

## CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

**Proposals concerning export quotas for specimens of Appendix-I or -II species****A. PROPOSAL**

Maintenance of the Tanzanian population of *Crocodylus niloticus* in Appendix II, in accordance with paragraph B. 2. c) of Annex 4 of Resolution Conf. 9.24, i.e. subject to an annual export quota of no more than 1600 wild specimens (including hunting trophies). This quota does not include ranched specimens, the export of which is not subject to any other limit than the production of the ranches.

Background

The Nile crocodile was listed in CITES Appendix I at the Plenipotentiary Conference (Washington, D.C., 1973), where CITES was adopted and signed. It is still included in Appendix I as a species, while a number of national populations have since been transferred to Appendix II, the first one at the fourth meeting of the Conference of the Parties (Gaborone, 1983). The population of Zimbabwe was the first to be transferred to Appendix II, in accordance with Resolution Conf. 3.15 on Ranching, now replaced by Resolution Conf. 10.18 on Ranching and Trade in Ranched Specimens.

The population of the United Republic of Tanzania was transferred to Appendix II at the fifth meeting (Buenos Aires, 1985), together with the populations of eight other African States. Most of these transfers, including that of the Tanzanian population, were made in accordance with Resolution Conf. 3.15, while some were subject to annual export quotas, pursuant to Resolution Conf. 5.21 on Special Criteria for the Transfer of Taxa from Appendix I to Appendix II, which was replaced later by Resolution Conf. 7.14 under the same title and then by Resolution Conf. 9.24 already mentioned.

The ranching programme in the United Republic of Tanzania was not as successful as expected, in particular because of a lack of investment funds to start ranching operations and poor technical expertise on the ranches. On the other hand, the population of crocodiles was important and increasing, and, in view of permitting ranching operations to get funds, the United Republic of Tanzania requested the Conference of the Parties to allow the harvest of wild animals and to grant an export quota for skins of wild-collected animals. Recognizing that the Tanzanian population did not qualify for being listed in Appendix I, the Conference of the Parties acceded to the request and, at its sixth meeting (Ottawa, 1987), the United Republic of Tanzania was granted export quotas of 2000 wild specimens plus 100 hunting trophies for the years 1987, 1988 and 1989, in addition to ranched specimens, as this was made possible by the adoption of Resolution Conf. 5.21. At the seventh meeting (Lausanne, 1989), quotas were again granted for 1990 and 1991 but for 1100 wild specimens only (including 100 hunting trophies), as it was expected that the ranching would achieve progress. At the eighth meeting (Kyoto, 1992), the quotas were further reduced, to 500 for 1992 and 300 for 1993 and 1994 (including 100 hunting trophies). At the ninth meeting however, the quotas were increased again to 1100 (including 100 hunting trophies) for 1996 and 1997.

At the 10<sup>th</sup> meeting of the Conference of the Parties, the United Republic of Tanzania agreed to authorize the export of no more than 1100 wild specimens (including 100 hunting trophies) in 1998, 1999 and 2000, in addition to ranched specimens. Simultaneously however, it had to commit itself to submit, at the 11<sup>th</sup> meeting, a proposal to maintain its population in Appendix II in accordance with the provisions of Resolution Conf. 9.24 on Criteria for Amendment of Appendices I and II, in particular with the relevant precautionary measure described in Annex 4 to the Resolution. Such commitment was also in accordance with Resolution Conf. 10.18 already mentioned, in which the Conference of the Parties decided that if the management of a crocodylian population is based on a long-term commercial harvest of wild adults, the

appropriate criteria in Resolution Conf. 9.24 shall be satisfied for the transfer to (this would cover the maintenance in) Appendix II.

The purpose of the present proposal is therefore not to demonstrate that the Tanzanian population of the Nile crocodile does not meet the criteria for inclusion in Appendix I, this has been repeatedly agreed by the Conference of the Parties since 1985, but to demonstrate that the quota requested is sustainable, i.e. will not be detrimental to the survival of the population in the wild.

## B. PROPONENT

The United Republic of Tanzania.

## C. SUPPORTING STATEMENT

### 1. Taxonomy

1.1	Class :	Reptilia
1.2	Order :	Crocodylia
1.3	Family :	Crocodylidae
1.4	Species :	<i>Crocodylus niloticus</i> Laurenti (1968)
1.5	Scientific synonyms :	None
1.6	Common names :	English : Nile crocodile Spanish : Cocodrilo del Nilo French : Crocodile du Nil Swahili : Mamba
1.7	Code number :	CITES : A-306.002.001.006

### 2. Biological parameters

2.1 Distribution : The Nile crocodile is widely distributed in the United Republic of Tanzania. It occurs in almost all National Parks, except Kilimanjaro NP, Arusha NP and Lake Manyara NP, and in almost all Game Reserves. Crocodile habitat comprises rivers, lakes and dams. The extent of these habitats is presented in Table 1.

