# AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

#### Other Proposals

# A. PROPOSAL

Transfer of the South African population of *Ceratotherium simum simum* from Appendix I to Appendix II.

#### B. PROPONENT

South Africa.

# C. SUPPORTING STATEMENT

# 1. Taxonomy

11. <u>Class</u>:

Mammalia

12. Order:

Perissodactyla

13. Family:

Rhinocerotidae

14. Species:

Ceratotherium simum simum

15. Common Names:

English:

Southern white or square-lipped rhinoceros

French:

Rhinocéros blanc du Sud

Spanish:

Rinoceronte blanco

# 16. Code Numbers:

#### Background

The white rhinoceros was included in Appendix I during the first meeting of the Parties in 1976. As such, transfer from Appendix I to II can be proposed without application of the Berne Criteria for Transfer (Resolution Conf. 2.23) which requires new evidence to transcend that used for Appendix I listing.

This motivation therefore does not refer to the original motivation for listing, but carefully reviews the status of the species and presents evidence which leads to the conclusion that:

- i. the species would not be eligible for retention in Appendix I under the additional criteria adopted at that meeting (Resolution Conf. 1.1) and therefore should be be transferred to Appendix II; and
- the additional criteria adopted by the Parties in Resolution Conf. 5.21 (Buenos Aires, 1985) for transfer from Appendix I to II are met.

Article II of the Convention sets forth the following among its fundamental principles:

i) Appendix I shall include all species threatened with extinction which are, or may be affected by trade. To qualify for inclusion, a species must be currently threatened with extinction.

- ii) Appendix II shall include:
  - all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilisation incompatible with their survival; and
  - other species which must be subject to regulation in order that trade in specimens of certain species referred to in the above sub-paragraph may be brought under effective control.

# 3. Conservation Status and Trends

To qualify for Appendix-I listing a species must be currently threatened with extinction. The information presented below demonstrates that this is not the case.

31. <u>Distribution</u>: The southern white rhinoceros was formerly widespread throughout southern Africa, but by the early 1900's only the small population in the Umfolozi area of Zululand remained.

Numbers increased rapidly under protection, so that by 1961 there were sufficient numbers to translocate to new areas (see Population Size and Trend). In this way, the white rhinoceros has been re-established in more than 20 conservation areas and on numerous private properties throughout its former range in South Africa, as well as elsewhere in Africa and in zoos and other institutions throughout the world.

32. <u>Population Size and Trend</u>: The only southern white rhinos left in Africa in 1900 were small relict populations in Zululand, Natal, and on the Southern Rhodesian - Mozambique border. The latter died out, leaving the 10 or so survivors afforded protection in the Umfolozi Game Reserve in South Africa.

Under protection, numbers increased to about 20 by 1920, 200 by 1933 and close to 1000 by 1961 (Owen-Smith 1973) when translocations to other areas began. The South African population grew to 3800 by 1984 and stands at 5300 today (ARSG 1993) distributed between State-controlled conservation areas and private land. The largest populations are in the Hluhluwe-Umfolozi Park (2000) and the Kruger National Park (1600).

Large numbers have been relocated to zoos and safari parks throughout the world, and to other countries in the region. The population in the wild outside South Africa was estimated at 400 in 1987 (AERSG 1987) and since then has increased to 490.

The northern sub-species *Ceratotherium simum cottoni* is represented in the wild by 31 individuals in Garamba National Park, Zaire.

- 33. Conservation Status: The southern white rhinoceros is not currently listed in any of the threatened categories within either the IUCN or South African Red Data Book. Formerly the species had been granted Class A protection by the IUCN, but this was withdrawn in 1965 due to the upward population trend and effective management. Numbers have increased five-fold and the range has expanded significantly in the 25 years since then.
- 34. <u>Habitat</u>: Very substantial tracts of land in South Africa under game management, within both the public and private sectors, are available for white rhinoceros populations, so their expansion is not limited by land availability. Habitat destruction is, therefore, not a relevant considera: :n.

# 4. Exploitation

The additional criteria for transfer from Appendix I to II (Resolution Conf. 5.21) require positive evidence that:

- a) the animal can withstand the exploitation resulting from the removal of protection (protection in this context refers to that afforded by the voluntary trade bans entered into by signatories to CITES), and
- b) transfer will not lead to reduction in controls in other species.

