

## Transfer of the Egyptian population of *Crocodylus niloticus* from Appendix I to Appendix II for the purposes of ranching

### Proponent: Arab Republic of Egypt

**Summary:** The Nile Crocodile *Crocodylus niloticus* is the most widely distributed crocodile species in Africa, occurring in almost all sub-Saharan countries. It was included in Appendix I in 1975. Ten countries have made successful proposals to transfer their populations of *C. niloticus* from Appendix I to II for the purposes of ranching: Botswana, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, South Africa, Uganda, Zambia and Zimbabwe. This proposal seeks to transfer the Egyptian population of *C. niloticus* to Appendix II for ranching purposes.

*Crocodylus niloticus* had virtually disappeared from Egypt by the 1950s, but the construction of the Aswan Dam and the subsequent creation of Lake Nasser led to resurgence of the population. It is now widespread in the lake, where all wild individuals in Egypt are believed to occur. A survey in the period 2008–2009 estimated the crocodile population in the lake as between 6000 and 30 000. Refinement of this estimate is currently a major goal through a newly initiated radio telemetry project. There are no historic survey data available in order to assess population trends; however, anecdotal evidence supports a rising population trend. *C. niloticus* is subject to illegal harvesting for export; this has reportedly been increasing since the start of the 21<sup>st</sup> century. It is believed that each year over 3000 hatchlings are illegally smuggled out of Egypt and 200–400 subadults and adult crocodiles are killed for their skins. The skins are both exported and used locally in Egypt for leather products. Apart from illegal trade, the only other identified threat to the species may be incidental mortality through drowning in fishing nets, but the impact of this is considered likely to be low.

Under the proposal, ranching will be based on an annual hatchling harvest, with initial quotas set at around 2500. The proponent is requesting an annual export quota of 750 skins from ranched individuals be put into effect, starting 2013. The proponent believes this will allow ample time for approved ranching operations to build a stock. A recently created Crocodile Management Unit (CMU) will oversee *Crocodylus niloticus* management and monitoring. The CMU will also be responsible for outreach activities within local communities and with any parties involved in crocodile use, as well as with local and environmental law enforcement agencies to prevent illegal trade. The supporting statement also includes information on: marking; monitoring; management; reintroduction and trade control procedures; national legislation to protect wild species and habitats and control illegal trade; and ways in which the local crocodile population, other wildlife and human communities will benefit from the ranching programme. Initially no other wild harvest will be approved, although limited trophy hunting will be considered in the future, in conjunction with a nuisance crocodile programme, if this is needed.

**Analysis:** Because this proposal to transfer a population from Appendix I to Appendix II involves ranching, it should adhere to *Resolution Conf. 11.16 (Rev. CoP14)* as well as *Resolution Conf. 9.24 (Rev. CoP14)*. Under the terms of the first of these, a ranching proposal should be submitted at least 330 days before the meeting at which it is to be considered, to allow the Secretariat to consult with the Animals Committee to ensure that terms in the Resolution are met. This was not done in this case and it is possible therefore that the proposal will not be considered in its present form by the CoP at this meeting. It is possible that the CoP may consider a more restrictive proposal concerning the same population, such as a transfer from Appendix I to Appendix II with a zero export quota for wild specimens, although this is not assured.

Regarding the conditions set out in *Resolution Conf. 11.16 (Rev. CoP14)*, the following observation may be made:

Paragraphs a), b) and c) under “RECOMMENDS”, regarding general provisions for transfer of species from Appendix I to Appendix II for ranching:

#### a) Biological criteria

*Estimates of wild populations are imprecise, but further research is under way. The best available estimates indicate the population is not small under*

*guidelines in Resolution Conf. 9.24 (Rev. CoP14). The population is not believed to be declining and habitat quality is good.*

b i) The programme must be primarily beneficial to the conservation of the local population

*Under the proposal, fees collected from the sale of hatchling harvest permits and ranching licences will be recycled to support the CMU and other wildlife research and conservation efforts.*

b ii) All products must be adequately identified

*The proposed marking programme appears robust.*

b iii) Appropriate inventories, harvest level controls and mechanisms for monitoring the wild population