The continuity of the distribution of the species within these habitats can be affected by seasonal fluctuations of the water level, which may cause short-term fragmentation.

Table 1. Rivers, lakes, swamps and dams of Tanzania – physical lengths/areas and the proportion known to be crocodile habitat.

Name of River/Lake/Dam	Physical Length or Area (km/km <sup>2</sup> )	Minimum known Crocodile Habitat (km/km <sup>2</sup> )	Reference to presence of crocodile habitat
Grumeti	210	137	Games & Severre 1996
Kagera	395		
Kilombero	250	250	Games & Severre 1989
Kisigo	86		
Luhombero	70		
Luwego	161	161	Games & Severre 1989
Malagarassi/Igombe	320	98	Games & Severre 1995
Mara	144	110	Games & Severre 1996
Moyowosi	210		
Pangani	364		
Ruaha	515	227	Games & Severre 1996
Rufiji	290	177	Games & Severre 1996
Rungwa	310	119	Games & Severre 1995
Ruvu	170		

Ruvuma	688	245	Games & Severre 1993
Ugalla	242	205	Games & Severre 1995
Wami	160		
<b>Total (Rivers) (km)</b>	<b>4585</b>	<b>1729</b>	
Burigi	60		
Chada	15	15 (dry)	Games & Severre 1990
Nyasa	1990		
Rukwa	366	230	Games & Severre 1993
Tanganyika	598		
Victoria	1436	124	Games & Severre 1995
Rufiji lakes	65	65	Games & Severre 1996
<b>Total (Lake shores) (km)</b>	<b>2860</b>	<b>434</b>	
Kilombero	5500km <sup>2</sup>	5500km <sup>2</sup>	Games & Severre 1989
Mtera Dam	~ 200 km <sup>2</sup>	~ 200 km <sup>2</sup>	Games & Severre 1995
Nyumba ya Mungu	~ 150 km <sup>2</sup>	~ 150 km <sup>2</sup>	Games & Severre 1995
Malagarassi/Moyowosi	~ 1000km <sup>2</sup>	~ 1000km <sup>2</sup>	
<b>Total (Swamps) (km<sup>2</sup>)</b>	<b>6850 km<sup>2</sup></b>	<b>6850 km<sup>2</sup></b>	
<b>Grand Total</b>	<b>7445 + 6850 km<sup>2</sup></b>	<b>2163 + 6850 km<sup>2</sup></b>	

- 2.2 Habitat availability: In areas not specifically protected for wildlife, the advance of permanent human settlement may, in the long term, lead to some permanent fragmentation of part of the crocodile range. This does not apply to populations inside protected areas (National Parks and Game Reserves).

There are no data from which to estimate the rate of habitat change. It is felt however that in the context of the whole Tanzanian population of crocodiles, the impact of permanent human settlement is slight as it is geographically limited and because of the bulk of the crocodile population is situated within protected areas. In addition, the current strategy of integration of local communities with conservation and management of wildlife, the degradation of habitat for crocodiles is reduced and will continue to decrease if crocodiles are perceived as an asset instead of a nuisance.

- 2.3 Population status: Numerous surveys have been conducted with the aim of estimating the density of crocodiles in specific areas of the United Republic of Tanzania but there is little recent information on the total number of crocodiles in the country. Tello (1985) estimated a total population of 74,000 Nile crocodiles in the United Republic of Tanzania. Katalihwa and Lema (1988) estimated the population to 76,000 animals, on the basis of Tello's data.

Aerial surveys to estimate the density of Nile crocodiles in specific areas were started in 1988 (Hutton & Katalihwa, 1992). They were followed by surveys in 1989, 1990, 1993, 1995 and 1996 (Games & Severre, 1989, 1990, 1993, 1995, 1996). A new survey was conducted in October 1999 (Games & Severre, 1999), the results of which are presented in the attached copy of the survey report [Appendix 1]. The selection of surveyed areas varied somewhat between years but comprised both protected and 'unprotected' areas (see Table 2).