It is relevant to record here that one of the three main objectives of the World Conservation Strategy is "to ensure the sustainable utilisation of species and ecosystems".

42. <u>Illegal Trade</u>: As signatories to CITES, South Africa has applied the ban on trade in rhinoceros products on the assumption that the demand for such products would disappear and poaching would cease.

The penalty for poaching of, or illegal trade in, the white rhinoceros was raised within South African regions to R100,000 or 10 years imprisonment in early 1991, which confers the same legal protection as on the black rhinoceros. Similar legislation is in force throughout the rest of the sub-continent.

While poaching has been effectively controlled in South Africa through appropriate antipoaching and other security programmes, and the rhinoceros populations (both black and white) have continued to flourish, this is not the case elsewhere. On the African and global scales, poaching activities and illegal trade have continued on a large scale. On the African continent, this has resulted in black rhino numbers falling from 65,000 in 1970 to about 2500 today, and the small numbers of white rhinos north of the Limpopo River have also suffered heavily from poaching.

The strategy of banning all international trade in rhinoceros products has therefore failed to provide any significant protection to rhinoceros populations in the wild and should be discarded as a viable conservation measure. The conclusion drawn is that the removal of CITES protection will not result in an increased level of undesirable or illegal exploitation of the southern white rhinoceros, in fact the reverse is expected (see Conservation Benefits of Trade). This statement also applies to the small population of the northern white rhinoceros in Garamba National Park, which is expanding as a result of sound management and in spite of existing poaching pressures, and the black rhinoceros populations throughout Africa which would still be subject to Appendix-I restrictions.

43. <u>Current Legal Exploitation</u>: South Africa has adhered to the provisions of the Convention and accordingly trade in rhinoceroses and their products has been subject to particularly strict regulation and can be authorized only in exceptional circumstances.

Privatisation schemes for rhino are supported by annual rhino auctions. Since 1989 the Natal Parks Board has auctioned 126 white rhino, achieving average prices of between USD 4,500 and USD 18,700 per animal.

Trophy hunting under permits issued by conservation authorities has been undertaken both on private properties since the early 1970's and on State land, e.g. Pilanesberg National Park, Bophuthatswana, and the Mkuzi Controlled Hunting Area in Natal. An all-inclusive rhino hunt in 1992 was valued at a minimum of USD 22,000.

Darting safaris. Hunters have paid USD 7,000 to dart selected rhinos for the fitting of radio-tracking devices: the horn not being removed.

Utilization, whether through trophy hunting or game viewing, confers a real value on the resources and, when properly controlled, actively encourages conservation (t'Sas-Rolfes 1990). A survey by Buys (1988) indicated that the majority of the populations on private land in South Africa, which currently comprise about 670 white rhinos, were subjected to some form of legal utilization.

- 44. <u>Potential Controlled Utilization</u>: In addition to the above, the potential controlled utilization of the white rhinoceros could include:
  - Darting safaris. These could be incorporated into routine dehorning exercises or translocation programmes. The Natal Parks Board will be offering hunts associated with the latter during 1993 94.
  - Products from natural mortalities. Horn, skin, toenails and a variety of other products would become available.
  - Slaughter for products. This would be controlled through licences or permits issued by nature conservation authorities, and as such, would be strictly controlled to avoid abuse. Seriously injured, sick or post-reproductive animals would be involved. Although of limited application, a wide range of rhino products would result.
  - Ranching for horn. This would involve periodic capture and removal of excess horn growth. Such management would render the animals far less attractive to poachers, and therefore would enhance their conservation.

By far the majority of products would be derived from live animals or natural mortalities, and therefore would not adversely affect the growth of populations.

The collection and sale of rhino products from such programmes would provide the incentives to the private landowner to increase his rhino holdings and improve security, i.e. to protect his resources once the value to the owner (rather than the illegal operator) increases.