*The absence of information on the management and monitoring plan and details of the planned use weaken the proposal. For example, it is unclear why hatchlings rather than eggs are to be collected. It is also unclear how increased negative interaction between local fishermen and crocodiles, or how other extractive uses such as trophy hunting, would be handled through a ranching programme. However, it should be noted that management reportedly only started in 2008.*

b iv) Sufficient safeguards must be established to ensure that adequate numbers of animals are returned to the wild if necessary and where appropriate

*The proposal states that 10% of ranched individuals will be returned to the wild after they have reached a length of one metre. The necessity and appropriateness of this has been questioned, as it is believed that such action would increase the possibility of introducing diseases to the wild population. A simpler and more appropriate alternative would be to take fewer animals from the wild in the first place.*

c i) Details of the marking system must be submitted

*The proposed marking programme appears robust (see b ii) although the proponent states the Universal Tagging System will be adopted and used to regulate the trade in line with Resolution Conf. 9.22, but this should now state in line with Resolution Conf. 11.12.*

c ii) A list of products must be provided

*This is included in the proposal (skins for domestic and international trade and domestic trade of meat).*

c iii) Marking methods for products and containers entering trade should be described

*A description of marking methods is provided. See c i).*

c iv) An inventory of current stocks should be provided

*There are not known to be currently any stocks of crocodile specimens in Egypt.*

Paragraph d) specifically regarding transfer of the population of one Party or a smaller geographically separate population:

d i) Evidence that taking from the wild will have no detrimental impacts on wild populations

*Levels of illegal offtake will need to be addressed. Any agreement of managed harvests for export should be clearly linked to measures aimed at reducing the current illegal trade in the species. As a precaution, measures aimed at reducing the illegal trade should be implemented and found to be effective before the planned harvest for ranching is carried out to ensure that harvesting does not have any detrimental impacts on the wild population. The proposed annual export quota of 750 skins may be unrealistic given that no ranching has been carried out to date. Harvest of 2500 hatchlings per year seems high for an annual export quota of 750 skins, unless the surplus skins are destined for the domestic market.*

d ii) An assessment of the likely biological and economic success of the ranch

*Under the proposal, the CMU will report annually to the CITES Secretariat on the status of the crocodile population used in ranching. Methods for assessing the economic success of the ranch are not included in the proposal.*

d iii) Assurance that all stages will be humane

*The proposal states that a rigorous code of practice is being drafted, although details are not yet available. Good practice in crocodile ranching in general is well documented.*

d iv) Evidence to show that the programme is beneficial to the wild population through reintroduction or in other ways

*The proposal states that wildlife research and conservation will benefit, local fishermen will gain direct economic benefits and there is provision for Crocodylus niloticus reintroduction.*

d v) Assurance that criteria shall continue to be met

*The proponent has established a CMU for this purpose.*

Although some conditions set out in *Resolution Conf. 11.16 (Rev CoP14)* are in place, it appears that others have yet to be met fully, there being, for example, still substantial illegal harvest. Although trade in ranched specimens is not proposed until 2013, by which time all necessary conditions may be met, it may be premature to transfer the population for the purposes of ranching at this time.

Supporting Statement (SS)	Additional information
<p>Proposal only concerns population of Egypt.</p> <p>Complete range of the species is:            Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Republic of Congo, Côte d'Ivoire, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Mauritania, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe.</p>	<p style="text-align: center;"><b><u>Taxonomy</u></b></p> <p><i>Recent taxonomic investigations suggest that crocodiles in Egypt may be a different species of "Nile Crocodile" (Shirley, 2008).</i></p> <p style="text-align: center;"><b><u>Range</u></b></p> <p style="text-align: center;"><b><u>IUCN Global Category</u></b></p>

Supporting Statement (SS)	Additional information
Listed as Lower Risk/least concern in the <i>IUCN Red List of Threatened Species</i> ; assessed in 1996.	Assessed using <i>Categories and Criteria ver 2.3</i> . Assessment needs updating.

