CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

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Eighth Meeting of the Conference of the Parties

Kyoto (Japan), 2 to 13 March 1992

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

1. In accordance with the provisions of sub-paragraph a) of paragraph 1 of Article XV of the Convention, any Party may propose an amendment to Appendix I or II for consideration at the next meeting of the Conference of the Parties. The proposal for amendment shall be communicated to the Secretariat at least 150 days before the meeting of the Conference.

2. On 4 October 1991, i.e. 150 days before the opening date of the eighth meeting of the Conference of the Parties, 27 of them, Argentina, Austria, Botswana, Brazil, Costa Rica, Denmark, Ethiopia, Germany, Indonesia, Kenya, Madagascar, Malawi, Malaysia, Namibia, the Netherlands, Paraguay, the Philippines, South Africa, the Sudan, Sweden, Switzerland, the United Republic of Tanzania, Thailand, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Zambia and Zimbabwe, communicated to the Secretariat their proposals for amendment of Appendices I and II, for consideration at the eighth meeting. Most of these proposals were accompanied by supporting statements presented in the format recommended by the Conference of the Parties (Resolution Conf. 2.17 of the second meeting, San José, 1979).

3. All these proposals were communicated to contracting or signatory States of the Convention through Notification dated 28 October 1991. The text of this Notification is attached to the present document (Annex 1).

4. The proposals may be divided into four distinct categories:

   - proposals submitted pursuant to Resolution Conf. 3.15 on Ranching (see document Doc. 8.43 (Rev.);

   - Ten Year Review proposals (see document Doc. 8.44);

   - proposals concerning export quotas (see document Doc. 8.45); and

   - other proposals (see this document, Annex 2).

5. All the "other proposals" for amendment have been compiled in a single list presented in the same taxonomic and alphabetical order as followed for the establishment of Appendices I and II of the Convention. This list is attached to the present document as Annex 2. Because of their size, the supporting statements, arrange in the same order, are being issued in several separate batches.[*]

6. Recommendations from the Secretariat with respect to the other amendment proposals are attached to the present document as Annex 3.

7. In accordance with the provisions of Article XV, paragraph 1(a), of the Convention, the Secretariat communicates the comments on other amendment proposals received from the Parties. These comments constitute Annex 4 of the present document.

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[*] As indicated in the "Foreword", these supporting statements are not reproduced in these Proceedings. (Note from the Secretariat).

8. In accordance with the provisions of Article XV, paragraph 2(b), the Secretariat communicates the comments on other amendment proposals on marine species received from inter-governmental bodies. These comments constitute Annex 5 of the present document.

9. The reports of the Panel of Experts on the African Elephants regarding the proposals from a) Botswana, Malawi, Namibia and Zimbabwe; and b) South Africa constitute Annexes 6 and 7 of the present document.

NOTIFICATION

to contracting or signatory States of the Convention on
International Trade in Endangered Species of Wild Fauna and Flora

AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

A. In accordance with the provision of Article XV, paragraph 1(a), of the Convention, Argentina, Austria, Botswana, Brazil, Costa Rica, Denmark, Ethiopia, Germany, Indonesia, Kenya, Madagascar, Malawi, Malaysia, Namibia, the Netherlands, Paraguay, the Philippines, South Africa, the Sudan, Sweden, Switzerland, the United Republic of Tanzania, Thailand, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Zambia and Zimbabwe, all Parties to the Convention, have communicated to the Secretariat the following proposals for amendment of Appendices I and II of the Convention. These proposals will be considered at the eighth meeting of the Conference of the Parties to the Convention, to be held at Kyoto (Japan) from 2 to 13 March 1992.

Proposals Submitted Pursuant to Resolution on Ranching

Proposal from Ethiopia

F A U N A

REPTILIA

CROCODYLIA

1. Crocodylidae	*Crocodylus niloticus*, maintenance of the Ethiopian population in Appendix II without an annual export quota

Proposal from Indonesia

F A U N A

REPTILIA

CROCODYLIA

1. Crocodylidae	*Crocodylus porosus*, maintenance of the Indonesian population in Appendix II without an annual export quota

Proposal from Kenya

F A U N A

REPTILIA

CROCODYLIA

1. Crocodylidae	*Crocodylus niloticus*, maintenance of the Kenyan population in Appendix II without an annual export quota

Proposal from Madagascar

F A U N A

REPTILIA

CROCODYLIA

1. Crocodylidae — *Crocodylus niloticus*, maintenance of the Malagasy population in Appendix II without an annual export quota

Proposal from the United Republic of Tanzania

F A U N A

REPTILIA

CROCODYLIA

1. Crocodylidae — *Crocodylus niloticus*, maintenance of the Tanzanian population in Appendix II without an annual export quota

Ten Year Review Proposals

Proposals from Germany

F A U N A

MAMMALIA

EDENTATA

1. Myrmecophagidae — *Tamandua tetradactyla chapadensis*, deletion from Appendix II

AVES

ANSERIFORMES

2. Anatidae — *Cygnus columbianus jankowskii*, deletion from Appendix II

Proposal from the Philippines

F L O R A

1. ARACEAE — *Alocasia sanderiana*, deletion from Appendix I

Proposals from Switzerland

F A U N A

PISCES

ATHERINIFORMES

1. Cyprinodontidae — *Cynolebias constanciae*, deletion from Appendix II
2. *Cynolebias marmoratus*, deletion from Appendix II
3. *Cynolebias minimus*, deletion from Appendix II
4. *Cynolebias opalescens*, deletion from Appendix II
5. *Cynolebias splendens*, deletion from Appendix II

F L O R A

6.	ARACEAE	*Alocasia sanderiana*, deletion from Appendix I
7.	CARYOCARACEAE	*Caryocar costaricense*, deletion from Appendix II
8.	FAGACEAE	*Quercus copeyensis*, deletion from Appendix II
9.	HUMIRIACEAE	*Vantanea barbourii*, deletion from Appendix II
10.	JUGLANDACEAE	*Oreomunnea pterocarpa*, deletion from Appendix I
11.	LEGUMINOSAE (FABACEAE)	*Cynometra hemitomophylla*, deletion from Appendix II
12.		*Platymiscium pleiostachyum*, deletion from Appendix II
13.		*Tachigali versicolor*, deletion from Appendix II
14.	MORACEAE	*Batocarpus costaricensis*, deletion from Appendix II
15.	ORCHIDACEAE	*Didiciea cunninghamii*, deletion from Appendix I
16.	PALMAE (ARECACEAE)	*Areca ipot*, deletion from Appendix II
17.	ZINGIBERACEAE	*Hedychium philippinense*, deletion from Appendix I

Proposals from the United States of America

F A U N A

MAMMALIA

CARNIVORA

1.	Felidae	*Felis rufa escuinapae*, transfer from Appendix I to Appendix II

ARTIODACTYLA

2.	Bovidae	*Antilocapra americana*, inclusion of the Mexican population in Appendix I in lieu of *A.a. peninsularis* and *A.a. sonoriensis*
3.		*Antilocapra americana mexicana*, transfer of the Mexican population from Appendix II to Appendix I
4.		*Antilocapra americana mexicana*, deletion of the United States population from Appendix II
5.		*Antilocapra americana sonoriensis*, deletion of the United States population from Appendix I

AVES

GALLIFORMES

6.	Phasianidae	*Cyrtonyx montezumae mearnsi*, deletion from Appendix II
7.		*Cyrtonyx montezumae montezumae*, deletion from Appendix II

REPTILIA

SAURIA

8.	Iguanidae	*Phrynosoma coronatum*, inclusion in Appendix II

Proposals Concerning Export Quotas

Proposal from Botswana

F A U N A

MAMMALIA

CARNIVORA

1.Felidae	*Panthera pardus*, transfer of the sub-Saharan population from Appendix I to Appendix II

Proposal from Malawi

F A U N A

MAMMALIA

CARNIVORA

1. Felidae	*Panthera pardus*, transfer of the sub-Saharan population from Appendix I to Appendix II

Proposal from Namibia

F A U N A

MAMMALIA

CARNIVORA

1. Felidae	*Panthera pardus*, transfer of the sub-Saharan population from Appendix I to Appendix II

Proposal from the Sudan

F A U N A

REPTILIA

CROCODYLIA

1. Crocodylidae	*Crocodylus niloticus*, maintenance of the Sudanese population in Appendix II

Proposals from Switzerland

F A U N A

REPTILIA

CROCODYLIA

18. Crocodylidae	*Crocodylus cataphractus*, transfer of the Congolese population from Appendix II to Appendix I
19.	*Crocodylus niloticus*, transfer of the populations of Cameroon, the Congo, Kenya, Madagascar, the Sudan and the United Republic of Tanzania from Appendix II to Appendix I
20.	*Crocodylus porosus*, transfer of the Indonesian population from Appendix II to Appendix I

21. *Osteolaemus tetraspis*, transfer of the Congolese population from Appendix II to Appendix I

Proposal from Uganda

F A U N A

REPTILIA

CROCODYLIA

1. Crocodylidae — *Crocodylus niloticus*, transfer of the Ugandan population from Appendix I to Appendix II

Proposal from Zambia

F A U N A

MAMMALIA

CARNIVORA

1. Felidae — *Panthera pardus*, transfer of the sub-Saharan population from Appendix I to Appendix II

Proposals from Zimbabwe

F A U N A

MAMMALIA

CARNIVORA

1. Felidae — *Panthera pardus*, transfer of the sub-Saharan population from Appendix I to Appendix II

REPTILIA

CROCODYLIA

2. Crocodylidae — *Crocodylus niloticus*, transfer of the Ugandan population from Appendix I to Appendix II

Other Proposals

Proposals from Argentina

F A U N A

MAMMALIA

CARNIVORA

1. Canidae — *Dusicyon (Cerdocyon) thous*, inclusion in Appendix II

2. Mustelidae — *Conepatus* spp., inclusion in Appendix II

AVES

RHEIFORMES

3. Rheidae	*Rhea americana*, inclusion in Appendix II

PISCES

CYPRINIFORMES

4. Characidae	*Gymnocharacinus bergi*, inclusion in Appendix I

F L O R A

5. ANACARDIACEAE	*Schinopsis* spp., inclusion in Appendix II

Proposal from Austria

F L O R A

1. BROMELIACEAE	*Tillandsia* spp., inclusion in Appendix II

Proposals from Botswana

F A U N A

MAMMALIA

PHOLIDOTA

2. Manidae	*Manis temminckii*, deletion from Appendix I

CARNIVORA

3. Hyaenidae	*Hyaena brunnea*, deletion from Appendix I

TUBULIDENTATA

4. Orycteropodidae	*Orycteropus afer*, deletion from Appendix II

PROBOSCIDEA

5. Elephantidae	*Loxodonta africana*, transfer of the populations of Botswana, Malawi, Namibia, Zambia and Zimbabwe from Appendix I to Appendix II
6.	*Loxodonta africana*, transfer of the population of Botswana from Appendix I to Appendix II

ARTIODACTYLA

7. Bovidae	*Hippotragus equinus*, deletion from Appendix II

PISCES

CLUPEIFORMES

8. Clupeidae	*Clupea harengus*, inclusion in Appendix I

Proposals from Brazil

F A U N A

MAMMALIA

CARNIVORA

1.	Felidae	*Felis geoffroyi*, transfer from Appendix II to Appendix I

F L O R A

2.	CACTACEAE	*Discocactus spp.*, transfer from Appendix II to Appendix I
3.		*Melocactus conoideus*, transfer from Appendix II to Appendix I
4.		*Melocactus deinacanthus*, transfer from Appendix II to Appendix I
5.		*Melocactus glaucescens*, transfer from Appendix II to Appendix I
6.		*Melocactus paucispinus*, transfer from Appendix II to Appendix I
7.		*Uebelmannia* spp. transfer from Appendix II to Appendix I
8.	LEGUMINOSAE (FABACEAE)	*Dalbergia nigra*, inclusion in Appendix I

Proposal from Costa Rica

F L O R A

1.	MELIACEAE	*Swietenia* spp., inclusion in Appendix II

Proposals from Denmark

F A U N A

MAMMALIA

CARNIVORA

1.	Ursidae	*Ursus americanus*, inclusion in Appendix II
2.		*Ursus arctos*, inclusion in Appendix I of "populations of China and Mongolia" in lieu of *Ursus arctos pruinosus*
3.		*Ursus arctos*, inclusion in Appendix II of all populations not included in Appendix I or II

F L O R A

4.	LEGUMINOSAE (FABACEAE)	*Intsia* spp., inclusion in Appendix II
5.		*Pericopsis elata*, inclusion in Appendix II
6.	THYMELAEACEAE	*Gonystylus bancanus*, inclusion in Appendix II

Proposals from Germany

F A U N A

REPTILIA

SAURIA

3.	Scincidae	*Corucia zebrata*, inclusion in Appendix II

AMPHIBIA

ANURA

4. Ranidae	*Rana arfaki*, inclusion in Appendix II
5.	*Rana blythii*, inclusion in Appendix II
6.	*Rana cancrivora*, inclusion in Appendix II
7.	*Rana crassa*, inclusion in Appendix II
8.	*Rana cyanophlyctis*, inclusion in Appendix II
9.	*Rana grunniens*, inclusion in Appendix II
10.	*Rana ibanorum*, inclusion in Appendix II
11.	*Rana ingeri*, inclusion in Appendix II
12.	*Rana kuhlii*, inclusion in Appendix II
13.	*Rana limnocharis*, inclusion in Appendix II
14.	*Rana macrodon* (including *R. microtympanum*), inclusion in Appendix II
15.	*Rana magna*, inclusion in Appendix II
16.	*Rana malesiana*, inclusion in Appendix II
17.	*Rana modesta*, inclusion in Appendix II
18.	*Rana paramacrodon* (including *R. kenepaiensis*), inclusion in Appendix II
19.	*Rana rugulosa*, inclusion in Appendix II

F L O R A

20. BROMELIACEAE	*Tillandsia* spp., inclusion in Appendix II

Proposals from Malawi

F A U N A

MAMMALIA

PHOLIDOTA

2. Manidae	*Manis temminckii*, deletion from Appendix I

CARNIVORA

3. Hyaenidae	*Hyaena brunnea*, deletion from Appendix I

TUBULIDENTATA

4. Orycteropodidae	*Orycteropus afer*, deletion from Appendix II

PROBOSCIDEA

5. Elephantidae	*Loxodonta africana*, transfer of the populations of Botswana, Malawi, Namibia, Zambia and Zimbabwe from Appendix I to Appendix II

ARTIODACTYLA

6. Bovidae	*Hippotragus equinus*, deletion from Appendix II

PISCES

CLUPEIFORMES

7. Clupeidae	*Clupea harengus*, inclusion in Appendix I

Proposal from Malaysia

F A U N A

AVES

PASSERIFORMES

1. Pittidae	Pittidae spp., inclusion in Appendix II

Proposals from Namibia

F A U N A

MAMMALIA

PHOLIDOTA

2. Manidae	*Manis temminckii*, deletion from Appendix I

CARNIVORA

3. Hyaenidae	*Hyaena brunnea*, deletion from Appendix I
4. Felidae	*Acinonyx jubatus*, transfer of the populations of Botswana, Malawi, Namibia, Zambia and Zimbabwe from Appendix I to Appendix II

TUBULIDENTATA

5. Orycteropodidae	*Orycteropus afer*, deletion from Appendix II

PROBOSCIDEA

6. Elephantidae	*Loxodonta africana*, transfer of the populations of Botswana, Malawi, Namibia, Zambia and Zimbabwe from Appendix I to Appendix II

ARTIODACTYLA

7. Bovidae	*Hippotragus equinus*, deletion from Appendix II

PISCES

CLUPEIFORMES

8. Clupeidae	*Clupea harengus*, inclusion in Appendix I

Proposals from the Netherlands

F A U N A

AVES

COLUMBIFORMES

1. Columbidae	*Goura* spp., transfer from Appendix II to Appendix I

CORACIIFORMES

2. Bucerotidae	*Aceros* spp. (including *A. comatus* = *Berenicornis comatus*), inclusion in Appendix II

3.	*Anorrhinus* spp., inclusion in Appendix II
4.	*Anthracoceros* spp., inclusion in Appendix II
5.	*Buceros* spp., inclusion in Appendix II
6.	*Buceros bicornis*, transfer from Appendix II to Appendix I
7.	*Buceros bicornis homrai*, transfer from Appendix I to Appendix II
8.	*Penelopides* spp., inclusion in Appendix II
9.	*Ptilolaemus* spp., inclusion in Appendix II

F L O R A

10. CACTACEAE	*Ariocarpus* spp., transfer from Appendix II to Appendix I
11. LEGUMINOSAE (FABACEAE)	*Intsia* spp., inclusion in Appendix II
12. THYMELAEACEAE	*Gonystylus bancanus*, inclusion in Appendix II

Proposals from Paraguay

F A U N A

AVES

PICIFORMES

1. Ramphastidae	*Pteroglossus* spp., inclusion in Appendix II
2.	*Ramphastos* spp., inclusion in Appendix II

Proposals from the Philippines

F A U N A

MAMMALIA

PRIMATES

2. Tarsiidae	*Tarsius syrichta*, transfer from Appendix II to Appendix I

AVES

PSITTACIFORMES

3. Psittacidae	*Cacatua haematuropygia*, transfer from Appendix II to Appendix I

Proposals from South Africa

F A U N A

MAMMALIA

PROBOSCIDEA

1. Elephantidae	*Loxodonta africana*, transfer of the South African population from Appendix I to Appendix II

PERISSODACTYLA

2. Rhinocerotidae	*Ceratotherium simum simum*, transfer of the South African population from Appendix I to Appendix II

REPTILIA

CROCODYLIA

3. Crocodylidae	*Crocodylus niloticus*, transfer of the South African population from Appendix I to Appendix II

Proposals from Sweden

F A U N A

REPTILIA

SERPENTES

1. Viperidae	*Vipera wagneri*, inclusion in Appendix II

PISCES

SCOMBRIFORMES

2. Scombridae	*Thunnus thynnus*, inclusion of the western Atlantic population in Appendix I
3.	*Thunnus thynnus*, inclusion of the eastern Atlantic population in Appendix II

Proposals from Thailand

F A U N A

AVES

CORACIIFORMES

1. Bucerotidae	*Aceros (Berenicornis) comatus*, inclusion in Appendix I
2.	*Aceros corrugatus*, inclusion in Appendix I
3.	*Aceros nipalensis*, inclusion in Appendix I
4.	*Aceros subruficollis*, inclusion in Appendix I
5.	*Aceros undulatus*, inclusion in Appendix II
6.	*Anorrhinus austeni*, inclusion in Appendix II
7.	*Anorrhinus galeritus*, inclusion in Appendix II
8.	*Anthracoceros coronatus convexus*, inclusion in Appendix II
9.	*Anthracoceros malabaricus (albirostris)*, inclusion in Appendix II
10.	*Anthracoceros malayanus*, inclusion in Appendix I
11.	*Buceros rhinoceros*, transfer from Appendix II to Appendix I

Proposals from the United Kingdom of Great Britain and Northern Ireland

F A U N A

MAMMALIA

ARTIODACTYLA

1. Bovidae	*Capra falconeri*, transfer from Appendix II to Appendix I

AVES

ANSERIFORMES

2. Anatidae	*Anas formosa*, inclusion in Appendix II

F L O R A

3. LEGUMINOSAE (FABACEAE) — *Pericopsis elata*, inclusion in Appendix II

Proposals from the United States of America

F A U N A

MAMMALIA

PINNIPEDIA

9. Phocidae — *Mirounga angustirostris*, deletion from Appendix II

AVES

CICONIIFORMES

10. Ciconiidae — *Mycteria leucocephala*, inclusion in Appendix II

PSITTACIFORMES

11. Psittacidae — *Amazona aestiva*, transfer from Appendix II to Appendix I
12. — *Cacatua goffini*, transfer from Appendix II to Appendix I
13. — *Eos reticulata*, transfer from Appendix II to Appendix I

REPTILIA

TESTUDINATA

14. Emydidae — *Clemmys insculpta*, inclusion in Appendix II
15. — *Clemmys muhlenbergi*, transfer from Appendix II to Appendix I

AMPHIBIA

ANURA

16. Ranidae — *Conraua goliath*, inclusion in Appendix II

PISCES

ACIPENSERIFORMES

17. Polyodontidae — *Polyodon spathula*, inclusion in Appendix I

MOLLUSCA

MESOGASTROPODA

18. Strombidae — *Strombus gigas*, inclusion in Appendix II

F L O R A

19. CACTACEAE — *Turbinicarpus* spp., transfer from Appendix II to Appendix I

20. DROSERACEAE — *Dionaea muscipula*, inclusion in Appendix II

21. MELIACEAE	*Swietenia* spp., inclusion of the neotropical populations in Appendix II, with specifications of the parts and derivatives covered by the inclusion as described in the proposal
22. ZYGOPHYLLACEAE	*Guaiacum officinale*, inclusion in Appendix II

Proposals from Zambia

F A U N A

MAMMALIA

CARNIVORA

2. Hyaenidae	*Hyaena brunnea*, deletion from Appendix I

ARTIODACTYLA

3. Bovidae	*Hippotragus equinus*, deletion from Appendix II

Proposals from Zimbabwe

F A U N A

MAMMALIA

PHOLIDOTA

2. Manidae	*Manis temminckii*, deletion from Appendix I

CARNIVORA

3. Hyaenidae	*Hyaena brunnea*, deletion from Appendix I
4. Felidae	*Acinonyx jubatus*, transfer of the populations of Botswana, Malawi, Namibia, Zambia and Zimbabwe from Appendix I to Appendix II

TUBULIDENTATA

5. Orycteropodidae	*Orycteropus afer*, deletion from Appendix II

PROBOSCIDEA

6. Elephantidae	*Loxodonta africana*, transfer of the populations of Botswana, Malawi, Namibia, Zambia and Zimbabwe from Appendix I to Appendix II

PERISSODACTYLA

7. Rhinocerotidae	*Ceratotherium simum*, transfer of the Zimbabwean population from Appendix I to Appendix II
8.	*Diceros bicornis*, transfer of the Zimbabwean population from Appendix I to Appendix II

ARTIODACTYLA

9. Bovidae	*Hippotragus equinus*, deletion from Appendix II

PISCES

CLUPEIFORMES

10. Clupeidae *Clupea harengus*, inclusion in Appendix I

B. In accordance with Resolution Conf. 2.17 adopted by the Conference of the Parties at its second meeting (San José, 1979), most of the above-mentioned proposals for amendment were accompanied by supporting statements presented in the agreed format. Taking into account the volume of the documentation received and in order to avoid too long delays for communicating the proposals for amendment, supporting statements will be transmitted in their original form to the Management Authorities of the Parties. Final documents for the meeting of the Conference of the Parties will be communicated at a later stage.

C. In accordance with the provisions of paragraphs 1(a), 2(b) and 2(c) of Article XV of the Convention, the above proposals are communicated to the Parties for comments. Since the responses have to be communicated to all Parties not later than 30 days before the meeting of the Conference, the Secretariat would appreciate receiving Parties' responses, if any, as soon as possible and not later than 10 December 1991.

D. The present Notification is being sent for information to the signatory States which are not party to the Convention. They will also receive the results of the considerations which will take place during the eighth meeting of the Conference of the Parties.

E. The Secretariat would appreciate the contents of the present Notification being transmitted to the competent national authorities.

Lausanne, 28 October 1991

Consideration of Proposals for Amendment of Appendices I and II

LIST OF THE OTHER PROPOSALS FOR AMENDMENT

1. Taxa are listed in the same order as in Appendices I and II. Supporting statements* are also arranged in that order.

2. Code letters have the following meaning: AR (Argentina), AT (Austria), BW (Botswana), BR (Brazil), CR (Costa Rica), DE (Germany), DK (Denmark), GB (United Kingdom of Great Britain and Northern Ireland), MW (Malawi), MY (Malaysia), NA (Namibia), NL (Netherlands), PY (Paraguay), PH (Philippines), SE (Sweden), TH (Thailand), US (United States of America), ZA (South Africa), ZM (Zambia) and ZW (Zimbabwe). These code letters indicate the proponent of each proposal. The number following each two-letter code corresponds to the number of each proposal as listed in the Notification to contracting or signatory States dated 28 October 1991 [see Doc. 8.46 (Rev.) Annex 1].

* As indicated in the "Foreword", these supporting statements are not reproduced in these Proceedings. (Note from the Secretariat).

F A U N A

MAMMALIA

PRIMATES				
Tarsiidae	10.	Transfer from Appendix II to Appendix I of:	*Tarsius syrichta*	PH2
PHOLIDOTA				
Manidae	2.	Deletion from Appendix I of:	*Manis temminckii*	BW2/MW2/ NA2/ZW2
CARNIVORA				
Canidae	3.	Inclusion in Appendix II of:	*Dusicyon (Cerdocyon) thous*	AR1
Ursidae	4.	Inclusion in Appendix II of:	*Ursus americanus*	DK1
	5.	Inclusion in Appendix I of: (in lieu of *Ursus arctos pruinosus*) (+2aa meaning the populations of China and Mongolia)	*Ursus arctos* +2aa	DK2
	6.	Inclusion in Appendix II of the unlisted populations of:	*Ursus arctos*	DK3
Mustelidae	7.	Inclusion In Appendix II of:	*Conepatus* spp.	AR2
Hyaenidae	8.	Deletion from Appendix I of:	*Hyaena brunnea*	BW3/MW3/ NA3/ZM2/ ZW3
Felidae	9.	Transfer from Appendix I to Appendix II of: (+2ab meaning the populations of Botswana Malawi, Namibia, Zambia and Zimbabwe)	*Acinonyx jubatus* +2ab	NA4/ZW4
	10.	Transfer from Appendix II to Appendix I of:	*Felis geoffroyi*	BR1
PINNIPEDIA				
Phocidae	11.	Deletion from Appendix II of:	*Mirounga angustirostris*	US9
TUBULIDENTATA				
Orycteropodidae	12.	Deletion from Appendix II of:	*Orycteropus afer*	BW4/MW4/ NA5/ZW5
PROBOSCIDEA				
Elephantidae	13.	Transfer from Appendix I to Appendix II of: (+2ac meaning the populations of Botswana, Malawi, Namibia, Zambia and Zimbabwe)	*Loxodonta africana*+2ac	BW5/MW5/ NA6/ZW6
		(If 13. is approved, 14. is redundant)		
	14.	Transfer from Appendix I to Appendix II of: (+2ad meaning the population of Botswana)	*Loxodonta africana* +2ad	BW6

	15. Transfer from Appendix I to Appendix II of: (+2ae meaning the population of South Africa)	*Loxodonta africana* +2ae	ZA1
PERISSODACTYLA			
Rhinocerotidae	16. Transfer from Appendix I to Appendix II of: (+2af meaning the population of Zimbabwe)	*Ceratotherium simum* +2af	ZW7
	17. Transfer from Appendix I to Appendix II of: (+2ae meaning the population of South Africa)	*Ceratotherium simum simum* +2ae	ZA2
	18. Transfer from Appendix I to Appendix II of: (+2af meaning the population of Zimbabwe)	*Diceros bicornis* +2af	ZW8
ARTIODACTYLA			
Bovidae	19. Transfer from Appendix II to Appendix I of:	*Capra falconeri*	GB1
	20. Deletion from Appendix II of:	*Hippotragus equines*	BW7/MW6/ NA7/ZM3/ZW9
	AVES		
RHEIFORMES			
Rheidae	21. Inclusion in Appendix II of:	*Rhea Americana*	AR3
CICONIIFORMES			
Ciconiidae	22. Inclusion in Appendix II of:	*Mycteria leucocephala*	US10
ANSERIFORMES			
Anatidae	23. Inclusion in Appendix II of:	*Anas Formosa*	GB2
COLUMBIFORMES			
Columbidae	24. Transfer from Appendix II to Appendix I of:	*Goura* spp.	NL1
PSITTACIFORMES			
Psittacidae	25. Transfer from Appendix II to Appendix I of:	*Amazona aestiva*	US11
	26. Transfer from Appendix II to Appendix I of:	*Cacatua goffini*	US12
	27. Transfer from Appendix II to Appendix I of:	*Cacatua haematuropygia*	PH3
	28. Transfer from Appendix II to Appendix I of:	*Eos reticulate*	US13
CORACIIFORMES			
Bucerotidae	29. Inclusion in Appendix II of: (=3aa meaning including *A. comatus* = *Berenicornis comatus)*	*Aceros* spp. = 3aa	NL2

	30. Inclusion in Appendix I of:	*Aceros (Berenicornis) comatus*	TH1
	31. Inclusion in Appendix I of:	*Aceros corrugatus*	TH2
	32. Inclusion in Appendix I of:	*Aceros nipalensis*	TH3
	33. Inclusion in Appendix I of:	*Aceros subruficollis*	TH4
	(If 29. is approved, 34. is redundant)		
	34. Inclusion in Appendix II of:	*Aceros undulates*	TH5
	35. Inclusion in Appendix II of:	*Anorrhinus* spp.	NL3
	(If 35. is approved, 36. and 37. are redundant)		
	36. Inclusion in Appendix II of:	*Anorrhinus austeni*	TH6
	37. Inclusion in Appendix II of:	*Anorrhinus galeritus*	TH7
	38. Inclusion in Appendix II of:	*Anthracoceros* spp.	NL4
	(If 38. is approved, 39. and 40. are redundant)		
	39. Inclusion in Appendix II of:	*Anthracoceros coronatus convexus*	TH8
	40. Inclusion in Appendix II of:	*Anthracoceros malabaricus (albirostris)*	TH9
	41. Inclusion in Appendix I of:	*Anthracoceros malayanus*	TH10
	42. Inclusion in Appendix II of:	*Buceros* spp.	NL5
	43. Transfer from Appendix II to Appendix I of:	*Buceros bicornis*	NL6
	(If 43. is approved, 44. will be withdrawn)		
	44. Transfer from Appendix I to Appendix II of:	*Buceros bicornis homrai*	NL7
	45. Transfer from Appendix II to Appendix I of:	*Buceros rhinoceros*	TH11
	46. Inclusion in Appendix II of:	*Penelopides* spp.	NL8
	47. Inclusion in Appendix II of:	*Ptilolaemus* spp.	NL9
	PICIFORMES		
Ramphastidae	48. Inclusion in Appendix II of:	*Pteroglossus* spp.	PY1
	49. Inclusion in Appendix II of:	*Ramphastos* spp.	PY2
PASSERIFORMES			
Pittidae	50. Inclusion in Appendix II of:	Pittidae spp.	MY1

REPTILIA

TESTUDINATA			
Emydidae	51. Inclusion in Appendix II of:	*Clemmys insculpta*	US14
	52. Transfer from Appendix II to Appendix I of:	*Clemmys muhlenbergi*	US15
CROCODYLIA			
Crocodylidae	53. Transfer from Appendix I to Appendix II of: (+2ae meaning the population of South Africa)	*Crocodylus niloticus* +2ae	ZA3

SAURIA				
Scincidae	54.	Inclusion in Appendix II of:	*Corucia zebrata*	DE3
SERPENTES				
Viperidae	55.	Inclusion in Appendix II of:	*Vipera wagneri*	SE1
		AMPHIBIA		
ANURA				
Ranidae	56.	Inclusion in Appendix II of:	*Conraua goliath*	US16
	57.	Inclusion in Appendix II of:	*Rana arfaki*	DE4
	58.	Inclusion in Appendix II of:	*Rana blythii*	DE5
	59.	Inclusion in Appendix II of:	*Rana cancrivora*	DE6
	60.	Inclusion in Appendix II of:	*Rana crassa*	DE7
	61.	Inclusion in Appendix II of:	*Rana cyanophlyctis*	DE8
	62.	Inclusion in Appendix II of:	*Rana grunniens*	DE9
	63.	Inclusion in Appendix II of:	*Rana ibanorum*	DE10
	64.	Inclusion in Appendix II of:	*Rana ingeri*	DE11
	65.	Inclusion in Appendix II of:	*Rana kuhlii*	DE12
	66.	Inclusion in Appendix II of:	*Rana limnocharis*	DE13
	67.	Inclusion in Appendix II of: (=3ab meaning including *R. microtympanum*)	*Rana macrodon* =3ab	DE14
	68.	Inclusion in Appendix II of:	*Rana magna*	DE15
	69.	Inclusion in Appendix II of:	*Rana malesiana*	DE16
	70.	Inclusion in Appendix II of:	*Rana modesta*	DE17
	71.	Inclusion in Appendix II of: (=3ac meaning including *R. kenepaiensis*)	*Rana paramacrodon* =3ac	DE18
	72.	Inclusion in Appendix II of:	*Rana rugulosa*	DE19
		PISCES		
CLUPEIFORMES				
Clupeidae	73.	Inclusion in Appendix I of: NA8/ZW10	*Clupea harengus*	BW8/MW7/
ACIPENSERIFORMES				
Polyodontidae	74.	Inclusion in Appendix I of:	*Polyodon spathula*	US17
CYPRINIFORMES				
Characidae	75.	Inclusion in Appendix I of:	*Gymnocharacinus bergi*	AR4
SCOMBRIFORMES				
Scombridae	76.	Inclusion in Appendix I of: (+2ag meaning the western Atlantic population)	*Thunnus thynnus* +2ag	SE2
	77.	Inclusion in Appendix II of: (+2ah meaning the eastern Atlantic population)	*Thunnus thynnus* +2ah	SE3

MOLLUSCA				
MESOGASTROPODA				
Strombidae	78.	Inclusion in Appendix II of:	*Strombus gigas*	US18

F L O R A

ANACARDIACEAE	79.	Inclusion in Appendix II of:	*Schinopsis*spp.	AR5
BROMELIACEAE	80.	Inclusion in Appendix II of:	*Tillandsia* spp.	AT1/DE20
CACTACEAE	81.	Transfer from Appendix II to Appendix I of:	*Ariocarpus* spp.	NL10
	82.	Transfer from Appendix II to Appendix I of:	*Discocactus* spp.	BR2
	83.	Transfer from Appendix II to Appendix I of:	*Melocactus conoideus*	BR3
	84.	Transfer from Appendix II to Appendix I of:	*Melocactus deinacanthus*	BR4
	85.	Transfer from Appendix II to Appendix I of:	*Melocactus glaucescens*	BR5
	86.	Transfer from Appendix II to Appendix I of:	*Melocactus paucispinus*	BR6
	87.	Transfer from Appendix II to Appendix I of:	*Turbinicarpus* spp.	US19
	88.	Transfer from Appendix II to Appendix I of:	*Uebelmannia* spp.	BR7
DROSERACEAE	89.	Inclusion in Appendix II of:	*Dionaea muscipula*	US20
LEGUMINOSAE (FABACEAE)	90.	Inclusion in Appendix I of:	*Dalbergia nigra*	BR8
	91.	Inclusion in Appendix II of:	*Intsia* spp.	DK4/NL11
	92.	Inclusion in Appendix II of:	*Pericopsis elated*	DK5/GB3
MELIACEAE	93.	Inclusion in Appendix II of:	*Swietenia* spp.	CR1
		(If 93. is approved, 94. is redundant)		
	94.	Inclusion in Appendix II of: (+2ai meaning the neotropical populations) (≠ x meaning that specific parts and derivatives are covered by the inclusion)	*Swietenia* spp. +2ai ≠ x	US21
THYMELAEACEAE	95.	Inclusion in Appendix II of:	*Gonystylus bancanus*	DK6/NL12
ZYGOPHYLLACEAE	96.	Inclusion in Appendix II of:	*Guaiacum officinale*	US22

Consideration of Proposals for Amendment of Appendices I and II

Other Proposals

RECOMMENDATIONS FROM THE SECRETARIAT

In preparing these recommendations, the Secretariat has taken into consideration the comments, advice and information received from a variety of sources, such as IUCN/SSC, WCMC/WTMU, TRAFFIC Offices and, of course, the Parties. The Secretariat has also made every effort to follow the guidelines established in Resolution Conf. 5.20.