- 45. The Existing Illegal Commercial Trade: The market is fairly evenly split between North Yemen, where handles for ceremonial daggers are furnished from horn, and countries in eastern Asia which incorporate a variety of rhino products in traditional Chinese medicines. This market was estimated at about 2.5 tons in the early 1980's but has declined markedly in recent years. Rhino products are also used as muti (traditional medicine) in Africa.
- 46. The Potential Commercial Trade: Any potential trade would have to be effectively regulated to ensure that horn or other rhinoceros products from unapproved sources could not be laundered through the legal trade. This could certainly be effected through a strictly controlled quota and marketing system as described below.
  - 461. <u>Quotas</u>: Annual quotas based on the sizes of the populations being exploited would be submitted for CITES approval.

Quotas would be extremely conservative and could easily be met through current stockpiles (horns) or the recovery of a proportion of the products from natural mortalities which would be estimated as at least 175 p.a. (ecological longevity 30 years on population of 5300). Also, the expected increase in any one year, over and above natural mortalities, amounts to an additional 250 rhinos (calculated as 50% of the maximum rate of increase of 9.5% p.a. recorded by Owen-Smith (1973) in Umfolozi Game Reserve, Natal).

462. Marketing System: The rhinoceros products could be processed in South Africa to produce traditional medicines and/or dagger handles, sold to approved buyers and the consignments sealed and sent overseas in bondage. Production would be limited to the approved quota levels, while regular testing of samples would ensure that products from other species (e.g. black rhinoceros) or unapproved areas (based on isotopic analysis) were detected. The precise marketing technique would depend on between-State agreements.

Recent research to determine the geographic origin of rhino horn and to differentiate between African species using isotopic analysis has produced good results; and further work is underway using the nuclear technique of Neutron Activation Analysis, which allows the simultaneous determination of a number of trace elements in small samples.

The control and marketing aspects would be handled by the Natal Parks Board, an approved CITES Management Authority, at a control facility on behalf of all suppliers of the rhinoceros products. A large pharmaceutical company has already indicated a willingness to beneficiate the product for marketing overseas, should this prove agreeable to the market.

47. Conservation benefits of trade: Revenue accrued from the sale of rhinoceros products will be available to maintain or improve the conservation management programmes on which the various rhinoceros species depend. Detailed research and monitoring programmes are required to ensure sustained population growth (Brooks 1989), but currently the most critical aspect is the security of populations. Law enforcement, including anti-poaching and intelligence activities, is extremely expensive; and is unlikely, on its own, to succeed in the long term without the whole-hearted support of the local communities.

Funds from the sale of rhinoceros products are desperately needed to support South Africa's conservation efforts. For example:

The cost of setting up the infrastructure to secure a rhino population in a medium-sized reserve of 600 km<sup>2</sup> is estimated (in 1993) at USD 2.2 million, while annual running costs approximate USS 643,000 per year.

The Natal Parks Board has already undertaken to use the funds obtained from selling rhinoceros products for three purposes only, namely for investment in a Conservation Trust to finance priority conservation projects, a rhino security trust and for neighbourhood programmes. The latter involves identifying the development needs of the underprivileged communities surrounding game reserves; and to provide material support following discussion and agreement with local leaders. Such benefits will encourage the local people to support wildlife conservation and the protection of rhinoceros populations in particular, and this support is considered critical to the long-term survival of the species in the region.

Legalised trade will have additional benefits for rhinoceros conservation. It is well established that the legalisation of trade results in improved intelligence, as the legal entrepeneur informs on black market activities, and that a dependable supply of products depresses black market prices. In addition, private land-owners will be encouraged to invest in rhinoceros populations and protect them as utilizable, economic assets.

South Africa is deeply concerned about the implications of leaving rhinoceros products to rot on the ground or in storage vaults, when legal utilization could help prevent the continued slaughter of this magnificent animal and its close relatives in other parts of its range.

# 5. Controls on Similar Species

That transfer of the southern white rhinoceros from Appendix I to II will not lead to reduction in controls in other species (Resolution Conf. 5.21) is justified as follows:

- the trade ban has not afforded protection to wild populations (see Illegal Trade) of either the white or black rhinoceros;
- the controlled marketing and processing in situ based on authorised supplies would prevent laundering of illegal products. Testing of samples for species and area will provide additional safeguards (see Potential Commercial Trade).