### Biological criteria for inclusion in Appendix I

#### **A) Small wild population**

**(i) Population or habitat decline; (ii) small sub-populations; (iii) concentrated geographically during one or more life-history phases; (iv) large population fluctuations; (v) high vulnerability**

Surveys of the Lake Nasser *Crocodylus niloticus* population began in July 2008. Using a modified double observer survey model, the detectable crocodile population was estimated at between 3047 and 3500 individuals. This number is thought to be lower than the total population size owing to crocodile submersion bias. Assuming 10–15% detectability, figures for the total crocodile population in Lake Nasser would range from 6094 to 30 470. Refinement of this estimate is currently a major goal through a newly initiated radio telemetry project (i.e. to estimate detectability) and through continued survey and monitoring efforts.

*Baha el Din (2006) considers that the total population in Egypt is made up largely of juvenile and immature individuals; the number of breeding adults (sexual maturity is reached at about 10 years of age) is probably considerably fewer than 5000 animals.*

*In Egypt the species is rather uncommon and localized and is classified as “vulnerable” (Baha el Din, 2006).*

*The total population is estimated by extrapolation of survey data obtained in 2008. Correction factors to account for sightability during spotlight surveys have yet to be confirmed, and thus estimates vary between 6000 and 30 000 individuals. The proposal indicates ongoing efforts to derive more realistic estimates of the total population through research (telemetry) and ongoing monitoring. Population estimates are typically based on non-hatchlings (includes yearlings) and on this basis the population estimates would be higher (6780 to 33 900 non-hatchlings). If breeding females formed, say, 5% of the population, then it would suggest 339 to 1695 nests per year, provided females nested annually; which may not be the case in most years. Production of 750 skins per year, assuming efficient incubation and raising, would be most likely achievable and sustainable. If adults make up 20–25% of the classified sightings, as is the case in many other African populations, then many more eggs/hatchlings would be potentially available (Webb, 2009).*

#### **B) Restricted area of distribution**

**(i) Fragmented or localized population; (ii) large fluctuations in distribution or sub-populations; (iii) high vulnerability; (iv) decrease in distribution, population, area or quality of habitat, or recruitment**

Within Egypt, *Crocodylus niloticus* is limited to Lake Nasser in upper Egypt. Lake Nasser is the largest man-made lake in the world. The lake was created by the construction of the Aswan High Dam, which began in 1959, and water impoundment initiated by 1964. The lake dimensions vary with water levels, but it can reach 35 km in width with a 7844-km maximum shoreline. The entire lake is suitable habitat for crocodile occupancy during one life stage or another; approximately 80% contains suitable nesting habitat.

*According to Baha el Din (2006), Lake Nasser probably represents one of the strongholds of the species, at least at the regional level.*

*In general, the available man-made habitat for *Crocodylus niloticus* in Lake Nasser is immense and largely untouched. It is the understanding of some reviewers that some of the areas around Lake Nasser are well protected owing to a military presence. If such areas are not to be harvested as part of a ranching programme, this should be mentioned (Webb, 2009).*

Recent reports from as far north as Cairo are almost certainly of escapees or releases. The nearest population of the species is in Sudan; here the Sudanese population of Lake Nasser is continuous with the Egypt population in the lake. The

Supporting Statement (SS)	Additional information
<p>next-nearest population is in the White Nile and Sud Wetland.</p> <p><b><u>C) Decline in number of wild individuals</u></b>  <b>(i) Ongoing or historic decline; (ii) inferred or projected decline owing to decreasing area or quality of habitat, levels of exploitation, high vulnerability, or decreasing recruitment</b></p> <p>No historic survey data are available to assess population trends; however, anecdotal evidence supports a rising trend. Prior to the construction of the Aswan High Dam, Nile crocodiles were virtually, if not entirely, extirpated from Egypt. However, since the creation of Lake Nasser, crocodiles are seen regularly and local fishermen are becoming more and more vocal in their complaints about a growing crocodile population. Preliminary results from questionnaires conducted with fishermen have suggested that encounters with <i>Crocodylus niloticus</i> from all demographic classes, but especially adults, are on the rise.</p>	<p><i>Baha el Din (2006) considers that growing human activity in the Lake Nasser region and claims of attacks on humans and other conflicts with people are likely to lead to significant reduction in the species's population in the coming years.</i></p> <p><i>Few monitoring data are available. Only 11% of the shoreline of Lake Nasser has so far been monitored, and insufficient monitoring data are available over time to quantify population trends. The high proportion of the population represented as juveniles and sub-adults indicates the population is in a "recovery phase". Nonetheless, experience has shown that ranching can be an extremely robust management tool for recovering populations of crocodilians, and it can be carried out without detrimental impact on the population [see CSG review of ranching programmes carried out for the CITES Secretariat (<a href="http://iucncsg.org/ph1/modules/Publications/reports.html">http://iucncsg.org/ph1/modules/Publications/reports.html</a>)]. It may be appropriate to set harvest quotas on the basis of population monitoring data, which will be required to establish "non-detriment" under Article IV of the Convention (Webb, 2009).</i></p>