It must be emphasized that the "Berne criteria" are guidelines and, as evidenced by many decisions of the Conference of the Parties, may be overridden for a variety of reasons. However, the Secretariat has attempted to assess the proposals in relation to the recommendations of those guidelines, bearing in mind that they are necessarily imprecise. Where a proposal appears to meet the Criteria and yet the Secretariat has recommended against acceptance, or vice versa, the reasons for this are clearly stated.

There are many proposals which might be considered "borderline" and, in such cases, the Secretariat feels that the opinion of the range States is essential for full consideration of the proposals. These instances are also clearly indicated in the Secretariat's recommendations. The Secretariat wishes to express its surprise and disappointment that many proposals appear to have been made with no (or minimal) consultation with the range States.

1. *Tarsius syrichta*

   The Animals Committee has reviewed the biological and trade status of this species. As it is endemic to a few small islands in the Philippines and is suffering from a rapidly decreasing habitat, any trade may constitute an additional threat to its survival in the wild.

   Secretariat's Recommendation: Accept.

2. *Manis temminckii*

   The proposal does not mention the uses of pangolin products in the traditional cultures of several African countries. The international trade data indicate a very low level of trade but this may reflect a failure to report trade in products. Available data show that the Asian markets could be turning to Africa in order to satisfy the demand for pangolin products.

   Secretariat's Recommendation: Amend the proposal to transfer the species to Appendix II (and request the parties to improve the implementation of CITES with respect to *Manis* spp.)

3. *Dusicyon (Cerdocyon) thous*

   The inclusion of this species in Appendix II is required because of its similarity in appearance to other Disicyon species included in that appendix. There is confusion over how the trade is declared and it is impossible to determine the impact of the trade because of the confusion over the identification of the exported skins. Appendix-II listing would also facilitate the monitoring of the trade.

   Secretariat's Recommendation: Accept.

4. *Ursus americanus*

   The aims of this proposal are: to improve the protection of the protection of the endangered Asian bear species, and to improve the effectiveness of controls on trade that could affect other Ursus populations. The inclusion of *Ursus americanus* in Appendix II, in accordance with Article II, paragraph 2(b), of CITES, is therefore appropriate.

It should be recognized that because of national legislation in Canada and the USA, if adopted, the proposal will create some problems in those countries because this species is commonly hunted there. Nevertheless, it would be beneficial to list this species in Appendix II because of the difficulties in distinguishing products of Asian bears from those of American bears. There has consequently been an illegal trade in the former, declared as *Ursus americanus*.

Secretariat's Recommendation: Accept.

5. *Ursus arctos* + 2a.a

At present it is difficult to implement adequate controls on the Appendix-I listed subspecies *Ursus arctos pruinosus* because its products are indistinguishable from those of other subspecies. The aim of this proposal is to change the Appendix-I listing to indicate the countries whose populations are protected. This change would be a great aid to enforcement and is therefore highly desirable.

Secretariat's Recommendation: Accept.

6. *Ursus arctos* (unlisted populations)

The non-listing of certain populations of *Ursus arctos* has created several enforcement problems. Notably, hunting trophies originating in a country whose population is listed in the appendices are declared to originate in a country whose population is not listed (formerly the USSR).

The unlisted populations should now be listed for look-alike reasons.

Secretariat's Recommendation: Accept.

7. *Conepatus* spp.

In spite of the inclusion of *C. humboldtii* in Appendix II, uncontrolled trade from argentina in this species, misidentified as other *Conepatus* species, could take place. In any case, because of the confusion over identification of skins, it is not easy to evaluate how important is the threat from trade for all *Conepatus* species.

In addition, it should be noted that the taxonomy of the genus is unclear. Honacki *et al.* (Mammal species of the World) does not recognize *C. castaneus* and *C. rex.*

The Secretariat wonders, however, how significant would be the inclusion of the whole genus in Appendix II, since the international demand for skins seems to have decreased considerably during the recent years and since a confusing taxonomy remains unresolved. The CITES Nomenclature and Animals Committees should consider these issues and report to the 9th meeting of the Conference of the Parties on the appropriate measures to be taken.

Secretariat's Recommendation: Reject, pending reports from the above-mentioned Committees and consider the status of the genus at the 9th meeting.

8. *Hyaena brunnea*

The CITES Secretariat agrees with the supporting statement that the species has no commercial value except for zoo specimens. CITES protection for this species can not solve the problems it faces at the national level where it can be shot or poisoned as vermin. It would seem appropriate for the countries in which this species occurs to make an effort to re-evaluate the important role this species plays in the ecosystems.

Secretariat's Recommendation: Accept.

9. *Acinonyx jubatus*

No supporting statement has been submitted for this proposal and, therefore, the Secretariat feels that it does not qualify for consideration by the Conference of the Parties.

Secretariat's Recommendation: Withdraw.

10. *Felis geoffroyi*

This is the small Latin American spotted cat not listed in Appendix I. It is protected in all the countries in which it occurs. There is therefore no legal trade although there is low level of illegal trade. Apparently all the countries of origin except Argentina accept the proposal. The proposal does not meet the Berne Criteria for the inclusion of species in Appendix I, but there would be no strong reason to object to it if all the countries of origin supported Appendix-I listing as a means of reinforcing their own national measures. A split-listing in this case would only create problems and not solve problems. Therefore the range States should seek a common position.

Secretariat's Recommendation: Accept, provided that the range States are all in agreement.

11. *Mirounga angustirostris*

The supporting statement provides accurate information. The species was used commercially for oil during the last century but it has very little commercial value at present.

Secretariat's Recommendation: Accept.

12. *Orycteropus afer*

The species has no commercial value except for zoological specimens. International trade does not appear to be a threat to the survival of the species.

Secretariat's Recommendation: Accept.

13-15. *Loxodonta africana*

It must be recalled first that the Conference of the Parties, at its Lausanne meeting (1989), did not adopt the original proposals to transfer the African elephant from Appendix II to Appendix I, but approved an "amended proposal" asking for the same transfer combines with the establishment of a panel of experts to advise the Parties on requests for transfer of particular elephant populations back to appendix II. The Conference of the Parties, as a follow-up to that "amendment", adopted Resolution Conf. 7.9 which, in its preamble, states that the Conference of the Parties was aware that populations of elephants of certain African States may not meet the Berne Criteria for transfer to Appendix I. The Conference of the Parties therefore accepted the principle of a "split-listing" of the african elephant in the CITES appendices.

While the Secretariat is not in favour of the use of split-listings as a general approach, it recognizes that, in the case of the African elephant, this approach may be justified as a means of permitting the sustainable use of the species to contribute to its conservation.

Accordingly, and on the basis of a) the information provided by the proponents of the proposals, b) the reports of the Panel of Experts, and c) its own knowledge of the subject matter, the Secretariat recommends that the populations of *Loxodonta africana* of Botswana, South africa and Zimbabwe be transferred back to Appendix II. the case of Namibia appears rather marginal. The secretariat recommends, therefore, that the population of that country remain in appendix I, with the understanding that this should not prevent the export/import of legitimate hunting trophies.

However, the Secretariat dos not consider that such a transfer should be accepted to re-open the commercial trade in ivory unless extremely strict conditions, such as those expressed in the report of the Panel of Experts on the South African proposal, are met. In addition, it must recognize, on the same basis as above, but also on the basis of the existing controls in the potential importing countries, that such conditions are not at present met.

Secretariat's Recommendation: Accept for the populations of *Loxodonta africana* of Botswana, South africa and Zimbabwe, but with an annotation specifying that the transfer shall be for the purpose of allowing international trade in African elephants and elephant products except ivory, unless the trade in ivory is conducted in accordance with the provisions applicable to specimens of Appendix-I species.

16-18. *Ceratotherium simum, Diceros bicornis*

The CITES Secretariat is concerned that the adoption of these proposals may have unforeseen detrimental consequences. Not all details of the rhino horn trade are yet well understood. It is difficult to predict at present what impact a trade in rhino horn from southern Africa might have on African and Asian rhino populations outside this region.

These proposals seem to be premature even if it is recognized that they present an opportunity to generate funds for conservation. However, the Secretariat believes that the whole issue of the trade in rhino products should be subject to further studies, such as those agreed upon by the Rhino Conservation Co-ordinating Group.

Secretariat's Recommendation: Reject.

19. *Capra falconeri*

the taxonomy of *C. falconeri* remains unclear and a geographical approach might be appropriate, to include certain populations in Appendix I. Most of the subspecies are, however, threatened with extinction. As mentioned in the proposal, the species is internationally sought after as a trophy. While international trade is probably not significant at current levels, the combination of sport hunting with any increase of local hunting for meat could threaten the species.

Secretariat's Recommendation: Accept.

20. *Hippotragus equinus*

The species is widely hunted for meat by local people in almost all countries in which it occurs. Although the species is considered a desirable trophy by foreign hunters in at least 20 of the 31 countries in which it occurs. Its deletion from Appendix II will not have any effect on the use of the species internally.

Secretariat's Recommendation: Accept.

21. *Rhea americana*

The taxonomy of the species is confused and it is impossible to differentiate the products in trade at the subspecies level. The similarity in appearance of the different subspecies of *R. americana* has jeopardized the control of trade in the subspecies included in Appendix II, *R.a. albescens*, the only subspecies that is listed . In addition, a similar species, *Pterocnemia pennata*, which is included in Appendix I, may have been traded under the name of one of the unlisted *R. americana* subspecies.

Secretariat's Recommendation: Accept.

22. *Mycteria leucocephala*

Even if it is accepted that *Mycteria cinerea* (Appendix I) requires increased protection, it is not evident to the Secretariat that the inclusion of *M. leucocephala* in Appendix II would achieve this goal. For those countries without trained enforcement personnel, the Appendix-II listing of *M. leucocephala* would do almost nothing to prevent trade in improperly labelled specimens of *M. cinerea* . as the juveniles of these two species can apparently be distinguished, it would be more useful to develop appropriate tools to aid identification.

Secretariat's Recommendation: Reject.

23. *Anas formosa*

Although there is no doubt that this species has declined dramatically during this century, the species is not threatened. Furthermore the females of this species are almost impossible to differentiate from those of other *Anas spp.*, included in Appendix III. Listing in Appendix II will not solve that problem.

Secretariat's Recommendation: Reject.

24. *Goura* spp.

The problem which this genus is facing is the internal use for food, feathers, etc. It is difficult to accept that the inclusion in Appendix I would help the conservation of birds of this genus. The priority should, rather, the development of *in situ* conservation programmes. Additional data would be needed to justify Appendix-I listing. Meanwhile, importing countries should be cautious about accepting declarations of captive breeding.

Secretariat's Recommendation: Reject.

25. *Amazona aestiva*

The proposal is poorly documented and it seems that other range States have not been consulted. The aim of the proposal is to include a species in Appendix I. But the reason is that the only country currently exporting specimens of this species has a management problem, which it has been trying to solve since 1989.

The Secretariat feels that the survey started by Argentina must continue, with a zero export quota for 1992. The quota should be reviewed for 1993 on the basis of the results obtained from the survey.

While the rapid destruction of the habitat of the species proceeds (see proposal 79) and it is impossible to eliminate the domestic market for the species, the collection of birds is just another conservation problem it faces in Argentina.

The survey should now focus on how to improve the trapping system and on commercialization from the collection sites. The Secretariat has encouraged the Argentine authorities to conduct the survey, into which they are putting a great effort. However, the present quota, (23,000 a year) is not based on any population assessment and it does not take into account either the internal trade in eh species or the mortality rates incurred prior to export.

However, the recent efforts made by Argentina to comply with the provisions of Article IV of the convention should be recognized. The inclusion of the species in Appendix I would stop such important efforts without achieving the conservation of the species.

No population data are provided on the status of the population in Brazil, Paraguay and Bolivia, and studies of the sort being conducted in Argentina should also be conducted in those countries.

Finally, as the survey is funded from the sale of parrots it is important to recognize that a zero quota would leave Argentina without the necessary funds to continue. the Secretariat therefore urges Parties and NGOs to help Argentina find the necessary funds to continue the survey, which is the first attempt made in the region on parrot species.

Secretariat's Recommendation: Reject the proposal provided that the zero quota for 1992 is established, to be revised on the basis of the survey results.

26. *Cacatua goffini*

This species is endemic to Indonesia (limited to the Tanimbar island group). The IUCN Captive Breeding Specialist Group (CBSG) and he International Council for Bird Preservation (ICBP) consider the species as highly endangered. Indonesia has established a harvest quota but trade data indicate that the number of birds exported exceeds the harvest quota established.

Secretariat's Recommendation: Accept.

27. *Cacatua haematuropygia*

A recent study carried out by the IUCN confirms that this species has dramatically declined over the last 10-15 years. The species is highly endangered due to legal and illegal logging of tall hardwoods that the species uses for nesting and to trapping, which is the most immediate threat to the survival of this species. A real danger from trade exists.

Secretariat's Recommendation: Accept.

28. *Eos reticulata*

The status of and trade in this species have been extensively reviewed in the context of the CITES Significant Trade studies. The species is endemic to Indonesia which has established a quota. According to the available information, no population survey has been carried out. Export figures for several years indicate that the quota established has been exceeded. The IUCN/CBSG and ICBP consider the species as vulnerable/endangered, and doubts exist regarding the sustainability of the current levels of trade.

Secretariat's Recommendation: Reject, but with a zero export quota until a population study has been conducted.

29-47. Bucerotidae

One of the aims of the Netherlands proposals is to make more comprehensible the appendices regarding the Australasian genera of this family. This objective is much appreciated.

The Secretariat is reluctant to accept the transfer of *Buceros bicornis homrai* to Appendix II on the basis of the information available, since the subspecies is difficult to identify. It would be preferable to list the whole species in Appendix I or, if split-listing is appropriate, to list certain national populations in Appendix II.

Secretariat's Recommendations:

a) Accept the inclusion in Appendix II of all **Bucerotidae** of the genera *Aceros, Anorrhinus, Anthracoceros, Buceros, Penelopides* and *Ptilolaemus*, proposed by the Netherlands.

b) Accept the transfer of *Buceros bicornis* in Appendix I, proposed by the Netherlands.

c) The Thailand proposals are poorly documented. Using information received from other sources, the Secretariat recommends acceptance of the inclusion of *Aceros nipalensis* and *Aceros subruficollis* in Appendix I while the others should be withdrawn.

48-49. *Pteroglossus* spp. and *Ramphastos* spp.

For several years the Secretariat has noticed that the species of these two genera have been exported illegally from many range States in spite of the almost general export ban (except in Guyana and Suriname, which allow the export under an annual quota system). Some importing countries have stated that they were unable to refuse the importation of specimens of these species because of a lack of appropriate legislation.

Secretariat's Recommendation: Accept, but review the data on trade in these genera at the 10th meeting of the Conference of the Parties.

50. *Pittidae* spp.

Very little information exists on the number of specimens of pittas involved in international trade and the inclusion in Appendix II seems premature. Certain species may warrant Appendix-I listing.

Secretariat's Recommendation: Reject.

51. *Clemmys insculpta*

The Secretariat feels that protective legislation at state and provincial levels in the USA and Canada appears to have done little to avoid the collection of specimens of this species. The Chelonian Advisory Group of the American Association of Zoological Parks and Aquariums asks for a cessation of collection of this species from wild populations and, as the demand appears to be increasing, the inclusion of the species in Appendix II seems justifiable.

Secretariat's Recommendation: Accept.

52. *Clemmys muhlenbergi*

The international trade interest in freshwater turtles appears generally to be growing and, although habitat destruction is the greatest threat to this species, in view of the serious population decline it is enduring through its range, its inclusion to Appendix I seems to be appropriate.

Secretariat's Recommendation: Accept.

53. *Crocodylus niloticus*

The proposal is presented in accordance with Resolution Conf. 1.2 and Conf. 2.23 although its main objective is to allow a ranching programme for the St Lucia Lake population. It would have been more appropriate to submit the proposal in accordance with Resolution Conf. 3.15. The crocodile industry in South Africa is mainly based on captive-breeding. Almost 40 crocodile farms exist in South Africa but the commercial production skins is still limited.

South Africa has one of the smallest populations of this species on the continent, the largest numbers of crocodiles occurring within national parks. From discussion within the IUCN/SSC Crocodile Specialist Group, it appears that no comprehensive surveys have been carried out.

Secretariat's Recommendation: Reject or amend for consideration as a quota proposal.

54. *Corucia zebrata*

The species is restricted to the Solomon Islands where it is suffering from habitat loss. It is also subject to considerable interest amongst reptile amateurs. The biology of the species shows that it is unlikely that the species will recover from exploitation, unless given protection under CITES and *in situ*.

Secretariat's Recommendation: Accept.

55. *Vipera wagneri*

Scientists concur that the species is currently in danger of extinction and that one of the main reasons is the intensive collection for the herpetological trade. The species has also been illegally imported into many countries.

The fact that the species is endemic to Turkey, which is not yet a CITES Party, may pose some problems on the future monitoring of trade.

Having studied the proposal the Secretariat considers that this species might most appropriately be a candidate for Appendix I rather than Appendix II as proposed.

Some authors do not consider *V. wagneri* to be a valid taxon, considering it to belong to *Vipera xanthina*. In any case, differentiation from *V. xanthina* is extremely difficult, which could make controls impracticable.

Secretariat's Recommendation: Accept. The Nomenclature Committee should clarify the taxonomy of this species.

56. *Conraua goliath*

Parties where this species occurs should take the appropriate measures, to provide legal protection, trade control and habitat management, to ensure its survival in the wild. It does not seem to be threatened by international trade.

Secretariat's Recommendation: Reject.

57-72. *Rana* (16 species)

The Secretariat is very reluctant to see these species listed in Appendix II. There is little scientific evidence of the impact of trade on the status of many of them. The criteria used to select the 16 species named in the proposal are rather unclear. There is already a problem of identifying *Rana* specimens in trade and if further unwarranted inclusions in Appendix II are accepted, the problem of controlling the trade will be exacerbated, especially in

importing countries. Adoption of the proposal would probably create more enforcement problems than it would solve.

Rana systematics and taxonomy are still under discussion and proper identification is quite difficult.

Secretariat's Recommendation: Reject.

73. *Clupea harengus*

The inclusion of fish species subject to commercial fisheries in the CITES appendices is perfectly compatible with the Convention. However, it would raise serious problems of implementation for many Parties. An international agreement other than CITES exists to regulate the fisheries of herring, and it does not appear, for the time being, that this species should be included in the CITES appendices. However, if its status becomes of serious concern, because its use is not sustainable and its conservation is threatened, then it would deserve to be listed in the CITES appendices.

Secretariat's Recommendation: Reject.

74. *Polyodon spathula*

The proposal contains detailed information on the biological status of the species and includes information on illegal trade. The species is clearly declining throughout its range. It seems that efforts to curtail illicit trade have failed and, because of the probability of continued international trade, its inclusion in Appendix I seems appropriate.

Secretariat's Recommendation: Accept.

75. *Gymnocharacinus bergi*

There is no information on the population trends of this species. It has no commercial value and there is no evidence of legal or illegal trade. The range of the species is confined to one province where it is protected by provincial law. The introduction of trout and other fish is a real threat which can not be solved by the inclusion of the species in the CITES appendices.

Secretariat's Recommendation: Reject.

76-77. *Thunnus thynnus*

Western Atlantic population: Neither the International Commission for the Conservation of Atlantic Tunas (ICCAT) nor the individual scientists who reviewed the proposal for IUCN believe that this population of the species is in danger of extinction.

Eastern Atlantic population: This population is not threatened with extinction but seems to have decreased as a result of increased harvesting during previous decades. The population appears to be stable now. Some concern exists over the exploitation of the youngest segment of the population, where there is a need for better controls. In light of the current management practices, this population does not deserve inclusion in Appendix II. The Secretariat's general comment, under proposal 73, on species subject to commercial fisheries, is also applicable to this proposal.

Secretariat's Recommendation: Reject.

78. *Strombus gigas*

The supporting statement to this proposal is poor and includes out-of-date information. Several scientists consider that overfishing is the major reason for the decline of this species. Relatively little research has been carried out in assessing the population trends of the species. Because of its rarity, it appears no longer to be a major source of food, and it is currently consumed as a delicacy mainly in the bahamas and the USA (Florida).

Most of the Caribbean countries have harvesting regulations, but there is little or no enforcement in most areas. It would be appropriate to formulate a Caribbean-wide management strategy for the conservation of this species.

The species is not in danger of extinction due to the trade, nor likely to become so, but over-harvesting could be a problem. The export of conch products is not well reported because many countries do not specifically record conch exports and imports. Where such data do exist, other species other species may also have been included in export/import statistics for *S. gigas* because of misidentification or misdeclaration. This monitoring problem will remain unsolved if the species is included in Appendix II.

Secretariat's Recommendation: Reject.

79. *Schinopsis* spp.

There is substantial trade in this species. The amount of international trade in wood is clearly documented in the supporting statement. But the exports of tannins extracted from the wood are substantial and may pose a serious threat to the survival of the species.

See also Timber proposals below.

Secretariat's Recommendation: Accept, but should also include the control of the trade in tannins.

80. *Tillandsia* spp.

The trade in *Tillandsia* spp. and its effect on the natural populations of the various species has been discussed by the Plants Committee since its first meeting in 1989 (Kew, United Kingdom). At a Plants Committee meeting in Caracas, Venezuela (July 1990; mainly attended by representatives of Latin American Parties) it was agreed that the listing of the genus in Appendix II was not required. The Plants Committee agreed that:

- there was no immediate threat to the survival of most species because their populations could sustain trade in a larger number of specimens. Those species with only a very restricted distribution were apparently not subject to a high volume of trade; and

- monitoring the trade in all species would most likely not provide reliable data on individual species, because of the serious problems of identification of the non-flowering plants.

However, it was acknowledged that some species may be under threat because of trade. It was therefore agreed that some countries in the Latin American region would co-operate to identify those species under threat and prepare a proposal for their listing in Appendix II. This approach was confirmed by the Plants Committee in its meeting in Zomba , Malawi (April 1992). However, such a proposal has not been prepared in time for this meeting of the Conference of the Parties.

In the past years there has certainly been a high volume of trade in *Tillandsia spp.* of wild origin. Several *Tillandsia* species have, however, become part of the regular house plant trade. The specimens in this trade have to meet certain quality requirements, which can only be achieved by artificial propagation. The production of artificially propagated *Tillandsia* has substantially increased in Central America, particularly in Guatemala where the annual production of artificially propagated plants is estimated to have increased from 7,000,000 specimens in 1988 to at least 21,000,000 in 1991. The Austrian supporting statement does not address the possibility that many of the plants recorded in trade may have been artificially propagated. The German supporting statement provides some incomplete information about artificial propagation.

Both supporting statements emphasize the great difficulties in identifying the individual species, especially when the plants are not in flower. On that basis, both supporting statements argue for the listing of the whole genus in Appendix II. However, an Appendix-II listing would, in principle, not change the present export procedures in the countries of origin. It would certainly not provide additional data on individual species, because the expertise needed for correct identification is hardly available in the countries of export as well as in the counties of import (including the proponents).

The supporting statement of both proposals argue that listing genus would stimulate artificial propagation. The Secretariat is, however, worried that listing the genus in Appendix II, would be damaging for the artificial propagation currently developing in countries like Costa Rica, Guatemala, Honduras and Mexico. It is not easy to distinguish cleaned wild-collected plants from artificially propagated ones. Because of this difficulty and the problem of identification, control problems might be created in the countries of import, which would make traders

refrain from buying. That would be a serious setback fort he producers and would, in the end, stimulate trade in wild-collected *Tillandsia*.

The supporting statement of Austria does not provide any scientifically reliable data on distribution of and trade in individual species.

The supporting statement from Germany provides information on the distribution of 48 out of more than 550 species in this genus. However, the trade data provided relate only to exports from Guatemala and provide no specific information on any of the species mentioned in the proposal. The statement of support from range States provide no trade data to indicate that the *Tillandsia* species mentioned in this proposal or other species are under threat through trade.

Secretariat's Recommendation: Reject or amend both proposals. In the latter case only a limited number of species should be listed in Appendix II; those for which continuing trade could form a threat to their survival, and which can be identified to make monitoring under the Appendix-II listing worthwhile.

It should be noted that if the Conference of the Parties decides to list the whole genus or certain species in Appendix II, the proponents are requested by Resolution of the Conference of the Parties to provide the necessary identification materials, to enable adequate implementation of controls on trade in the listed species.

81. *Ariocarpus* spp.

In international trade (both legal and illegal) there is a great demand for the species of this genus currently listed in Appendix II, causing strong decline of the remaining populations. Stricter protection is necessary.

Secretariat's Recommendation: Accept.

81-86.

88. *Discocactus* spp., *Melocactus conoideus, M. deinacanthus, M. glaucescens, M. paucispinus, Uebelmannia* spp.

The species concerned are all cacti from Brazil, of which the populations have substantially diminished because of trade and habitat destruction. The listing of these taxa in Appendix I including their seeds seems the only way to stop the trade threat. The trade in seeds forms a serious threat to the survival of the remaining small populations.

Secretariat's Recommendation: Accept, on the condition that Brazil provides assurances that large number of illegally collected specimens of wild origin, at present owned by private nurseries do not enter trade, and will be used exclusively for artificial propagation.

87. *Turbinicarpus* spp.

Secretariat's Recommendation: Accept, for reasons explained in the supporting statement, after the Nomenclature Committee has advised on the nomenclature which has to be consistent with the proposed Checklist of Cactaceae if the latter is adopted by the Parties.

89. *Dionaea muscipula*

Habitat destruction is an important factor reducing the possible sites where this species may survive. However, it is also evident that continuing, uncontrolled trade in illegally collected specimens from the remaining populations would form an additional hazard to its survival. Careful monitoring is therefore essential.

Secretariat's Recommendation: Accept.

Timber proposals

The proposals include in the CITES appendices a number of plant species from which the timber is or has been frequently traded, have given rise to discussion in other fora dealing with the timber trade. Suggestions have even been made that CITES would not be an appropriate instrument to deal with timber trade. Other agreements may prove to be more adequate vehicles to deal with the protection of whole vegetations. However, in cases where this may not work as sufficiently well CITES may provide the best mechanism to control the international trade in endangered timber species. Co-operation with international timber trade organizations is necessary to obtain optimal results for such conservation efforts. Apparently

many commentators have also overlooked the fact that some timber species have been in the CITES appendices since the Convention was concluded. The best example of this is probably Alerce (*Fitz-Roya cupressoides*) and it is clear that the CITES listing has contributed much to the protection of this species. It can not be ignored that the implementation of CITES controls for timber species encounter some initial difficulties, because the method of trading is different from that normally encountered in CITES plant trade. Identification would also probably cause some problems in the beginning. The Secretariat is very well aware of the difficulties that would be encountered, but believes that it would be able to propose solutions to ensure adequate control, as well as the necessary means for identification. The knowledge about identification is available, the characteristics of the trade are known, and expertise on timber identification is available in most of the ports of entry. It should not take too much time to compile all the relevant information needed to ensure proper implementation.

One very interesting aspect of these proposals is that they form the first step for integrated conservation through species protection and monitoring of the trade of the most essential elements in many ecosystems: the trees e.g. *Schinopsis* and *Amazona aestiva*.

the Parties should also consider which parts should be covered by CITES controls if species are listed in Appendix II. The Secretariat proposes to restrict the listing to sawlogs, veneer and sawn wood and include the tannins for *Schinopsis* spp.

90. *Dalbergia nigra*

The demand for the wood of this species is the main cause for its strong decline, and forms a serious threat to its survival. It should be listed in the CITES appendices and Brazil should ensure an adequate control of the internal trade.

Secretariat's Recommendation: Accept.

91. *Intsia* spp.

Although the trade data are few for reasons given in the supporting statement, it is clear that the timber is frequently traded and may threaten the survival of several of the species in certain areas of their distribution.

Secretariat's Recommendation: Accept.

92. *Pericopsis elata*

The populations of this species have been markedly depleted because of international trade.

A listing in Appendix II would provide additional support for already existing national protection in several countries.

Secretariat's Recommendation: Accept.

93-94. *Swietenia* spp.

Swietenia macrophylla and *S. mahagoni* are important species in the international tropical timber trade. The first one is nowadays more heavily logged because of the diminished populations of *S. mahagoni*. A CITES listing is justified and would assist the existing conservation measures.

The Secretariat considers that the conditions described under A1 and A2 in the US supporting statement to be impossible under the Convention, because they would imply different treatment of individual CITES Parties, depending whether or not a species is indigenous. It would also mean a stricter control on local industries than is applied to countries outside the natural range, to which the logs are exported for further processing. Section A4 is superfluous, since the exemptions mentioned in Resolution Conf. 6.18 automatically apply to newly listed species.

Secretariat's Recommendation: Accept the inclusion of *Swietenia* spp. in Appendix II without specific conditions other that restricting the control to sawlogs, veneer and sawn wood.

95. *Gonystylus bancanus*

A frequently traded species, of which the export is banned from certain range States.

Secretariat's Recommendation: Accept.

96. *Guaiacum officinale*

A well documented proposal. The species concerned appears to be frequently traded, and may be endangered because of this. Trade control would probably be easier to implement if the whole genus were listed; this because of the general use of the trade name `Lignum vitae' and the complex nomenclature.

Secretariat's Recommendation: Accept.

Consideration of Proposals for Amendment of Appendices I and II

Other Proposals

COMMENTS FROM THE PARTIES

I Comments from Argentina

BRAZIL

Felis geoffroyi

1. As stated by the proponent, insufficient data are currently available on the population status of the species to justify its inclusion in Appendix I in accordance with the Berne Criteria.

   However, it appears from the available information that the species is abundant throughout its present range. The reduction of its historical distribution results from the degradation of the habitat, due to many causes which affect many species.

   Mares *et al.* (1989) mentioned *F. geoffroyi* as a very common species; Barquez *et al.* (1991) mentioned it as "very common, in particular in the bushland of the "chaqueña" region" and the IUCN-CITES Report (1988) indicated that it "has been described as rather common in its whole range. Its population size is however not known and the information on its present status is essentially based on general comments."

   In addition, the following was obtained from surveys by McCloskey and Spalding (1989) on world areas little affected or not affected by human action, in particular those corresponding to the range of *F. geoffroyi*.

	Undisturbed Areas (Km^2)
Deserts with cold winters (Patagonia)	4,191
Tropical dry forests (Gran Chaco)	37,936
Hot desert and semi-deserts (Monte)	58,873

   The total absolutely undisturbed area, of about 10 million hectares appears sufficient to maintain populations of a little cat such as *F. geoffroyi* at reasonable levels. It must be taken into account, in addition, that the extensive areas altered by human activities in which the species is also widely distributed, although possibly at lower densities.

2. The affirmation of the similarity of other felids, such as *F. wiedii*, *F. tigrina* and *F. pardalis* is groundless as the skin of *F. geoffroyi* is readily recognizable, even when manufactured.

   The only look-alike problem may be with *F. guigna*, a species which, as indicated in the proposal, is not at present endangered by trade.

3. In certain areas, the species may be locally affected, as is the case in southern Brazil and Chile, but these areas are marginal.