# 7. Summary

This document indicates that the transfer of the southern white rhinoceros *Ceratotherium simum simum* from Appendix I to II is justified in terms of all the relevant criteria laid down by CITES, namely:

- \* Species is not threatened with extinction and therefore does not qualify for Appendix I (Res. Conf. 1.1). The southern white rhinoceros is not listed in the IUCN Red Data Book, and numbers have increased consistently since being delisted in 1965.
- \* Species can withstand exploitation for trade (Res. Conf. 5.21). Exploitation will be largely non-consumptive in that most of the products will be available from live animals (horn) or natural mortalities. Species has been subject to trophy hunting in South Africa for almost two decades with no deleterious effects.
- \* Quota system would not endanger wild population (Res. Conf. 5.21). Quota would be based on accurate information on population sizes and trends, and would be set so as not to allow overall population decline.
- \* Exporting State can effectively regulate trade and this would not lead to reduced CITES controls on other species (Res. Conf. 5.21). Handling and manufacture in South Africa could be strictly controlled by the Natal Parks Board through a single outlet to ensure that only products from approved sources are used.
- \* State has met reporting requirements to date, and trade data will continue to be made available. South Africa has met these conditions to date, and will continue to do so.

In addition there is strong evidence that controlled, legal trade in white rhinoceros products will result in significant conservation benefits for the species.

#### 8. Conclusion

It must be emphasized that this submission is based on South Africa's firm belief that the principle of split-listing is valid, that the population of South Africa's white rhino is not endangered (although certainly threatened) and the conservation commitment of South Africa has been more than adequately demonstrated.

It must be further emphasized that South Africa fully supports every effort at the international level to stamp out the illegal trade in rhinoceros products and has pledged its full co-operation with all involved in such actions. At the national level South Africa has made strenuous efforts to stop illegal trade and has been successful in reducing the flow of illegal wildlife products through South Africa.

South Africa further wishes to emphasis that although it believes in and practices extensively and successfully the sustainable utilization of its wildlife resources and will continue to investigate better, more effective and more beneficial methods of doing so, IT HAS NO INTENTION OF MARKETING RHINOCEROS HORN IN ANY SHAPE OR FORM TO EITHER THE DAGGER MARKET OR THE EASTERN MEDICINAL TRADE UNTIL SUCH TIME AS IT IS GENERALLY ACCEPTED THAT THE ILLEGAL TRADE IS UNDER CONTROL AND/OR SOUTH AFRICA IS SATISFIED THAT IT CAN PROVIDE TO A FUTURE CONFERENCE OF THE PARTIES A TRADE SYSTEM THAT WOULD BE AS SECURE AS POSSIBLE AND SUSTAINABLE.

HOWEVER, APPROVAL OF THIS PROPOSAL AT THE 9th MEETING OF THE CONFERENCE OF THE PARTIES WILL ALLOW SOUTH AFRICA TO TRADE INTERNATIONALLY IN PERISHABLE WHITE RHINOCEROS PRODUCTS SUCH AS HIDES.

#### 9. References

- AERSG. 1987. Tabulated population estimates produced at African Elephant and Rhino Specialist Group meeting, Nairobi, 17 20 May 1987.
- ARSG. 1993. Proceedings of the meeting of the African Rhino Specialist Group held at Victoria Falls, Zimbabwe, from 17 22 November 1992. Unpubl. report: 30 pp and appendices.
- Brooks, P.M. 1989. Conservation plan for black rhinoceros *Diceros bicornis* in South Africa, the TBVC States, and SWA/Namibia. Unpubl. report: 28 pp.
- Buys, D. 1988. A summary of the introduction of white rhino onto private land in the Republic of South Africa. Unpubl. report to NPB: 11 pp.
- Owen-Smith, N. 1973. The behavioural ecology of the white rhinoceros. Ph D. thesis, Univ. of Wisconsin, USA.
- t'Sas-Rolfes. 1990. Privatising the rhino industry. Dissertation for B. Comm. Hons, Univ. Witwatersrand, RSA.

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# A POSSIBLE FRAMEWORK FOR LEGAL TRADE IN RHINOCEROS PRODUCTS



Compiled by: Dr G R Hughes Chief Executive

NATAL PARKS BOARD

November 1993

#### INTRODUCTION

During March 1992 in Kyoto, Japan, the Eighth Meeting of the Parties of CITES was presented with serious proposals to change the status of selected rhinoceros populations in order to create opportunities to trade rhino products legally.