**The species is or may be affected by trade**

**Illegal trade**

Preliminary evidence suggests there is a not unsubstantial illegal trade of crocodiles within and out of Egypt. Assessing this trade has been difficult, but it is likely that over 3000 hatchlings are illegally smuggled out of Egypt and 200–400 subadult and adult crocodiles are killed annually for their skins. The skins are both exported and used locally in Egypt for typical leather products. This trade has been difficult to regulate in the past owing to lack of enforcement capacity. However, the recent creation of a dedicated Crocodile Management Unit (CMU) which engages in outreach activities with local and environmental law enforcement agencies will certainly facilitate future efforts. The Unit has already formed a working relationship with the administrative and user groups of Lake Nasser, as well as the enforcement agencies that will be critical in facilitating enforcement of laws in place for protecting and managing the crocodile population. Early in 2010, the Unit will be launching a major education campaign for the stakeholders in crocodile management. In 2004, a similar outreach strategy all but eliminated the trade of hatchling crocodiles for sale as curios and live pets to tourists in the Aswan Bazaar.

*Two figures for the illegal trade are given in the proposal—2500 and over 3000 hatchlings.*

*After noting that interviews with fishermen detected the presence of an ongoing illegal crocodile harvest (with perhaps as many as 3000 live hatchlings and 200 skins (adults) exported annually), Shirley (2008) recommended that further investigation on illegal trade was warranted.*

*The CITES trade database lists gross exports of *Crocodylus niloticus* from Egypt between 1998 and 2008 as two crocodile bodies in 1999 and one in 2001; seven leather product items in 2007, and single skins in 2000 and 2007.*

*Baha el Din (2006) considers that the illegal collection pressure for the pet trade and for skins is considerable.*

Supporting Statement (SS)	Additional information
<p>The impacts of illegal trade are difficult to assess at this time. However, given the above figures, estimates of population size and fishermen questionnaire results, the proponent assumes that the current illegal trade is causing minimal impact. Two factors make controlling the illegal crocodile trade comparatively simple: one individual is currently responsible for most of this trade and the virtually linear route of trade/transport for goods coming from Upper Egypt (i.e. Lake Nasser–Aswan–Luxor/Cairo) allows for regulation check points. Furthermore, questionnaire results indicate that very few (less than 20%) of the Lake Nasser fishermen are involved with the illegal trade in crocodiles, and of these maybe 10–20% (less than 5% of the total fishing community) consider it to be a regular part of their income. Finally, the proponent considers that the vastness and remoteness of Lake Nasser, the lack of permanent human inhabitants, and the small number of people involved in the crocodile trade, suggest that it will be very difficult for trade to have a significant negative impact. The proponent feels that, once legalized, trade will continue at its current level with the added advantage of a framework for national legislation and control preventing the current, seemingly sustainable trade from becoming detrimental.</p>	<p><i>The current lack of enforcement capacity is evident from the proposal and is a major concern. Efforts that have been made to remedy this situation are applauded, but a clearer commitment on enforcement measures to be implemented in connection with the proposed listing would strengthen the proposal. With domestic use of Crocodylus niloticus skins (e.g. finished products), there could be avenues through which illegal, wild-caught skins could enter international trade (Webb, 2009). The question, “How will national consumption be regulated, particularly if international tourists are likely consumers?” is posed to the Nature Conservation Sector, Egyptian Environmental Affairs Agency by Webb (2009).</i></p>

#### Precautionary measures

#### **Ranching proposal submitted consistent with applicable Resolutions of the Conference of the Parties.**

#### **Resolution Conf 11.16 Paragraph b: any proposal must satisfy the following criteria**

#### **b i) the programme must be primarily beneficial to the conservation of the local population**

The goal is that crocodile use benefits management of *Crocodylus niloticus*. For example, fees collected from the sale of hatchling harvest permits and ranching licences, will be used to support the CMU.