   Accordingly, Argentina considers that the species has sufficient international protection at present and believes that it should be maintained in Appendix II. It does not consider justified its inclusion in Appendix I, an appendix in which are listed species the populations of which are endangered and need immediate protection measures.

   In order to be able to meet the requirements of Article IV of the Convention, it would be desirable to acquire survey funds to obtain better information on the populations status of the species.

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PARAGUAY

Pteroglossuss spp. and *Ramphastos* spp.

Argentina was consulted by the CITES Management Authority of Paraguay and expressed its agreement with the proposal because toucans are smuggled out of Argentina. Although the trade is prohibited by national legislation, no legal tools exist to allow interception in the countries of destination (such as the Netherlands).

Argentina shares the concern about the status of the wild populations of toucans and therefore, supports the proposal to include these genera in Appendix II. Such inclusion will favour, without any doubt the control of the legal international trade.

UNITED STATES OF AMERICA

Amazona aestiva

1. Argentina, although a range State, has not been consulted by the United States of America, which is the main importing country of this species in the world.

2. Argentina is committed to fully comply with the provisions of Article IV, paragraphs 2(a) and 3, of the Convention, which require evidence that the regulated exports of an Appendix-II species will not be detrimental to its survival.

3. For that purpose, there are three groups of investigation in the country who are undertaking studies on this species, Bucher *et al*., Garrodo *et al*., and Balabusio *et al*., the last one being under the guidance of the CITES Management and Scientific Authority of Argentina. This is auspicious as it allows the collection of a large information on the species for its management and conservation.

4. Argentina learned, last September through the US Federal Register, that the USA was analyzing the possibility of submitting a proposal on *Amazona aestiva* and was asking for any relevant information available on the issue.

5. At that time, Argentina sent to the US Management Authority all available information on the species. At the occasion of the Meeting on Wild-Caught Bird Trade in London, last October, the US representative stated that this information had been received but that it was not possible to take it into consideration, due to lack of time, to assess the status of *Amazona aestiva*.

6. Argentina has organized two workshops on this species, in Salta (1990) and in Buenos Aires (1991), attended by experts from the country and representatives of the CITES Secretariat and TRAFFIC South America.

7. In any case, although the data collected by the different working teams are not conclusive, there is evidence that the species is relatively abundant in the major part of its range. The views on this matter are coinciding.

8. The most critical situation occurs in those areas subject to heavy forestry exploitation, where habitat destruction is significant. In some cases, the nestling-collection techniques are also detrimental as they involve the felling of a tree or the destruction of the nest with the consequent loss of habitat favourable to nesting. This is the case in the Salta Forestal area where the studies of Dr Bucher's group are conducted. But it can not be extrapolated to the whole species range which is extremely large.

9. There are extensive less-altered areas, in which the species occurs in considerable densities. In these areas, which constitute significant "reservoirs", the commercial exploitation implies less harmful techniques which do not lead to the destruction of trees and/or nests. The Morillo (Salta) area is an example where Dr Garille *et al*. centred their investigations. The studies undertaken there show rather different results regarding the densities and recruitment rate.

10. From what is said under items 8. and 9., it can be concluded that there are different types of situation, even between areas very close to each other, depending on the use of the habitat by man.

11. The studies made by Balebusio *et al*. have focused on an analysis of the relative abundances of *Amazona aestiva* in various environments of the Salta, Jujuy and Formosa Provinces. The collected data indicated a major abundance in the north-western region of the range in Argentina (Salta and Jujuy). The species occurs in the whole region studied, but numbers are decreasing eastwards and southwards. The values of relative abundance ranges between the following averages:

    North-western region:

    45 individuals/census in the pre- and post-breeding periods
    160 individuals/census in the winter period

    South-eastern region:

    5 individuals/census with little fluctuation throughout the different periods.

    Each census implies about one hour of recording or about 45 kilometres.

12. Considering the global status of the species, it is worthwhile to report that from a study by McCloskey and Spalding (1989): A reconnaissance level inventory of the amount of wilderness remaining in the world; the absolutely unaltered areas of dry tropical forests of the Gran Chaco amount to 37,936 km^2, i.e., almost 4 million hectares. To these, we must add the present surface of hot valleys (Yungas) and transition forests of Argentina and Bolivia, plus the enormous Chaco extensions with little damage of Argentina, Bolivia and Paraguay to know the size of favourable habitat for the species. A recent assessment by Mosa *et al*. of the University of Salta, indicates that the remaining area of mountain Chaco and transition woodlands in the Salta, Jujuy and Tucuman Provinces (Argentina) is 2.5 million hectares.

    Accordingly it is possible to affirm that the species can neither be classified as currently endangered nor appear to qualify for such a classification in the foreseeable future.

13. The international trade in the species is currently subject to an annual quota established by the Argentine Authority. The quota (23,000 specimens) represents 50% of the average historical exports of the last decade and it has been set at this level in 1990 at the suggestion of the authorities of the European Economic Community. The quota was established simultaneously with the start of the current studies, until their conclusions are available.

14. However, as the results of the various studies are not yet conclusive and considering the genuine concern of the international community regarding this species, Argentina intends to stop the trade (zero quota) for one year, 1992, the third year of the study on the species made by the group directed by the Argentine Authority. Thus, we hope to have solid information at the end of this period on which to establish sustainable management norms for the future.

15. It may be noted that in the list of Appendix-II species subject to significant trade, established by IUCN under Resolution Conf. 4.7, *Amazona aestiva* is in List 2 (species in which trade is possibly a problem). For such species, the recommendation is to initiate studies such as those mentioned above (Inskipp *et al.*, 1988). In addition, Argentina considered it appropriate to determine an export quota, an action which is in fact suggested for the species included in List 1 (problem species), to have a better security margin.

16. Because of what is expressed in the previous 15 paragraphs, and summarized as follows:

- the proponent did not consult the range States as recommended, at least as far as Argentina is concerned;

- in Argentina, this species is subject to extensive studies, in accordance with Article IV of the Convention;

- no alarming trends are detectable from the preliminary results of those studies regarding either a present nor future population decrease;

- in spite of this, the possibility to impose additional protection until more definitive data are available has been considered;

- the transfer of a species to Appendix I of the Convention should be an exceptional means to be used only in cases of species clearly endangered as evidenced by *bona fide* information;

- the conservation efforts for this and other species of Gran Chaco should be focused on the conservation of its structural mainstay: "el quebrachal";

- an export quota has been established and perfectly respected, to the satisfaction of the authorities of Argentina and international control organizations;

- strict measure have been implemented for a better control of the international trade and the trade sector has actively contributed to the implementation of these measures, including to the undertaking of the studies;

Argentina requests the CITES Secretariat to suggest to the United States of America to withdraw the proposal and, if the proposal is maintained, to recommend to the Parties to reject it.

II Comments from Canada

BOTSWANA, MALAWI, NAMIBIA, ZIMBABWE

Clupea harengus

It is believed that CITES has not previously considered abundant stocks of marine fish subject to commercial fisheries, as compared to species with limited numbers that are collected for the aquarium or display trade. It is noted that there is an extensive history of the reaction of fish stocks to commercial fisheries and that, although a number of stocks have been fished to very low levels, the stocks themselves have not been extirpated. Indeed, where stocks have been reduced so low, due to inadequate management and/or unfavourable environment conditions, that fishing has ceased, the stocks have later rebounded. The extensive arguments within fisheries management bodies are mostly about the economic impacts of alternative management approaches. There has, however, been recognition of those situations where spawning biomass may have declined so low as to cause concern about maintaining recruitment, and the necessary action has been taken.

Herring occur in Canadian waters along both the Pacific and Atlantic coasts. There are a considerable number of discrete stocks, each demonstrating somewhat different biological characteristics. The populations of the various stocks show considerable variation over time, not only in response to harvesting, but mainly due to environmental conditions. The stocks in Canadian waters are managed domestically and scientific advice is provided through a formal scientific peer review process. The natural fluctuation in the numbers of young fish that enter the fishable populations means that the allowable harvest does vary considerably over periods of some years, and there have been periods when virtually no harvest has been permitted on certain stocks. Some of the stocks of herring are composed of a number of sub-stocks, each with their own distinct spawning area but with the sub-stock mixing together during the non-spawning period. The separation of spawning units at spawning time has meant, in the past, that some units may

have suffered greater fishing mortality than other components, but this is now recognized and active management measures undertaken to spread harvest appropriately between the different spawning components.

It is noted that the very limited information contained in the proposal to CITES is limited to herring stocks in the Northeast Atlantic. The literature cited in the proposal is, however, dated and the populations of the stocks that were considered to have been depleted severely (North Sea herring, Icelandic herring and Arcto-Scandian herring) have increased, in some cases dramatically, since the period discussed in the documents. This information is contained in reports issued by the International Council for the Exploration of the Seas. The information on Canadian stocks is extensive and is being sent to CITES. In particular, attention is drawn to CAFSAC Advisory Documents 91/8 and 91/4 and to Canadian Manuscript Report of Fisheries and Aquatic Sciences No. 2119 which respectively provide the latest assessments of Atlantic and Pacific stocks.

There is no basis for describing the populations of herring as being threatened with extinction, and there is no reason for CITES to consider taking action to supplement or replace current management measures.

DENMARK

Ursus americanus

The proposal's supporting statement fails to mention that Canada included *U. americanus* in Appendix III on September 18, 1991. Canada took this action in response to concern from Japanese CITES Authorities that parts from Appendix-I bears, such as gall bladders, were being falsely labelled as *U. americanus* by some importers.

Canada chose Appendix III because it provided a means of identifying *U. americanus* products while also allowing the exemption of the readily recognizable trophy parts (the hide with claws attached and the skull), which form the bulk of Canadian exports. The same advantage extends to the United States, which now issues a "certificate of origin" for its non-trophy exports. Because Mexico does not export bear products, all products of *U. americanus* (except hide with claws attached and skull) from North America are now identified by export documents.

Based on current information, Canada does not see that the proposal from Denmark would provide any significant advantages to the current Appendix-III listing by Canada.

SWEDEN

Thunnus thynnus

It is believed that CITES has not previously considered abundant stocks of marine fish subject to commercial fisheries, as compared to species with limited numbers that are collected for the aquarium or display trade. It is noted that there is an extensive history of the reaction of fish stocks to commercial fisheries and that, although a number of stocks have been fished to very low levels, the stocks themselves have not been extirpated. Indeed, where stocks have been reduced so low, due to inadequate management and/or unfavourable environment conditions, that fishing has ceased, the stocks have later rebounded. The extensive arguments within fisheries management bodies are mostly about the economic impacts of alternative management approaches. There has, however, been recognition of those situations where spawning biomass may have declined so low as to cause concern about maintaining recruitment and the necessary action has been taken.

Bluefin tuna are managed in the Atlantic by the International Commission for the Conservation of Atlantic Tunas (ICCAT). This Commission has been in existence since 1969 and took measures to control the harvest of bluefin as early as 1975 when it was agreed that there should be no increase in the harvest and that a minimum size should be introduced. Subsequently ICCAT realized that more active conservation measures were required and in 1982 introduced limits on the harvest by main participating countries in the western Atlantic (USA, Canada and Japan). It was expected that recovery of the bluefin would take a large number of years owing to the long life-span of individuals (up to 25 years or more). The ICCAT's Standing Committee on Research and Statistics (SCRS) has just completed an assessment of the status of western bluefin populations, and it concluded that the management measures adopted in 1982 are being effective in stopping the decline and perhaps already allowing increase in the numbers of individuals of ages up to nine. SCRS indicates that the numbers of older fish can also be expected to stabilize with time and to increase subsequently. ICCAT, at its meeting in November, decided that it would reduce the uncertainty as to whether increase is occurring, by adopting measures that would increase the speed of recovery. In addition to reducing the harvest by 10% in the 2-year total for 1992-93, and another 15% for 1994-95 unless the scientific assessment indicates otherwise, measures were adopted to control further the harvesting of young fish and to reduce

the international trade by countries not members of ICCAT. Thus, rather than, as stated in the Swedish proposal, "heading directly towards extinction", the western bluefin population can be expected to stabilize in total and start to rebuild.

It is noted that a further reduction in harvesting pressure could be expected to increase the rate at which the stock rebuilds, but this is a management choice in terms of yield to the fisheries. It does not concern the continued existence of the population.

The attention of CITES is drawn to the reports of ICCAT and its SCRS, together with the review of the Swedish proposal. These have been sent directly to CITES by ICCAT and are endorsed by Canada. There is no basis for describing the populations of Atlantic bluefin tuna as being threatened with extinction, and there is no reason for CITES to consider taking action to supplement or replace current management measures.

III Comments from Indonesia

UNITED STATES OF AMERICA

Cacatua goffini and *Eos reticulata*

We were very surprised when the Secretariat sent us the proposals from the United States of America about the transfer of *Cacatua goffini* and *Eos reticulata* from Appendix II to Appendix I. The Management Authority of Indonesia has strong objections to these proposals being considered and discussed at the eighth meeting of the Conference of the Parties and unfortunately this objection is not mentioned in the proposals. The United States of America never communicated its concern or its intentions to Indonesia and has never discussed them. The two parrot species are endemic to Indonesia which has detailed information about the populations of these birds. Any proposal should, therefore, come from the Management Authority of Indonesia, although the complete data have never been published.

IV Comments from Japan

ARGENTINA

Rhea americana

Japan is one of the major importing countries of *Rhea* skins. The species is listed in Appendix III (by Uruguay) and one subspecies (*R.a. albescens)* in Appendix II, but within some other range States, the species is also subject to national restrictions on export and such complex application of regulations leads to the occurrence of much illegal trade and unnecessary confusion.

The proposal simplifies the status of the species and consequently would contribute to the prevention of illegal trade. The Government of Japan, therefore, strongly supports the proposal.

BOTSWANA, MALAWI, NAMIBIA, ZIMBABWE AND SOUTH AFRICA

Loxodonta africana

Japan will reserve its stand on these proposals until they are discussed at the Kyoto meeting.

DENMARK

(A) *Ursus americanus*, (B) *Ursus arctos*, populations of China and Mongolia, (C) *Ursus arctos*, populations not listed in any CITES appendix.

Japan is one of the major importing countries of bear gall bladder. At present, the Soviet population of *Ursus arctos* and the U.S. and Mexican populations of *Ursus americanus* are the only populations of Ursidae the specimens of which do not require CITES export permits. Japan has been aware of the possibility for the CITES listed bear species to be illegally traded under the names of those populations. Proposals A. and C. would be a step forward to solve the problem and therefore the Government of Japan supports them.

For proposal B., there should be further consideration of the comments from China, since there are *Ursus arctos* populations in China that are not classified as *U.a. pruinosus*.

Further, the figure within the supporting statement (Fig. The Eurasian distribution of *Ursus arctos)* should be corrected shown in the attachment.

DENMARK AND THE NETHERLANDS

Intsia spp. and *Gonystylus bancanus*

The proposals submitted have not been supported by sufficient data in order to be listed in Appendix II of CITES.

It is suggested that more data be provided by the countries who represent the major habitats of the species concerned and by the proponent countries so that the proposals may be examined on a satisfactory scientific basis.

GERMANY

Rana spp.

The genus *Rana* is the largest genus among the Ranidae which includes some hundreds of species.

The taxonomy of this genus is still not yet defined and even if the 16 species named could be distinguished from others within the same genus, possibly by scientists, it is highly doubtful that others (e.g. Customs officers, quarantine officers, etc.) would be able to do so just as well.

Further, it is mentioned in the supporting statement that "as species identification is nearly impossible in frozen *Rana* legs without biochemical (electrophoretical) methods it is highly questionable whether frog species in trade are correctly declared", while the main demand for the species is for frog-leg meat. Listing of those species in any CITES appendix can not only bring confusions to issuance of permits and customs clearance but also damage the scientific credibility of CITES listing in the appendices.

The Government of Japan, therefore, objects to the *Rana* proposal as a whole.

For reference, Japan is one of the range States of *R. limnocharis* but the species is not utilized within the country nor has international trade in the species ever been recorded.

SWEDEN

Thunnus thynnus

The Atlantic bluefin tuna has been under strenuous conservation efforts by the International Commission for the Conservation of Atlantic Tunas (ICCAT).

The ICCAT has experience of international co-operation both in the field of scientific research and in actual fishery management of Atlantic bluefin tuna resources over 20 years and thus is the sole competent and appropriate international body for conservation of the species in question. Therefore, Japan believes that CITES involvement in the management of this species is not necessary or appropriate.

This Commission, at its annual meeting of November 1991 concluded that Atlantic bluefin tunas are being managed effectively by the Commission and not threatened with extinction, and decided to send a letter to the CITES Secretariat informing it of its view.

Japan would like to ask the CITES Secretariat to circulate the letter to the CITES Parties. Japan would also like all the CITES Parties to pay due respect to this view and it is not in a position to support the Swedish proposal to list the Atlantic bluefin tuna in the CITES appendices.

V Comments from Malaysia

THE NETHERLANDS

Buceros bicornis

This is a rare species in Peninsular Malaysia and it is totally protected under the Protection of Wildlife Act 1971, Act. 76. We would therefore support the transfer of the species to Appendix I.

VI Comments from New Zealand

BOTSWANA, MALAWI, NAMIBIA AND ZIMBABWE

Loxodonta africana

New Zealand reserves its position on the listing of the African elephant.

Clupea harengus

While the issues are broadly similar to those discussed below for tuna, the species is probably not so much at risk and we doubt if a listing is appropriate. A discussion of the issues behind the proposal will be valuable. They include those referred to below as well as the mechanisms for countries proposing species from outside their respective areas.

DENMARK AND THE NETHERLANDS

Intsia spp.

In responding to this proposal we feel it necessary to consider the issues which lie behind it. Either the *Intsia* species themselves are threatened by trade or the forests of which they are a part are threatened. Along with many other countries and agencies, New Zealand is very concerned at the extent and rate of deforestation in both the tropics and temperate regions.

The risk to *Intsia* forests is a part of the problem of tropical deforestation, though logging, and hence trade, only constitutes around half of the cause. If forest protection is an ultimate objective of this proposal, then we are sceptical of whether the listing would provide an effective measure of protection. Given that these species originate from mixed timber stands, deforestation may still continue, particularly since forest clearance for agriculture and fuel-wood still continues. There is still debate in New Zealand over whether restricting trade provides an incentive or a disincentive for landowners to manage their forests sustainably.

The argument in favour of CITES listing must hinge on whether the species are threatened by trade. While acknowledging the very serious problem of deforestation, CITES may not be the most appropriate means by which to address it, unless the tree species themselves are truly threatened. More data are needed on the degree of threat which *Intsia* spp. face.

Should the listing proposal be supported, we would advocate an exception that enabled all trade in "cultural materials" to continue unimpeded. Recent involvement with conservation initiatives in Samoa has revealed to us the value of this type of trade as an aid in retaining the remaining stands of *Intsia*. Any inhibition of such trade would remove a major reason for conservation of tropical forest.

Gonystylus bancanus

While this species is certainly in decline, as for *Intsia*, we need to be convinced as to the appropriateness of CITES as a vehicle for helping ensure its survival. The issue is part of a broader one of unsustainable forest use, which may be better addressed by the proposed biodiversity and international forestry conventions and other initiatives.

SWEDEN

Thunnus thynnus

The general argument that this species is threatened by trade is compelling, particularly for the western Atlantic "stock". It has been clear for some time that the population is considerably lower than it should be for the catches from the fishery to be sustainable.

Fishing mortality continues to be far too high to allow anything other than a continuing decline. While the eastern Atlantic fishery is also in decline, it is interesting to note the poor data available.

While an international management system is in place, the proposals argue that it has proven consistently ineffective and that action to effect changes must come from outside the current management system. We have sympathy with this view. The question then becomes one of whether CITES is an appropriate medium for achieving such action.

We consider that the wider role of CITES in fisheries, particularly on the high seas needs to be considered further. We are not opposed to the listing, but urge resolution of these issues.

UNITED STATES OF AMERICA

Strombus gigas

As with the above examples, we believe that the broader issues of CITES and fisheries need to be addressed in the context of this proposal.

VII Comments from Nepal

THE NETHERLANDS

Bucerotidae

Considering the declining population of different species of hornbill in Nepal, we appreciate the proposal to include all Australasian hornbills in Appendix II.

The species *Buceros bicornis* is widely sought after by traders due to its vulnerable status. Its demand is high among the bird traders in South-East Asia. Trade in the species has to be controlled by transferring it from Appendix II to Appendix I.

I am in favour of withdrawing the proposal to transfer *Buceros bicornis homrai* from Appendix I to Appendix II. Due to deforestation and habitat degradation the species is limited only to certain patches of protected areas in Nepal.

VIII Comments from Panama

COSTA RICA AND THE UNITED STATES OF AMERICA

Swietenia spp. and *Guaiacum officinale*

Although Panama is a range State of these species, it has not been consulted.

PARAGUAY

Pteroglossus spp.

The species *Pteroglossus frantzii*, of which Costa Rica and Panama are range States, must be included in the genus.

IX Comments from Peru

GENERAL

We support the proposals submitted by those Parties which are range States of the species concerned.

ARGENTINA, AUSTRIA, GERMANY, PARAGUAY

We agree with the inclusion in Appendix II of the species of the genera *Conepatus, Pteroglossus, Ramphastos* and *Tillandsia*.

BRAZIL, THE NETHERLANDS AND THE UNITED STATES OF AMERICA

Cactaceae spp.

We do not have any comments, as we authorize the export of artificially propagated specimens only, when the trade is for commercial purposes.

COSTA RICA AND THE UNITED STATES OF AMERICA

Swietenia spp.

We reserve our opinion which will be made known at the eighth meeting of the Parties.

X Comments from the Philippines

THE NETHERLANDS AND THAILAND

Bucerotidae spp.

Management Authority: support any proposal to include in Appendix I all the Philippine species of hornbills as follows: *Anthracoceros montani, A. marchei, Penelopides panini panini, P.p. manilae, P.p. sunigra, P.p. mindorensis, P.p. ticaensis, P.p. samarensis, P.p. affinis, P.p. basilanica, Rhyticeros leucocephalus leucocephalus, R.l. waldeni, Buceros hydrocorax hydrocorax, B.h. semigaleatus* and *B.h. mindanensis*.

Scientific Authority: Regarding the proposals on the Australasian hornbills, particularly on Philippine species (*Anthracoceros sp., Buceros sp., Aceros sp.* and *Penelopides sp.)*, it was agreed that protection for these avian species should really be strengthened and co-ordinated among Parties concerned, they being vital faunal components of the tropical ecosystems. As for national protection in the Philippines, legislation in the form of Presidential Decrees, Executive Orders, rules and regulations have been instituted, and are being implemented and enforced by the Protected Areas and Wildlife Bureau (PAWB) of the Department of Environment and Natural Resources (DENR), the CITES Management Authority.

As the Scientific Authority, we strongly support the proposal as it is in line with the wildlife conservation and protection goals and thrusts of our government. It is hoped that the proposal will be favourably acted upon in the CITES meeting in Japan.

XI Comments from Switzerland

ARGENTINA

Dusicyon thous

The population data are extremely poor and not necessarily in support of the proposal (4 specimens per sq.km. is a rather high density for a canid species).

Information on trade is out of date. Recent trade is most likely much lower.

Before the international community is involved in granting Appendix-II status under CITES, the national legislation of the proponent should be adapted.

Conepatus spp.

There are no population data and there is no evidence that the taxa come up to the criteria for inclusion in Appendix II under Article II 2(a), of the Convention. The proposal is also not acceptable as a look-alike proposal because it does

not cover all look-alikes to *Conepatus humboldtii*, which has been in Appendix II since 1979 (and not since 1983 as stated by the proponent), namely *Conepatus leuconotus, C. mesoleucus* and *C. semistriatus*, and because, taking into account the supporting statement submitted in 1979, it is doubtful whether *C. humboldtii* itself meets the criteria for a listing under Article II 2(a). A photocopy of that supporting statement is attached to this letter. In addition it has to be noted that the taxonomy of *Conepatus* is highly confusing. Honacki's "Mammal Species of the World" which has to be used as the standard reference for mammals in the CITES context recognizes neither *C. rex* nor *C. castaneus* as valid species.

Therefore, we suggest that

a) the proposal be withdrawn;

b) the Animals Committee be charged to review the biological status of the genus *Conepatus* prior to the 9th meeting of the Parties;

c) the Nomenclature Committee be charged to review the taxonomic status of the genus *Conepatus* prior to the 9th meeting of the Parties;

d) depending on the outcome of these investigations a new proposal be submitted at the 9th meeting of the Parties.

Gymnocharacinus bergi

No population data and trends are provided. The species is in no way affected by international trade which, according to the proponent, is non-existent except for one export for breeding purposes to Germany 13 years ago (!). A potential threat exists as a result of the introduction of brook trouts and other salmonids but we seriously doubt whether these fish would cease to feed on *Gymnocharacinus* because of the CITES listing.

BOTSWANA, MALAWI, NAMIBIA, ZAMBIA AND/OR ZIMBABWE

Manis temminckii

Imports into Switzerland and Liechtenstein (1986-1990): nil.

Hyaena brunnea

One skin and skull have been confiscated in 1986, otherwise no imports into Switzerland and Liechtenstein from 1986 to 1990.

Acinonyx jubatus

No supporting statement received. There is possibly a case for downlisting under agreed quotas which may be zero for certain range States.

Import of cheetahs into Switzerland and Liechtenstein (1986-1990): 8 captive-bred live animals from South Africa, 2 live animals taken from the wild in Namibia, 1 trophy from Namibia.

Orycteropus afer

Imports into Switzerland and Liechtenstein (1986-1990): nil.

Ceratotherium simum

Since, until November 1991, more than 230 white rhinos have been dehorned in Hwange (The Herald, Harare 14.11.1991) the population is obviously higher than indicated in the proposal.

Diceros bicornis

Possibly a solution *sui generis* has to be found for black rhino horn resulting from management measures, because the species obviously does not meet the Berne Criteria for being transferred to Appendix II, and Appendix I does not permit the import of Appendix-I specimens for primarily commercial purposes.

Hippotragus equinus

Average import into Switzerland and Liechtenstein: one trophy per year (1986-1990).

Clupea harengus

As inhabitants of a land-locked country, Swiss are not big clupaeophages. Nevertheless, about 500 tons/year are imported i.e. twice the quantity of frogs and frogs' legs.

Swiss and Liechtenstein Imports 1990

Type of goods	Weight in kg.	Value in CHF	Main Countries of Origin
Herring			
- fresh	865	4,729	EEC
- frozen	51,667	57,501	DE + other EEC
- smoked	39,254	239,116	FR, NL, BE
- prepared (cont.> 3kgs)	5,915	58,375	NL
- prepared (cont.< 3kgs)	26,722	2,168,723	DE, NL, DK, SE, NO
- total	498,236	2,539,295	
Fish meal unspecified	41,761,230	38,254,355	DK, CL, NO, PE, IS, DE, FR

BRAZIL

Felis geoffroyi

This proposal is an attempt to kill a trade which is already dead, as is shown by the following figures on imports into Switzerland and Liechtenstein:

1981: 179 garments, 80 skins
1982: 62 garments, 1 collar
1983: 29 garments, 130 skins
1984: 13 garments, 52 skins
1985: 9 garments, 1 skin
1986: 0
1987: 0
1988: 4 skins
1989: 0
1990: 0

In addition, the population status and trends are poorly documented and are not sufficient to justify a transfer to Appendix I. Most information provided is not hard evidence but guess work ("quite possibly vulnerable" in Chile, "possibly very vulnerable" in Paraguay). Existing problems which are related to agricultural development are not addressed by CITES and a change of listing will have no effect in this respect. The transfers of other Latin-American cats to Appendix I can not be used as a precedent for *Felis geoffroyi*, because these transfers were made in the context of a taxonomic clean-up and with the clear understanding that the species, in principle, do not meet the criteria for inclusion in Appendix I.

It is true that there have been false species declaration of *Felis geoffroyi* skins in the past, but it would be naive to believe that this could be remedied by Appendix-I listing. A real look-alike problem does not exist (cf. sheets F-112.007.000.003, F-112.007.001.010, F-112.007.001.028, F-112.007.001.030 of the Identification Manual Vol. 4).

The supporting statement contains no comments from other range States.

Discocactus spp. and *Melocactus* spp.

The supporting statement contains no recent trade data. According to the information available to us, current trade in wild specimens is rather low and the species are threatened mainly by transformation of habitat.

The Swiss nursery referred to in the supporting statements has been out of business for quite a while.

Experience in other species show that Appendix-I listing does not result in a propagation under more carefully controlled conditions, as assumed by the proponent, but that the additional paperwork involved discourages cultivators from continuing to propagate the species. In the present case, where most of the plants in trade are from seeds artificially propagated outside the country of origin, Appendix-I listing may be counterproductive.

Appendix-I listing would not guarantee a better control of trade in the species concerned because young plants can not be identified to species level.

The supporting statements do not take into account the new Brazilian nature conservation legislation.

DENMARK

Ursus arctos

Apart from the trade described in the proposal, there is also international trade in bear meat, mainly in entire carcases, e.g. in 1990, Switzerland imported 2616 kg of bear meat from Yugoslavia.

The statement in Annex 1, that the populations included in Appendix II are likely to qualify for Appendix I is, in this general form, not correct because the Annex demonstrates that a number of European populations are either stable or on the increase.

GERMANY

Rana spp.

This proposal is likely to create more problems than it will solve. A matter of principle is, whether CITES should be used to assist the enforcement of the German Federal Species Conservation Act in cases where this act relates to exotic species which are not native to the country - a situation which is considered as some form of "eco-colonialism" by many range States. Interestingly enough, the proposal does not contain frogs of the basically European *Rana esculenta* group (*ridibunda, lessonae*), although the range of *ridibunda* extends into Pakistan.

In practical terms, the proposal will create problems because *Rana* systematics and taxonomy are still under discussion and because proper identification of frogs' legs is possible and practical only by means of electrophoresis/electrofocusing which would imply that, in order to enforce the listing of the 16 species, all CITES Parties importing frogs' legs should be able to routinely use the electrofocusing method and should have at their disposal lyophilized samples of at least 18 frog species (including *tigerina* and *hexadactyla*).

The information provided on 993 tons of "Swiss frogs" being exported to France from 1979 to 1987 most likely relates to French imports via the binational airport of Geneva.

Switzerland has been monitoring the import of frogs for human consumption and of frogs' legs for a number of years, although not identifying the individual species. These data are published in the CITES annual reports. The only Asian supplier country is Indonesia with the following quantities (in metric tons, gross weight) of frogs' legs 1986: 42; 1987: 48; 1988 58; 1989: 30; 1990: 71.

MALAYSIA

Pittidae spp.

The biological criteria for inclusion in Appendix II of the whole genus are not met. Known world trade has been rather low in recent years. The individual species are readily identifiable which also does not permit an inclusion in Appendix II under Article II 2(b), of the Convention

The supporting statement contains no comments from the countries of origin.

THE NETHERLANDS

Goura spp.

The information that, in 1989, 63 *Goura* spp. have been confiscated by Switzerland is not correct, but there were imports, in 1990, of 72 *Goura cristata* and *Goura victoriae* which had been re-exported from Singapore and which were certified to be captive-bred in Taiwan. Since the Swiss MA believed it to be unlikely that such a large number were really bred in captivity, it was decided not to issue any further import permits for commercial shipments of "captive-bred" *Goura* spp. From 1986 to 1989 no *Goura* spp. were imported.

Most of the information on the population status pre-dates 1973, i.e. was already known when the *Goura* spp. were listed in Appendix II at the Washington Plenipotentiary Conference, 1973, and should not be used to justify a transfer to Appendix I in 1992.

The supporting statement contains no comments from the countries of origin.

Bucerotidae spp.

One of the aims of the Dutch proposals is to make the appendices more workable with regard to the genus *Buceros*. This is welcomed. On the other hand, some more trade data should be provided to assess the impact of international trade on the various species. As far as Switzerland and Liechtenstein are concerned, imports of non-listed Australasian hornbills have been non-existent or absolutely insignificant since 1975.

In the case that the downlisting of *Buceros bicornis homrai* is not accepted, an alternative would be not to upgrade the whole species but to keep certain national populations in Appendix I instead of the non-identifiable subspecies *homrai*.

Recent information on the population status of the species (Foose *et al.*) should be made available to the Parties.

Ariocarpus spp.

Those species which are threatened are already listed in Appendix I, the others do obviously not meet the criteria for a transfer. Article II 1 of the Convention does not permit the inclusion of species in Appendix I for look-alike reasons. Most likely, the look-alike problem could even not be solved by the adoption of the proposal because the species concerned could easily be traded under some synonymic names.

PARAGUAY

Pteroglossus spp. and *Ramphastos* spp.

These proposals fail to demonstrate that the species meet the biological criteria for inclusion in Appendix II and that they are affected by the existing world trade of apparently less than 1000 birds per species a year. Loss of habitat and local use are no justification for an inclusion in CITES, and CITES should not be used as a vehicle to ensure protection at the national level.

Imports into Switzerland and Liechtenstein are very low, mainly by zoos and qualified aviculturists.

SWEDEN

Vipera wagneri

Vipera wagneri is possibly not a valid taxon but belongs to *Vipera xanthina*. Differentiation from *xanthina* is extremely difficult and in the frame of border controls impractical. There is evidence that the range of *wagneri* is much larger than indicated in the supporting statement (Schätti, unpubl.).

The supporting statement contains no comments from the country of origin.

THAILAND

Bucerotidae spp.

These proposals are very poorly documented. Apart from some very general information on the distribution, they relate exclusively to the Thai populations of the species concerned. Based on the statement that the species have apparently never been abundant in Thailand and that no population data are available, the proposal can not be accepted.