**Table 2: Areas surveyed for crocodiles in Tanzania 1989 to 1999.**

Area	1989	1990	1993	1995	1996	1999
Selous	Rufiji Ulanga Luwego Ruaha Kilombero	Rufiji Lakes Luwego Ulanga Ruaha Kilombero	Rufiji Lakes Ulanga Ruaha Kilombero	Rufiji Lakes Ulanga Ruaha Kilombero	Rufiji Lakes Ulanga Ruaha Kilombero	Rufiji Lakes Luwego Ulanga Ruaha Kilombero Luhombero
West		Ruaha Rungwa Lake Rukwa Kavuu Lake Chada Ugalla Malagarasi	Ruaha Rungwa Lake Rukwa Kavuu Lake Chada Ugalla Malagarasi	Ruaha Rungwa Lake Rukwa Ugalla Malagarasi	Ruaha	Ruaha Msombe Rungwa Lake Rukwa Kavuu Ugalla
East		Pangai Nyumba		Wami Nyumba	Nyumba	Nyumba
North		Rubondo Mara Grumeti	Rubondo Grumeti	Rubondo	Rubondo Mara Grumeti	Rubondo Mara Grumeti
South			Ruvuma			Ruvuma

2.4 Population trends: The surveys on crocodile population have concentrated mainly in the National Parks and Game Reserves. However this exercises has in many cases transended the boundaries of National Parks and Game Reserves. It appears clearly from Table 3 that the average density of crocodiles within the Selous Game Reserve has increased considerably since aerial surveys began. Overall increases of 22% between 1989 and 1993; 13% between 1993 and 1995 and 32% between 1995 and 1996 have been recorded. This is certainly the result of a real increase in the number of crocodiles but reflects also the greater experience among the survey crew, which led to an improved performance (Games & Severre, 1996). The positive general trend of the population has been confirmed by the 1999 review already mentioned (Games & Severre, 1999), in particular in the Selous Game Reserve, an area which has one of the most impressive Nile crocodile populations in Africa.

However trends in densities outside table 3 are variable. The density has increased substantially around Rubondo Island in Lake Victoria (a National Park). There was a similar trend for the Ruaha River in Ruaha NP, although over part of its length the river forms a boundary with an area with pastoral use on the opposite bank. The Grumeti River, although surveyed twice only, had a significant density at the 1996 survey. This river runs between 'protected' areas, namely the Serengeti NP and the Ikorongo/Grumeti Game Reserve to the north.

At Rungwa/Lake Rukwa and on the Mara River, two areas open to settlement, the densities of crocodiles have not changed significantly during the period 1990 to 1996. By contrast, a decreasing trend in the density has been observed in 1996 for the Ugalla River (partly protected in a Game Reserve and partly unprotected) and along the Malagarasi River, which is also open to settlement. However, since then, the density has increased again after the introduction of stricter controls by allowing few people in the area and ban the use of beach seine for fishing by the local communities.. This has been confirmed by the 1999 review (Games & Severre, 1999).

Table 3 . Density of various crocodile populations in Tanzania (animals/km) estimated from aerial surveys.

Date of Survey	River & Protection Status ( )	Sample length (km)	Density (animals/km)	CV (%) <sup>1</sup>	Reference
April 1988	Lower Rufiji (inside & outside SGR) 2 (GR/OP)	130	1.31	-	1
Sept. 1989	Lower Rufiji (GR)	86	6.75	-	2
	Lower Rufiji (outside SGR)(OP)	72	0.54	-	2
Oct 1999		25	0.08	-	7
Sept. 1990		-	11.83	-	3
Nov. 1993	Lower Rufiji (GR)	45	10.49	73.0	4
Oct. 1995		54	10.00	24.0	5
Oct. 1996		51	18.25	53.0	6
Oct. 1999		52	17.24	22	7
April 1988		83	0.98	10.1	1
Sept. 1989		85	3.15	6.4	2
Oct. 1990	Upper Rufiji (GR)	**	2.89	9.4	3
Nov. 1993		107	2.26	12.0	4
Oct. 1995		110	2.63	36.0	5
Oct. 1996		112	5.55	17.0	6
Oct. 1999		82	3.55	14	7
April 1988	Luwego (GR)	15	0.33	28.3	1
Sept. 1989	Upper Luwego (GR)	100	2.74	5.4	2
Sept. 1989	Lower Luwego (GR)	61	1.64	20.6	2
Oct. 1999	Luwego	54	0.46		7
April 1988		116	1.56	17.5	1
Sept. 1989		100	1.77	7.5	2
Oct. 1990	Ruaha (GR)	**	1.57	23.6	3
Nov. 1993		79	1.68	18.0	4
Oct. 1995		105	1.59	15.0	5
Oct. 1996		116	1.67	18.0	6
Oct. 1999		106	2.27	58	7
April 1988		135	0.21	12.1	1
Sept. 1989		70	7.743	6.4	2
Oct. 1990	Kilombero (GR)	**	2.86	3.4	3
Nov. 1993		131	3.54	42.0	4
Oct. 1995		116	2.84	20.0	5
Oct. 1996		93	5.60	18.0	6
Oct. 1999		98	6.1	34	7
Oct. 1990		**	0.62		3
Nov. 1993	Rubondo Isl'd (NP)	119	0.82	25.0	4
Oct. 1995		125	0.70	23.0	5
Oct. 1996		124	2.50	27.0	6
Oct 1999		124	0.6	-	
Oct. 1990		**	0.67		3
Nov. 1993	Ugalla (GR/OP)	148	0.61	39.0	4
Oct. 1995		205	0.21	24.0	5
Oct. 1999		150	1.5	-	7
Oct. 1990		**	0.46		3
Nov. 1993	Rungwa (OP)	76	0.20	64.0	4
Oct. 1995		119	0.40	51.0	5
Oct. 1999		97	0.31	-	7
Oct. 1995	Lake Rukwa (OP)	30	0.30 – 1.7	-	5
Oct 1999		44	0.614		7
Oct. 1990		**	0.86		3
Nov. 1993	Upper Ruaha(NP/OP)	94	1.36	51.0	4
Oct. 1996		117	2.66	69.0	6
Oct 1999		100	2.42	68	7