#### **b ii) all products, including live specimens, must be identified and documented**

The plan envisages marking of live specimens and hides, see c i)

*Marking should be in line with Resolution Conf. 11.12.*

#### **b iii) Appropriate inventories, harvest level controls and mechanisms for monitoring the wild population**

The crocodile monitoring programme began in 2008, although minor survey efforts were made in 1997 and 2004. Starting in July 2008 the “Crocodile Team” of the Nature Conservation Sector surveyed key areas of the Lake to establish baseline data and indices of population size. Over the following year indices were established for 15 regions around the lake, covering over 11% of the shoreline. Starting in 2010,

*No detailed information on the management and monitoring plan nor details of the planned use were provided in the supporting statement. Monitoring and the drawing up of detailed plans for management only started in 2008, however.*

*There is a lack of detail on how the ranching programme would be carried out. For*

Supporting Statement (SS)	Additional information
<p>efforts will consist of six-monthly survey trips to designated sites around the lake to correspond with the annual breeding season.</p> <p>In August 2009, Egypt established the CMU, consisting of three biologists and natural resource managers trained by specialists from the IUCN/SSC Crocodile Specialist Group in crocodile monitoring and management theory and techniques. The CMU is in the process of drafting a management and monitoring plan. Details of the planned use are not yet fully worked out, and are also awaiting approval for international, commercial trade.</p> <p>Ranching will be the primary focus for use with a limited number of licensed individuals.</p>	<p><i>example, it is unclear why hatchlings rather than eggs are to be collected. Crocodilian ranching programmes typically involve egg harvesting, which allows for a greater portion of the resource to be available (i.e. before egg predation losses occur). Annual hatchling recruitment can vary greatly from year to year (Webb, 2009).</i></p> <p><i>M.M. Fouda, Director, Nature Conservation Sector, Egypt indicated in an email to the CSG dated 11 December 2009 that external experts would be involved in the development of a ranching programme (Webb, 2009).</i></p> <p><i>Transfer to Appendix II in line with Resolution Conf. 11.16 may not be adequate to allow hunting of adults. The manner in which the hunting is to be controlled needs to be explained. If high numbers of big crocodiles do occur, and fisheries conflicts are a major issue, a wild hunting programme might be a feasible option to include in the programme (Webb, 2009).</i></p>

**b iv) adequate numbers must be returned to the wild if necessary**

The ranching programmes will require head-starting and the plan is to reintroduce 10% of individuals to the wild after they have reached a minimum size of one metre.

*Head starting may not be required if monitoring results indicate a high rate of population increase. A decision about whether to release head-started animals should be made on the basis of monitoring results. In addition, head starting increases the possibility of introducing disease to the wild population. It may be more appropriate to reduce harvest rates rather than release captive-raised crocodiles back into the population—this all depends on monitoring results (Webb, 2009).*

*The programme does not indicate that the survival rates of the reintroduced individuals would be measured e.g. on the basis of surveys and the tagging programme.*

*The 2006 report on the status and ranching of the Nile Crocodile in Kenya found that release to the wild was unpopular with local communities in areas where crocodiles were in conflict with human activities (Anon., 2006a). Presumably, considering the huge size of Lake Nasser (up to 480 km long and up to 35 km wide, with a 7844-km shoreline), finding suitable locations to release crocodiles away from areas which are likely to cause conflict with people, would not pose any difficulties.*

**c i) details of its marking system**

The Universal Tagging System will be adopted and used to regulate the trade in line with *Resolution Conf. 9.22*. Using this system, all individual crocodiles on approved ranches will be marked with toe-web tags controlled by the Nature Conservation Sector of the Environmental Affairs Agency. All tags must be available for inspection on carcasses (both ranch mortality and processed) and skins/leathers to ensure the level of harvest and captive maintenance that is approved. Crocodile leathers and