Other range States have not been consulted.

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Capra falconeri

The population data in this proposal are not very recent, all estimates having been made in the period from 1971 to 1985. The proposal fails to demonstrate that international trade has contributed to the vulnerable status of the species. An assessment of the trade impact should be possible, since all subspecies which are not listed in Appendix I have been listed in Appendix II since 1975 and since no illegal trade seems to be known. It should be noted in this context that the import of live specimens and hunting trophies from the Asian range States into Europe and North America is restricted by veterinary regulations.

In case the species does not meet the criteria for Appendix-I listing, a geographical approach should be sought by listing the populations of certain countries in Appendix I instead of the current listing of three subspecies.

The proposal contains no comments from the countries of origin.

Imports into Switzerland and Liechtenstein (1985-1990): nil.

Anas formosa

The proposal fails to demonstrate that international trade has contributed to the vulnerable status of the species. As is stated by the proponent, the primary problem lies in the intensity with which waterfowl, including *Anas formosa*, are hunted for meat in certain Asian range States. The problem can not be addressed by CITES listing but should be tackled at its roots by the range States adapting their hunting legislation or by taking appropriate measures in the framework of the Ramsar Convention.

UNITED STATES OF AMERICA

Amazona aestiva

This proposal fails to demonstrate that the species meets the biological requirements for inclusion in Appendix I. Statements such as "More recently described as common and widespread" in Bolivia or "Said to be 'generally common'" in Brazil and "to be no problem", "Common in the Chaco of the west, fairly common to locally common eastward from the Paraguay river, no declines evident" are hardly in support of the proposal. To our knowledge, blue-fronted amazons are considered an agricultural pest in certain range States and are destroyed in large numbers.

There is no evidence that the species is affected by international trade. Argentina, where the species is said to be declining, has put into place an export quota system for all psittacines except *Myiopsitta monachus* and *Cyanoliseus patagonus*. Under this system, eight species have a zero quota, and eight species may be legally exported. Of the latter, *Amazona aestiva* has by far the highest quota (23,000 birds for 1991). If the species is declining because of excessive trade, it would be sufficient to reduce the quota.

The proposal contains no comments from the countries of origin.

Cacatua goffini

It should be explained why, in spite of the Lacey Act, the United States alone imported more Goffin's cockatoos in 1988 than the Indonesian export quota allowed for.

Imports into Switzerland and Liechtenstein: 1987: 6; 1988: 14; 1989: 54; 1990: 9 all from Indonesia; and 1989 one from Germany.

Eos reticulata

Also in the case of the blue-streaked lory the United States authorized more imports than they were allowed under the Lacey Act.

Imports into Switzerland and Liechtenstein: 1986 to 1989: nil, 1990: 1 from Indonesia.

The proposal contains no comments from the country of origin.

Clemmys muhlenbergi

The supporting statement is somewhat contradictory in itself. Under heading 42 the proponent states that a CITES Appendix-I listing will eliminate international trade. Under heading 32, however, it is stated that, although the species has been listed in Appendix II since 1975, international trade as reported to CITES is non-existent. Under these conditions it is not foreseeable that a change in the listing will have any effect on international trade in the species while domestic trade, which seems to be the real problem, is not addressed by CITES at all.

No cases of illegal imports have been discovered in Switzerland and Liechtenstein since 1975.

Conraua goliath

Switzerland and Liechtenstein do not authorize commercial imports of goliath frogs. Under the Swiss animal welfare ordinance the keeping of goliath frogs is subject to licensing under very restrictive conditions, and since the ordinance became effective (1981) no licences have been issued.

The supporting statement contains no comments from the country of origin.

Dionaea muscipula

Appendix-II listing alone will not solve the problem because the species is mainly threatened by habitat destruction.

AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Proposals from the Republic of Chile

A. PROPOSAL

Inclusion of *Conepatus humboldti* in Appendix II.

B. PROPONENT

The Republic of Chile.

C. SUPPORTING STATEMENT

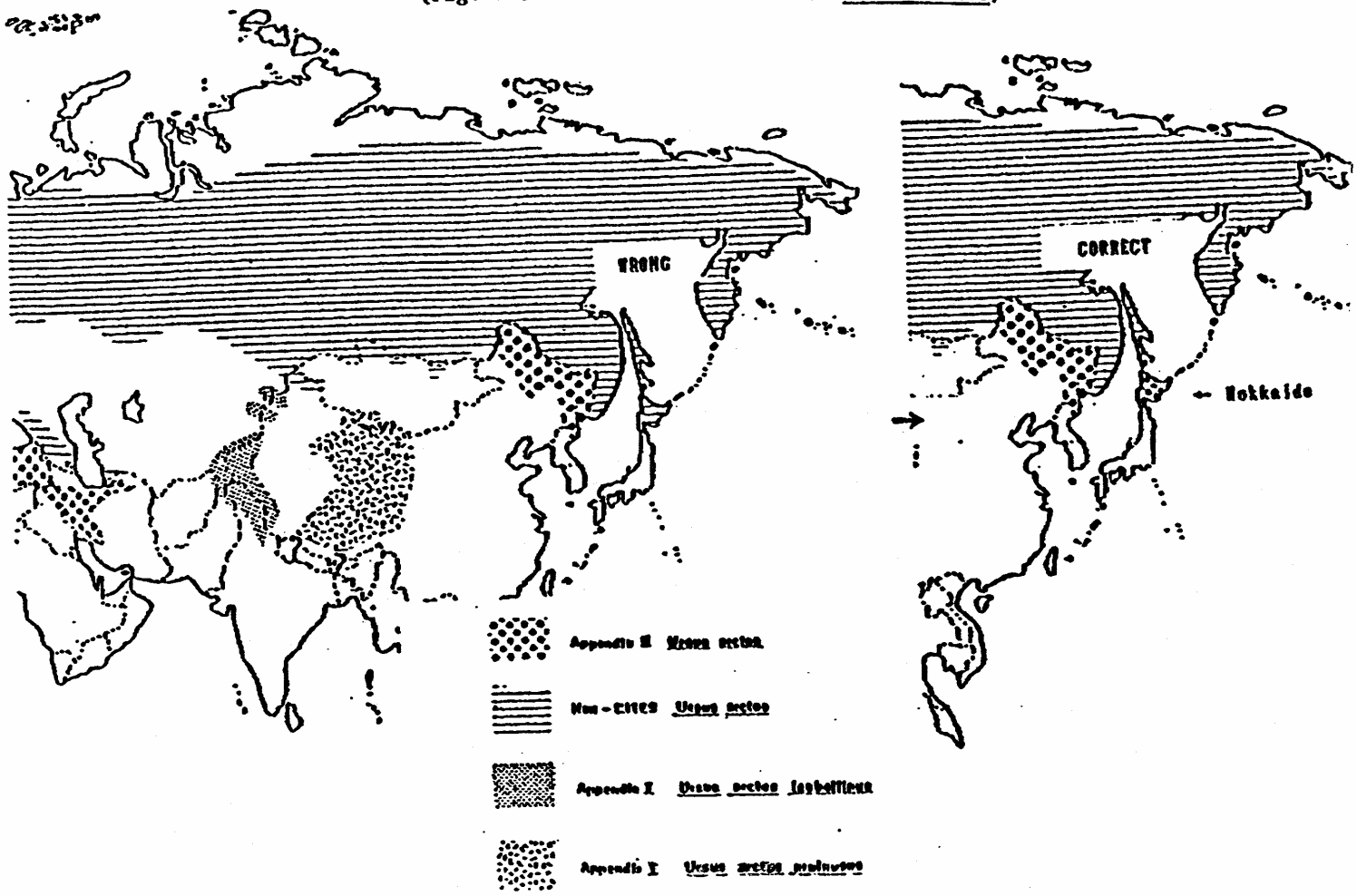
MAMMALIA

CARNIVORA

Mustelidae

The species *Conepatus humboldti* is potentially threatened despite its legal protection, because of the high price of its fur in the international market. This species lives in the far south of Chile and it is scarce. For this reason we propose its inclusion in Appendix II.

(Fig. The Urasian distribution of Ursus arctos)



Consideration of Proposals for Amendment of Appendices I and II

Other Proposals

COMMENTS FROM THE INTER-GOVERNMENTAL BODIES

Comments from the International Commission for the Conservation of Atlantic Tunas

Commentary on Proposal to List Atlantic Bluefin on the Appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora

The proposal submitted to CITES quotes publications of ICCAT extensively and it is appropriate to place these in the context in which the statements were intended and to provide the most recent information available.

The general assessment of Atlantic bluefin stock status is that in the east the population is relatively stable although at a lower level than in the past, which is the expected reaction of a population to a higher level of fishing pressure. In the west the rate of decline in the population was slowing during the 1980's and has apparently been stopped for ages up to 9. Harvest of small fish (ages 1-3) has increased in the past five years, to levels not compatible with the 1982 ICCAT management recommendations. Additional national and international measures are being taken to reduce this harvest of smaller sizes to levels that are compatible with the 1982 ICCAT decision. This will speed recovery of the medium age sizes as these young fish reach maturity and the process will spread through older ages with time. The very oldest ages must be expected to continue to decline until fish spawned since 1982 reach those ages. The rate of decline of older fish has however been slowed greatly during the 1980's since the adoption of the 1982 ICCAT management measures (1991 SCRS BFT-Figures 5-8). It is expected that this should level off and start to increase over the next several years, particularly following the enhanced management measures adopted by ICCAT at its November 1991 meeting.

It must be concluded therefore that eastern bluefin show no evidence of further decline and that western bluefin are now benefitting from the measures taken to stop the decline in the population and to initiate the process of recovery.

Before commenting further on the proposal directly, it is relevant to consider certain elements of the management of renewable, and in particular, marine resources. One basic element is that fish populations must be expected to be lower when subject to harvesting than when they are not, but that lower level can be maintained, subject to some annual variation due to natural factors. This is because a resource that is not subject to harvesting will be in a state of equilibrium with the environment. This equilibrium does not mean that the numbers at each age, or even the total numbers in the population will be constant. There will be fluctuations due to environmental and biological factors, with the extent of these depending upon the biological characteristics of the species and its place in the ecosystem. When harvesting is added to the factors influencing the population, there will naturally be a decrease in the population, and the average age of the population and hence average size of individuals, will decline due to the increase in mortality rates. The population will contain fewer of the very oldest ages, with the extent of the effect depending both on the rate of harvesting and also on the manner in which it is applied to the range of ages. Harvesting within reasonable bounds can result in an overall increase in relative productivity of the resource by increasing the proportion of faster growing younger ages.

Fish stocks have demonstrated that they can maintain themselves even when harvested heavily. At a particular harvesting rate, the resource should come into equilibrium. Population fluctuations will occur, however, due mostly to the year-to-year variation in the survival of the very youngest ages. Most of the variability in survival appears to occur during the first few days to months of life. Some fish species show very marked natural variation in this survival, and hence in the number of fish that survive the first year. Others show greater stability, with fluctuation of less than 10 fold between the highest and lowest numbers in comparison to as much as a hundred fold or more for other species. The species that vary the most can be reduced severely if heavy harvesting pressure is applied during periods of low abundance, whereas the species that are relatively stable can be harvested heavily, at rates as much as several times that of natural mortality, and while the population will be relatively small, it will reach and maintain an equilibrium, with actual numbers fluctuating in response to the pattern of recruitment.

Atlantic bluefin tuna is a long-lived species, showing relatively small fluctuation in the survival of young fish in comparison to shorter-lived species such as anchovy. Consequently, natural changes in population size will tend to be much slower, both in extent and time. This is an important factor when considering the status of this species. The bluefin stocks were harvested

hard in the 1960's and 1970's, and particularly at the youngest and oldest ages, much of them by purse seine, although longliners also took considerable numbers of medium and large fish. The heavy harvest of the large fish meant that the abundance of this group dropped rapidly in many parts of their range, particularly in the areas near the northern limits of the annual migration pattern. This was exacerbated for bluefin because, being warm blooded, the larger the fish the more successfully can they utilize the cooler northern waters with their variable and complicated temperature structure. The smaller fish can only move into such areas in unusual years; so that in these northern areas it may appear that the species is much more reduced than it really is. Western bluefin in particular were also harvested hard at both medium and very young ages, which meant that relatively few fish were left to grow to what would now be the old fish.

It is incontestable that bluefin were heavily harvested by the time ICCAT came into being, and by the time that the first measures for bluefin were adopted in 1974 (for the 1975 fishing year). It is also clear that those measures were inadequate for western bluefin, in part because there had been a significant increase in effort, and hence catches, in the western Atlantic, shortly before the regulation came into effect. Faced with the evidence of the continuing decline in western bluefin, and a very pessimistic report from the Standing Committee on Research and Statistics (SCRS), ICCAT took more stringent measures at meetings in 1981 and early 1982. Later that year, with a less pessimistic report from the SCRS, the quota was increased for 1983 to allow the more normal conduct of certain fisheries and hence to provide the data series that the scientists were already beginning to rely on for their analyses.

The adoption of these measures in 1982 (limit upon total catches and on the proportion of smaller fish) were expected to stop the decline of the population and allow a slow recovery over a period of at least 30 years. The recovery was expected to take a long time, due both to the stable nature of the population dynamics of bluefin and to the large numbers of years in the population (25 or more).

The 1991 SCRS report draws attention to this time element, and particularly the fact that total abundance of the largest age classes, i.e., the sum of ages 8 to 25 (or so) could not have been expected to increase for a considerable number of years. This is because the total population of these ages would not be augmented until a substantial number of the year classes in the 8+ group were year classes that had been spawned since the regulation came into effect. The SCRS has also revised the estimate of the number of fish in the population in 1970 at approximately half that reported in 1990. SCRS noted in 1990 that the 1990 estimate of large fish was significantly higher than in previous assessments. Using the 1991 SCRS estimates, which are close to estimates made prior to 1990, the extent of decline for large fish cited in the proposal is overestimated.

Many of the arguments contained in the proposal submitted to CITES, appear to be based on the expectation that fish stocks will not be reduced by harvesting, that fishing mortality rates exceeding the rate of natural mortality are excessive, that the rate of decline in western bluefin is increasing and that there is a direct link between the level of recruitment and the size of the spawning stock. None of these assumptions are supported by general knowledge of fish population dynamics nor by the specific information available on Atlantic bluefin. The arguments make selective use of ICCAT reports and frequently ignore adjacent statements that would place the phrases selected into their proper context.

As noted earlier, the evidence is that the decline in the numbers of western Atlantic bluefin in the middle range of ages has stopped, and there is some evidence that there has been some increase. This increase will be enhanced substantially by actions to reduce the harvest of small fish (to be completed when decisions of ICCAT member countries are known), and by measures being taken to limit the fisheries by non-member countries.

With respect to the population of bluefin in the eastern Atlantic, this was reviewed by the SCRS in 1990. The population is as would be expected due to increased harvesting during the past 30 years, considerably smaller than at the start of the period. It does however seem to be generally stable, and therefore not requiring additional management measures under the present implied management strategy of maintaining the stock status. It is noted that stock increase might be expected from reducing the high catches of small fish and that the General Fisheries Council for the Mediterranean will be considering the appropriateness of adopting the ICCAT minimum size regulation at its next meeting.

In conclusion, it was premature to judge that the ICCAT management was not achieving its goals of stabilization in the short term and recovery in the long term to the ICCAT objective of a population capable of sustaining the maximum sustainable harvest.

Detailed Commentary

i) (Page 1, Section 21. Distribution, para. 1.) The discussion of occurrence of *Thunnus thynnus* in the Pacific ignores the understanding that there is only one stock with the spawning area in the western Pacific.

ii) (Page 1, para. 2.) There are no reports of fisheries in the Black Sea but anecdotal information does indicate continued appearance there. Other statements about areas in which bluefin "may no longer occur" may accurately reflect the changes in distribution that are the normal result when a stock is exploited and the number of old fish is reduced substantially. This is not a negative aspect with respect to stock status. It is clear that large bluefin, even when abundant, changed their area of abundance over periods of years and this was likely in response to environmental factors including but not limited to abundance of food species. It is noted that because of their adaptation to maintain a high internal temperature, it is the larger fish that can utilize the more extreme parts of the geographic range. In these areas, the water temperatures are not only colder but they are more variable and the vertical structure of warm and cold water is more extreme.

iii) (Page 2, Section 22, Population, para. 2.) The use of the word "tremendous" is inappropriate for the east Atlantic where it is the older (10+) fish that declined during the 1970's but have been relatively stable since. This is what would be expected at the harvest rates being applied. Furthermore, the harvest rates are not unusual for marine fish stocks that have maintained their status over very long periods.

iv) (Page 2, para. 3.) The discussion of fishing mortality should not focus only on the age 10+ group if it is to be argued that mortality is too high. Fish aged 8 and 9 are mature and considered to spawn fully, so that high fishing pressure on the 10+ group per se, would in fact almost maximize the yield per recruit if fishing mortality is lower on younger ages. The significant element is the level of fully recruited fishing mortality (estimated at 0.36 in 1991) which, while high, has been shown to be sustainable by other fish stocks.

It is relevant to note that the comparisons between 1970 and 1990 in the proposal are based on the 1990 SCRS assessment which estimates a much greater change than the 1989 assessment. The 1991 SCRS analysis does not support the estimate of the 1970 population level (121,125 for age 10+ cf. 234,900 in the 1990 assessment). The new estimate of the 1970 level is however higher than estimates made in 1989 and earlier. The new estimates are based on fuller use of available data series and further analysis, using separable VPA of the relative pattern of fishing mortality on the 10+ group relative to the mortality on younger fish. The 1991 assessment does agree closely with the 1990 assessment, as regards recent population levels (13,945 age 10 cf. 13,300 in the 1990 assessment). The pattern of recent trend is for a levelling off. The pattern and the extent of decline since 1970 are supported by a production model analysis (non-equilibrium age structured model (1991 SCRS BFT-Figure 6)). The actual 1970 points for the graph shown in the proposal are now estimated to have been 121,125 fish age 10+ which were being fished at an F of 0.034. The declines in 10+ fish would therefore be 88.5 percent while F increased 11.8 fold.

Citing the 1977 and 1978 larval abundance index values would appear to be misleading, since the value for 1977 and 1978 were very different (a factor of 2.4) which means that the points can not both be direct estimates of spawning biomass. The stock of fish of ages 8 and over could not vary that much over 12 months.

v) (Page 3, paras. 1 and 2.) The current analysis changes these conclusions by certain percentage points. The conclusions of the 1991 SCRS will be discussed in the next section (vi). The description of SCRS's 1990 action in changing the estimate of age at maturity from 10 years old to 8 years old, does not include the reason for the change. Analyses of the growth of fish recaptured after being tagged in earlier years indicated that the growth rate of medium sized fish is faster than had been estimated previously using projections of the growth rate of younger fish. The age of smaller fish and hence their growth rate is much easier to determine, but after age 5 it can no longer be determined directly.

vi) (Page 3, para. 3.) This paragraph correctly notes that the ICCAT predictions were for "the near future" but this caveat is lost to all but the most careful readers. The quotes do not include other statements in the 1990 SCRS report such as "estimates of medium sized fish have increased from the low value of 1983" nor that "the downward trend in the abundance of the younger age groups (ages 1 to 5 and ages 6 to 7) in the 1970's appears to have stopped after the program begin in 1982. However, the most likely estimate showed little change in the abundance of small (ages 1 to 5) in recent years (1983 to 1987)."

It is appropriate at this point to note the conclusions of the 1991 SCRS, that for: "Small fish (ages 1-5). "Overall for this age component, there is no evidence of any trend in recent years, although there may have been a slight recovery in the early 1980's, and no change since then."

"Medium fish (ages 6-7). "It is more likely than not that this size category has increased in abundance compared to 1982."

"Large fish (ages 8+). "...The abundance of ages 8 and 9 appears to have been fairly stable over the late 1980's, but it is more likely than not that there has been an increase in abundance since 1986 ..."

"The abundance of fish aged 10 and older must be expected to decline given that the year classes contributing to it were all fished heavily prior to 1982. The numbers will not increase until the year classes reaching age 10 do so in strength.

"In aggregate for fish aged 8+, there is a high likelihood that the abundance of this category ... has continued to decline since 1982."

"There is, however, reasonable evidence that the current management regime has resulted overall in arresting the decline for medium-sized fish and for the youngest ages of the 8+ group, i.e., ages 8 and 9. Some year-to-year fluctuation must be expected due to the variation in year-class strength, but the process can be expected to spread through all ages."

vii) (Page 4, para. 4.) Catches in the 1960's from the western Atlantic were included in analyses conducted by the SCRS up to 1990, but were not examined in 1990 because there were questions about the adequacy of age sampling of important components of the catches. The catches 1960-1969 were however included in 1991 in an age-structured non-equilibrium production model analysis. There are inherent uncertainties in the model about the conclusions for the earliest part of a time series. In addition, detailed analysis was not conducted on the implications of the assumption used in the model that the age-specific distribution of effort had been constant, when in fact there was significant change in this over time. Consequently, SCRS noted "the results of the model run from 1960 do suggest that there had been considerable reduction in the biomass level by 1970, but the extent can not be determined."

In the submission to CITES, the discussion of the level of catches in 1970-75 in comparison to the period in the 1960's ignores the limitations that Canada and the U.S.A. were already placing on their purse seine catches, on a bilateral basis.

viii) (Page 3, para. 5.) This brief paragraph "Despite the declines....ICCAT in 1983 allowed a doubling of the catch quota" ignores the material available in the SCRS report for 1982 which provided a considerably less pessimistic review of stock status than had been provided in 1981. It was noted that "the principal analyses presented this year [1982] agree that, for the west, there has been some decline in abundance, that recruitment may have decreased in recent years, and that there is little relation between recruitment and spawning potential. Also, in the west, there exists concern that 1982 catches are insufficient to monitor the stock, but the weight of evidence suggests that catch levels for monitoring should be conservative.

"Risk is involved in the face of uncertainty as to an appropriate catch level in considering the present stock condition. The SCRS is unable to determine whether a 6,000 MT catch will cause a decline or whether a decline will occur regardless of any catch. It was not possible to find agreement within this range."

ix) (Page 3, para. 6.) See Comment ii).

x) (Page 4, Eastern Atlantic and Mediterranean, paras. 1 and 2.) The two paragraphs together address two issues, one being the reductions in population size and the other being uncertainties in the estimates. The reduction in stock size is not unexpected given the normal response to fish populations when subject to harvesting. The trends indicate relative stability over the past 15 years for ages 10 and older, at about 50 percent of the 1970 level. The pattern for ages 5-9 is that there was an early reduction to 70 percent of the 1970 level, a recovery to above the 1970 level and a reduction over the percent 1982-90 to 75 percent of the 1970 level. The future trend of that group can not be predicted except that the age 2-4 population while variable, has apparently increased overall to nearly double the level in 1970. The extent of the increase is however, as quoted in the CITES proposal subject to "only limited confidence."

It should be noted that while estimates of fishing mortality on the younger ages categories of eastern Atlantic bluefin are relatively high (0.4), the levels on large fish groups are low (0.11-0.15).

xi) (Page 4, para. 3.) Discussion of catch declines should reflect the shifts of effort that occurred and the actual pattern of catches. The average catch was indeed 20,900 MT between 1960-62 but it was only 9,000 MT in 1963, and thereafter did not rise above 10,800 MT. This drop in 1983 reflected a reduction of 8,000 MT in the Norwegian purse seine fishery and 3,000 MT in the Moroccan and Spanish traps.

xii) (Page 4, para. 4.) See Comment ix) re: fishing mortality levels. Fishing mortalities in excess of the level of natural mortality are not considered excessive for any stock, and may fish stocks continue in equilibrium at fishing mortality levels several times the rate of natural mortality.

xiii) (Page 4, para. 5. and Page 5, para. 1) See ii) (change in distribution).

xiv) (Page 5, para. 2.) The 1990 SCRS statement that catches of fish less than 6.4 kg. "may become crucial for the future of the stock" was intended to refer to future stock levels and hence catches, not to the existence of the stock as might be interpreted from the presentation in the proposal.

This paragraph in referring to the ICCAT size limit being "largely ignored in the Mediterranean" ignores itself the fact that many of the countries involved are not members of ICCAT. It is noted that in November, 1991, the Committee on Fisheries Management of the GFCM recommended that Council consider adopting the 6.4 kg minimum size limit itself, at its next session.

xv) (Page 5, para. 3.) The "John Gill" referred to is likely Joao Gil Pereira, a Portuguese bluefin scientist who does not recall providing information in the manner cited. Pereira reports that large bluefin have been seen, and still are seen, at times around the Azores, that a one-time fishery by handline was discontinued for a variety of reasons, while a limited purse seine fishery originally caught some bluefin but then concentrated on other species. The reasons included market factors at that time, but not a change in abundance. There is nothing surprising for this area, or for any other tuna fishery, that large catches of various tuna species are being made without bluefin also being taken.

xvi) (Page 6, para. 2.) The reference to ranching operations, to fatten tuna, presumably refer to such activities in Nova Scotia, Canada, rather than in Maine, U.S.A.

xvii) (Page 6, para. 4.). 32. Legal International Trade. It is likely that the increased prices of bluefin have attracted some more effort, but it is also true that there has been diversion of ongoing catches to the Japanese market, especially where catch quotas were already being filled before the recent escalation of prices. In these cases, any effort increase would be reflected by earlier attainment of the quota rather than an increase in catch. It is relevant that Canada and Japan both limit the number of licensed vessels and Canada has strict gear regulation.

xviii) (Page 6, bottom para.) The text describes the withdrawal of "a sizeable fleet of Japanese longline vessels ... in the Gulf of Mexico" as a response to the ICCAT recommendations. This was, in fact, an explicit requirement of the recommendation (the fourth provision of the 1982 agreement).

xix) (Page 7, 33. Illegal Trade, para. 1.) Among the various additional measures adopted by ICCAT in November 1991 (see Recommendations for More Effective Management of Western Atlantic Bluefin Tuna and Resolution Concerning Catches of Bluefin Tuna by Non-Member Countries) was the decision to develop recommendations to prohibit transfer at sea.

xx) (Page 7, para. 2.) 34. Potential Trade Threats. There is no basis to state that "trade is not sustainable" on the grounds that the breeding populations is "collapsing". The 1991 SCRS report concludes that the overall number of spawning fish will continue to decline until recruitment by substantial numbers of year classes spawned since 1982, but that the numbers of young spawners are stabilizing and may have increased since 1986. SCRS expects this process to spread through the spawning population under the 2,660 MT quota scheme. Additional measures to be undertaken by ICCAT member countries in 1992 and following years will increase the probability and speed of this process.

xxi) (Page 7, para. 5) See xiv) re: status of action by GFCM.

xxii) (Page 7, para. 6.) The discussion of the changes in the level of the quota does not mention that during 1982 SCRS was considered to have developed less pessimistic advice about the status of the stock. (See viii.)

xxiii) Page 8, para. 1.) 43. Additional Protection needs. The reference to the 1990 SCRS statement that "fishing mortality rates of large fish have increased ..." in part "due to the increase allowed for by the ICCAT regulations (doubling of the catch from 1982 to 1983)." was written to describe the change between 1982 and 1983. The 1982 level of fishing mortality was very much lower than in preceding years, as might be expected when the catch was cut from around 6,000 MT to 1,500 MT in response to the 1982 quota.

xxiv) (Page 8, para. 2.) Reference to the 1991 SCRS analysis (e.g., 1991 SCRS BFT-Figures 5-8) of the trend in abundance of fish aged 8 and older (the breeding population) shows clearly that the decrease has not been constant but that the rate has been slowing through the 1980's. The prospects for the future are provided elsewhere. (See vi)

xxv) (Page 8, para. 3). (See vi)

xxvi) (Page 9, para. 3). This conclusion should be reviewed in light of both the 1991 SCRS report and the actions taken by ICCAT in November 1991 with respect to additional management measures and steps to restrict non-member harvesting.

xxvii) (Page 9, para. 4.) The reference to ICCAT's "statistical committee" presumably refers to the SCRS. [The quote "concern regarding" should be read in the context of the Agenda item, i.e., the planning of enhanced research, rather than advice on the status of the stocks.]

xxviii) (Page 9, para. 5.) The opening quote should be read in connection with the sentence that follows it in the 1990 SCRS report, "significant progress was made at the GFCM/ICCAT meeting...".

xxix) (Page 9, para. 7.) There is no basis given for describing the number of spawning age fish as being at a dangerous level and SCRS has not provided any such advice. As noted earlier in this review, SCRS has concluded in 1991 that stabilization of numbers can be expected to spread through all age classes and that this process, together with faster recovery, will result from actions undertaken at the 1991 ICCAT meeting.

xxx) (Page 10, No.6. "Comments from Countries of Origin") None are known to have been solicited from countries in whose waters bluefin occur in any number.

xxxi) (Page 10, No.7, second para.) The proposal may make extensive use of quotations from the report of the SCRS of ICCAT, but the quoted statements are often taken out of context, and qualifying statements have frequently been omitted. Any reference to stock stability or increase has been omitted. The 1991 SCRS report provides overall, a different view of stock status and prospects, especially in light of ICCAT management undertaking.

It is notable that the anecdotal information is all from negative sources and there are no references to the reports carried in Canadian and U.S. newspapers, and publications of the high abundance of bluefin encountered in various areas in 1990 and 1991.

xxxii) (Page 10, bottom para.) The phrase "clearly headed in the direction of extinction," is incompatible with the population dynamics of fish such as bluefin and the status of the stock described by SCRS. Figure 10 from the 1990 SCRS report, reproduced in the proposal itself, clearly shows the levelling off of the downward trend in abundance.

The statements concerning survival of ages 6-7 fish since 1983, must be taken in the context that many of the relevant year classes were fished hard prior to 1982, that the 1982 year class itself would only have reached breeding age in 1990, that it did contribute substantially to the spawning stock, and that SCRS has concluded that ages 8 and 9 have more likely than not increased in number since 1986.

xxxiii) (Page 11, para. 1.) There is no basis for categorizing a spawning stock that is half its former level as being an indicator of any form of potential problem for a marine fish stock.

xxxiv) (Page 11, para. 2.) The conclusions in this paragraph need to be updated to reflect the 1991 SCRS findings. (See vi)

xxxv) (Page 11, para. 3.) Sub-paragraph 3 also is outdated. (See xix)

xxxvi) (Page 11, para. 4.) Apart from requiring updating, the estimate made in 1990 of the 1970 population is discussed in section iv. The 1991 SCRS has reanalyzed the data and revised the estimate of the 1970 population of mature fish, resulting in almost a halving of the estimate. The 1991 SCRS Report states that the exploitable biomass is at 10-23 percent of the 1970 level.

xxxvii) (Page 11, para. 5.) The 1982 management recommendations were intended to maintain commercial and recreational fisheries from which indices of abundance are developed in order to monitor the stock. The statement about non-lethal methods of collecting information is also misleading. ICCAT will consider information on methodologies brought forward for review; many questions must be answered about the usefulness for stock assessment purposes

of non-lethal methods. SCRS has included a review of those methods, particularly aerial surveys, in the proposals for the Bluefin Year Program of enhanced research.

[Note from the Secretariat: ICCAT also sent to the Secretariat more than 90 pages of documents and extracts of various documents published within ICCAT (see following list). A copy of them has been sent to all Parties, but they are not reproduced in the present Annex.]

LIST OF ATTACHMENTS:

1. Letter signed by the Chairman of ICCAT
2. Scientific Commentary prepared by the Commission
3. Extracts from the 1991 Proceedings of the 12th Regular Meeting of ICCAT
4. Report of the Meeting of Panel 2
   Appendix 2 to Panel 2 - Statement by Canada on Bluefin Tuna
   Appendix 3 to Panel 2 - Statement by Japan on the Regulatory Measures for Atlantic Bluefin Tuna
   Appendix 4 to Panel 2 - Statement by Japan on Western Atlantic Bluefin Tuna
5. Recommendations (Made in 1991) for Enhanced Management of Western Atlantic Bluefin Tuna (Annex 7 to the 1991 Commission Proceedings)
6. Statement by the Observer from Sweden at the ICCAT Plenary Session (Annex 8 to the 1991 Commission Proceedings)
7. Statement by Japan on Agenda Item 12 (CITES) (Annex 9 to the 1991 Commission Proceedings)
8. Resolution concerning Catches of Bluefin Tuna by Non-Member Countries (Annex 11 to the 1991 Commission Proceedings)
9. Joint Statement by Canada, Japan and the United States (Annex 12 to the 1991 Commission Proceedings)
10. Report of the Meeting of the Infractions Committee (Annex 14 to the 1991 Commission Proceedings)
11. Extract from Item 10 of the 1991 Report of the Standing Committee on Research and Statistics (SCRS) (and pertinent tables and figures)
12. Extract from the 1991 SCRS Report
13. Proposal of Bluefin Year Program (BYP) (Annex 9 to the 1991 SCRS Report)

Report of the CITES Panel of Experts on the African Elephant
on the Proposal of South Africa
to transfer the population of *Loxodonta africana* of South Africa
from CITES Appendix I to Appendix II

1. Terms of reference of the Panel

The task of the Panel of Experts, as laid out in Resolution Conf. 7.9, is to evaluate the proposal of South Africa to transfer the population of *Loxodonta africana* of that country from CITES Appendix I to II, taking into account the following:

1.1 with respect to the status and management of the elephant population concerned:
- i) the viability and sustainability of the population and potential risks;
- ii) South Africa's demonstrated ability to monitor the subject population; and
- iii) the effectiveness of current anti-poaching measures; and

1.2 with respect to South Africa's ability to control trade in ivory from African elephants:
- i) whether total levels of offtake from both legal and illegal killing are sustainable;
- ii) whether control of ivory stocks is adequate to prevent the mixing of legal and illegal ivory;
- iii) whether law enforcement is effective; and
- iv) whether enforcement and controls are sufficient to ensure that no significant amounts of ivory taken or traded illegally from other countries are traded within or through the territory of South Africa.