Oct. 1990	Malagarassi(OP)	**	0.50		3
Oct. 1995		98	0.19	-	5
Oct. 1999		NOT	SURVEYED		
Oct. 1990	Grumeti (NP/GR)	**	0.83		3
Oct. 1996		137	2.04	174.0	6
Oct. 1999		70	1.24	53	7
Oct. 1990	Mara (OP)	**	0.88		3
Oct. 1996		111	0.62	40.0	6
Oct. 1999		61	0.32	-	7

**Notes to Codes, superscript numbers and references (Table 3):**

The upper section of Table 3 (above the double line) refers to Selous Game Reserve, the lower section to other reserves and "unprotected" areas.

**Codes** NP = National Park  
GR = Game Reserve  
OP = Open i.e. settled by villagers

**Superscripts**

1 - Highest estimate and CV quoted where more than one sample made. The CV is the Standard Error expressed as a percentage of the estimate. High values of CV usually reflect highly clumped distribution of animals.

2 - SGR = Selous Game Reserve

3 – Apparently incorrect calculation (Games & Severre 1996)

**References**

1 = Hutton & Katalihwa 1992

2 = Games & Severre 1989

3 = Games & Severre 1990

4 = Games & Severre 1993

5 = Games & Severre 1995

6 = Games & Severre 1996

7 = Games & Severre 1999

2.5 Geographic trends: There are no data to indicate a decrease in the range area for the Nile crocodile in the United Republic of Tanzania.

2.6 Role of the species in its ecosystem: The Nile crocodile is a 'top predator' subsisting on a varying diet of invertebrates, fish and mammals at different stages of its life history. It is therefore playing an important role in its ecosystem and any excessive increase of its population in specific areas might have an impact on other species.

In common with other large predators, the Nile crocodile does not co-exist easily with human populations. There is substantial evidence from rural areas in the United Republic of Tanzania (Anon., 1997) of predation by crocodiles on a range of domestic livestock species, as well as on human themselves. The document Problem Crocodiles Report attached to this proposal as Appendix 2 provide full details. Consequently, the population should be managed to maintain it at an acceptable level to safeguard the interests of the local communities. This would incite them to conserve crocodiles, in particular if their negative impact is compensated by an economic return generated by the harvest of problem animals. If not, a serious increase in the killing of 'nuisance' animals may be expected.

2.7 Threats: Threats to crocodiles in the United Republic of Tanzania are limited. The primary threat appears to be the illegal disturbance and/or killing in response to a really perceived threat to rural dwellers (Anon., 1997), although this is localized and affects small numbers of animals. This is also expressed in the deliberate destruction of crocodile nests, aimed to reduce recruitment in the wild population.

The relationship between crocodile and fishermen is complex. At least in Zimbabwe, the apparent competition for fish was largely disproved by Games (1990), who showed that Nile crocodiles largely consume fish species that are not targeted by fishermen. This has not been examined in the United Republic of Tanzania. The damage to fishing gears frequently caused by crocodiles extracting fish from gill-nets is considerable. Crocodiles, particularly juveniles, may also be entangled in fishing nets and drowned (Fergusson, 1998). Fishermen are also aware of the physical danger to themselves of fishing activities in water occupied by crocodiles. Such considerations, added to those made in the former paragraph 2.6, are in support of a management of the crocodile population to the benefit of local communities.

A threat that may exist on a wider scale is the fluctuating water levels, sometimes leading to the complete drying-up of habitat areas after exceptionally low rainfall seasons.

