of rhinos for other valuable wildlife species is a pragmatic approach by the Namibian authorities and may well be relevant in other SADC situations. A model for the sharing of the work required for successful rhino conservation is demonstrated by the productive relationship between the Namibian authorities and the Save the Rhino Trust, since the latter has been entrusted with the bulk of the rhino monitoring work in the Kunene Region. The community component of this work is the region’s most advanced community initiative concerning rhinos.

Namibia has streamlined rhino custodianship on private land and provides more back-up for this scheme, in terms of professional involvement, than Zimbabwe (which first developed this concept) but does not appear to have used the scheme as a catalyst to the formation of extensive rhino conservancies at the outset of this scheme. The fact that small founder groups have been allocated to fairly small properties may become problematic in view of the needs for a high level of ongoing management to prevent overstocking and inbreeding, in a situation when government conservation funding is declining in real terms.

SWAZILAND

The rather confusing situation regarding which agency has the authority to represent Swaziland on rhino issues shows how important it is for SADC rhino range states to streamline their interactions with the SADC Rhino Conservation Programme by clearly identifying their focal points for this programme. Swaziland shows an interesting fusion of private sector interests with state conservation interests. Such arrangements can be very constructive (as appears to be the case in Swaziland) but sometimes the “tail wags the dog”, unless the policy and practice of rhino conservation is very clearly specified in a strategy to avoid vested interests from distorting rhino conservation priorities at a local or even at a national level. Other SADC states that need to re-establish their rhino populations through rhino importations may well be enticed by private sector or NGO-sponsored deals to bring in rhinos, but need to be careful not to set uncomfortable precedents or put the rhinos in sub-optimum areas. The “rules of the game” need to be thought out and made clear **before** such situations arise.

ZAMBIA

The fragile situation with the white rhinos at Livingstone will hopefully improve rather than ending in extinction as was the case with the previous introduction of rhinos to Zambia, but this situation clearly shows the need for concerted and professional follow-up action, over a long period of time, to ensure the success of such introductions. The expertise and capacity realised within ZAWA in this situation could then be put to good use in any future re-introduction of black rhinos to Zambia.

MOZAMBIQUE

For the re-establishment of rhinos in Mozambique, it appears that the most promising route would be to incorporate such an initiative within a Transfrontier Conservation Area initiative (notably the Coutada 16 – Kruger NP linkage). This will be a slow process but would be likely to be more successful in the long run than any attempt to set up an “island” of introduced rhinos elsewhere in the country (particularly where remnant animals might be secured and reinforced with introduced rhinos). Similar considerations are likely to apply to Angola.

TANZANIA

The situation in Selous Game Reserve presents a particular challenge for rhino conservation. The surviving rhinos have escaped poachers primarily because of factors of natural protection (remoteness and dense vegetation). The challenge is to introduce rhino conservation measures in a way that does not strip away these protective factors. Any effort to set up a sanctuary, for instance, would have to be sustainably funded and effectively managed in order not to merely create a defined zone within which poachers could more easily find their prey. Thus, as rhino conservation plans are elaborated for this reserve, they will probably constitute a new model for rhino protection that may be applicable for any other remnant groups of rhinos that may be identified in Mozambique, Angola, Botswana or Angola.

MALAWI

The Liwonde project is a “living example” of a rhino re-introduction project that is being achieved through co-operation between SADC range states and as such warrants consideration within the SADC Rhino Programme to extract lessons for similar projects that might be undertaken in Zambia, Mozambique, etc. One such lesson seems to be that considerable preparatory work is required with neighbouring communities in order to ensure that the local socio-political climate is conducive.

ANGOLA

Due to the difficult situation prevailing in the country, and the lack of rhinos and the resources and expertise to conserve them, clearly any assistance from other range states in the region and from the SADC programme could be useful. The main question is where and how to start. Certainly better communications with all parties in Angola who might have a stake or involvement in enabling rhino conservation in the future are needed as a first step.