2. Composition of the Panel

The Standing Committee appointed the following Panel members:

Jonathan Barzdo, Commission of the European Communities, DG XI/B/2, Brussels, Belgium;
Richard Bell, Luangwa Integrated Resource Development Project, Chipata, Zambia;
Peter Dollinger, Swiss Federal Veterinary Office, Liebefeld-Berne, Switzerland;
Richard Luxmoore, World Conservation Monitoring Centre, Cambridge, U.K.

A fifth appointee was unable to accept the appointment.

The Government of South Africa appointed:

Anthony Hall-Martin, National Parks Board, Skukuza, South Africa.

The Panel was chaired by Richard Bell.

3. Summary report on the Panel's activities

Upon receipt, each Panel member reviewed the original supporting statement individually and sent preliminary comments to the Secretariat; these were circulated to the other members.

From 9 to 15 June 1991 the Panel carried out a fact-finding mission to Pretoria and Skukuza, South Africa. During this mission the Panel was provided with opportunities to meet a broad range of officials. The officials were from senior management levels of the government wildlife management agencies, the CITES Management Authorities of the Republic and the provinces, the National Parks Board, the Customs and Excise authority, the South African Police and the Veterinary Department. Representatives of the former legal ivory traders and the Chairmen and Executive Directors of the major non-governmental wildlife conservation organisations and the professional and amateur hunters associations also appeared before the Panel. Representatives of one of the national states (Bophuthatswana), one of the homelands (KwaZulu), and two of the major extra-parliamentary movements - the African National Congress and the Inkatha Freedom Party - were addressed by personal interview, telephone conference and letter. Panel members had been asked beforehand whether there were any special interest groups to whom they wished to speak and, as far as

possible, their demands were met. The names and affiliations of those appearing before the Panel or otherwise contacted are attached as an annex to this report.

During a visit to Skukuza, which is the headquarters of Kruger National Park, the Panel met the Park Warden and several members of his staff who were involved in Park security, research, monitoring, the elephant culling operations and the utilisation and sale of all elephant products.

In addition, on 19 June 1991, one Panel member visited the Customs office and quarantine station at Jan Smuts Airport. He interviewed C.A. van Wyk, Director of Customs and Excise**,** and the quarantine master, A. Naudé, and checked the registers of (veterinary) removal permits issued from April 1989 to date.

At Skukuza the Panel was able to observe an elephant culling exercise in the field, the processing of the carcases at the abattoir and the marking of the tusks. A demonstration of the elephant census technique and the computerized infrared vegetation monitoring was given and the stores for hides and ivory were visited.

The Panel is satisfied that no information was withheld from it and that it had free access to all records, premises and facilities which it thought it correct or useful to inspect.

From 27 to 30 July 1991 a Panel meeting was held at Zernez, Switzerland, for drawing the conclusions from the fact finding mission and finalizing the report.

4. Request for additional information

The Panel requested that the original supporting statement be supplemented by the following information:

- Elephant populations and trends for Kruger NP, Addo Elephant National Park and the other areas, as well as the number of elephants culled, over a series of years;
- Maps showing the historical and current distribution;
- More detailed information on the production of ivory, meat, hides and other products;
- Information on allocation of resources to conservation of elephant areas and control of ivory traffic;
- Information on ivory prices and income derived from the sale of elephants and elephant products by the Kruger Park over a series of years;
- Current legal ivory and hide stocks held by government agencies and private owners with an indication of the origin of the ivory (South African and other);
- More detailed information on trade, since 1977 and including 1990, with differentiation between exports and re-exports as well as between commercial ivory and hunting trophies/personal effects;
- Additional information on future management procedures, including extension of elephant range and a forecast of the annual ivory production over a series of years;
- More precise information on the prospective marketing arrangements for ivory and on the control of trade in other products than ivory;
- Additional information on national legislation and on law enforcement with special reference to alleged illegal transit and Customs Union issues;
- Data on quantities and weights of illegal ivory intercepted by South African authorities since 1986;
- Information on numbers of elephants killed illegally within South Africa since 1980.

5. Implications of the adoption of the proposal

A consequence of the proposal as formulated, if adopted, would be that all raw and worked ivory of South African origin would be transferred to Appendix II, regardless of the country in which it is currently held. On the other hand, ivory of other than South African origin which is held in South Africa, would remain in Appendix I.

6. Status and management of South Africa's elephant population

6.1 Viability and sustainability of the population, and potential risks

6.1.1 Viability and sustainability

On the basis of the supporting statement and additional information received, the Panel found no reason to doubt, in broad terms, the estimates of elephant numbers (8,780 in 1990/91) and trends as presented.

Using the criteria of Frankel and Soulé (1981) more than 90 per cent of the elephants in South Africa occur in populations which are genetically viable.

6.1.2 Potential risks

The Panel identified two areas of concern with respect to the possible future risks to South Africa's elephant populations.

First, the internal conflicts in the country, which may lead to a breakdown of law and order, may persist for some time to come and could deteriorate. In this context, the wide availability of firearms is worrying as similar conditions in other African countries in the past have resulted in the depletion of wildlife populations.

Secondly, political changes that are taking place in South Africa are likely to lead to a change of government, raising questions about the possible wildlife conservation policies of any future regime or regimes. It is therefore worth noting that the national states and homelands have a good conservation record, with considerable percentages of land and adequate resources allocated to conservation.

Looking to the future, the Panel has sought policy statements from the two most influential extra-parliamentary political movements. Both movements support the policy of sustainable use of wildlife and, therefore, support the proposal. In their view, revenues from conservation areas should contribute to the economic development of adjacent communities, while wildlife on private, leasehold or communal land should generate long-term revenues for the landholder.

The sustainable use of wildlife and conservation areas, for the benefit of people, is central to the policy of the Inkatha Freedom Party, and is already being implemented by the KwaZulu Bureau of Natural Resources.

The African National Congress (ANC) has provided a long submission to the Panel, expressing a similar basic policy. While its position on conservation is not completely in accord with that of the present South African Government, it supports, in principle, the proposal under consideration. The ANC position is that, since the potential use of the African elephant would facilitate direct financial benefits to local communities, the adoption of the proposal would improve the possibilities for practical conservation measures to be implemented with the above objectives.

The Panel recognises that an important motivation for the South African proposal is the establishment of the principle that protected areas should have the option of becoming self-supporting from the sustainable use of the resources they contain. The Panel's assessment is that the proposal has not been made to generate revenues that will contribute to the general revenue base of the national or provincial treasury, nor to individuals or trading companies, but that revenues generated by the sale of elephant products would contribute to the costs of protected-area management.

6.2 Sustainability of total levels of offtake

Since 1974, the boundary between the Kruger National Park and Mozambique has been elephant-proof and no immigration of elephants has been possible. Monitoring shows that the resident elephant population has remained stable throughout this period as a result of the legal offtake of culled and live animals inside the Park, shooting of elephants for crop-protection outside the Park and limited safari hunting in adjoining areas. The known illegal offtake over the period 1974-1990 amounted to 210 elephants, most of which were taken during the period 1981-1983. All illegally killed animals were counted as part of the allocated culling quota. The stability of the population in response to the regulated offtake since 1974 is confirmed by monitoring data. If the total offtake remains at present levels, therefore, it is sustainable in the long term.

6.3 South Africa's ability to monitor its elephant population

Various methods of elephant censusing are used in different parts of South Africa, but the most significant population, and therefore the most important census technique used, is that in Kruger National Park. The panel was given a demonstration of this method and, from figures supplied, calculated that the average effective strip width was more than 500 m on either side of the aircraft. An extensive literature (e.g. Caughley, 1973; Graham and Bell, 1989) indicates that this strip width is likely to result in an underestimate of the population. This

conclusion is supported by the finding that the data derived from culling operations, on percentages of calves in the population, appear to indicate a higher reproductive rate than the aerial census. However, in view of the correlation between the population observed and that estimated from culling data, the discrepancy cannot be more than a few percent. Notwithstanding the fact that this method may produce a slightly low estimate of absolute numbers, there can be little doubt that it provides a reliable and repeatable index of relative numbers between years.

The interaction with a range of academic institutions involved in wildlife research of a high quality and the large resources available to Kruger National Park staff are further reasons for having confidence in South Africa`s ability to monitor its elephant population.

6.4 Effectiveness of current law enforcement measures

Additional data were provided on law enforcement effort, by region, within South Africa. The figures on resources and expenditure densities are considerably in excess of comparable figures for other African countries, and exceed, by a wide margin, the figure of US$ 200/km²/yr generally considered the requirement for effective management of an African conservation area.

The revenues earned from sale of ivory and elephant skin in 1989 (the last year of legal export) amounted to approximately one million US Dollars (approx. 2.5 million Rand), which is equivalent to about 40 per cent of the law enforcement budget of Kruger National Park. The Panel noted that this constituted a significant contribution to the National Parks Board conservation effort, especially in the light of the stated South African Government policy of phasing out State funding to the National Parks Board.

The effectiveness of law enforcement effort in relation to illegal killing of elephant within South Africa is indicated by the figure of 210 elephant reported killed illegally within South Africa over the 17 years from 1974 to 1981. Of these, 184 were killed in Kruger National Park in the period 1981-1983. The Panel was informed that the group responsible was apprehended. The Panel has no reason to doubt these figures.

The Panel noted the emphasis placed on investigations, as opposed to field patrols, as the mainstay of the law enforcement effort. This has been considerably strengthened since the 1989 establishment of the Endangered Species Protection Unit of the South African Police.

7. South Africa's ability to control trade in ivory from African elephants

7.1 Control of ivory stocks

7.1.1 Marking of fresh ivory

7.1.1.1 CITES marking

The Panel was given a demonstration of the methods used for marking ivory from newly culled elephants. As soon as the elephant is shot its tusks are marked using numbers written on adhesive tape. The carcase is removed to the abattoir with the tusks in place. Once removed from the skull, the tusks are weighed and stamped in accordance with recognised CITES procedures. Tusks are reweighed after a period of about six months to determine the initial moisture loss.

Ivory recovered from found carcases is treated in a similar way except that, when it is too badly weathered to be stamped, it is marked with indelible pen.

A selection of tusks in the strongroom was inspected and all were found to be correctly marked and recorded in the appropriate registers.

7.1.1.2 Holograms

The Panel was informed that the Division of Product Technology of the CSIR of South Africa has, at the request of the National Parks Board, experimented with the application of tamper-evident holograms to raw ivory. It had been found that, if the ivory was smoothed, a tamper-evident hologram could be applied to tusks in a secure way. Any attempt to remove such a

hologram caused it to break off in small pieces. The holograms could be commercially produced in a unique design which could incorporate the CITES number of the individual tusk and additional security options such as overprinting with UV ink, numbers or bar-codes. The Panel was shown a sample of a hologram incorporating the logo of the National Parks Board of South Africa which, it was proposed, would be the basic design for labelling ivory from Kruger National Park in the future.

7.1.2 Ivory sourcing

The Panel was given a report on the determination of the source of ivory by the use of isotope analysis. The method is said to be capable of identifying the source of ivory with a high degree of accuracy but its application throughout Africa is currently limited by the lack of a reference database for the rest of the continent. The Panel was informed that it would be possible to identify ivory which definitely did not originate within Kruger National Park but that, in the absence of a continental database, the possibility exists, in theory, that a tusk with an isotope signature consistent with those found in Kruger National Park might come from another source. The probability of such an event is, however, very small.

The sourcing technique, although scientifically attractive, has not yet been tested in a court of law. One possible weakness lies in variation of the isotope composition along the length of the tusks relating to variations in diet during the life of the elephant. Sampling a tusk at its proximal end would ensure that the diet at the time of death of the elephant was reflected and thus would enable identification of the location where the elephant was killed. However, for small segments of worked ivory, such location could not always be identified with the same degree of certainty, since it may not be clear from which part of a tusk the specimen was derived. The question of isotope variation within tusks requires further investigation.

7.1.3 Keeping of records by the National Parks Board

The Panel noted that the passage of ivory from the elephant to the strongroom in Kruger National Park is recorded by a series of documents: a culling form which accompanies the carcase to the abattoir; a register of tusks held in the abattoir; a transfer form for transport to the strongroom; and a register of tusks in the strongroom.

A selection of tusks was tracked using this procedure and all were found to be in order. There does not appear to be a central register of tusks and it is currently necessary to refer to a series of disparate documents to locate any particular tusk. Verification is apparently achieved by the counter-signature of the officers responsible for the ivory stores. Ivory stocks held by the Kruger National Park are subject to regular internal audit by the National Parks Board and external, independent audit by a firm of chartered accountants appointed as agents of the Auditor General.

It should be emphasized that no irregularities were uncovered by the Panel and that the random selection of tusks examined were all found to be correctly documented and in the correct location.

7.1.4 Registration of ivory outside Kruger National Park

7.1.4.1 Raw ivory

Each of the provinces of South Africa has maintained a system of registering and marking government and privately owned ivory since 1986 whereby tusks are stamped with a unique code number. All of the provinces were able to supply a list of registered tusks but the lists did not appear to cover the homelands. The Panel was informed of a stock of 42 tusks held by the KwaZulu Bureau of Natural Resources which had not been marked in accordance with the system used elsewhere.

When the stocks of ivory in South Africa were registered, attempts were made to ascertain its source. It is understood that most was several years old and originated outside South Africa. The Panel was informed that, in the event of the South African population of *Loxodonta africana* being transferred to Appendix II, it would be possible to identify which of the registered ivory originated within the country. The Panel was not in a position to verify this.

Records of the fate of the ivory subsequent to its registration were not made available to the Panel (some tusks had been used for carving and others exported). In the case of the Cape Province, 297 of the 306 tusks marked in 1986 could still be accounted for.

7.1.4.2 Worked ivory

There is no register of commercial stocks of worked ivory.

7.2 Legal provisions regulating international and domestic trade in ivory

7.2.1 Reservation

South Africa holds a reservation regarding the transfer of *Loxodonta africana* from Appendix II to Appendix I.

7.2.2 Moratorium

The moratorium on import and export of ivory for commercial purposes has been promulgated only in the form of a press release (there is no formal decree). Nevertheless it was, as was ascertained by the Panel, respected not only by Nature Conservation Authorities, but also by the Veterinary Services.

7.2.3 Nature conservation legislation

The nature conservation sector is regulated by quite comprehensive provincial legislation which has been amended or is still under revision in all provinces. While this legislation subjects the possession, conveyance etc., of raw ivory everywhere to licensing and registration procedures, this is not always the case with regard to manufactured articles.

The legislation grants quite far-reaching powers to provincial conservation authorities in their respective regions. These powers include the right to seize illegally held ivory, including specimens in transit. Although the Panel does not have details of the legislation in force in all the homelands and national states the legislation in some of them is similar to that of the provinces in respect of the protection of elephants, the registration of ivory and the prosecution of poaching and illegal possession of ivory. For the movement of ivory between homelands, national states and provinces, permits from both sides are required, but no border control takes place.

7.2.4 Veterinary legislation

The veterinary sector is regulated by federal legislation. Import and transit of raw ivory is subject to a veterinary permit, issued by the Pretoria offices, which normally specifies that the consignment may only enter South Africa by rail or air and only at designated ports where veterinary officers are stationed.

There is no legal provision stipulating a formal liaison between the import licensing procedures of Nature Conservation Authorities and Veterinary Services. In practice such liaison exists to a certain extent, based on goodwill and on informal agreements between the officials concerned.

Bophuthatswana issues its own veterinary import permits in consultation with the Federal Veterinary Services.

7.2.5 Customs legislation

The Customs Authority is not under an obligation to enforce CITES in South Africa but raw ivory (as well as live animals and plants and a series of other products) is included in the "Consolidated list of restricted and prohibited goods". This list is available at the Customs offices, and Customs officers also have computer access to the list.

Worked ivory (Brussels nomenclature tariff heading 9601) is not on South Africa's "Consolidated list of restricted and prohibited goods". Neither a CITES permit nor a veterinary permit is required by federal or provincial legislation for the import of worked ivory.

The homelands' Customs legislation is identical with South Africa's. South African Customs staff have been seconded to Bophuthatswana. Transkei and Ciskei have no relevant sea ports or international airports and import and export takes place mainly via East London. Venda has borders only with Transvaal.

7.2.6 Customs Union

Although the Customs Union Agreement has waived Customs control between South Africa, Botswana, Lesotho, Namibia and Swaziland, the legislation does exist to enable other forms of border control to take place in relation to CITES goods, since Article 16 of the Customs Union Agreement, defining the freedom of transit, contains a reservation with regard to international agreements, allowing the interception of shipments containing illegally transported CITES specimens:

> "A contracting party shall afford freedom of transit without discrimination to goods consigned to and from the areas of the other contracting parties: Provided however that a contracting party may impose such conditions upon such transit as it deems necessary to protect its legitimate interests ... in pursuance of a multilateral international convention to which it is a party."

On the practical side the Customs Union complicates the implementation of CITES, because it increases, at least theoretically, the number of authorities involved in trade control by 12 (four Customs Administrations, four Nature Conservation Authorities and four Veterinary Services). The problem is somewhat reduced by the fact that the Customs Administrations of Botswana, Lesotho, Namibia and Swaziland use the same list of prohibited and restricted goods and the same handbooks as the South African Customs. On the other hand, it has to be noted that neither Swaziland nor Lesotho is party to CITES.

For the movement of CITES goods between "independent" homelands and other Member States of the Customs Union than South Africa, South African CITES documents are required.

7.2.7 Transit

South Africa has not complied with the recommendations of Resolution of the Conference of the Parties Conf. 7.4 on *Control of Transit*. There is no legal provision which explicitly requires that CITES goods in transit must be accompanied by valid CITES documentation and which would allow for at least random checks. Checks of suspect shipments are, therefore, carried out under various pretexts.

During the interviews with Customs representatives, the latter expressed the view that control of transit shipments is not in accordance with the Kyoto Convention. The Panel's interpretation of the Kyoto Convention is, however, that the application of prohibitions and restrictions on transit shipments, resulting from national legislation, is allowable under Article 3. If so required, South Africa could, at any time, obtain an exemption from Annex E.1 (Transit) by entering a specific reservation. It was noted in this context that, under veterinary regulations, transit shipments receive almost the same treatment as import shipments.

On 23 July, the Panel received a message from South Africa's Commissioner for Customs and Excise stating that, "The Customs and Excise regulation will be amended to make it clear that the transit carriage, through the Republic, of ivory is prohibited unless authorized by a permit, certificate or other authority."

7.3 Effectiveness of law enforcement

7.3.1 External trade

At ports of entry into and exit from South Africa, raw ivory is in principle subject to two checks: Customs checks and veterinary checks. However, it must be noted that there is no Customs control between South Africa and the other countries of the Customs Union, although there are normally certain South African Police and Border Veterinary controls. Even so, there is, for the time being, no Border Veterinary control between South Africa and Namibia. The Panel was informed that such control will be established.

There appeared to be considerable confusion between the Customs administration, South African Police and Nature Conservation authorities as to their respective responsibilities relating to cross-border traffic.

7.3.1.1 Customs services

The Customs services require an import or export permit, as appropriate, to be presented for all raw ivory entering or leaving South Africa except if it originates in or is destined for one of the other countries of the Customs Union: Botswana, Lesotho, Namibia and Swaziland. However, there is no such requirement with respect to worked ivory. Customs do not assess the validity of CITES documentation accompanying a shipment. They detain, upon importation or exportation, ivory shipments until they have been cleared or seized by the provincial Management Authority concerned.

If an attempted illegal import in passenger traffic is noted by Customs, and if no Nature Conservation officer is available, the South African Police will be contacted and pursue the matter.

Because resources are limited, only a very small percentage of shipments of all goods is checked to verify that the goods tally with the description on the documents. In this respect, South Africa is no different from most other countries of the world. However, the limitations are of particular relevance with respect to the container-truck traffic entering South Africa from neighbouring countries to the north. The transit volume of goods in sealed containers is so large that is not practicable to carry out systematic checks (ca 200 truckloads per day; the search of a container of scrap copper takes some 7 hours, according to the police.) Transit shipments are, therefore, not normally checked.

For these reasons, there is only a small chance that any illegal shipments of ivory would be found in the normal course of Customs checks. The detection of illegal shipments therefore relies to a large extent on intelligence work conducted by the police and the conservation authorities.

The Panel was informed of lax controls on the movement of ivory out of the South African enclave of Walvis Bay, via Namibia. Customs Authorities have subsequently been reminded of the problem. The Cape Department of Nature Conservation has also strengthened its presence in the territory and increased its law enforcement staff.

7.3.1.2 Nature conservation services

There are no conservation officers permanently stationed at the border posts, but there is a liaison between Customs and either the central authorities of the province concerned or a regional office (e.g. Johannesburg) to receive green light for the clearance of a shipment or in cases of suspected illegal trade.

Most worked ivory sold in South African curio shops leaves the country in passenger traffic and without export permits or re-export certificates.

7.3.1.3 Veterinary services

From 1985 to 1989, apart from hunting trophies, the transit of six commercial shipments of raw ivory and the import of a further three were permitted by the Veterinary Services. These shipments were obviously legal in CITES terms and contained a total of 6671 tusks plus 4500 kg of tusks (mostly from the Wildlife Department of Zambia). The veterinary permits are checked by the Border Veterinary Service. In cases where no permit has been issued beforehand, but where otherwise the veterinary conditions are fulfilled, the border veterinarian may nevertheless issue a removal permit, and will consult the licensing office in the case of commercial shipments. The veterinary controls apply also to trade coming from other countries in the Customs Union.

All imports declared to veterinary officers are verified, a check being made of the specimens in relation to the documents. Where necessary, a disinfection of the goods is carried out. A

removal permit is issued by the border veterinarian if the veterinary conditions are fulfilled, irrespective of whether the CITES requirements are complied with or not.

The absence of a formal co-ordination between the veterinary and nature conservation authorities involved has, as far as examined (1985-1991), not led to major problems.

Small airports with international recognition have been identified by the Veterinary Services as being a weak area in enforcement from the point of view of veterinary controls. However it is not apparent whether this is a significant problem in CITES terms.

7.3.1.4 Police

Although not normally active in controlling trade at the ports, the police may, as with the provincial nature conservation authorities, be called in if Customs or veterinary officers are suspicious about a shipment. Moreover, the police often are involved in searching trucks for firearms at border posts with neighbouring countries.

The Panel was not in a position to assess the efficiency of border controls by the South African Police.

A few seizures of illegal ivory shipments have been made in the past few years. Many of the people interviewed by the Panel expressed the view that there must be a low level of illegal trade continuing, but none was aware of any evidence of smuggling on a large scale. They were, however, aware of past allegations of such trade.

7.3.1.5 Security forces

Allegations concerning the involvement of the South African security forces in the illegal trafficking of ivory and rhinoceros horn are not supported by documentary evidence in the public domain. The Panel is aware of extensive allegations of this type, but is not in a position to assess them. Many of the allegations centre on South African involvements in Angola and Namibia, which have been terminated. The Panel can only conclude that both the South African authorities and those making the allegations have an obligation to clarify the issue.

7.3.2 Internal trade

7.3.2.1 Nature conservation services

The conservation authorities are evidently well staffed by investigations and enforcement officers dealing with wildlife-related offences. Transvaal and Cape Province, for example, each have five special investigators apart from a large staff of officers and rangers. In general, little illegal ivory trade is reported to have been identified recently, although large consignments, of 104 tusks in Cape Province and 415 in Natal, have been stopped in the past two years.

A system of registration of curio shops and carvers, in each province, and of their raw ivory stocks is backed up by physical checks. Similar checks are not in force in all the homelands and national states.

7.3.2.2 Police

A special Endangered Species Unit of the Police maintains an undercover operation which detains, generally, 1-2 people a week trying to sell small amounts of ivory, evidencing a continual low level trade.

7.4 Evidence of illegal trade through South Africa

It is widely believed that South Africa serves as a conduit for the illegal export of significant quantities (perhaps most) of the ivory and rhinoceros horn originating in neighbouring states (i.e. including Angola, Botswana, Malawi, Mozambique, Zambia and Zimbabwe).

By their nature, these beliefs are difficult to test. They appear to be largely founded on circumstantial evidence, in three ways. First, the Endangered Species Protection Unit of the South African Police has, as a result of its investigations into the ivory trade, made a number of seizures of ivory in the past few years (see Table 13 of revised supporting statement). While this does not amount to a significant quantity, it is, however, considered reasonable to assume that there is a larger quantity of illegal trade that has not been apprehended. Secondly, while illegal killing of elephants continues, there is little evidence that the ivory taken is entering trade by other routes than through South Africa. Thirdly, it is felt that South Africa provides an attractive route for illegal export from the region for the following reasons.

- Access to the Customs Union is relatively easy via Botswana and Swaziland; once within the Customs Union, the possibility of detection in transit is slim.

- The truck traffic from Malawi to South Africa (mainly via Zambia) provides an easy, cheap opportunity for export of ivory and other contraband via South Africa. Currently, it is estimated that 200-300 trucks a day travel this route, passing mainly via Chirundu (through Zimbabwe) and Kazangulu (through Botswana) and to a lesser extent via Victoria Falls (through Zimbabwe). Assuming the mean capacity of these trucks is 20 tonnes, the annual capacity is in the region of 1.8 million tonnes. It is not difficult to envisage large quantities of ivory over a year being concealed in this capacity, particularly in view of the time required to search a truck and the consequent lack of adequate inspection.

- South Africa possesses an efficient infrastructure and transport network; transport of bulk consignments is relatively cheap and reliable.

- The history of sanctions evasion by South Africa may have created avenues of low-risk transit of contraband consignments.

Martin (1989) speculated that ca 27 tonnes might have passed illegally in transit through South Africa in 1989. The Panel is aware that significant levels of illegal elephant offtake in the southern African region continue in spite of the transfer of the African elephant to CITES Appendix I. The Panel estimates, on the basis of current assumptions concerning elephant numbers in the region, mean tusk weights in the illegal trade and illegal offtake rates that not more than 50 tonnes of ivory are currently taken illegally from the wild in the countries of the southern African region other than South Africa (i.e. Angola, Botswana, Malawi, Mozambique, Zambia, Zimbabwe). The quantity passing through South Africa is not known.

Some direct evidence exists that significant quantities of ivory (and rhinoceros horn) have been exported from the southern African region via South Africa within the last five years. This includes interceptions of consignments within or en route to South Africa. The Panel has been informed of a total of 45 incidents since June 1989, involving 186 tusks, totalling 540 kg of ivory. An additional two major incidents in Cape Town and Walvis Bay involved 131 tusks, totalling 668 kg. Furthermore, 137 kg of ivory pieces have been intercepted.

In addition the Panel was informed of a wide range of prices of ivory from US$ 4.50 a kg to illegal hunters, to prices as high as US$ 250 a kg further up the market chain. In general, prices in the illegal trade in South Africa are currently high, ranging from about US$ 70 to 250 a kg.

The Panel concludes that grounds for speculation exist that significant quantities of ivory have been, and may continue to be, exported illegally from the states of the southern African region via South Africa. These speculations should be investigated both in potential states of origin and in South Africa. If such investigations confirm the existence of a significant illegal traffic, a considerable improvement of law enforcement methods will be required in states of origin, transit states and South Africa.

A key question in assessing South Africa's proposal concerns the linkage between a re-opened legal ivory trade by South Africa (in the event of the population reverting to Appendix II) and the illegal traffic within and through South Africa. Would a legalised trade provide loopholes for laundering of additional illegal ivory from the region or elsewhere?

The Panel posed this question to all interviewees, including South African authorities and extra-parliamentary movements and parties. All stated their belief that the acknowledged illegal trade was distinct from the proposed legal trade and could not be linked to it.

In summary, the Panel recognises the existence of evidence for illegal traffic in ivory through South Africa of unknown volume. It also recognises that the fundamental consideration is whether a legal trade, made possible by adoption of the South African proposal, would afford a cover for this illegal traffic. The Panel concludes that certain safeguards (listed below under "Conclusions") would need to be implemented to ensure the separation of the proposed legal trade from any illegal trade.

8. Proposed marketing arrangements

If the South African proposal were to be adopted, the system that would be used for marketing the ivory is still not entirely clear to the Panel.

It is clear that ivory from culls in Kruger National Park would be moved by Park staff directly to the Kruger strongroom. This ivory is held under secure conditions and could be auctioned there and shipped out for export in sealed containers (or exported for subsequent auction) with no opportunity for mixing Kruger tusks with those from other sources.

However, if ivory from any government or privately held stocks is to be entered into trade, the risks of mixing "illicit" ivory or ivory not originating in South Africa with the Kruger tusks is correspondingly increased. In this case, corresponding increases in security are also required. In the absence of a decision on which sources of ivory are to be used for the trade, and under what conditions, the Panel is not in a position to comment on the adequacy of the system.

The intention of South Africa to sell ivory only to registered dealers in a country which also registers them, and which does not permit re-export of raw ivory, would help to overcome a number of potential weaknesses in controls and should therefore be built-in to the system.

9. Conclusions

a) Is the population viable and sustainable and are there particular risks to the population?

The South African population of African elephant is both viable and stable, being held at a level determined by ecological management practices. Moreover, there is not currently any threat to the status of the population. Indeed, it is evident that this is one of the populations referred to in the third paragraph of the preamble of Resolution Conf. 7.9, as not meeting the Berne criteria for inclusion in Appendix I of CITES.

b) Has the range State demonstrated its ability to monitor its population of African elephant?

South Africa has a long-running programme for monitoring the elephant population of Kruger National Park, which contains nearly 90 per cent of the elephants in the country. This is one of the best-monitored populations on the African continent. The system gives a good index of population size and trends.

c) Are the current anti-poaching measures effective?

The resources and measures deployed to combat illegal killing of elephants in South Africa appear to have been extremely effective, reducing such activities to very low levels.

d) Is the total level of offtake from both legal and illegal killing sustainable?

The Panel accepts the statement of the National Parks Board that the number of elephant removed legally each year, through culling and live capture, is adjusted to take account of illegal killing and to maintain a stable population. This is confirmed by the data from the population monitoring operations.

e) Is the control of ivory stocks adequate to prevent the mixing of legal and illegal ivory?

Because of the decentralised nature of the competent authorities, there is not yet a uniform system of CITES control of ivory throughout the country. While the four provinces have made progress towards harmonising their control systems in accordance with CITES procedures, there are a number of homelands and national states which do not implement the same level of control.

The adequacy of the current controls is partly dependent on the system to be adopted for ivory marketing and upon which ivory stocks are to enter trade. If raw ivory from Kruger National Park is marketed through a single

outlet under government control, and exported directly from South Africa, there is no significant danger of this being mixed with illegal ivory.

Ivory from other stocks is more contentious because the controls and marking techniques have not been so rigorously applied. The origins cannot therefore be identified with the same degree of certainty.

Because there has been very little control over the import and possession of worked ivory in South Africa, it is equally not possible to give assurances regarding the origins of worked ivory stocks.

f) Is law enforcement effective and

g) Are enforcement and controls sufficient to ensure that no significant amounts of ivory taken or traded illegally from other countries are traded within or through the territory of the affected range State?

Circumstantial evidence exists that significant quantities of ivory have been and continue to be exported illegally through South Africa from neighbouring states. The truck traffic from Malawi to South Africa, passing through Zambia and Zimbabwe or Botswana, for which inspections are inadequate, provides the opportunity for such an illegal traffic. The interception of 47 consignments totalling 131 tusks and 1.2 tonnes of ivory passing through South Africa since June 1989 provides some direct evidence for the traffic.

The answer to question g) is therefore "no". However, even if control were to be strengthened in future to that of the best Customs force in the world, given the volume of freight passing through the country, it would be impossible to prevent a certain level of illegal ivory trade. The question is therefore unrealistic.

The Panel believes that the key question is whether the opening of a limited legal trade in ivory from South Africa would increase the volume of illegal traffic by providing loopholes for laundering illegal ivory into the legal trade.

The Panel believes that the safeguards listed below would render the probability very low:

General

i) the annotation of *Loxodonta africana* in Appendix II (following the precedent set for Vicuna) to indicate that trade in ivory is restricted to raw ivory of South African origin currently held within South Africa or legally obtained from elephants in South Africa in future and marketed under South African Government control;

ii) the withdrawal of South Africa's reservation on *Loxodonta africana* within 90 days of the adoption of the proposal;

iii) the amendment of Customs legislation to comply with Resolution Conf. 7.4 on the control of transit;

iv) the establishment of formal mechanisms to ensure uniform implementation of CITES throughout the country, at all levels of government, including nature conservation authorities, Customs, police and veterinary authorities;

Export of Raw Ivory

v) the annual establishment of an export quota for raw ivory, set on the basis of South Africa's ecological management programme and calculated as not exceeding the sustainable yield of the populations concerned. If it is decided to allow the export of any stockpiled ivory, this shall be included in the quota for the first year of export;

vi) the issuance of export permits only in the case of ivory which has been verified as having been legally taken from the wild within South Africa. Ivory obtained outside Kruger National Park in future should only be permitted in trade if it is subject to a comparable system of control;

vii) the issuance of export permits for raw ivory only where the export is to countries which have a legal system for controlling and monitoring the possession and sale of ivory and which have undertaken not to permit re-exports of any ivory;

viii) the sale of all raw ivory to take place at a single location and its export to be directly from South Africa to the consuming country in a single consignment annually in sealed containers;

Export of Worked Ivory

ix) the export of worked ivory from South Africa not being permitted;

Export of other Elephant Products

x) the sale and export of elephant skin and other products being carried out under South African Government control;

Control of Ivory Trade

xi) the secure individual marking of every tusk held and a sample of each being kept by the Government of South Africa for future isotope analysis should this become necessary;

xii) isotope analysis of sets of reference samples being carried out for all populations from which ivory is likely to be exported;

xiii) improvement of the maintenance of records on all ivory stocks by use of securely bound register books with numbered pages and by the keeping of a duplicate register in a central location. All records should be subject to external audit.