### **3. Utilization and trade**

3.1 National utilization: Crocodiles and their parts and derivatives are not used at the national level in the United Republic of Tanzania. They are however exploited in accordance with the Policy and Management Plan for Crocodiles. Under the Plan, Nile crocodiles may be harvested to supply eggs or hatchlings to ranches, hunted for sport trophy hunting and cropped for export purposes within the limits of quotas approved by the Conference of the Parties to CITES.

Sport hunting, so far, was limited by CITES to 100 animals a year. As indicated below in Table 5, this level was never reached. In this proposal, it is suggested to include the export quota for hunting trophies within the total quota for wild specimens.

As crocodile parts and derivatives are not used at the national level, the actual harvest of wild animals is equivalent to the export quota for the year concerned.

As indicated in Table 5, the United Republic of Tanzania had a quota of 2000 wild specimens in 1987 to 1989, which was progressively reduced to 200 in 1993 and 1994, with the expectation that the ranching programme would have been sufficiently developed to replace the wild harvest or to limit it to actual problem animals through sport hunting. In the facts, the ranching programme has not evolved as expected and, from 1995, the United Republic of Tanzania obtained from CITES a quota limited to 1000 animals, a very conservative measure. As already indicated, the same quota is valid for 1999 and will be valid for 2000, unless the Conference of the Parties accept the present proposal, which will enter into force by 19 July 2000, i.e. shortly after the opening of the hunting season.

Regarding 1997 and 1998, details about the quota allocation and use are provided in Table 5. For 1999, as the hunting season is still open (until 31 December) information will be provided at a later stage, at the latest at the 11<sup>th</sup> meeting of the Parties.

Six crocodile ranches are currently in existence in the United Republic of Tanzania but they are not actually active and efficient, although they still have the infrastructure and all except one hold crocodiles. The most recent data on the stocks held on these ranches are shown in Table 4. As shown in Table 4, as well as in Table 5, the production from the Tanzanian ranches lagged far behind the successes experienced in other African countries. The ranches have not developed due to lack of funding, which precluded the employment of suitably skilled personnel and severely limited the growth and production, because the ranches were unable to keep the water temperature at the appropriate level and to supply the necessary food. The industry is not considered to be revivable without major changes in the framework conditions. Ranching, therefore, can not be the focus of community schemes, at least for the time being. Efforts are nevertheless being made to attract international assistance through FAO (Mbonde, pers. comm.), in a manner recommended by Jelden, Games and Rosser (1994).

In the future, ranching will remain a management tools for crocodiles in the United Republic of Tanzania, besides the harvest of wild crocodiles. The Management Plan of 1993 will be reviewed, as will be reviewed, from the end of 1999, the Wildlife Conservation Act No. 12 of 1974. Measures will be taken to ensure that crocodile ranching is conducted in accordance with section 2.2.4 and 3.3.10 of The Wildlife Policy of Tanzania, 1998. (See Appendix 3).

Guidelines in ranching and breeding in the United Republic of Tanzania should be approved, and the monitoring and reporting system will be improved. Community involvement will be encouraged, in particular for the collection of eggs and hatchlings. The existing section of the Wildlife Division dealing with ranching will be strengthened and training workshops and seminars will be conducted for farmers and ranchers. Finally, efforts will be made to facilitate the establishment of markets for crocodile products.

The ranching of crocodiles has had little effect on the conservation of crocodiles in the United Republic of Tanzania, because the benefits that were originally supposed to assist rural communities through the payment for egg collection have not materialized, as the egg collection has been very limited. In view of the present world market conditions for crocodile skins, it is not expected that the demand of crocodile skins from ranches would meet a large scale production. The proposed wild harvest of Nile crocodiles will provide skins that are much larger than those produced by ranches and a market for them should be easier to find, as demonstrated by the Tanzanian exports under the present scheme.

Table 4: Current status of the crocodile in Ranches/Farms

S.N	Name of the Farm	Location	Year	Number of Crocodiles
1	Teule Arts & Crocodiles Farm	Ifakara-Morogoro Region	1996 1997 1999	21 43 15
2	Tumaini Arts and Crocodile Farm	Ifakara-Morogoro Region	1996 1997 1999	71 68 63
3	Hambo Crocodile Farm	Bunju –Dar Es salaam	1996 1997 1999	250 58* 0
4	Mamba Ranch	Pangani Tanga	1996 1997 1999	0 25 24
5	Kaole Mamba Ranch	Bagamoyo Coast Region	1996 1997 1999	220 143 142
6	Cossam Building & Civil Engineering Co.	Muze-Rukwa Region	1996 1997 1999	0 0 15

\*58 crocodiles died due to lack of basic requirements (provision of water and food) since the farm has been under receivership for more than 2 years with no proper management.