*The CITES Resolution that deals with the tagging of crocodilian skins is Resolution Conf. 11.12 Universal tagging system for the identification of crocodilian skins, not Resolution Conf. 9.22 as currently indicated. Very specific comments are made on marking; for example toe tags (which can fall off), would not accompany “leathers”. Toe tags, together with other forms of tagging (e.g. scute-clipping) would assist with monitoring of ranch/farm stocks (Webb, 2009).*

Supporting Statement (SS)	Additional information
<p>products will be checked by local Aswan authorities and double-checked by Cairo Wildlife officers prior to export.</p>	
<p><b><u>c ii) list of types of products</u></b></p>	
<p>Skins for domestic and international trade and domestic trade of meat.</p>	<p><i>An annual export quota of 750 skins is sought but the proposal also indicates that “International trade will focus on processed leathers and leather products” (Section 2). “This is confusing” (Webb, 2009).</i></p>
<p><b><u>c iii) marking methods for products and containers entering trade</u></b></p>	
<p>See c i)</p>	
<p><b><u>c iv) an inventory of current stocks</u></b></p>	
<p>There are currently no stocks of crocodile specimens in Egypt.</p>	
<p><b><u>d i) evidence that taking from the wild will have no detrimental impacts on wild populations</u></b></p>	
<p>The Nature Conservation Sector through its newly established CMU will monitor the export permits to ensure that crocodile populations are maintained within the framework of the carrying capacity of the ecosystems. The Unit will report to the Nature Conservation Sector regularly and an annual report will be submitted to the CITES Secretariat on the status of the crocodile population both in the wild and used in ranching.</p> <p>Ranching will be likely to be based on an annual harvest of hatchlings from the wild, with initial quotas to be set at estimates of current illegal off-take (+/- 2 500 hatchlings a year).</p> <p>The proponent is requesting an annual export quota of 750 skins from ranched individuals be put into effect starting 2013. The proponent believes this will allow ample time for approved ranching operations to build a stock and ensure that in the intervening time no animals are harvested from the wild to fulfil the quota.</p>	<p><i>Any agreement of managed harvests for export should be clearly linked to measures aimed at reducing the current illegal trade in the species. As a precaution, measures aimed at reducing the illegal trade should be implemented and found to be effective before the planned harvest for ranching is carried out to ensure that harvesting does not have any detrimental impacts on the wild population.</i></p> <p><i>The proposed annual export quota of 750 skins may be unrealistic given that no ranching has been carried out to date. Indeed, the establishment of a quota before any ranching facilities have been established could readily provide avenues for the laundering of wild-collected skins. It may be appropriate to establish export quotas once ranching has started, and to set them on the basis of actual production on ranches. Quotas could be verified by external experts (e.g. the CITES Secretariat, CSG) to allay concerns of potential laundering of wild skins through a ranching programme (Webb, 2009).</i></p> <p><i>Harvest of 2500 hatchlings per year seems high for an annual export quota of 750 skins, unless the surplus skins are destined for the domestic market (Webb, 2009).</i></p>
<p><b><u>d ii) an assessment of the likely biological and economic success of the ranch</u></b></p>	
<p>See d i). The CMU will report annually to the CITES Secretariat on the status of the</p>	<p><i>Methods for assessing the economic success of ranching are not included in the</i></p>