South Africa with a population of some 5 300 white rhinoceros *Ceratotherium simum* sought agreement to place the South African population on Appendix II and Zimbabwe, facing a massive poaching problem, sought the same downgrading for both its white rhinoceros and black rhinoceros *Diceros bicornis* populations.

The reasons behind the proposals were simple - after 15 years of total CITES protection the world status of rhino populations, with the exception of the southern race of the white rhinoceros, had steadily worsened.

The CITES ban (and the within-country bans on trade) had apparently merely exacerbated a deteriorating situation with no indication of any change in trend. Both Zimbabwe and South Africa - now the custodians of the largest African rhino populations - feel that a new, more creative approach to the conservation of rhinoceros is necessary.

#### CITES

All species of rhinoceros are on Appendix I and have been since 1977.

In addition, the following resolutions and comments have been made at Meetings of the Parties: (Wijnstekers, 1990)

In the case of trade in rhinoceros horn, Resolution Conf. 3.11 recommends that:

- "a) the Secretariat make recommendations, in the way it considers most appropriate, on behalf of the Parties to the governments of all non-Parties where records show they have imported or exported rhinoceros products within the past five years, to request that they make measures with a view to preventing rhinoceros products from being commercially imported or exported; and
- b) the Secretariat make representations to both Party and non-Party governments and request them to halt all trade by placing a moratorium on the sale of all government and parastatal stocks of rhino products, and that in the case of Parties these stocks be recorded in the annual reports to the Convention".

At the sixth meeting of the Conference of the Parties, it was noted that the black rhinoceros had continued to decline catastrophically, and that the species is currently extremely endangered. Also the precarious conservation status of Asian rhinoceros species and the continuing threat posed to these species by commerce in their parts and derivatives were noted.

The Parties acknowledged that their efforts and those of the Secretariat and other interested agencies had failed to stem the flow of illegal trade in rhinoceros products, particularly horn, and that this trade is the primary factor responsible for the destruction of rhinoceros populations. That situation was feared to continue to deteriorate unless immediate and drastic measures were taken.

It was further considered that certain countries that do not have rhinoceros populations have been acting as safe entrepots for illegal shipments of rhinoceros horn and thus have been stimulating the disastrous wave of poaching. The parties recognized that poachers cross international borders to kill rhinos and addressed the security risk involved in holding large stocks of valuable rhinoceros horn in a routine fashion in government stores and the fact that this has already stimulated the criminal action and theft of such stocks.

Resolution Conf. 6.10 urges all Parties to take steps to establish the following measures immediately:

- "a) a complete prohibition on <u>all</u> sales and trade, internal and international, of rhinoceros parts and derivatives, especially horn, whether whole or in any other form, including personal effects, but excluding (solely) non-commercial movement of legitimate hunting trophies where appropriate full CITES documents are issued to that effect;
- the destruction of all government and parastatal stocks of rhinoceros horn with supporting contributory funds from external aid sources to be used for rhino conservation in the state concerned;
- c) the issuance of special instructions to <u>all</u> law enforcement agencies to be particularly alert to the problem of rhinoceros horn smuggling;
- d) an increase in penalties for individuals/companies convicted of relevant offences; and
- e) firm action against middlemen and poachers involved in cross border poaching and trafficking in horn".

#### It recommends:

- "a) that Parties use all appropriate means (including economic, political and diplomatic) to exert pressure on countries continuing to allow trade in rhinoceros horn, in particular Burundi and the United Arab Emirates, (including the "passive" allowance of such trade), to take the necessary action to prohibit such trade and to enforce such a prohibition;
- b) that Parties encourage the use of substitutes for rhinoceros horn and other rhinoceros products used; and
- c) that Parties encourage the development of national and continental rhino conservation strategies".