- 3.2 Legal international trade: In the United Republic of Tanzania, the international trade is limited to skins and hunting trophies. The export data are provided in Table 5. They have been compiled by the Wildlife Division, the CITES Management Authority of the United Republic of Tanzania. As this proposal requests a quota only slightly higher than the current one and even lower than quotas granted in 1987, it is not expected that the proposal will affect the nature of the trade.



Table 5. Summary of quotas and actual exports of crocodile skins from Tanzania (Anon 1997, Games & Severre 1993, Tanzania CITES Annual Reports)

Year	Sport Hunting		Wild Harvest		Ranching	
	Quota	Exports	Quota	Exports	Quota	Exports
1987	100		2000	1456	N/A	N/A
1988	100		2000	1804	N/A	N/A
1989	100		2000	1980	N/A	N/A
1990	100	40	1000	1000	4000	0
1991	100	26	1000	819	6000	0
1992	100	59	400	459	6000	0
1993	100	28	200	148	6000	0
1994	100	58	200	364	6000	0
1995	100	69	1000	982	6000	200
1996	100	62	1000	1000	6000	0
1997	100	100	1000	764	6000	0
1998	100	87	1000	707	6000	0
1999	100	-	1000	-	6000	
2000	100		1000		6000	

3.3 Illegal trade: There has been a series of enforcement exercises to crack down on illegal trade in all wildlife products during the last ten years (Anon., 1997). As far as it is known, there is no illegal trade in crocodile skins or other crocodile parts from the United Republic of Tanzania. The proposed harvest will be controlled through field enforcement activities and the skins will be tagged by the staff of the Wildlife Division. There is no reason to think that the increase of the quota could have any negative effect on the nature of the trade.

3.4 Actual or potential trade impact: Under the present circumstances, the harvest of and the trade in Nile crocodiles in the United Republic of Tanzania has no negative impact on the wild population. It is not expected that the requested increase of the quota might have such negative impact considering the level of the crocodile population. On the contrary, the additional resources expected for the implementation of conservation measures and for local communities, generated by an increased but sustainable harvest, would have positive effects also on the future of the species outside protected areas.

The increased wild harvest should neither affect the new ranching programme, as wild skins have a larger size and would not compete on the same markets.

In addition, the harvest of wild crocodiles is intended to reduce the conflict currently existing with rural human populations. This will be achieved by the removal of actual and potential problem animals and the revenue generated from the sale of skins will constitute a partial financial compensation for past losses.

3.5 Captive breeding for commercial purposes (outside Country of origin): This is not relevant. The proposal concerns only the population of the United Republic of Tanzania.

#### 4. Conservation and management

##### 4.1 Legal status

4.1.1 National: Crocodiles are provided protection under the Wildlife Conservation Act (No. 12 of 1974) and its subsequent Amendments and Supplements. National Parks and Game Reserves together comprise approximately 15% of the total area of the United Republic of Tanzania and are set aside for conservation purposes. Consumptive utilization of any kind is prohibited in National Parks, while entry into Game Reserves and any kind of utilization require permissions from the Director of Wildlife.

The Policy and Management Plan for Crocodiles is in place (Division of Wildlife, 1993). In brief, the Policy seeks to the protection, utilization and control of crocodiles as appropriate in various areas and to derive community benefit from crocodiles where possible. The Management Plan provides specific regulations for the control of ranching and sport hunting. (See Appendix 4)

The issue of permits to utilize crocodiles in the wild has been and is undertaken under the following principles and conditions:

- When quotas were granted pursuant to CITES Resolution Conf. 5.21, hunting permits were issued in accordance to national quotas.
- Since the endorsement of crocodile ranching in the United Republic of Tanzania, permits for the harvest of wild specimens were issued to actual and prospective crocodile ranchers only. The aim of that policy was to enable them, who had limited resources, to use the revenue from the sale of wild skins to support their ranches during the period between the starting up and the first harvest of ranches specimens.
- For 1997 and 1998, the permits were issued at the Wildlife Division headquarters in Dar es Salaam and specified the areas in which the crocodiles were to be hunted. The area allocation was quite broad and usually indicated the river, district and type of area (e.g. Rufiji River, Coast District, Open Area).
- In 1999 the permits were issued with a more specific area in mind and in response to problem animal complaints.
- In the future, permits for wild harvest issued to ranchers will be granted on the basis of performance.
- Quotas for wild harvest will also be allocated to authorized associations, i.e. villages, individual groups and designated organizations with authority to manage wildlife outside National Parks, Nature Conservation Areas and Games Reserves.
- For new ranches, quotas for wild harvest will be allocated only after they will have operated successfully for a minimum of two years.
- Any person dealing with crocodile skins must have a Trophy Dealers Licence valid for three classes (hunting, trophies and animal husbandry) which is issued by the Wildlife Division.
- In the field, the staff of the Wildlife Division supervises the hunting of crocodiles to make sure that it is carried out without exceeding the existing wild-harvest quotas.
- On completion of the hunt the operator will return to the District Game Office where he will be issued with an ownership permit for the skins. The licence itself is surrendered to the District Game Officer. The ownership permit will only indicate the number and type of skins (e.g. 40 crocodiles).
- The ownership permit is brought to the CITES office in Dar es Salaam where it will be exchanged for an export permit. The operator is not permitted to sell the skins to a third party. The export permit will be issued in the name of the person mentioned on the ownership permit.
- Prior to the issuance of the permit, a CITES schedule officer and Game Scout from the Anti-Poaching Unit has to go the warehouse where the skins are stored, and to measure and tag them in accordance with CITES Resolution Conf. 9.22. Records are kept by the CITES officer. A ledger book is also kept at the CITES office in which the number of skins, permit numbers and destination of the shipment are recorded.
- The shipment will undergo a final inspection at the airport in Dar es Salaam, prior to being allowed to leave the country. There is a Game Scout permanently based at the airport to ensure that all wildlife related shipments leaving the country have the correct paperwork and that the shipment does in fact match this paperwork.

The proposed harvest of wild specimens will be conducted and controlled under the following principles, which, to a large extent are similar to those just mentioned:

- No harvest will take place in National Parks.
- Spotlight surveys will be carried out annually in the proposed harvest areas.
- Quotas will be set at a maximum of 5% of the population (hatchlings excluded) estimated from the surveys. This might be increased as a 'one-time' strategy if a larger harvest is required to achieve the objective of significantly reducing a 'problem' crocodile population, provided that the national quota is not exceeded.
- A minimum size limit of 3 m. of total length (TL), 60 cm. belly-skin width, will be implemented.
- Hunting will be limited to the period 1 July to 31 December or on special permits for problem animals.
- The Wildlife Division will control access to activities in issuing permits/licences to all hunters and, separately, to skin buyers.
- The Wildlife Division will control the harvest. Officers will accompany the hunters to ensure adherence to the quotas and will affix tags and record harvest details.
- The national quotas will be allocated by the Wildlife Division for identified problem areas and regional staff will provide the local administration and report to the Division.
- In the field, the staff of the Wildlife Division will supervise the hunting of crocodiles to make sure that it is carried out without exceeding the existing wild-harvest quotas.
- All skins from crocodiles hunted in the wild will be inspected and certified by Officers of the Wildlife Division.
- The skins will be tagged in accordance with CITES Resolution Conf. 9.22 and the normal CITES export procedures will be followed.
- Skins will be checked again by Officers of the Wildlife Division prior to shipment.

The draft (it will be formally approved after the completion of the review of the Wildlife Conservation Act No. 12 of 1974) Regulations for Control of the Proposed Wild Harvest of 'Problem' Crocodiles in Tanzania (Appendix 6) provides further details. The existing CITES permitting and inspection system will be maintained.

The United Republic of Tanzania plans to link the wild harvest to community based conservation programmes in order to channel benefits from the utilization schemes to local communities. This is because communities suffer from the predation of crocodiles and because wildlife utilization schemes should contribute to rural development in areas where the species occurs. Community involvement/benefit should be an integral part of the management system at all levels, from the harvest to the internal sale of the skins. It will be established at various levels, as follows :

- Identification of and reporting on the existence of a problem animal/population.
- Removal of the hazard posed by problem crocodiles.
- 25% of game fees will be given to communities or authorized associations of the area where hunting is conducted.
- Hunting licences will be granted to communities and authorized associations.
- Communities will be allowed to collect eggs or capture hatchlings and sale them to farms and ranches.
- Communities and authorized associations will be encouraged to establish crocodile ranching/farming where and when appropriate.

- Employment in hunting and preparation for hunting once surveys have been done and quotas set.
- Share of the proceeds of the sale of skins.

4.1.2 International: The Nile crocodile is included in CITES Appendix I as a species. However, the populations of 11 African countries are listed in Appendix II, including that of the United Republic of Tanzania. All of them are included in Appendix II under a ranching scheme.