In Summary:

The Panel considers that the biological criteria to be considered, according to Resolution Conf. 7.9, for the transfer of the population of *Loxodonta africana* of South Africa from Appendix I to II are met, and that the principal concerns relating to control of trade would be met if the safeguards enumerated above were put in place.

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Annex

List of people interviewed by the Panel

Government Agencies:

Dr R. Bengis	Veterinary Services
Mr B. Bryden	National Parks Board
Mr H. Coetzee	National Parks Board
Dr A. Faul	Department of Agriculture
Dr W.P.D. Gertenbach	National Parks Board
Dr J.H. Grobler	Natal Parks Board
Mr H. Grove	Department of Environment Affairs
Mr S. Johnston	Bophuthatswana National Parks Board
Dr S.C.J. Joubert	National Parks Board
Maj. P. Lategan	Endangered Species Protection Unit, South African Police
Mr F.J.J. Lötter	Deputy Director, Customs and Excise
Dr P.F.S. Mulder	Transvaal Nature and Environmental Conservation
Dr J.H. Neethling	Cape Nature and Environmental Conservation
Mr F. Schoombie	Department of Foreign Affairs
Dr N. Snyman	Natal Parks Board
Mr N. Steele	KwaZulu Bureau of Natural Resources
Mr N. Steyn	Department of Foreign Affairs
Mr A. Viljoen	National Parks Board
Mr P.C. Viljoen	National Parks Board
Mr P. de Villiers	Transvaal Nature and Environmental Conservation
Mr I.J. Whyte	National Parks Board

Non-governmental organisations:

Mr A.A. Ferrar	Wildlife Society of South Africa
Dr J. Hanks	Southern African Nature Foundation
Mr D. Lindsay	Professional Hunters Association of South Africa
Mr L. van der Merwe	Confederation of Hunters Associations of South Africa
Mr C.H. Walker	Rhino and Elephant Foundation

Ivory trade companies:

Mr T. Gianninni	Ruacana Safari
Mr J. Ilsley	Bushcraft Trading
Mr C. Pearson	Botswana Game Industries

Non-Parliamentary parties/movements

Mr S. Sangweni	African National Congress
Mr N. Steele	Inkatha Freedom Party

Academic institutions:

Dr J. Lee-Thorp	University of Cape Town
Prof. N.J. van der Merwe	Harvard University

Report of the CITES Panel of Experts on the African Elephant on the proposals to transfer from CITES Appendix I to Appendix II the populations of *Loxodonta africana* of Botswana, Malawi, Namibia, Zambia and Zimbabwe

1. Terms of reference of the Panel

The task of the Panel of Experts, as laid out in Resolution Conf. 7.9, is to evaluate the proposals to transfer the populations of *Loxodonta africana* of Botswana, Malawi, Namibia, Zambia and Zimbabwe from CITES Appendix I to II, taking into account the following:

1.1. With respect to the status and management of the elephant populations concerned:

i) the viability and sustainability of the populations and potential risks;

ii) the demonstrated ability of the range States of the subject populations (the SACIM countries) to monitor those populations;

iii) the effectiveness of current anti-poaching measures; and

1.2 With respect to the ability of the countries concerned to control trade in ivory from African elephants:

i) whether total levels of offtake from both legal and illegal killing are sustainable;

ii) whether control of ivory stocks is adequate to prevent the mixing of legal and illegal ivory;

iii) whether law enforcement is effective; and

iv) whether enforcement and controls are sufficient to ensure that no significant amounts of ivory taken or traded illegally from other countries are traded within or through the territory of the SACIM countries.

2. Composition of the Panel

The Standing Committee appointed the following Panel members:

- Jonathan Barzdo, CITES Secretariat, Lausanne, Switzerland;
- Peter Dollinger, Swiss Federal Veterinary Office, Liebefeld-Berne, Switzerland;
- Holly Dublin, WWF Regional Office - Eastern Africa, Nairobi, Kenya;
- Richard Luxmoore, World Conservation Monitoring Centre, Cambridge, U.K.

The Governments of the countries of origin appointed:

- Gilson Kaweche, National Parks and Wildlife Service, Chilanga, Zambia;
- Malan Lindeque, Ministry of Wildlife, Conservation and Tourism, Etosha National Park, Namibia;
- Keith Lindsay, Department of Wildlife and National Parks, Gaborone, Botswana;
- Rowan Martin, Department of National Parks and Wild Life Management, Harare, Zimbabwe;
- Francis Mkanda, Department of National Parks and Wildlife, Lilongwe, Malawi.

Hugo Jachmann, Rotterdam, The Netherlands, was contracted as a consultant by the Panel.

The Panel was chaired by Jonathan Barzdo.

3. Summary report on the Panel's activities

Upon receipt, each Panel member appointed by the Standing Committee, and the consultant, reviewed the original supporting statements individually and sent preliminary comments to the Secretariat which transmitted them to the range States' representatives on the Panel.

From 11 to 23 November 1991, two Panel members and the consultant carried out a fact-finding mission to Harare (Zimbabwe), Windhoek (Namibia) and Gaborone (Botswana). A second mission, to Lilongwe (Malawi) and Lusaka (Zambia), was undertaken by three Panel members from 4 to 12 January 1992. During these missions the Panel was provided with opportunities to meet a broad range of officials. The officials were from senior management levels of the CITES Management Authorities, the Customs and Excise authorities, the Police and the Veterinary Departments and, in the case of Botswana, also the Defence Forces. Representatives of the landholders, the ivory industry, non-governmental wildlife conservation organisations and hunters associations also appeared before the Panel. Panel members had been asked beforehand whether there were any special interest groups to whom they wished to speak and, as far as possible, their demands were met. The names and affiliations of those appearing before the Panel are attached as an annex to this report.

Except for a very short visit to Okaukuejo (Etosha National Park) and Mount Etjo Safari Lodge in Namibia, the Panel was not able to visit elephant habitats. Several Panel members were, however, familiar with the conditions in the field.

Representatives of the Environmental Investigation Agency provided information orally and copies of some documents to two members of the Panel.

From 22 to 24 January 1992 a Panel meeting was held at Berne, Switzerland, to draw the conclusions from the fact-finding missions and to finalise the report. Apart from the Panel members appointed by the Standing Committee, and the consultant, the meeting was attended by Keith Lindsay (for Botswana) and Rowan Martin (for Zimbabwe).

4. Request for additional information

The Panel requested that, as far as necessary, the original supporting statements be supplemented, on a country-by-country base, by similar information as had been supplied by South Africa on demand from the Panel. By 22 January, such supplements had been received from Botswana, Namibia and Zimbabwe.

The Panel reviewed Annex 5 of the common supporting statement and passed its comments to the proposing countries, including a recommendation that a document adopted by the Board of SACIM (the Southern African Centre for Ivory Marketing) replace the existing Annex 5. By 22 January, the Panel was not in possession of the document requested; however, a new draft of Annex 5 has been submitted as part of the Zimbabwe Supplement.

5. Implications of the adoption of the proposal

A consequence of the proposal as formulated, if adopted, would be that all raw and worked ivory originating in the SACIM countries (all the range States of this proposal) would be transferred to Appendix II, regardless of the country in which it is currently held. On the other hand, ivory of other origin, even if held in the SACIM countries, would remain in Appendix I.

6. Country review Botswana

6.1 Viability of the population and potential risks

6.1.1 Viability

On the basis of the supporting statement, the supplement and additional information received, the Panel found no reason to doubt the estimates of 54,600 ± 8400 in northern Botswana and of 400 in the Tuli Block as of October 1990. This gives a national total of 55,000. Population data suggest that the population is increasing but provide no statistically significant evidence that this is the case.

The Tuli Block population in Botswana is not an isolated population as it is contiguous with elephant populations in Zimbabwe. The elephant populations of Botswana can therefore be considered as genetically viable.

Botswana has not yet set target elephant densities but an adaptive management policy has been implemented using the 1990 elephant population as a basis.

Botswana has conducted some initial surveys on the demographics of its northern population (Moss, 1991). The preliminary evidence suggests a relatively undisturbed population. Carcass ratios derived

from aerial censuses of this population were very low and also indicate a healthy population whose losses are well within natural levels of mortality.

6.1.2 Potential risks

The Panel was not able to identify specific potential risks which would threaten the survival of Botswana's elephant population in the short or medium terms. Current levels of poaching are insignificant but could increase, depending on the outcome of the cessation of the armed conflict in Angola. The elephant population, which so far does not seem to be affected by development activities such as the erection of foot-and-mouth disease cordon fences, appears to be extending its range in a westerly and south-westerly direction.

6.2 Sustainability of total levels of offtake

In order to preserve the elephant habitat and maintain biological diversity, Botswana plans to cull approximately 2000 elephants a year, to maintain the population at the 1990 level. The elephant population will be monitored to confirm that this level of offtake is sustainable. The Government of Botswana intends to precede the full-scale culling operation with a sample cull of some 300 animals to assess the logistical feasibility and impact on the elephant population and on the environment.

Over the past few years, problem-animal control has been negligible, while the known illegal offtake amounted to about 100 animals a year.

All animals killed illegally and those killed for crop-protection and in safari hunting will be counted as part of the culling quotas.

6.3 Botswana's ability to monitor its elephant population

Botswana uses unstratified sample counts of elephant by aerial survey, with an effective strip-width of 200 m on either side of the aircraft and four per cent coverage. There are two fixed-wing aircraft available for monitoring purposes. In 1987 and since 1989, surveys have been carried out twice a year, once in the dry season and once in the wet season. While the Department of Wildlife and National Parks (DWNP) has several highly qualified aerial-survey biologists, they will need to train additional staff to enable regular and consistent monitoring of this large population in future.

Concerns have been expressed over the possible risk of counting-errors during surveys of the Hwange and Matetsi elephant populations in Zimbabwe, and those in the north of Botswana and in the Caprivi Strip in Namibia, due to cross-border movements between these areas and the south-east of Angola and south-west of Zambia. The elephants occupying this vast region can effectively be considered as a single population.

With respect to the management of this population, it would be ideal if uniform survey methods were used, if surveys were conducted simultaneously in all five countries, and if management schemes were based on parameters relating to the entire population. Since 1989, the Botswana and Zimbabwe populations have been censused in September/October by similar aerial sample surveys each year. Botswana has also made contacts with Namibia to co-ordinate aerial surveys in the area in the future.

6.4 Effectiveness of current anti-poaching measures

Botswana has two fixed-wing aircraft on a permanent basis, while the army, which is heavily involved with anti-poaching work in Botswana, can bring more aircraft into action when necessary. Within the elephant range (about 73,000 km²), there are 85 men in the special anti-poaching unit. Other enforcement staff that can be deployed in the elephant range as required include 75 game scouts and officers on station in northern Botswana, out of a total of 318 personnel in the Management and Utilisation Division. In addition, 500 military troops are currently deployed in the area. The mean area covered per vehicle is approximately 2500 km², not including transportation used by military troops. The annual operational budget is currently $US 7 per km² per year but will increase to $US 95 per km² per year over the next six years. Over the same period, the planned growth in manpower is seven per cent a year, while six more vehicles and two helicopters will be purchased in the near future.

The Panel noted the emphasis placed on intelligence work as an important component of the anti-poaching effort. Over the past few years, this has been considerably strengthened.

6.5 Control of ivory stocks

6.5.1 Marking of fresh ivory

Three district offices of the Department of Wildlife and National Parks (DWNP) (Francistown, Kasane and Maun) are authorised to register tusks, and each maintains its own records. Duplicate copies are not sent to the headquarters in Gaborone and there is no central record of the number of tusks registered in any year. It is therefore impossible to audit the government stocks of ivory from a single location. Tusks are stamped with code numbers incorporating a letter (F, K or M) corresponding to the district office, a serial number allocated by each office starting at 1 for each year (the same number may be used by different offices), the year, and the weight. Because of a misunderstanding, several of the tusks marked in Maun have been allocated with the district code J in place of M. A number of tusks in the store at Gaborone bore no district code and it is therefore not possible to identify them uniquely. There were also some tusks in the store bearing district codes MC (Machaneng) and GH (Ghanzi). These offices are not authorised to issue tusk numbers.

The Gaborone office (headquarters) is, likewise, not authorised to issue tusk numbers but a large number of tusks have been handed in there by police and Customs. These have been numbered at the ivory store at Gaborone with codes which do not comply with the standard used elsewhere. Furthermore, at least two different sequences of serial numbers have been used and there is no separate record of the number of tusks marked in Gaborone, other than the inventory of stock in the ivory store. Failure to comply with the standardized system of marking established by the DWNP reflects a low priority accorded to the ivory controls and also makes it impossible to keep track of tusks adequately.

All of the original records of the ivory in the DWNP store in Gaborone have now been lost. The Panel was shown a hard copy of a computer printout of tusks in the store, dated 13 December 1989. The database from which this was printed has now been deleted and the backup diskette was said to have been lost during an office move. There had also been a manually kept register of the tusks in the store, but this had also been lost. As a result, an inventory of the tusks present in the store was taken between 29 December 1990 and 5 January 1991, the tusk numbers being written in two new register books. At that time, each tusk was given an additional serial number. The most recent entry in the register book (inspected on 21 November 1991) was in August 1991. There was a pile of ivory on the floor of the store which had not yet been entered in the register.

The Panel was not able to inspect the register books at the three other district offices but was shown copies of some transfer documents used in transporting tusks from the districts to Gaborone. Each document had been signed by dispatching and receiving officers and included an itemised list of the tusks, including serial numbers. It was not possible to inspect a complete set of transfer documents relating to the ivory in the store.

There is no central register of tusks handed in at Gaborone but this is said to be recorded in the "Occurrences" book kept at the office along with all other routine events. No entries corresponding to ivory were shown to the Panel. It is therefore impossible, in practice, to identify the source of any ivory registered at Gaborone and there is no way of determining whether all of the ivory handed in is eventually deposited in the store.

The ivory store and its register books had been inspected during the course of 1991 by the government auditors. The Panel was informed that all had been found to be in order, but this merely confirms that the inventory taken at the beginning of the year had been correct. A significant number of tusks in the register had no weight recorded, the Panel was informed that this was because no weighing scales were available at the store. The register therefore contained a complete (up to August 1991) record of the number of tusks in the store but only a partial record of the weight of ivory held.

6.5.2 Ivory sourcing

There are three principal sources of ivory in Botswana: the shooting of problem animals, recoveries from carcasses and confiscations during law-enforcement activities.

The Panel was informed that the ivory registers kept at the three DWNP stations contained records of the source of the ivory. However, as duplicate records were not kept at Gaborone, the Panel was not in a position to verify this. It may therefore be possible to determine the source of some of the ivory marked at the other stations but this will require a considerable amount of work and it will not be possible for tusks registered in Gaborone.

Botswana participates in the South African isotopic analysis scheme and is exploring in addition the use of the DNA method (see heading 712 of the report of the Panel of Experts on South Africa).

6.5.3 Keeping of records by the Management Authority

A selection of the numbered tusks in the store was examined by the Panel and all were found to be correctly recorded in the register. However, it was not possible to check the origin of the tusks from the records available, nor whether all the ivory which had been obtained in Botswana in recent years had eventually reached the store. This is a serious deficiency in the ivory marking and recording system.

Reporting on trade:

The information contained in the proposal submitted by Botswana on the exports of ivory from 1987 to 1990 was inaccurate and did not agree with the annual reports previously submitted to the Secretariat.

6.5.4 Registration of private or commercial ivory

6.5.4.1 Raw ivory and ivory carving

There are four companies in Botswana registered for carving ivory. Each has to keep records of the number of animal products purchased. These are submitted every two months for inspection to the DWNP. Although at least one of the companies (Botswana Game Industries) keeps its own records of the weight of ivory carved and the amount of carvings produced, there is currently no requirement that these should be inspected by the DWNP. The Panel judged that the Management Authority cannot currently assure itself that the carvers are using only legally acquired ivory.

The DWNP keeps no central record of the amount of ivory bought by the carvers, nor the amount carved.

An attempt has been made to register ivory in private hands in Botswana and certificates of ownership have been issued. However, no central record was kept of the certificates issued and it is not possible to determine the total quantity of privately held ivory.

6.5.4.2 Worked ivory

Commercial stocks of worked ivory are registered with the DWNP, as are other wildlife products. Retailers have to submit two-monthly returns to the regional DWNP office. Privately owned carved tusks are also registered, but not smaller items such as necklaces. When a tourist buys an ivory carving, the export permit is obtained from the local DWNP office.

6.6 Legal provisions regulating international and domestic trade in ivory

6.6.1 Reservation

Botswana holds a reservation on the transfer of *Loxodonta africana* from Appendix II to Appendix I.

6.6.2 Moratorium

Botswana has no formal moratorium but, since the adoption of the Appendix-I listing, no ivory from the government store has been auctioned and no auctions by the landboards (local authorities) have been sanctioned by the DWNP.

6.6.3 Nature conservation legislation

The current Fauna Conservation Act will be replaced by a new Wildlife Conservation and National Parks Act. While import permits are currently required for raw ivory only (and for hides, heads and bones), the Bill of the new Act extends the import permit requirement to worked ivory. The export of both raw and worked ivory is already subject to a permit under the existing Act. The export provisions fully apply to re-exports.

Penalties are rather low under the current legislation. Under the new Act, illegal import, export and re-export of ivory, or selling, otherwise dealing in, or manufacturing any article from ivory that has not been lawfully imported into, or which has not been obtained from an animal lawfully killed in Botswana will be subject to a penalty of not less than 10,000 pula and not more than 50,000 pula and the offender may, as well or instead, be sentenced to 3 to 10 years in prison.

6.6.4 Veterinary legislation

The import and transit of raw wildlife products, including ivory, requires a veterinary permit. The competence to issue such permits is delegated to the district veterinary officers. Upon request, health certificates are issued for the export of wildlife products.

There is no legal provision stipulating a formal liaison between the import licensing procedures of the nature conservation authorities and the veterinary services. In practice such liaison exists to a certain extent, based on goodwill and on informal agreements between the officials concerned, but this procedure should be made routine, to improve enforcement.

6.6.5 Customs legislation

Botswana does not have its own Consolidated List of Restricted and Prohibited Goods. As a result, it is difficult to ensure that Customs officers are aware of the relevant provisions. The obligation to control the import of raw and partly worked ivory results from the Customs Act and the Ministry of Commerce's legislation on import controls.

6.6.6 Customs Union

Although Botswana is a member of the Southern Africa Common Customs Area, there are Customs offices on the common border with South Africa, e.g. for controlling all the by-laws and for purposes of the common revenue pool. As of 1 December 1991, trade between Botswana and the other members of the Customs Union is monitored by the CCA-1 form (Declaration of goods removed within the Southern Africa Common Customs Area).

For goods with a final destination in South Africa, the South African Consolidated List of Restricted and Prohibited Goods (which does not include worked ivory) is applicable.

6.6.7 Transit

Botswana has not yet complied with the recommendations of Resolution Conf. 7.4 on Control of Transit. There is no legal provision which explicitly requires that CITES goods in transit must be accompanied by valid CITES documentation. Under the proposed Wildlife Conservation and National Parks Bill, transit is treated as import and re-export. Veterinary permits for transit will be issued if an import permit has been issued by the country of final destination.

6.7 Effectiveness of law enforcement

6.7.1 External trade

6.7.1.1 Customs services

CITES and veterinary import permits are checked by Customs which from time to time may be assisted by wildlife officers. The export permit or re-export certificate of the country of

dispatch is not checked at the border. The import shipments are physically inspected on a random basis. Theoretically, also shipments in transit could be checked, but this has a low priority.

Upon export and re-export, the CITES documents are checked by Customs which normally physically inspect the shipments and which may refer to the DWNP if discrepancies are found.

In passenger traffic, there is a value tolerance of 500 rands for imports. For passengers leaving Botswana, there is no fixed tolerance limit, but in practice goods worth less than 500 pula would be allowed for export without CITES documentation. This practice is be a gap in CITES controls, of particular relevance to worked ivory.

6.7.1.2 Nature conservation services

Import and export permits and re-export certificates are issued by the Gaborone, Maun and Francistown offices of the DWNP which, before issuing an import permit, have to check the foreign export permit or re-export certificate.

The DWNP collaborates, on matters pertaining to external trade, with the Endangered Species Protection Unit of the South African Police and with the Ministry of Wildlife, Conservation and Tourism of Namibia.

6.7.1.3 Veterinary services

The issuance of veterinary import and transit permits, as well as health certificates for export, is delegated to the District Veterinary Officers which have been instructed not to issue such permits unless a DWNP permit is presented. In practice, the requirement for veterinary permits for the import of raw ivory has apparently not been enforced.

6.7.1.4 Police

The police provide back-up support for the DWNP. There is no special wildlife unit within the police. More complicated wildlife cases and especially those involving ivory are dealt with by the Combined Diamonds and Drugs Investigation Unit of the Criminal Investigation Department.

There exists a protocol of understanding on police co-operation with Namibia. Co-operation with the South African police takes place informally at the local level.

6.7.1.5 Botswana Defence Forces

The BDF has been involved routinely in anti-poaching measures since 1990, not least because cross-border poaching is also of concern in a defence context. Initially, 35 men were deployed but this was increased to 500 once the scale of the problem had become clear. Special units are stationed along the northern and western borders with Namibia and at the eastern border, in the Mashatu area. There were 92 incursions in 1991, involving mainly Namibian and Zambian nationals, including one group of 62 individuals. The Panel was informed that, before the end of the Angolan war, South African Defence Forces had been detected making poaching incursions close to the Namibian border. Cross-border poaching is said to be decreasing as a consequence of the BDF patrolling.

6.7.2 Internal trade

6.7.2.1 Nature conservation services

The DWNP enforces the sections of the Fauna Conservation Act concerning ownership of ivory and buying or selling of wildlife products and trophies through the District and Headquarters offices.

6.7.2.2 Police

The DWNP is not sufficiently informed about the number of cases and convictions obtained by the police. Relatively few elephant-related cases are reported in Botswana and this appears to reflect a low level of illegal trade.

6.8 Evidence of illegal trade through Botswana

Although the Botswana Defence Forces have apprehended significant numbers of cross-border poachers, there have been very few confiscations of ivory which was not thought to have originated within Botswana. However there is a major trans-continental truck route which passes from Zambia and beyond, through Botswana to South Africa. A large number of trucks pass along this route, very few of which are ever inspected by Customs or enforcement staff. One large consignment of ivory was located at Kazungula in a false-bottomed truck in 1988, indicating that ivory is transported along this route, and the South African Police believe that a large quantity still enters their country by this means. The Panel of Experts, in assessing South Africa's proposal on *Loxodonta africana*, identified Botswana as a major conduit of illegal ivory.

7. Country review Malawi

7.1 Viability of the population and potential risks

7.1.1 Viability

The data on population numbers and densities in the original supporting statement were changed during the Panel's visit. However, these changes were not based on further survey work but, rather, on informed guesses within the Department of National Parks and Wildlife (DNPW). Overall, the available data for Malawi are inadequate to establish with any accuracy either status or trends of the national population. Data from past years are a combination of ground and aerial survey techniques as well as educated guesses. At present, 1450 (>65%) of the 2200 country total are derived from educated guesses, while an additional 671 (30.5%) are compiled from surveys which are several years out-of-date. Of populations such as that of Kasungu National Park, where repeated survey work has been done, the estimates have gone from about 900 in the early 1970s (Mkanda, pers. comm.) to 1000 in the late 1970s (Jachmann & Bell, 1984) to 440 in 1987 (Mkanda & Mphande, unpubl. data). No information was provided on carcass ratios from these or any other areas censused.

Although some work has been done on elephant demography in both Liwonde and Kasungu in the past, there is virtually nothing known of population structure in other parks or reserves. Therefore, little can be said of its current viability until further information becomes available. However, given the overall population estimate of just over 2000 elephants, the viability of the country's national elephant herd might be called into doubt over the long-term. Of the numerous sub-populations which comprise this total, the majority may be inviable both demographically and genetically in the long-term.

7.1.2 Potential risks

The Panel was provided data showing that poaching activity in Malawi has increased over the last couple of years. This is further substantiated by the report of Dublin and Jachmann (1992). While the majority of individual poaching incidents are not large, they are significant to the long-term security of Malawi's national elephant population.

Malawi has several particularly troubled areas, including Kasungu and Vwaza National Parks, Thuma Forest Reserve, Majete and some of the other game reserves. The poaching threats in Malawi today stem from two main sources. The first is cross-border poaching from Zambia in the Kasungu Park area. The second is the problem of the large number (over 1 million) Mozambican refugees currently living in Malawi. These refugees are a threat to elephant populations in Majete Game Reserve and Liwonde National Park, in particular, although the latter has obtained an increased budget, and law enforcement has improved as a result. The Panel was informed that scouts in Kasungu contend with almost daily incursions into the Park and that Vwaza is still troubled with frequent bouts of illegal activity.

7.2 Sustainability of total levels of offtake

Malawi has no plans to crop or cull elephants in the near future, nor does it allow sport hunting of elephants. The levels of poaching reported over the past three years are close to or may exceed the sustainable levels of offtake.

7.3 Malawi's ability to monitor its elephant population

From the original supporting statement and the information obtained during the Panel's visit, it is clear that, until now, Malawi has not had the ability to monitor its country-wide elephant population. Although certain sub-populations, such as those of Kasungu, Vwaza Marsh, Liwonde and Nyika, have been surveyed at irregular intervals by individual researchers or by the DNPW itself, there is no accurate picture of the nation's elephant population. The DNPW has recently received grants from the United States Government to census the national elephant population. The methods to be used in each area have yet to be determined.

In collaboration with the Malawian army, the DNPW is scheduled to have the use of two twin-engined Seawolf aircraft for the express purpose of flying these surveys over the next 2 - 3 years. DNPW staff have some expertise in aerial survey work but the DNPW intends to conduct training exercises as a part of the elephant census programme, using funds provided for this purpose.

7.4 Effectiveness of current anti-poaching measures

Over a two-year period (1991/1992), the DNPW has been granted a 55 per cent increase in staffing by the Government of Malawi. Of the 188 new personnel, 94 scouts will be recruited to increase the law-enforcement effort. Of the total staff of 525, 75 per cent or 394 individuals are within the management division which includes all law-enforcement personnel. Of these, 250 are game scouts. The DNPW's annual operating budget is approximately US$ 1.4 million, of which one-third goes to the management division to cover law-enforcement activities (roughly US$40 per km²).

In general, law-enforcement personnel are issued .303 calibre rifles. Game scouts are empowered with the right to search and seize without a warrant, powers which surpass those of the Malawian police. There are also formally assigned intelligence staff within the DNPW who are covered by the same laws. The DNPW is currently designing an intelligence network with the help of the South African authorities. Scouts and officers communicate using VHF handsets when in the field and by HF radios between the individual park headquarters and Lilongwe. However, there is a need for more and better radio communication in the law-enforcement sector.

Despite the approved plans for increased law-enforcement capability within the DNPW, it appears that security efforts are still not sufficient to control illegal hunting of elephants in Malawi adequately.

7.5 Control of ivory stocks

7.5.1 Marking of fresh ivory

Ivory may be marked at any of the Regional DNPW offices. Each office is responsible for keeping its own register of marked ivory. Tusks are marked with felt-tip pen with complex code numbers incorporating letters designating the region, whether the ivory was received from the Malawi Police, a serial number and the year. The weight is also written on the tusk. The numbering system is unnecessarily complex and the numerous parallel series of numbers used increase the likelihood of errors because all sections of the number are needed to identify the tusk. Several errors were detected relating to the incorrect application of the numbering system. The Panel was shown a selection of 14 tusks held by the Customs at Kamuzu International Airport, some dating back to 1988, none of which was marked. This was said to be because the tusks had not yet been released to the DNPW. It is not known whether Customs held any further unregistered ivory.

7.5.2 Ivory sourcing

Ivory comes principally from confiscations and problem animal control. Confiscated ivory can be divided into two sources: that recovered from illegal hunting within Malawi, and that of unknown origin taken from traffickers, mainly in urban areas. It is believed that the majority of the latter comes from

Zambia and that some comes from Tanzania. The total quantities obtained from 1985 to 1991 have been: crop protection, 2377 kg; poaching, 1517 kg; and confiscated from unknown sources, 7010 kg.

Malawi participates in the South African isotopic analysis scheme.

7.5.3 Keeping of records by the Management Authority

Tusks are sent from time to time from the regional offices to the ivory store at Lilongwe. At this point they are crossed off the regional office register and a transfer document is made out in quadruplicate. On arrival at the store, one copy of the document is retained and a second is signed and returned to the regional office where it is supposed to be filed. Few copies of returned transfer documents were shown to the Panel and in many cases the signatures of the dispatching and receiving officers were the same. A selection of the records was examined at the Regional Office in Lilongwe. The register book was an ordinary notebook with un-numbered pages and no column markings. This makes it impossible to ensure that the records had not been tampered with. The book appeared to contain an incomplete record of the tusks marked at Lilongwe.

On arrival at the central ivory store, details of the tusks are recorded in the central register and the ivory is transferred to the strongroom. No copies of the transfer documents appear to be kept at the central ivory store. Of six tusks chosen at random from the ivory store, two were certainly not recorded in the register book, and a third could not be found there. It is therefore evident that ivory can and does enter the store without going through the agreed procedures.

The DNPW prepared an inventory of the ivory store in October 1991 and the tusk-weight distribution was recorded. There is no mechanism available at Lilongwe to enable a complete audit of the DNPW's ivory stocks as the records are all dispersed and duplicate records are not forwarded to headquarters. Although the system should allow ivory transfers to be audited from the records kept at the regional stations, this is currently not possible because copies of the transfer documents do not appear to have been returned.

7.5.4 Registration of private or commercial ivory

7.5.4.1 Raw ivory

A certificate of ownership is required for all ivory held by private individuals in Malawi. Details of the tusk registration numbers are marked on the certificates. Duplicate copies of the certificates are kept at headquarters, but there is no consolidated record of the stocks held by each individual or of the total within the country.

7.5.4.2 Worked ivory

From a number of 40 in 1989, there are now about 15 licensed trophy dealers in Malawi. They are required to maintain records of the ivory purchased, carved and sold and must make these available for inspection by the DNPW staff. There is no requirement to file reports with the DNPW and the keeping of paperwork is the sole responsibility of the dealers. This increases the possibility of fraud because it is easy for the trader to alter his own records. The Panel found evidence that this had occurred.

The Panel inspected the premises of the only registered trophy dealer in Lilongwe and was shown his ivory records. It appeared from these that he had been quite active from 1984 to 1989 but had traded very little ivory since then. The records showed frequent but irregular inspections by the DNPW until 1989 but none since 15 September 1989. It appeared that all of the more recent entries since that date had been made in the registers immediately in advance of the Panel's visit because they were all written in the same pen and were not in chronological order. A more serious irregularity concerned the inspections by the DNPW. These were certified by the insertion of date stamps in the relevant positions in the ivory registers. At the most recent inspection (15.9.89), entirely blank register pages appeared to have been stamped. This is evidenced by the fact that all of the entries on the pages appeared to post-date the stamp. A small selection of the records was inspected and the dealer was able to produce Certificates of Ownership for the tusks recorded as having been worked or sold.

7.6 Legal provisions regulating international and domestic trade in ivory

7.6.1 Reservation

Malawi holds a reservation on the transfer of *Loxodonta africana* from Appendix II to Appendix I.

7.6.2 Moratorium

There is no moratorium in Malawi on the trade in ivory. However, DNPW staff state that no export permits have been issued and that no ivory has been legally sold or exported since the Appendix-I listing.

7.6.3 Nature conservation legislation

The Game Act (1954) (Cap 66.03), as amended, controls the killing of elephants and the trade in ivory. It is intended that this will be replaced by the National Parks and Wildlife Act, for which a bill has been drafted and will be introduced for adoption in March, 1992.

Under the Game Act, no-one may deal in ivory, including worked ivory, unless they have a trophy dealer's permit. Possession of non-manufactured ivory is only permitted with a certificate of ownership from the DNPW. If ownership of the ivory is transferred, the certificate must be transferred with it.

Ivory can be cleared for import and export only at a Customs office. In the case of export, an export certificate is required from the Chief Game Warden and can only be granted on submission of the certificate of ownership. These controls do not apply to worked ivory. There is no apparent legal requirement for import permits for ivory.

The National Parks and Wildlife Bill is generally more flexible than the current Game Act, giving the Minister the power to designate protected species and game species and to make regulations for the control of industry engaged in manufacturing products derived from protected animals. However, this would not apply to ivory unless the elephant were designated a protected species. It is proposed that import and export of products of CITES-listed species (including raw and worked ivory) would require a permit. Moreover the Minister would be empowered to make regulations imposing additional restrictions. However, the current draft bill excludes controls on re-exports where legal import can be proved to a Customs officer. This would obviously be an important loophole in the implementation of CITES controls.