#### RECENT DEVELOPMENTS

Since the various resolutions and comments made on the rhino products trade quoted above, the only African countries that have made an effort to produce national or action plans have been Zimbabwe, South Africa, Namibia and more recently Kenya:

Conservation Plan for the Black Rhinoceros Diceros bicornis in South Africa, the TBVC

States and Namibia Sept. 1989 Zimbabwe Black Rhino Conservation Strategy: Jan. 1992

Zimbabwe Black Rhinoceros:

Short and Medium term action plans April 1992

There has been no noticeable decline in poaching efforts throughout Africa - on the contrary the situation in Zimbabwe has deteriorated and rhino poaching appears to be on the increase, even in the well protected parks of South Africa.

The cost of maintaining safe rhino populations in these two countries is now reaching unsustainable levels without some financial return from the results of protection. In the case of Zimbabwe with its total dehorning strategy, the disposal of the horns collected must become a necessity or the project will fail.

# TECHNIQUES TO ENSURE ADEQUATE IDENTIFICATION OF RHINO HORN

Apart from simple measurement and weight there are several new techniques that have been recently developed to ensure accurate identification of individual rhino horns:

# 1. Trace element analysis

Neutron activation analysis (NAA) is a highly sensitive technique for the simultaneous determination of a number of trace elements in small samples. Up to 8 elements have been identified in horn samples. (Hart, Lee-Thorpe and Tredoux. 1992)

#### 2. Isotope analysis

The use of stable isotope ratios of carbon, nitrogen and strontium have great potential for species identification and source area tracing of rhino horn. (Lee-Thorpe et al. 1992)

## 3. Passive Internal Transponder

Available from two commercial sources these small tags (11mm total length) can be injected or glued into drilled holes and checked with the appropriate reader at any time. Extremely difficult to remove without substantial damage to horn.

Recommended as additional I.D. method by CITES, 1992.

#### 4. Bar Codes

Already proposed for use on tusks. If surface of horn is prepared, could also be used on horn.

#### 5. Holograms

As for 4.

## RATIONALE FOR LEGAL TRADE

The sale of rhino products is necessary for the following reasons:

- i) There is a legitimate market as a result of powdered rhino horn being a traditional medicine used today primarily for headache and feverish colds, to calm the liver and clear the vision, a tonic and antipyretic. Dr Teng Fan-Nan (pers. comm.) and see also Read (1982).
- ii) This market is large and although expected to decline is unlikely to disappear before all rhinoceros are extinct if present pressure continues.
- iii) Illegal activities currently dominate the rhino horn trade and this must be replaced by a legal trade which will enable reasonably reliable monitoring.

(The Taiwanese trade has been driven underground by rash and over-enthusiastic attempts to force Taiwan to stop trading).

- iv) Appendix I listing forbids the export not only of horn but also of other valuable by-products of rhino such as leather.
- v) Countries such as South Africa have thriving and increasing populations of rhinoceros and should legitimately be able to benefit from the sale of products.

(It has been agreed in Natal that all export earnings from rhino products will go into a series of trusts designed specifically to support conservation in general - the Natal Parks Board Conservation Trust; the Rhino Security Trust and the Neighbourhood Trust).

- vi) Zimbabwe and Namibia, with ever decreasing conservation budgets, require additional revenues for the running of their protected areas. This is becoming critically urgent.
- vii) In Southern Africa private entrepreneurs have invested millions of dollars in rhinoceros herds. Legitimate export of rhinoceros products will further the cause of rhino conservation and encourage further investment in the rhino industry.

In South Africa alone more than 650 white rhino are found in private hands.

#### PROPOSED INTER-STATE TRADE CONTROLS

In order to encourage all parties to give consideration to the opening of a legal trade, it is necessary to review the control systems that exist in Southern Africa and the methods whereby secure inter-country trade could take place.

# 1. Legal controls

In South Africa all trade is forbidden and the killing of rhino, trade in products, etc., is punishable by 10 years imprisonment and/or a R100 000 (\$US 35,000) fine. Similar penalties are in place in other Southern African states.

At this time, all horn is required to be registered and each horn is measured, weighed and numbered.

Many tons of horn, both legal and confiscated from poachers, are securely stockpiled in Southern Africa.

#### 2. Secure sale and transport controls

Rhino horn could be ground into powder in South Africa prior to sale, but this would certainly not find favour with the traditional doctors (and even patients) in the Republic of China. The desired form of purchase is the whole horn.