## 4.2 Species Management

4.2.1 Population monitoring: In areas outside National Parks and Game Reserves, specific monitoring of the population of crocodiles will be conducted, as explained in Appendix 1, to provide information on the trends of the populations subject to harvesting. This would allow the Wildlife Division to adopt quotas for the proposed harvest of wild crocodiles. This will be operated in parallel with the biennial aerial surveys concentrated on protected areas, in particular the Selous Game Reserve. The administrative framework for acquiring egg-collection data from the ranching sector is now in place in the Wildlife Division. If the ranching sector becomes active, as expected, this will provide a means for long-term monitoring of crocodile populations in protected and open areas.

4.2.2 Habitat conservation: The habitat of the species is fully protected in National Parks. Good protection is also provided in Game Reserves. Outside these protected areas, the habitat is protected through local conservation regulations. Nevertheless, the habitat will benefit better protection if the management of the species is such that the local communities find interest in protecting the species and its habitat.

4.2.3 Management measures: As indicated above, in particular under section 4.1.1, the United Republic of Tanzania has developed a Policy and a Management Plan for Crocodiles (see Appendix 4) The Plan includes the necessary measures to properly manage the population of Nile crocodiles within and outside protected areas, together with the Regulations that already exist and those planned in Appendix 6.

## 4.3 Control measures

4.3.1 International trade: In addition to the strict implementation, by the Wildlife Division, of the CITES provisions, including those on tagging of crocodylian skins contained in Resolution Conf. 9.22, the Customs and Excise Department of the United Republic of Tanzania will examine all shipments before export and refuse their clearance if the documentation is incomplete or if the documents and the goods to be exported do not match. The United Republic of Tanzania is exporting crocodile skins under the current regime since more than 10 years without any problems. It is not because this proposal would be accepted that this should have any detrimental effect on the controls at export.

4.3.2 Domestic measures: The measures taken in accordance with the Management Plan for Crocodiles and the Regulations in Appendix 1, which will guarantee the respect of the harvest quotas for wild animals and for eggs or hatchlings for ranches, have been described above.

## 5. Information on similar species

The African slender-snouted crocodile *Crocodylus cataphractus* also occurs in the United Republic of Tanzania (Ross, 1998). It is however fully protected by law (Wildlife Conservation Act, 1974). Its range is limited to Lake Tanganyika. No harvest of this species is undertaken and expected. Because of the lower value of the skin, it is not envisaged that illegal skins of that species could be mixed with skins of Nile crocodiles.

## 6. Other comments

This proposal concerns the population of the United Republic of Tanzania only. Its adoption will not affect any other range State of the Nile crocodile, in particular since the nature of the trade in specimens of that population will not change at all.

## 7. Additional remarks

See Appendix 5 which are excerpt (pg. 13 – 15) from A report to the CITES Secretariat of 1997 titled Tanzania Crocodile Survey And Performance Report Of Harvesting Problem Crocodiles From The Wild For 1995 And 1996

It appears clearly from the information provided above, which confirms the validity of earlier decisions taken by the Conference of the Parties to CITES, that the Tanzanian population of Nile crocodiles *Crocodylus niloticus* does not meet the criteria of Annex 1 to Resolution Conf. 9.24. The population is not small and is not characterized by any of the criteria linked with the size of the population. The population has not a restricted area of distribution and is not characterized by any of the criteria linked with the area of distribution. If a decline in the number of individuals in the wild has probably occurred in the period prior to the listing of the species in Appendix I, no such decline has been observed since the species is subject, under CITES provisions, to harvest in the United Republic of Tanzania and it has no potential to resume. The only risk of decline of the wild population in unprotected areas would be linked with a total prohibition to harvest crocodiles and a consecutive increase of conflicts with the human population. Finally, the population is already listed in Appendix II and it will not be more likely to satisfy one or more of the criteria for inclusion in Appendix I within a period of five years after the adoption of this proposal than it was during the last 14 years after its transfer to Appendix II. On the other hand, the measures taken by the United Republic of Tanzania are sufficient to meet other relevant requirements of Resolution Conf. 9.24.

In summary, the Tanzanian population of the Nile crocodile should be maintained in Appendix II subject to a reasonable and sustainable quota for wild specimens, in addition to any specimens produced on ranches. The required quota I reasonable and sustainable.

## 8. References

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## **9. List Of Appendices.**

Appendix 1: Tanzania Crocodiles Survey, October 1999.

Appendix 2: Problem Crocodile Report

Appendix 3: Excerpts from The Wildlife Policy of Tanzania, 1998. (Section 2.2.4 and 3.3.10)

Appendix 4: Policy and Management Plan for the Nile Crocodile

Appendix 5: Excerpts from the Tanzania Crocodile Surveys and Performance Report of Harvesting Problem Crocodiles from the Wild for 1995 and 1996. A report to CITES Secretariat

Appendix 6: Draft Regulations for control of the proposed wild harvest of 'problem crocodile in Tanzania.