The Bill of new legislation will significantly increase sanctions, creating a minimum fine of 10,000 kwacha for illegal killing, possession, purchase, or sale of a protected species.

7.6.4 Veterinary legislation

The Control and Diseases of Animals Act (Cap. 66.02) provides the basis for veterinary import and export controls, but no veterinary controls are currently exerted on ivory. For import or export of elephant skin, a health certificate from the Chief Veterinary Officer would be required.

7.6.5 Customs legislation

Import and export controls are exercised under the Customs and Excise Act (Cap. 42.01). Ivory is on the list of restricted goods, so that export documents are required; this also applies to worked ivory.

7.6.6 Customs Union

Malawi is not a member of the Southern African Customs Union.

7.6.7 Transit

Malawi has not complied with the recommendations of Resolution Conf. 7.4 on the Control of Transit. There is no apparent legal measure specifically requiring CITES documentation to be issued in the case of transit. However, the Panel was informed that, for ivory in transit, Customs would require to see an export document which would be stamped by Malawi Customs; if none were presented, the goods would be detained.

7.7 Effectiveness of law enforcement

7.7.1 External trade

7.7.1.1 Customs services

For imports of ivory, Customs would require to see an export permit from the country of export, an invoice and a bill of export. However, the export permit would not be verified by Customs. The Customs officers would consult the DNPW only in the case of need.

Before clearing ivory for export, including commercial shipments of worked ivory, Customs would require to see a CITES export certificate issued by the DNPW, and a bill of export. Customs stated that a physical inspection would also be carried out.

A large proportion of personal baggage being imported is also physically inspected. A small amount of ivory (polished tusks and trinkets) in the process of being exported has been seized by Customs officers at the airport.

Control of movements across the open borders between Malawi and the neighbouring countries is a much greater problem for Customs, indeed is virtually impossible given the length of the borders and the limited resources available for patrolling them.

7.7.1.2 Nature conservation services

Import permits and export and re-export certificates are issued only by the DNPW in Lilongwe, the CITES Management Authority. Export certificates for ivory are issued only when the owner can prove the legality thereof by means of a certificate of ownership previously issued by the DNPW.

7.7.1.3 Veterinary services

There are no veterinary inspectors at the airport or the border posts. They would only be called by Customs from the regional veterinary offices in case of need.

7.7.1.4 Police

The Panel could not obtain an interview with a representative of the police.

7.7.1.5 Security forces

The military forces play no supportive role in controlling the ivory trade in Malawi.

7.7.2 Internal trade

7.7.2.1 Nature conservation services

All ivory dealers in Malawi must be registered with the DNPW on an annual basis. Each dealer must have a "Permit to deal in game trophies" which is renewable annually, and a "Certificate of ownership of a trophy" to cover each tusk or piece of unworked ivory. In practice the latter are often issued to cover several tusks or pieces. Each trophy dealer is required, under the Game Act, to keep records of the ivory held and used. However there have been serious problems in the operation of this system (see Section 754.2)

The Panel was informed of the covert availability of ivory carvings on a small scale from street vendors in Lilongwe. DNPW staff have cracked down on this. The tourist industry in Malawi is not so large that this traffic is likely to be of any significance.

The system of rewards offered by the DNPW for information on illegal ivory appears to have been a success and may account for the large volumes of ivory reported to have been confiscated.

7.7.2.2 Police

Cases of poaching and illegal possession and dealing are referred to the police for prosecution. The Panel was unable to determine how many cases had been referred to the police and how many prosecutions or convictions had resulted.

7.8 Evidence of illegal trade through Malawi

The Panel was informed that 8527 kg of ivory had been confiscated within the country between 1985 and 1991. Of this, 1517 kg was said to have derived from poaching within Malawi and 7010 kg from unknown sources, predominantly believed to be from outside the country. It is likely that a far greater volume of ivory passed illegally through the country without being apprehended. The Endangered Species Protection Unit of the South African Police have been involved in several investigations which traced ivory moving illegally from Malawi to South Africa and their co-operation with the Malawian police is reported to have led to the seizure of 113 tusks in January 1992.

The volume of ivory confiscated has declined sharply from an average of 1602 kg a year from 1985-1988 to 201 kg a year from 1989-1991. It is unclear whether this represents a decrease in the volume of illegal trade or in the apprehension rate.

8. Country review Namibia

8.1 Viability of the population and potential risks

8.1.1 Viability

On the basis of the supporting statement, the supplement and additional information received, the Panel found no reason to doubt the estimates of elephant numbers of 4500 to 6500. Namibia's elephant population is relatively small and scattered over a vast semi-arid to arid area. Natural mortality as a result of drought and disease leads to periodic population fluctuations in parts of the primary range.

A significant portion of Namibia's reported population is part of the larger regional population shared with Angola, Botswana, Zambia, and possibly Zimbabwe, and moves in and out of the Caprivi Strip. In addition, important portions of secondary elephant range are being lost to continuing human settlement at major watering points throughout the present range. Namibia's elephant population is therefore becoming more and more vulnerable to fragmentation. For these reasons, the viability of the population is uncertain.

While Namibia did not present information on demographics in either its original proposal or its supplement, extensive work has been done on the population dynamics of its most numerous population in Etosha National Park (Lindeque, 1988). This study demonstrated that observed population changes in Etosha were accounted for largely by emigration and immigration to and from the Park. High mortality rates due to disease were also important in the population's long-term dynamics.

8.1.2 Potential risks

The Panel was unable to identify specific potential risks which would threaten the survival of Namibia's elephant population in the short or medium terms. Current levels of poaching are insignificant, but could increase depending on the outcome of the cessation of the armed conflict in Angola. The elephant population is expanding its range naturally and, on a small scale, through relocation. Some of the elephants on private farms originate in Kruger National Park, i.e. are possibly genetically distinct, but so

far no mixing of these elephants with Namibian elephants has taken place. In the longer term, human settlement may lead to the loss of habitat which is periodically used by elephants.

8.2 Sustainability of total levels of offtake

The current levels of legal and illegal offtake and of natural mortality have not resulted in any apparent population decline. A management decision has been taken to maintain elephant numbers in the Etosha National Park at between 1500 and 3000. As the current population is closer to the lower figure, no major culling operations are foreseen in the near future.

The known illegal offtake has been less than 10 elephants a year over the last two years, while crop-protection shooting and trophy hunting account for another 50 animals a year. An offtake of this order of magnitude would appear sustainable in the long term.

Juvenile elephants captured during any culling operations would be sold and translocated to private game farms, or introduced to suitable National Parks and Game Reserves outside the current elephant range.

All animals killed illegally and those killed for crop-protection and during safari hunting, are included in the approved offtake.

8.3 Namibia's ability to monitor its elephant population

The Ministry of Wildlife, Conservation and Tourism (MWCT) has two fixed-wing aircraft available for census work and rents a commercial helicopter and pilot when necessary. While the MWCT has aircraft and a sufficient number of trained staff, it has limited funds for monitoring the entire elephant population annually. The low density, clumped distribution and extensive range of the elephants makes it difficult to use statistically sound census techniques to obtain reliable population figures. As a consequence, the census data provided are for different sub-populations, in different years and derived from different techniques. It is therefore difficult to evaluate the true status of the national population under the reported monitoring regime.

The methods used in Namibia differ considerably from counting techniques used in other countries of the subregion and will need to be taken into account when co-operative counts of the Caprivi Strip area are undertaken. See heading 63 regarding regional co-ordination and co-operation on elephant survey work.

8.4 Effectiveness of current anti-poaching measures

The Panel is satisfied that Namibia's law-enforcement capability is adequate to cope with current levels of illegal hunting.

MWCT has two fixed-wing aircraft for both monitoring and law-enforcement purposes, staffing levels of about one game scout per 173 km² (effective staffing levels are higher for the Etosha National Park only), a mean area covered per vehicle of 808 km², and an annual operational budget of about $US 15 per km².

The Panel noted the emphasis placed on intelligence work as an important component of the law-enforcement effort. This component is currently being strengthened.

8.5 Control of ivory stocks

8.5.1 Marking of fresh ivory

A permit is required for the legal possession of all raw ivory. Permits may be issued in Windhoek or elsewhere in the country by MWCT staff, depending on where the ivory is obtained. All raw ivory is weighed and measured and the details are recorded on possession permits. For all government-owned ivory, the permit number is then written on the tusk in felt-tip pen and the tusk is transferred to the ivory store. Prior to 1990, all ivory entering the store was marked with additional numbers in the manner recommended by CITES, using an engraving tool. A register was kept to relate the final tusk numbers to the permit numbers written on the tusks. The store has become increasingly full and no tusks have been engraved since early 1990. Tusks obtained by trophy hunters are also marked this way (on export, the code numbers of the form recommended by CITES are engraved on each tusk).

8.5.2 Ivory sourcing

Namibia participates in South Africa's ivory-sourcing scheme by the use of isotopic analysis.

Ivory in the store originates from three main sources:

a) Culls in Etosha (last one in 1985);
b) Natural mortality (mostly anthrax-related); and
c) Seized ivory obtained by police or Customs.

Only ivory in the first two categories can be said with certainty to have originated in Namibia. Ivory seized by police is usually brought to the store for safe keeping before being used as evidence in court. MWCT staff believe that about 50 per cent of the 4313 tusks in the store (on 16 September 1991) are confiscated and are predominantly of foreign origin (most likely from Angola, but possibly also from Zambia, Botswana and other, unknown, countries.

8.5.3 Keeping of records by the MWCT

Copies of the possession permits are kept by MWCT and these may be checked against the register books. However, as the primary reference for each tusk is the possession permit number, it is extremely difficult to trace a tusk back to its source using the engraved CITES number. The store is full and somewhat disorganised and it was not possible to check the paperwork for more than a tiny selection of tusks; however, no evidence was found of any irregularities. The registers are not duplicated and are the responsibility of only one officer. It is therefore difficult to check them independently.

8.5.4 Registration of private or commercial ivory

8.5.4.1 Marking of privately held ivory

Privately held ivory must also be recorded on possession permits. It is marked with the permit number in felt-tipped pen. The tusks are weighed and measured and the details are written on the permits, copies of which are kept at the MWCT in files relating to each owner. These are currently not computerised and it is therefore not possible to determine with any ease how much ivory is in private hands in total. Ivory may be sold privately only within Namibia, after which the new owner must apply for a permit, the old permit being destroyed.

8.5.4.2 Worked ivory

Curio shops dealing in game products are required to be licensed, which is not the case for retailers dealing in worked ivory in small quantities. The curio shops are required (by Proclamation No. AG 42) to keep registers of their stock. These may be inspected by MWCT staff. Legislation does not require permits to be issued for worked ivory but they may be issued for larger carved items if requested by the owner. Worked ivory is not strictly defined in law, but for practical purposes the Department uses a definition of 80 per cent carved. Trophy manufacturers have to mark any offcuts or carvings with their name or a mark approved for that purpose.

8.6 Legal provisions regulating international and domestic trade in ivory

8.6.1 Reservation

Namibia holds a reservation with regard to the inclusion of *Loxodonta africana* in Appendix I.

8.6.2 Moratorium

Namibia has no formal moratorium but, since the adoption of the Appendix-I listing, no ivory from the government store has been auctioned and no export permits for commercial shipments of raw or worked ivory have been issued. However, some permits have been issued for export of hunting trophies.

8.6.3 Nature conservation legislation

On the basis of Nature Conservation Ordinance No. 4 of 1975 and Proclamation No. AG 42 of 1980, the import, export, re-export and possession of, and the dealing in raw ivory are subject to a permit. There is no such permit requirement for worked ivory. The legislation contains also detailed prescriptions for keeping registers and marking ivory. When issuing an import permit, reference to veterinary requirements is made, but there is no legal provision stipulating a formal liaison between the import licensing procedures of the nature conservation authorities and the veterinary services, and the procedures are run separately. However there would clearly be an advantage to co-ordinating the controls.

By the Nature Conservation General Amendment Act, 1990, new penalties have been introduced. Offences relating to the hunting of any elephant or rhino, and the import, export and possession of, or dealing in, elephant or rhino products, are subject to a fine not exceeding 200,000 rand or to imprisonment for a period not exceeding twenty years or to both.

8.6.4 Veterinary legislation

On the basis of the Animal Diseases and Parasites Act No. 13 of 1956, the import and transit of raw wildlife products, including ivory, are subject to permits issued by the Veterinary Department. Also the transport of raw wildlife products across the cordon fences requires a permit. Upon request, health certificates are issued for the export of such products.

There is a general policy not to allow imports of raw wildlife products from Angola or Zambia.

8.6.5 Customs legislation

Namibia does not have its own Consolidated List of Restricted and Prohibited Goods but, in principle, still works on the basis of the South African list.

8.6.6 Customs Union

Namibia is a member of the Southern Africa Common Customs Area. Nevertheless, all trade routes, except one small airport and trade between Walvisbaai and Namibia, are covered by Customs, e.g. for controlling all the by-laws and for purposes of the common revenue pool. As of 30 September 1991, trade between Namibia and the other members of the Customs Union is monitored by use of the CCA-1 form. The future status of Walvisbaai is under negotiation.

8.6.7 Transit

Namibia has not complied with the recommendations of Resolution Conf. 7.4 on Control of Transit. There is no legal provision which explicitly requires that CITES goods in transit be accompanied by valid CITES documentation. Although veterinary transit permits are required, veterinary services do not interfere with transit within Windhoek International Airport. The airport lounges are supervised by Customs. The introduction into bonded warehouses is assimilated to import.

8.7 Effectiveness of law enforcement

8.7.1 External trade

8.7.1.1 Customs services

Namibian Customs and Excise officers check CITES import permits and veterinary import and transit permits. Where necessary, they refer to the border veterinary officer (but not in the case of transit). The Customs and Excise is a very young administration. There are very few sufficiently trained Customs officials and there are no written instructions relating to CITES procedures. At one or two Customs offices, no copies of the Consolidated List of Restricted and Prohibited Goods are available. It could not be excluded that CITES specimens would be released for import simply on the basis of a veterinary permit. Co-operation between MWCT and Customs is not adequate. Upon import, Customs do not verify the validity of foreign

CITES documentation. Shipments are physically checked on a random basis. Checks could be done more systematically if so required by the MWCT.

There is virtually no Customs control along the border with Angola. Border crossing on foot and by vehicles is possible almost everywhere. There are no Customs checks at the gates of the veterinary cordon fences. Domestic flights from Ovamboland, Caprivi etc. are not checked by Customs at Windhoek-Eros Airport. There are therefore important weaknesses in the Customs control of external trade.

8.7.1.2 Nature conservation services

All permits are issued by the MWCT's permit office at Windhoek which is partly computerized. No competences are delegated to local or regional authorities.

The MWCT collaborates with the Endangered Species Protection Unit of the South African Police.

8.7.1.3 Veterinary services

All permits are issued by the Veterinary Department's offices at Windhoek. No competences are delegated to local or regional authorities. Until ca. 1980, while Namibia was under South African administration, the Border Veterinary Officers at the Angolan border were staff of the South African Defence Forces and were authorized to permit imports.

Namibia is in charge of the Border Veterinary Service at Walvisbaai. The Panel was informed that all shipments in transit to destinations overseas are checked in detail by the border vet. On the other hand, there are no border veterinary controls between Namibia and South Africa.

8.7.1.4 Police

The MWCT staff co-operate closely with the Namibian Police, and in particular with the Diamonds and Narcotics Branch which plays an equivalent role in Namibia to the Endangered Species Protection Unit of the Police in South Africa.

8.7.1.5 Security forces

The army currently plays no role in the enforcement of wildlife regulations.

8.7.2 Internal trade

Control of curio shops seem to have been done less regularly since the adoption of the Appendix-I listing of the African elephant.

The MWCT also operates an informer network which they share with the Namibian Police.

8.8 Evidence of illegal trade through Namibia

Approximately half of the 4313 tusks held in the MWCT store are believed to be confiscated and possibly of Angolan origin. A large shipment of 972 tusks concealed in a refrigerated truck was seized in 1989, in transit from Angola to Walvisbaai. Although the security is much improved since the termination of the war with Angola, the Customs officials still have no control of the northern border and it is possible to drive trucks across without any inspection. Under these conditions, any apprehensions of ivory must rely on intelligence rather than routine checking. There are allegations that very large quantities of Angolan ivory had been moved through Namibia during the war and the Panel was informed that the South African Authorities have had in their possession some 40 t from this source. South African Defence Forces have been implicated in this illegal trade, and the cessation of hostilities, the withdrawal of troops and the independence of Namibia have probably caused it to decline. However the subsequent seizure of some illegal shipments indicates that it still continues at some level.

Cross-border poaching from Caprivi into northern Botswana has also been recorded, and it is possible that the ivory from this activity has been transported through Namibia. The planned construction of a trans-continental truck route from Zambia through Caprivi to Walvisbaai will increase the volume of freight traffic and will carry a significant risk of illegal ivory trade.

9. Country review Zambia

9.1 Viability of the population and potential risks

9.1.1 Viability

Data presented in the proposal were insufficient to draw any reasonable conclusions on the status of Zambia's elephant population. However, the evidence provided was sufficient to demonstrate that the nation's elephant population has suffered severe declines over the past 15 years. From an estimated country-wide total of 200,000 elephants in the mid-1970s (NPWS records), the current total stands at 20,000 - 25,000 across all parks and reserves recently censused (NPWS research staff, pers. comm.). Particularly good long-term data exist for elephants in the Luangwa Valley, Zambia's largest sub-population. Caughley & Goddard (1975) estimated the Luangwa population at 86,000 in 1973. The same area was censused again in 1979 by Douglas-Hamilton *et al*. (1979) providing an estimate of 33,510 elephants. Surveys conducted in 1991 indicate the Luangwa Valley population continued to decline in the 1980s and is currently around 10,000. This drop in elephant numbers in the Luangwa Valley is statistically significant and represents an annual rate of decline of over 10 per cent per annum over the past 19 years. However, the most recent counts in Luangwa have reported no fresh or recent carcasses in any area (Bell & Tembo, pers. comm.).

Aerial sample surveys conducted between September and November 1991 involved over 300 hours of flying and were flown at sampling intensities of >8.0% (range of 4-100%) and covered most of the parks and reserves of Zambia which still contain resident elephant populations. Although the results of these surveys are still preliminary, they indicate that there are very few viable sub-populations remaining in Zambia. These sub-populations include the greater Luangwa Valley area, including both the north and south parks and several adjacent game management areas (GMAs); the Kafue National Park and its adjacent GMAs, Sichifulo and Mulobezi, and the Sioma Nwezi GMA in southwestern Zambia, bordering Namibia's Caprivi Strip. This latter sub-population is believed to be highly migratory, forming an additional, but not frequently recognised, part of the larger Botswana/Zimbabwe/Namibia/Angola population of that area.

While no systematic data collection has been conducted on the age or sex structure of the remaining populations, departmental biologists involved in the recent aerial survey of Kafue National Park reported that the population there seemed to be comprised primarily of adults. Dr R.H.V. Bell (pers. comm.), on the other hand, reported that in the recent census of the South Luangwa National Park and the Lupande GMA there was evidence of high recruitment rates.

9.1.2 Potential risks

Although there are many hopeful signs for the future conservation of elephants in Zambia today, there are still significant potential risks facing the country's elephant population. As a result of concerted efforts by several large, donor-assisted law-enforcement projects in both North and South Luangwa National Parks, and their adjacent GMAs, the poaching has decreased considerably over the past couple of years. However, there are several areas of the country where the security of elephant populations is still threatened. The elephants of West Lunga National Park, in the country's north-west, continue to be targets of cross-border incursions from Angola; whereas, the Kafue National Park/Sichifulo/Mulobezi population, in south-central Zambia, has had problems in the past with internal security. The Panel was told that these problems stemmed primarily from the uncontrolled supply of ammunition from the Zambian military to local poachers and in some cases poaching carried out by the Zambian armed forces themselves.

Staff in the National Parks and Wildlife Service (NPWS), as well as the Species Protection Department (SPD) of the Anti-Corruption Commission (ACC) concurred that there is still a significant market for ivory which leads to the continued illegal killing of elephants in Zambia.

9.2 Sustainability of total levels of offtake

Based on the obvious decline in the country's elephant population over the past 15 years, the Panel was informed that Zambia, officially, is not interested in any form of consumptive utilization of elephants in the near future. This includes both culling and sport hunting for trophies.

In accordance with the philosophies of their ADMADE and LIRDP community-based conservation programmes, Zambia is firmly committed to the sustainable use of wildlife species and their products as a natural resource belonging to the local communities. In fact, Zambia is one of the few countries which actually do have the legal framework and functional mechanisms in place to return tangible benefits from elephant utilization to local people. However, they have no plans for doing so now or in the near future.

At present, illegal hunting is the only major form of offtake from Zambia's elephant population, and this offtake may not be sustainable at current levels.

9.3 Zambia's ability to monitor its elephant population

Zambia is in the process of completing its first nation-wide aerial elephant census. Since the early to mid-1970s, Zambia's internal capability to monitor its elephant population has been virtually non-existent. At the recent AERSG meeting, in July 1991, Zambia was one of nine countries for which no population estimates were even made, the delegates having decided there was no real evidence on which to base any population figure. As a result of this, Zambia took the initiative to remedy the lack of data and rapidly secured donor money to conduct a national count in the latter part of 1991.

The NPWS see this operation as providing the first population data based on a census of the country's total overall elephant resource. They would like to see this as the beginning of a more regular programme of elephant surveys and a programme which would be conducted in both the wet and dry season for each major population every year. This hope, while genuine, appeared to the Panel to be overly optimistic. This is especially true in light of the Service's current resources, both internal and donor-assisted, relative to the extent of Zambia's elephant range, which is extensive, widely dispersed and composed of a tremendous variety of habitat types.

With respect to the availability of basic resources for monitoring elephant populations, the NPWS is lacking in both ground and air support. While they do not have their own aircraft at present, they have successfully relied on plane rental and on the use of experienced local pilots to conduct the recent surveys. Although short on material resources, it was noted that Zambia does have the necessary human resources currently in the department. According to the NPWS research staff, all observers who participated in the surveys had previous counting experience, a very positive but unusual circumstance compared to the wildlife departments of most other elephant range States.

Zambia would need to secure significant external funding to enable them to guarantee a well-endowed, consistent, long-term monitoring programme for their major elephant populations. Without this, the NPWS simply does not at present have the internal resources to support an annual or semi-annual exercise of this magnitude.

9.4 Effectiveness of current anti-poaching measures

Law-enforcement activities against elephant poaching are primarily the responsibility of the NPWS, although in recent years they have been assisted by the police, members of the Species Protection Department of the ACC, the honorary ranger force and the LIRDP enforcement staff. The NPWS plans to train a total of 4000 rangers over the next few years. Of these about 1500 NPWS rangers and 50 officers, have been trained to date, in addition to just over 400 village scouts. The current paramilitary course for officers involves semi-automatic and automatic weapons training.

In light of the new legislation, the NPWS is currently in the process of establishing its own investigative wing but until now, this work has been primarily undertaken for Zambia by the SPD/ACC. It has also been a primary activity of the LIRDP in the southern portion of Luangwa Valley and of the Frankfurt Zoological Society project in the north.

The NPWS has historically had insufficient arms and ammunition, and virtually no automatic or semi-automatic weapons are currently in their possession, although a significant number have been ordered recently. In response

to this limited law-enforcement capability of the NPWS in the past, the two externally funded Luangwa Valley projects prioritised anti-poaching activities and focused directly on bringing under control the illegal hunting of elephants, with intelligence being an integral part of this process. Dublin and Jachmann (1992) describe in detail the levels of staffing, transportation and budget provided in these two areas and the significant results experienced in the control of illegal offtake and the confiscation of firearms over the past two to three years.

The NPWS was unable to specify the amount of funds devoted to law enforcement but stated that they were totally insufficient to contain illegal hunting under the current circumstances. Despite the notable successes of several donor-assisted programmes in Zambia, in several areas, specified to the Panel, poaching is still considered to be a serious problem. There are, however, encouraging developments in community-based wildlife management programmes.

9.5 Control of ivory stocks

9.5.1 Marking of fresh ivory

Ivory must be marked at any of the ten district stations, each of which maintains its own register. Duplicate copies are not sent to the NPWS headquarters at Chilanga, and there is no central record of the number of tusks marked in any year. The Panel was only able to inspect the register of tusks marked at Chilanga. Tusks are marked with felt-tip pen, with numbers incorporating a district code, a serial number allocated by each office, starting at 1 each year, and the year. The weight is also written on the tusk although, in the case of Mpika, which has no weighing machine, the weight is not added until the tusks reach Chilanga. There is therefore some potential for ivory to go missing without this being detected.

Ivory from the other stations is sent to Chilanga at irregular intervals accompanied by a transfer voucher. On arrival, the tusk serial numbers are entered into separate register books maintained for each station. There were large gaps in the sequence of numbers for most of the stations. Staff at Chilanga make no attempt to verify whether these missing numbers relate to ivory and, if so, where it is currently located. The Panel was informed that the number sequence is only used for marking ivory, but evidence was seen that the same number sequence is also used for rhino horn.

Ivory is an accountable item and is therefore subject to government audit. The Panel was informed that the store at Chilanga had not been audited for over two years. The Panel was informed that it was theoretically possible for the auditors to visit the NPWS field stations and to track each tusk handed in, using the station register and the transport vouchers to the central register at Chilanga, but there was no evidence that this had ever been done. The system is unsatisfactory in that it cannot be audited centrally.

9.5.2 Ivory sourcing

Ivory derives from three main sources, confiscations, problem animal control and found ivory, the latter two categories comprising very small amounts. The Panel was informed that the ivory in the store at Chilanga comprised 2091 pieces of confiscated ivory and 698 tusks from control operations. It was not apparent where this information was derived from because none of the registers shown to the Panel contains such detail. There is no indication of whether the confiscated ivory derives from animals shot within Zambia or elsewhere.

9.5.3 Keeping of records by the Management Authority

Information on ivory held at the NPWS field stations is not readily available at Chilanga and, because of the problems of communicating with these stations, during the short period of the Panel's visit to Zambia it was not possible to obtain complete information. However the NPWS ascertained that the number of tusks held in five stations (out of ten) totalled 312, the number in the others being unknown.

After being entered into the individual station registers, the ivory arriving at Chilanga is added to the central inventory. Each consignment is split into three categories of ivory: grade 1, tusks over 10 kg; grade 2, tusks of 5 - 9.9 kg; and grade 3, less than 5 kg. Badly cracked ivory maybe reduced in grade. The total number of tusks and their weight is then written in the central inventory alongside the shipment number, a running total being kept for each grade.

The running total shown as being present in the store on the 7 January 1991 was as follows:

	number	weight kg
Grade 1	18	217.9
Grade 2	57	376.5
Grade 3	2648	9526.0

There was a large discrepancy between the overall total of ivory recorded in the register and the individual totals for the three grades.

The Panel inspected a small selection of records and discovered that a shipment of 45 tusks did not appear to have been recorded in the central inventory. A further three records checked were correctly recorded. Inspection of the store showed the ivory to be roughly stacked in three heaps with the newest on top. All appeared to be correctly marked with station numbers and weights. A small selection of tusks was checked and all were found to be correctly recorded in the registers.

9.5.4 Registration of private or commercial ivory

9.5.4.1 Raw ivory

A certificate of ownership is required for privately held raw ivory but no central register is kept.

9.5.4.2 Worked ivory

There is no legal carving of ivory and so there is no system for registering commercial ivory.

9.6 Legal provisions regulating international and domestic trade in ivory

9.6.1 Reservation

Zambia holds a reservation on the transfer of *Loxodonta africana* from Appendix II to Appendix I. However the Minister of Tourism has been reported in the press as stating that the reservation would be withdrawn.

9.6.2 Moratorium

Zambia has no moratorium and issued at least one export permit in 1990.

9.6.3 Nature conservation legislation

A new National Parks and Wildlife Act was adopted in 1991. The status of the Elephant has not yet been designated under this legislation. As a consequence, current trade controls relate to raw ivory only. Assuming that the elephant will be designated a "Protected Animal", trade in worked ivory would be controlled as a trophy (and the following comments relating to worked ivory are made on this assumption).

Raw ivory is a "prescribed trophy", allowing the Minister to control, prohibit or limit dealings therein. Anyone in possession of raw ivory requires a certificate of ownership, issued by the NPWS. Anyone importing ivory has one month to obtain a certificate of ownership. If the ownership of the ivory is transferred, then the certificate must be signed and dated by the old and new owners and be passed to the latter.

Anyone who kills an elephant or who imports raw ivory has one month, under the new Act, to produce the ivory to a wildlife police officer (an enforcement officer in the NPWS) for weighing and registration. The officer has to confirm the legality of the ivory before weighing and registering it and returning it to the owner with a certificate of ownership. If he is not satisfied that the ivory is legal, he may detain it for up to three months pending proceedings. It is, in any case illegal to obtain or to transfer raw ivory which has not been weighed and registered.

Import and export of raw and worked ivory requires a permit. For worked ivory the permit is issued by the Director of the NPWS but permits for raw ivory may only be issued by the Minister.

Import of worked ivory will have to be through a Customs port where the import permit and evidence of legal export must be produced. Curiously, this does not seem to be specified in the legislation for raw ivory. Export of raw or worked ivory must be through a Customs port and, in the case of raw ivory, the certificate of ownership has to be presented.

An exemption is made for ivory accompanying a person if he has a certificate, issued to him "by the country of origin or of export" authorising him to export the ivory. The reason for this is not clear. The buying, selling and processing of worked ivory (assuming that the elephant will be protected), requires a trophy dealer's permit. And all trophy dealers must keep records which are to be prescribed by the Minister, but this has not yet been done.

The sanctions relating to elephants and raw ivory trade under the new Act are severe and do not provide an option of paying a fine. On conviction, for hunting wounding or molesting an elephant, the penalty is 5 to 10 years imprisonment for a first offence and 7 to 15 years for a subsequent offence; if the offence was committed for the purposes of illegal ivory trade, this is increased to not less than 7 years for the first offence and not less than 10 years for a subsequent offence. For possession, selling or buying raw ivory contrary to the law, the penalty is 5 to 10 years imprisonment for a first offence and 7 to 15 years for a subsequent offence.

9.6.4 Veterinary legislation

The Diseases of Stock Act controls movement of certain animal products into and out of Zambia. The Panel was informed that a veterinary export certificate would be issued upon request for export of raw ivory from Zambia but that no veterinary permits would be required for import or transit of raw ivory into or through Zambia. There is no legal requirement for liaison between the veterinary services and NPWS and there is evidently little co-ordination although it could be beneficial.

9.6.5 Customs legislation

International trade in raw and worked ivory would be controlled under the Customs and Excise Act, Cap.662. Ivory is also said to be specifically covered as a controlled product under the Control of Goods Act, Cap.690. In addition, Customs officers have responsibilities arising from the National Parks and Wildlife Act (see above). There is no list of restricted goods but rather update-sheets of instructions are sent to Customs officers to inform them of changes in the restrictions. This system has its limitations and a consolidated list of restricted goods would help to ensure that Customs officers were aware of the relevant provisions.

9.6.6 Customs Union

Zambia is not a member of the Southern African Customs Union.

9.6.7 Transit

Zambia has not complied with the recommendations of Resolution Conf. 7.4 on the Control of Transit. Not only is there no legal provision requiring shipments of CITES specimens in transit to be accompanied by valid CITES documents but the National Parks and Wildlife Act specifically exempts trophies in transit, including ivory, from the normal permit requirements if they are accompanied by the relevant Customs documents from the country of export. This is an important shortcoming in the new legislation. The Panel was informed that Customs officers do have the power to inspect goods in transit and to seize them if they have been misdeclared. Normally, however, ivory would be able to pass unhindered in transit.

9.7 Effectiveness of law enforcement

9.7.1 External trade

9.7.1.1 Customs services

In addition to international airports, Zambia has 18 Customs border posts, and will have an additional 5-6 along the border with Angola in due course. However, it was stressed to the Panel that the bush borders give most problems to Customs since it is common for people to cross through the bush into and out of Zambia without ever going near a border post.

In the event that a shipment of ivory were declared, Customs would require to see an import permit or export permit issued by the NPWS, and a CITES permit, as well as a Customs declaration. Any ivory declared for import would, moreover, be held by Customs pending clearance from the NPWS. The veterinary services have issued instructions to Customs asking them to check veterinary certificates for animal products. But the Panel was told that Customs would not normally require a veterinary certificate except for live specimens.

At Lusaka Airport, generally only about five per cent of commercial cargo is inspected although 100 per cent of private exports were said to be checked to verify that the goods and the documents were in agreement.

There is a heavy cross-border traffic in container trucks passing through Zambia. However, as a result of the inadequate resources available, there are no facilities for inspecting these containers at any border post. So not even random checks are carried out. In case of suspicion, the trucks must be sent to Chilanga for inspection. There clearly exists, therefore, considerable potential for smuggling ivory across Zambian borders in container trucks.

9.7.1.2 Nature conservation services

Import permits, export permits and re-export certificates are issued only by (or through) the NPWS office in Chilanga. In the case of raw ivory, permits are only issued with the authorization of the Minister. An export permit would only be issued on presentation of a certificate of ownership of the ivory and an approval of export from the Ministry of Commerce and Industry.

The NPWS relies entirely on Customs to control shipments. A representative of the NPWS (together with representatives of Customs and police) serves, when appropriate, on the inter-border security committees of Zambia with its neighbouring countries, generally in collaboration with the permanent missions of those countries in Zambia.