Assuming this to be the case, the disposal of horns could take any one or more of the following routes:

- i) Sale by auction to accredited buyers (accredited by the appropriate authorities in consumer countries). (Advantage eliminates costly middle-man thus reducing prices and ensures that products do not go via non-consumer nations).
- ii) Sale by agreement to accredited buyers.
- iii) Sale by agreement to appropriate controlling authority in the consumer nation.

In order to guarantee the integrity of each batch of horn and prevent the laundering of illegal material, the following controls are necessary:-

- i) Horns could be sold only in batches originating in single protected areas or local regions. (Advantage chemical structure will be more or less identical).
- ii) Every horn would be individually measured, weighed, externally marked (possibly with computer code and/or hologram) and internally marked using a Passive Internal Transponder (PIT tag).
  - (Advantage (a) no chance of laundering illegal products;
    - (b) traditional doctors in Taiwan have no objection to use of PIT tags
    - (c) bar code could include chemical or isotopic analysis appropriate to the region. (See Techniques, above)

## 3. Transport

All export would be by air, in bond and in sealed boxes with appropriate security controls.

#### 4. Documentation

i) Copies of all sales documents would go to the appropriate controlling authority in the consumer nation;

OR

ii) the consignment would be despatched with all documentation direct to the appropriate conservation authority in the consumer country.

#### PROPOSALS FOR INTERNAL TRADE CONTROLS

As the legal horns would be individually identifiable it is recommended that:-

- i) a full record of all imports is maintained;
- ii) it must be obligatory for buyer/importer to provide details of the final buyer and retailer;
- iii) retailer must record every sale plus quantity sold (price would be a useful additional piece of information):
- iv) retailer must return PIT tag once it is exposed by scraping horn off in powder form; and
- v) retailer will then be able to purchase another legal horn.

N.B. Checks can be made of stocks in retailer shop and scrapings can be analysed for chemical structure. This will confirm the source of the horn.

# CONCLUSION

The Southern African countries of Namibia, South Africa and Zimbabwe believe that the advantages of permitting the legal sale of rhino horn and other rhinoceros products through a well controlled and monitored inter-State agreement will be a major step towards eliminating the illegal trade in rhinoceros products. A source of legal horn would reduce the necessity for the illegal trade.

The techniques capable of establishing the geographic source of individual horns have been developed. Although at present it would be difficult to establish the source of all illegal horn, the techniques can provide accurate identification of legal horn.

With these tools and sound inter-State cooperation, it is now possible to provide legal horn to legitimate and traditional consumers without the risk of illegally obtained horns being laundered through the system.

The countries mentioned above are willing to cooperate with consumer countries to develop a water-tight system and in partnership with agencies such as TRAFFIC and IUCN, to present the system developed to CITES at the Ninth Meeting of the Parties in order to obtain an Appendix II listing for rhinoceros populations from the States of Namibia, South Africa and Zimbabwe.

#### REFERENCES

- Anon., 1992. Zimbabwe Black Rhinoceros short and medium term Action Plans. Dept. Natl. Parks & Wildl. Managemt. pp. 1 68.
- Anon., 1992. Zimbabwe, Black Rhino Conservation Strategy. Dept. Natl. Parks & Wildl. Managemt. pp. 1 69.
- Brooks, P.M. 1988. <u>Conservation Plan for the Black Rhinoceros Diceros bicornis in South Africa, the TBVC States and SWA/Namibia</u>. pp. 1 22, 6 app.
- Hart, R.J., J. Lee-Thorpe & M. Tredoux. 1992. <u>The characterisation of Rhino Horn and Elephant Trusk using the Nuclear Technique of Neutron Activation Analysis</u>. M/s pp. 1 3.
- Lee-Thorpe, J.A., N.J. van der Merwe & R.A. Armstrong. 1992. Source determination of rhino horn by isotopic analysis. S.A.N.F. (Stellenbosch) Final Rept. ZA 309 p. 1 18.

Read, B.E. 1932. <u>Chinese Materia Medica</u>: Animal Drugs. Reprinted 1982 - Southern Materials Center, Inc. Taipai, Rep. of China.

Wijnstekers, W. 1990. The Evolution of CITES. CITES Secretariat, Lausanne. pp. 1 - 284.