9.7.1.3 Veterinary services

The veterinary services are reported to be little involved in matters related to wildlife. But, on request, they would spray and certify raw ivory intended for export, at the veterinary clinic, to contain disease. Veterinary export certificates are issued only by the veterinary clinic in Chilanga. No register is kept of certificates issued, but copies of the certificates are held so that they could be checked. The veterinary services have received no instructions relating specifically to ivory but stated that no export certificate would be issued unless there were an export permit from the NPWS and a certificate from the Ministry of Commerce and Industry.

There are no veterinary inspectors at the border posts, except during disease outbreaks. The veterinary services therefore rely entirely on Customs to enforce the controls.

9.7.1.4 Police

Police detectives at the airport and border posts are involved in screening goods being imported and exported, independently of Customs. A list of prohibited goods is provided to police at these posts. Small quantities of ivory have occasionally been apprehended.

9.7.1.5 Security forces

The military forces play no supportive role in controlling the ivory trade in Zambia.

9.7.1.6 Anti-Corruption Commission

The Anti-Corruption Commission, which is answerable directly to the President, established a Species Protection Department (SPD), with five staff, in 1990. They conduct an intelligence operation and co-operate with investigators in Zimbabwe and South Africa. They have identified a small number of cases of ivory smuggling in the past two years, generally involving only a few tusks or ivory pieces. An exception was a shipment of 350 kg which was shipped from Zambia to Swaziland and seized there in late 1990, having been cleared as personal effects by Zambian Customs. The Panel was informed that SPD believed that a large percentage of the flights to Swaziland, prior to that, carried illegal ivory. The SPD has arrested staff of the police, Customs and airlines for their involvement in ivory smuggling.

9.7.2 Internal trade

9.7.2.1 Nature conservation services

The enforcement personnel of the NPWS are designated as wildlife police officers under the National Parks and Wildlife Act. In addition, the Minister may appoint honorary wildlife police officers (who are vetted before appointment) who operate part-time and unpaid. There are currently 150 to 200 honorary wildlife police, who work with the NPWS staff.

The wildlife police (including honorary wildlife police) have powers of arrest for any offence against the National Parks and Wildlife Act, as well as powers of search and seizure, subject to a warrant. However, the efforts of the NPWS are concentrated on anti-poaching activities rather than specifically on trade control.

The number of prosecutions for illegal possession of ivory has been increasing in recent years. The Panel was not provided with data for the whole country, but there were nine convictions in Lusaka court in 1989 and 19 in 1991.

9.7.2.2 Police

The police assist the NPWS by providing paramilitary training to the wildlife police officers and by occasionally providing reinforcement of personnel in the national parks. The police share responsibility for preventing the illegal trade in ivory but the number of cases detected has been very low.

9.7.2.3 Anti-Corruption Commission

The intelligence work of the SPD relates to poaching and to internal trade. There were said to have been 60-70 cases of poaching under investigation in 1991. The Panel was informed of the use of police and military firearms and the involvement of army and police personnel in poaching in Zambia, some of whom have been prosecuted.

SPD has been collecting information on illicit ivory-carving workshops, reported to be run particularly by Zairean citizens. About ten raids on workshops were carried out in 1991, mostly in Lusaka and Livingstone, resulting in seizures and prosecutions. The carvers and couriers who have been apprehended have stated that they were shipping carvings in small quantities to Zimbabwe, Namibia and South Africa.

9.8 Evidence of illegal trade through Zambia

In view of the massive decline in elephant populations in Zambia over the last 15 years, it is evident that huge quantities of ivory have been exported. In addition, there is evidence that ivory from neighbouring countries has passed through Zambia. A large shipment of illegal ivory seized at Kazungula in 1989 contained ivory from Zaire. Ivory from cross-border poaching into Zimbabwe is also moved through Zambia. A large percentage of

the ivory held in the store in Chilanga derives from confiscations. Almost all of the enforcement agencies in Zambia, including police, army, Customs and NPWS staff have been implicated in illegal trade in ivory.

10. Country review Zimbabwe

10.1 Viability of the population and potential risks

10.1.1 Viability

On the basis of the supporting statement, the supplement and additional information received (Gibson, 1990; Jones, 1991), the Panel accepted the estimates of elephant numbers in Zimbabwe (77,000 ± 15,000 in 1991). Notwithstanding that 27,600 elephants have been killed since 1980, the 1991 estimate for the population is higher than that for 1980. While this suggests a positive rate of growth, the Panel could not agree on the assessment of its statistical significance, noting that the mathematical technique used in Annex 6 of the proposal requires further examination.

Zimbabwe has compiled extensive information on population demographics both from culling operations and from various population studies. These population data suggest a healthy population which is relatively undisturbed by mortality through illegal hunting.

With the exception of the high carcass ratios observed in Gonarezhou in 1988, Zimbabwe's reported carcass ratios for all other sub-populations surveyed indicate a generally low level of illegal offtake (Gibson, 1990; Jones, 1991).

Using the criteria of Frankel and Soulé (1981), approximately 98 per cent of the elephants in Zimbabwe occur in populations that are genetically viable (roughly 1500 elephants, some two per cent of the national population, occur in isolated groups on state and commercial farms).

In the opinion of staff of the Department of National Parks and Wild Life Management (DNPWLM), the elephant population in state protected areas is above carrying capacity (about 65,000 on 45,000 km²) and it will have to be reduced to a level which is sustainable in the long term, that is, not exceeding an average density of one elephant per km². DNPWLM scientists recommended a reduction of the elephants in the state protected areas to a level of 32,000 to 35,000 elephants. For practical reasons, not more than 5000 elephants can be culled in any year and, given a population growth rate of five per cent, it would take about 12 years to achieve the envisaged reduction.

On the other hand, there is a trend within Zimbabwe of commercial farmers turning from traditional livestock production to the use of wildlife. About 500 farmers have already made this transition and are members of the Wildlife Producers' Association. Together they hold more land than the state protected areas. The elephant population on these farms is 1000 to 2000 animals, and it has been partly built up from juveniles recovered from culling operations. This population could increase significantly if such an increase were in the economic interests of the farmers. The same holds true for the population of 6000 to 9000 elephants on communal land which could be allowed to increase up to double its present size. These communal lands have full authority to manage their own wildlife populations and, according to guidelines put out by the DNPWLM, restrict their offtakes to well below the maximum sustained yield.

10.1.2 Potential risks

The Panel was not able to identify specific potential risks which would threaten the survival of Zimbabwe's elephant population in the short or medium terms. It noted that there had been a recent increase in poaching activities in the Zambezi Valley, but, in spite of these, there is no evidence to suggest that the population is declining (see also notes on anti-poaching measures under heading 104).

10.2 Sustainability of total levels of offtake

In order to conserve the elephant habitat and to maintain biological diversity, Zimbabwe plans to reduce its national elephant population as indicated under heading 1011.

The numbers of elephants shot annually on crop-control outside the protected-area system and those killed on safari hunting involve less than 0.5% of the national elephant population (approximately 300 to 400 animals a year).

With the exception of 1988, when approximately 800 elephants were killed illegally in Gonarezhou National Park, the known illegal offtake has been less than 100 elephants a year for the past eight years.

Juvenile elephants captured during culling operations will be sold and translocated to private game farms.

Also, all animals killed illegally and those killed for crop-protection and on safari hunting, are counted as part of the allocated culling quotas.

10.3 Zimbabwe's ability to monitor its elephant population

A uniform method of aerial census is used, which involves stratifying the survey area and counting elephant in a calibrated strip width of about 150 m each side of the aircraft. The sample coverage varies from 5 to 20 per cent depending on the density of the population being counted. In broken hilly terrain, block count census techniques are employed using helicopters or small fixed-wing aircraft. The DNPWLM has seven fixed-wing aircraft available for monitoring and law-enforcement purposes and will shortly acquire two helicopters.

Overall, the highly qualified staff and the resources that are made available for monitoring purposes are further reasons for having confidence in the ability of Zimbabwe to monitor its national elephant population.

Regarding regional co-operation on elephant surveys see heading 63.

10.4 Effectiveness of current anti-poaching measures

Additional data were provided on the current law-enforcement effort and trends. The figures on resources and expenditure densities are in excess of comparable figures for six other African countries recently surveyed (Dublin and Jachmann, 1992), i.e. a mean area covered per game scout of 70 km², a mean area covered per vehicle of 700 km², and an annual operational budget of $US 100 - 125 per km².

The effectiveness of the law-enforcement effort in relation to illegal hunting of elephants is indicated by the generally low numbers of elephants reported killed illegally over the past few years. A commission of inquiry was established in 1991 to investigate the apparently isolated case of illegal hunting in Gonarezhou National Park in 1988 and associated mismanagement. The report of the commission was lodged with the Minister of Environment and Tourism at the end of January 1992. The Panel is not aware of the contents.

Zimbabwe has, for a long time, placed an emphasis on the importance of intelligence work as a critical component of its law-enforcement effort. Zimbabwe already works in close collaboration with the Anti-Corruption Commission in Zambia and with the authorities of Botswana.

In addition, in Zimbabwe, there is some reason to believe that the active involvement of local communities through the sustainable utilization of the wildlife resource, thereby assisting with their development needs, has assisted the law-enforcement effort in general.

10.5 Control of ivory stocks

10.5.1 Marking of fresh ivory

All raw ivory is required by law to be stamped with the approved CITES marks. Most ivory is assigned numbers and marked on arrival at the ivory store at Harare but, occasionally, when large quantities are collected, for example during a cull, the ivory is stamped in the field using a sequence of numbers previously assigned by Harare. Although the legislation stipulates that the ivory should be marked within 14 days of acquisition, in practice this is not always adhered to. When tusks are handed in to an outlying DNPWLM station they are recorded in the station register, marked with a felt-tip pen with a temporary station register number, but not stamped until they arrive at Harare, possibly some weeks later.

10.5.2 Ivory sourcing

Ivory in the store comes from four main sources:

- DNPWLM stations (from cull, natural death, etc.);
- District Councils (problem animal control, usually via DNPWLM stations);
- Police; and
- Customs.

The last two sources provide relatively small amounts.

By following the paperwork back, it is possible to determine where any tusk has originated, but this is currently a cumbersome process and would be greatly facilitated if the records were to be computerised.

10.5.3 Keeping of records by the Management Authority

Tusks handed in to DNPWLM stations are entered in the station register and recorded on transfer documents for onward transport to Harare. The station registers have duplicate pages which are forwarded at regular intervals to headquarters. On arrival, the tusks are entered in the central register and marked, and a card is made out for each tusk. When a tusk is sold from the store, it is crossed off the inventory, the purchaser being recorded in a separate book, and half of the card accompanies the tusk, the counterfoil stub being retained by the DNPWLM. The Panel examined a selection of tusks in the store and all were found to be correctly recorded in the register books and on the cards. The serial numbers of a selection of tusks which had been sold were also noted and in every case the counterfoil stub was located, correctly made out to the recorded purchaser.

Because ivory is entering and leaving the store on a regular basis, it is not possible to determine easily how much is in it at any one time. However the store is checked at random intervals by government auditors and the inventory is verified against the records. On 18 December 1991, the stock of ivory was 19,228 kg and an estimated two tonnes remained on field stations awaiting transfer to the store.

10.5.4 Registration of private or commercial ivory

10.5.4.1 Privately held ivory

Privately held ivory is all marked by the DNPWLM in the manner recommended by CITES and cards are filled in as for the new ivory. The Panel was given no figure for the amount of ivory in private hands, but this could theoretically be determined by going through all of the counterfoil stubs by hand. Before tusks are registered, evidence of legal acquisition or a signed affidavit is required.

10.5.4.2 Ivory carving and the control of worked ivory

Ivory carvers must be licensed and are required to keep registers of the amount of ivory carved and the weight of dust produced. Duplicate copies of this register are forwarded to the DNPWLM at monthly intervals. Quantities of ivory bought and sold must also be recorded on monthly returns. Registered retail outlets are also allowed to issue export certificates for manufactured items. Duplicate copies are given to the purchaser, one of which is supposed to be surrendered to Customs, on export, for return to the Management Authority.

10.6 Legal provisions regulating international and domestic trade in ivory

10.6.1 Reservation

Zimbabwe holds a reservation on the transfer of *Loxodonta africana* from Appendix II to Appendix I.

10.6.2 Moratorium

Zimbabwe has no formal moratorium on raw ivory exports but has not exported any raw ivory since the Appendix-I listing of elephant, except hunting trophies. The reason for this has been the formal commitment to market all ivory through the SACIM. Since this ivory marketing centre is not yet established, Zimbabwe has withheld any exports.

10.6.3 Nature conservation legislation

Under the Parks and Wildlife Act 1975, as amended 1 August 1991, the sale and the purchase of any live animal or trophy are subject to a permit.

Export permits for raw ivory are issued by the DNPWLM headquarters at Harare. Export permits for hunting trophies may be issued by the regional offices and export permits for worked items by the retailers who have to send a copy of each permit to the headquarters.

Any person who is guilty of an offence involving the unlawful possession of, or trading in, ivory shall be liable, on a first conviction, to imprisonment for a period of five to fifteen years or, on a subsequent conviction, to imprisonment for a period of seven to fifteen years.

Under the Control of Goods (Import and Export) (Wildlife) Regulations 1982, the import and export of raw and worked ivory is subject to a permit. On import permits, reference to veterinary permit requirements is made, and wildlife and veterinary authorities issue common circular letters. There are no permits issued for the commercial import of raw ivory. There is no legal permit requirement for the transit of ivory. Export provisions fully apply to re-exports.

10.6.4 Veterinary legislation

The import and transit of elephant products are covered in broad terms under the Control of Goods (Import and Export) Regulations which require veterinary import and transit permits for infectious material and portions of carcasses. Elephant meat, unprocessed ivory, bones and hide are therefore included.

It was stated that no veterinary import permit would be issued unless a CITES permit were produced. Transit permits would be issued upon presentation of a veterinary import permit from the country of final destination.

It is Zimbabwe's general policy not to issue any import permits for unprocessed animal products from countries to the north, including Mozambique and Angola.

10.6.5 Customs legislation

Zimbabwe Customs do not work with a consolidated list of restricted and prohibited goods. All species listed in the CITES appendices are subject to import and export control and the appendices are gazetted as a Schedule in the Control of Goods (Import and Export) (Wild Life) Regulations.

10.6.6 Customs Union

Zimbabwe is not a member of the Southern African Customs Union.

10.6.7 Transit

Zimbabwe has not formally complied with the recommendations of Resolution Conf. 7.4 on Control of Transit. There is no legal provision which explicitly requires that CITES goods in transit must be accompanied by valid CITES documentation, although it was stated that, in practice, transit would be treated as import and re-export. Regarding veterinary transit permits, see heading 1064.

For the introduction of ivory into a bonded warehouse, a permit is required. In the case of duty free shops, the imports are controlled but not the exports.

10.7 Effectiveness of law enforcement

10.7.1 External trade

10.7.1.1 Customs services

CITES and veterinary import permits are checked by Customs and frequently the shipments are physically inspected. In case of doubt, Customs may call upon a DNPWLM officer. Additional controls are carried out by the National Economic Conduct Inspectorate, a unit in the Ministry of Finance, Economic Planning and Development.

CITES export permits are checked by Customs who stamp the original and return a copy to the DNPWLM headquarters.

Each Customs office has a copy of the Control of Goods (Import and Export) (Wild Life) Regulations.

10.7.1.2 Nature conservation services

Permits for exports of raw ivory are issued by the head office of the DNPWLM in Harare. Two field stations, Matetsi Safari Headquarters and Marangora, are authorised to issue export permits for sport hunting trophies only.

10.7.1.3 Veterinary services

When issuing, upon request, health certificates for the export of raw ivory, the Department of Veterinary Services requests the prior presentation of a CITES export permit by the applicant.

10.7.1.4 Police

The Fraud Unit of the Zimbabwe Police assists the Investigations Branch with respect to offences in trafficking of wildlife products.

The Support Unit assists in law enforcement in the field on request from the DNPWLM.

10.7.1.5 Security forces

The Airforce assists on request in law enforcement in the field, by providing air transport. The Infantry Battalion carries out anti-poaching activities during training and assists in patrolling borders on request.

10.7.2 Internal trade

10.7.2.1 Nature conservation services

The DNPWLM runs its own Investigations Branch whose primary role is to contain internal illegal trafficking in wildlife products. Under the Parks and Wild Life Act 1975, every internal transaction involving buying or selling of wildlife products requires a permit. Failure to produce such a permit to a law-enforcement officer, on demand, constitutes an offence under the Act.

10.7.2.2 Police

Police are required to implement the provisions of the Parks and Wild Life Act 1975 within Zimbabwe. Police assist in law enforcement both in the detection of crime and in the handling of charges relating to suspects which are handed over to police by staff of the DNPWLM.

10.8 Evidence of illegal trade through Zimbabwe

Enforcement staff in Zimbabwe believe that there is little illegal traffic in ivory through Zimbabwe. It is difficult to assess the success rate of Zimbabwe Customs, police and the DNPWLM in containing such trade but numerous arrests have been made in the past few years as documented in monthly reports by field staff and the Investigations Branch of the DNPWLM. Small quantities of ivory have been confiscated both from poaching within the country and from illegal imports from Mozambique. Some of these were carried by Zimbabwean army personnel stationed in Mozambique, and there are unconfirmed reports of a larger volume of traffic. There is a major trans-continental truck route from Zambia across Chirundu bridge and on into South Africa. The other route, through the Tete Corridor of Mozambique into Malawi, has been interrupted by terrorist activity for long periods over the past few years.

South African police believe that some ivory passes through Zimbabwe along the Chirundu route but there is little direct evidence of this, and the alternative route, through Kazungula (Botswana), is believed to be a more common way of moving ivory from Zambia to South Africa. The Species Protection Department in Zambia supports this view but does have circumstantial evidence of the Zimbabwe route, implicating a trucking company in Harare and a retail outlet in Bulawayo with illegal trade in Zambian ivory.

11. Proposed marketing arrangements

The SACIM Agreement itself does not contain any marketing arrangements but, in order to satisfy the criteria of Resolution Conf. 7.9, it is necessary that such marketing arrangements be adopted. Annex 5 of the original supporting statement contains proposed marketing arrangements and, following the submission of comments by the Panel, these were later revised in the supplement submitted by Zimbabwe. The Panel was informed that these arrangements had not yet been agreed by the other members of SACIM. Some points in the revised Annex 5 still do not satisfy the Panel.

The Panel was concerned about the reference, in paragraph A.5(a), to quotas based on the maximum sustained yield. It was not clear how the figure of 0.5 tonnes of ivory per 1000 elephant was derived.

Paragraph A.5(b) should set some limits on the extent to which a Member State should reduce its elephant population.

Proposed controls on ivory carving in section B are inadequate to ensure that exports of worked ivory do not contain ivory of illegal origin.

Section B contains no provision for cases where the elephant population of a SACIM Member State is listed in Appendix I, or has been allocated a zero quota under CITES.

The Panel was concerned that paragraph B.11(b) allows confiscated ivory to be automatically added to the Member State's quota.

12. Conclusions

In accordance with its terms of reference, the Panel has addressed the following questions with respect to each range State covered by the proposals:

a) Is the population viable and sustainable and are there potential risks to the population?

b) Has the range State demonstrated its ability to monitor its populations of African elephant?

c) Are the current anti-poaching measures effective?

d) Is the total level of offtake from both legal and illegal killing sustainable?

e) Is the control of ivory stocks adequate to prevent the mixing of legal and illegal ivory?

f) Is enforcement of trade controls effective?

For the remaining question,

g) Are enforcement and controls sufficient to ensure that no significant amounts of ivory taken or traded illegally from other countries are traded within or through the territory of the affected range States?

the range States have been considered together in view of the nature of the controls and problems common to all or several states.

BOTSWANA

a) Botswana's elephant population is considered viable. The Panel identified no specific risks.

b) Botswana has an extensive aerial survey programme which uses a widely accepted sampling technique and covers the elephant range twice each year. The country currently has the resources to continue this level of monitoring.

c) Botswana has to date had low levels of poaching activity and current anti-poaching measures have been sufficient to keep poaching at this low level.

d) Botswana's past and intended levels of legal offtake are sustainable and the current illegal offtake is negligible.

e) The system for control of raw ivory is inherently unsound and largely ignored. The system for controlling the ivory carving industry could be substantially improved. The import of worked ivory is not under control.

f) In general, law enforcement is adequate but there is a lack of co-ordination between DWNP staff and police. An improvement of import and export controls could be achieved by Customs using a Consolidated List of Restricted and Prohibited Goods.

MALAWI

a) While the elephant populations of Kasungu and Liwonde National Parks have some short to medium term prospect of viability, these and all of Malawi's other sub-populations can not be considered viable in the long term, either genetically or demographically.

b) Up to the present, Malawi has not had the ability to monitor its entire national elephant population. Although Malawi has recently received external assistance to census its national population, it has no apparent internal resources to maintain a monitoring programme over the long term.

c) Despite plans for increased law-enforcement capability within the DNPW, it appears that security efforts may still not be sufficient to ensure adequate control of illegal hunting of elephants in Malawi, in view of the small sizes of the populations involved.

d) Current levels of poaching may exceed sustainable levels of offtake.

e) The system of controlling government ivory stocks, while generally adequate in theory, is not properly implemented. Moreover, it would be difficult to detect abuses. Checks on stocks held by ivory carvers have been very lax.

f) In general, law enforcement seems to be adequate but the intelligence efforts to detect illegal trade do not appear to be well co-ordinated among the enforcement services.

NAMIBIA

a) Namibia's elephant population is relatively small and scattered over a vast semi-arid to arid area. The nature of Namibia's population data does not allow an assessment of trends. The population is subject to fluctuations as a result of natural mortality due to periodic drought and disease. A significant portion of the population is part of the larger regional population shared with neighbouring countries and moves in and out of the Caprivi Strip. Human settlement in secondary elephant range could limit movement and lead to fragmentation of the population. For these reasons, the long-term viability of the population is uncertain.

b) While the MWCT has aircraft and trained staff, it has limited funds for monitoring the entire national population on a regular basis. The low density and clumped distribution of the elephants makes it difficult to use statistically sound census techniques. It is therefore difficult to evaluate the status of the national population under this monitoring regime.

c) Current anti-poaching measures are effective in keeping illegal hunting of elephants at low levels.

d) Due to the relatively high levels of natural mortality, legal and illegal offtake must always be low to be sustainable.

e) Controls of the ivory stocks are adequate to prevent the mixing of legal and illegal raw ivory, although the current system could be improved to allow independent verification. The import of worked ivory is not under control.

f) Enforcement by MWCT staff and the police appears to be good. A weak point is the lack of trained Customs staff.

ZAMBIA

a) Although Zambia's national elephant population has declined dramatically, there are three potentially viable sub-populations. Of these, the greater Luangwa Valley population, numbering some 10,000, shows no evidence of significant poaching over the past three years and its prospects are good if poaching is contained. For the other two, Kafue National Park and adjacent GMAs and Sioma Ngwezi GMA, recent population estimates indicate significant numbers but their trend is not known and they have experienced heavy poaching. The remaining sub-populations are small, isolated and at considerable risk due to poaching.

b) Over the past 15 years, Zambia has had no ability to monitor its entire national elephant population although periodic censuses continued in the Luangwa Valley. Zambia has recently received external assistance to census its national population. While the NPWS has well-trained staff, it has no government resources to maintain a monitoring programme over the long term.

c) From the evidence provided, the Panel concludes that Zambia is not able to control the illegal hunting of elephants given its current levels of funding relative to the existing poaching pressures.

d) Except for those in the Luangwa Valley, the levels of offtake from illegal hunting are not sustainable in all sub-populations at present. Apart from problem animal control, there is currently no legal offtake.

e) The system of recording government stocks of ivory is inadequate and not properly implemented.

f) While efforts to control the trade have improved with the establishment of the Species Protection Department, the resources on a national level are quite inadequate and there is evidence of continuing internal and external illegal trade.

ZIMBABWE

a) Zimbabwe's national elephant population is considered viable and the potential risks are believed to be negligible.

b) The DNPWLM has qualified staff and its aerial survey techniques are of a high standard. While financial constraints have limited its ability to survey the entire national population every year, the overall monitoring programme is considered good.

c) Zimbabwe's current anti-poaching measures are the best in the region. The effectiveness of these measures is indicated by the generally low numbers of elephants reported killed over the last few years.

d) Zimbabwe intends to reduce its elephant population over the course of the next 12 years. During this period, legal offtake will exceed population growth to reduce the population to the target level. Illegal offtake is currently negligible.

e) The system of ivory controls is acceptable for both raw and worked ivory but would be facilitated by computerization. It is recommended that this be used as the model for internal control by all SACIM countries.

f) In general, enforcement of trade controls is effective. The issuance of permits is centralized to a great extent. Export controls are facilitated by the implementation of foreign currency control. An improvement could be achieved by Customs using a Consolidated List of Restricted and Prohibited Goods.

Illegally traded ivory

With respect to question g):

i) Evidence exists that ivory has been and continues to be shipped illegally through all SACIM countries from neighbouring states. However, the nature and extent of this problem is not the same in all the five countries:

Botswana has been identified as the major route by which ivory from Zambia and countries outside the southern African subregion is transported to South Africa. There have been very few attempts to intercept the extremely large volume of transit shipments.

In Malawi, although ivory confiscations have declined significantly in recent years, a large seizure of ivory in 1992 shows that an illegal traffic in ivory continues to pass through the country.

Namibia has been the main route for illegal trade in Angolan ivory, the control of the northern border being rather poor. Efforts to control the illegal trade are showing some success, although such trade still continues at some level.

Zambia is the major route by which illegal ivory enters the southern African subregion. The large traffic in container trucks is impossible to control, and little or no attempt appears to have been made to do so.

There have long been allegations that ivory taken illegally by Zimbabwean soldiers in Mozambique is carried into Zimbabwe but the Panel has insufficient information to make any judgement about these claims. There is, however, little substantiated evidence to suggest that Zimbabwe is currently a major route for the transport of illegal ivory.

ii) Botswana and Namibia are members of the Southern African Common Customs Area, a fact which has weakened the control of trade with South Africa. The recent introduction of a Customs declaration will help to overcome this weakness.

iii) A problem common to all the range States of the proposal is that the open bush borders with neighbouring countries are difficult to control, although in some cases the topography is a hindrance to movement.

iv) The Panel believes that a key question to consider is whether the opening of a limited legal trade in ivory from SACIM countries would increase the volume of illegal traffic by providing ways to launder illegally obtained ivory into the legal trade through these countries.

The Panel believes that the probability could be rendered very low only in those countries which have put into place adequate legislation and which exercise adequate levels of enforcement, provided that certain conditions were fulfilled:

- the proposed SACIM Marketing System must be revised to correct the problems identified in section 11 of this report, adopted by the SACIM Board, and entered into the legislation of the participating states;

- the annotation of *Loxodonta africana* in Appendix II must indicate that commercial trade in ivory is restricted to raw ivory originating in the countries concerned currently held within those countries or legally obtained from elephants in those countries;

- all the states must withdraw their reservations on *Loxodonta africana* before any ivory trade is permitted;

- the Customs laws and practices of the states must be amended to comply with Resolution Conf. 7.4 on the control of transit; and

- formal mechanisms must be established to ensure adequate co-ordination of controls between all relevant agencies, including nature conservation authorities, Customs, police and veterinary authorities.

v) The Panel also wishes to stress that if international commercial ivory trade were to be permitted, no matter how well designed the controls are nor how effective their enforcement may be in the elephant range States, these efforts would be of little use if the controls and enforcement were not good enough in the importing countries.

For this reason, the Panel considers that, if commercial ivory trade were to be permitted in future, export permits for raw ivory should only be issued where the export is to countries which have a legal system for controlling and monitoring the possession and sale of ivory and which have undertaken not to permit re-exports of any ivory.

Although this issue may not be considered to be within its terms of reference, the Panel believes it to be of such importance that the report would be lacking if it failed to bring the subject to the consideration of the Parties.

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Annex

List of people interviewed by the Panel

Botswana

Government agencies:

D. Aniku	Senior Game Warden, Development, DWNP
E.J. Batshu	Assistant Commissioner, Southern Division, Botswana Police
G.C. Craig	Senior Wildlife Biologist (Aerial Surveys), DWNP
G.W. Calef	Senior Wildlife Biologist, DWNP
T. Ditheko	Deputy Director, Department of Veterinary Services
N.D. Hunter	Deputy Director, DWNP
J. Keosedile	Supplies Officer, DWNP
Lt.Gen. S.K.I. Khama	Commander-in-Chief, Botswana Defence Forces
D.D. Mangubo	Regional Wildlife Officer, DWNP
J. Mathlare	Wildlife Biologist, DWNP
K.N. Mogatle	Assistant Director: Management and Utilization, DWNP
K.R. Morris	Deputy Director, Customs and Excise
M.L. Nchunga	Principal Wildlife Biologist, DWNP
T.G.G.G. Seeletso	Director, Department of Wildlife and National Parks

Non-governmental organisations:

A. Campbell	Committee Member, Kalahari Conservation Society
P. Hancock	Administrative Officer, IUCN Gaborone
F. Kriek	BGI Tanning Company (Pty) Ltd, Francistown
E. Patterson	Conservation Officer, Kalahari Conservation Society
D.P. Rychner	Representative, IUCN Gaborone
D. Wright	Safari South (1968) (Pty) Ltd, General Manager, Past-Chairman, Botswana Professional Hunters Association

Malawi

Government agencies:

D. Chinombo	Veterinary Service
M. Edelsten	Veterinary Service
C.R. Huxley	Technical Adviser to Wildlife Co-ordinator, Southern African Development Co-ordinating Conference
M. Matemba	Acting Chief Parks and Wildlife Officer, Department of National Parks and Wildlife
A.B.K. Msalanyama	Customs and Excise
S. Munthali	Department of National Parks and Wildlife
H. Nzima	Department of National Parks and Wildlife
L. Sefu	SADCC

Non-governmental organisations:

K. Boulter	Wildlife Society of Malawi
E. Kaphuka	Manica (Malawi) Limited, freight agent
A. Kaunda	Manica (Malawi) Limited, freight agent
K. Mathanga	Manica (Malawi) Limited, freight agent
T. Milliken	Director, TRAFFIC East/Southern Africa
S.J. Namagonya	Manica (Malawi) Limited, freight agent
M.J.G. Zulu	trophy dealer

Namibia

Government agencies:

C. Brown	Assistant Director, Directorate of Wildlife, Conservation and Research, Chief Planning Section, Ministry of Wildlife, Conservation and Tourism
E. Joubert	Head of Research, DWCR
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D. Morsbach	Permit Office, DWCR
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R. Paskin	Veterinary Department
L. van Rooyen	Deputy Chief Management, DWCR

Non-governmental organisations:

V. Grellmann	Professional Hunting Association
M. Jacobs	Integrated Rural Development and Nature Conservation
B. Loutit	Director Field Work, SAVE the Rhino Trust Fund, Windhoek
S. Montgomery	Director Publicity and Education, SAVE the Rhino Trust Fund
K.H. Nünemann	Cheetah Souvenirs, Windhoek
J. Oelofse	Mount Etjo Safari Lodge
G. Owen-Smith	Integrated Rural Development and Nature Conservation
C. Panagis	Namibian Animal Action Committee
K. Roland	Vice-Chairman Tourist-related Namibian Business Association
I. Stutterheim	Namibian Animal Action Committee
P. Tyldesley	Wildlife Society of Namibia

Zambia

Government Agencies:

F.S. Chikambi	National Parks and Wildlife Service
A. Johnson	Honorary Wildlife Police
E. Moonga	Wildlife Warden (Anti-Poaching), National Parks and Wildlife Service
C. Mukelabai	Chief Wildlife Warden, National Parks and Wildlife Service
N.M. Mumba	Senior Investigations Officer, Species Protection Department, Anti-Corruption Commission
F. Munyenyembe	Senior Wildlife Research Officer, National Parks and Wildlife Service
C. Mwale	Species Protection Department, Anti-Corruption Commission
B.M. Mwiinga	Department of Customs and Excise
H. Mwima	Wildlife Biologist, National Parks and Wildlife Service
P. Russell	Anti-Corruption Commission
L. Saiwana	National Parks and Wildlife Service
H. Simasiku	Commissioner of Police
A. Tembo	National Parks and Wildlife Service
M.P.M. Zyambo	Senior Veterinary Officer (Acting), Department of Veterinary and Tsetse Control Services

Non-governmental organisations:

R.H.V. Bell	Luangwa Integrated Resource Development Project, Chipata
L.A. Carter	
E. Féron	IUCN representative, Zambia
J. Hawke	North Luangwa Conservation Project
R. Jeffery	WWF representative, Zambia
P. Miller	ex-President Wildlife Conservation Society of Zambia
M. Noble	David Shepherd Foundation

Zimbabwe

Government Agencies:

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G. Nott	Chief Investigations Officer, DNPWLM, Harare
G. Pangeti	Deputy Director, DNPWLM, Harare
G. Tatham	Chief Warden (Operations), DNPWLM, Harare

Non-governmental organisations:

E. Chafesuka	Campfire Association
D. Cumming	Project leader, WWF Multi-species Project
D. de la Harpe	Ornithological Association of Zimbabwe
C. Grobler	Zimbabwe Hunters Association
T. Maveneke	Campfire Association
P. Mavros	Zimbabwe Ivory Manufacturers Association
R. Monroe	Zimbabwe Trust
M.W. Murphree	Director Centre for Applied Social Sciences
J. Pile	Zimbabwe Nature Conservation Trust
D. Pitman	Zambezi Society,
R. Taylor	Ecologist, WWF Multi-species Project
M. Townsend	Wildlife Producers Association