Supporting Statement (SS)	Additional information
crocodile population used in ranching.	<i>proposal.</i>
<b><u>d iii) assurance that all stages will be humane</u></b>	
Inspection and regulation of ranching establishments will be co-ordinated through the Nature Conservation Sector and the CMU, who together will draft a plan and implement a rigorous code of practice whereby facilities and procedures are inspected twice annually.	<i>Although a rigorous code of practice is being drafted, details are not yet available. Good practice in ranching operations and guidelines are well documented, for example the 1990 Kenyan Nile Crocodile management plan. In Kenya, there is currently a strong focus by the Management Authority towards ensuring there is improved compliance and enforcement of the code of practice and production standards (Anon., 2006a).</i>
<b><u>d iv) evidence to show that the programme is beneficial</u></b>	
In addition to benefiting management of <i>Crocodylus niloticus</i> , the future goal of use of the species is to benefit other wildlife research and conservation efforts, if possible. In addition, the aim is that crocodile use benefits capacity-building of future natural resource managers (e.g. university students and local primary and secondary students can be involved in head-start and release programmes, and use these activities as research platforms by, for example, monitoring the success of head-started crocodiles post-release). Local Lake Nasser fishermen will receive direct economic benefit from the harvest and sale of hatchling crocodiles. Furthermore, there is provision for reintroduction of 10% of ranches crocodiles.	
<b><u>d v) assurance that criteria shall continue to be met</u></b>	
The proponent set up the CMU to ensure that the criteria shall continue to be met. The proposed quota will include information on collection, marking, internal transport and export control of specimens in accordance with the programme established by the CMU. The Unit will provide the necessary information to show that Egypt is effectively implementing CITES Article IV.	<i>The establishment of a dedicated CMU to oversee management and monitoring is considered an important step (Webb, 2009).</i>  <i>The CITES reporting requirements for ranching, when a species has been transferred from Appendix I to Appendix II pursuant to a ranching Resolution are given in Resolution Conf. 11.16.</i>

**Other information****Threats**

There is conflict between crocodiles and the Lake Nasser fisheries leading to crocodiles drowning in fishing nets. Although the extent of this conflict is not well documented, it is considered low given the quality and type of gill nets used by the near shore fisheries (fishermen constantly cite crocodiles destroying fishing nets as a major source of conflict). Since the start of the 21<sup>st</sup> century there has been an increasing illegal trade in crocodiles from Lake Nasser. While quantifying this trade is difficult, the proponent feels it is not detrimental at this time. The proponent believes that the vastness and remoteness of Lake Nasser, the lack of permanent human

*According to Baha el Din (2006) growing anthropogenic conflicts, illegal collection pressure for the pet trade and for skins and "sports" hunting is likely to lead to a reduction in the numbers of *Crocodylus niloticus*.*

*It is unclear how increased negative interaction between local fishermen and crocodiles would be handled through a ranching programme. Although other extractive uses, such as trophy hunting, are alluded to in the proposal, they are not discussed in detail as a management component (Webb, 2009).*

Supporting Statement (SS)	Additional information
<p>inhabitants, and the small number of people involved in the crocodile trade, suggest it will be very difficult for trade to have a significantly negative impact. In contrast to most African populations of the species, Nile Crocodiles in Egypt have not been a mortal threat to people in and around Lake Nasser.</p>	
<p><b><u>Conservation, management and legislation</u></b></p>	
<p><i>C. niloticus</i> populations of Botswana, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Namibia, South Africa, Uganda, United Republic of Tanzania, Zambia and Zimbabwe are listed in Appendix II with provision for trading. All other populations, including that in Egypt, are listed under Appendix I.</p>	
<p><i>C. niloticus</i> is protected outright by Egyptian law and thus no extraction-based utilisation has been approved at present. A few requests for the export of scientific (biological) specimens (e.g. blood and tissue samples) for genetic analyses have recently been approved. A small number of tour operators in the Aswan area regularly take clients on Lake Nasser to view wildlife, including the possibility of seeing crocodiles.</p>	
<p>There are two main relevant laws in Egypt: the second article of <i>Law 102/1983</i> concerning Natural Protected Areas and <i>Law 4/1994</i> promulgating environment law amended by <i>Law 9/2009</i> Article 28a, which forbids the hunting and catching of some wild animals and living aquatic organisms, and the transporting, exporting, importing or trading of them. Article 84a of this law concerns penalties for any violations related to article 28a.</p>	
<p>The proponent suggests that since these laws were established in the time of crocodile extinction and in the light of rebounding populations, the laws should be amended. Egypt's delay in doing so is a result of their <i>Crocodylus niloticus</i> population still being listed on Appendix I where changing laws to allow for extraction-based use would be futile if people could not benefit by legally exporting the products.</p>	
<p>The current legislation provides a framework for controlling the illegal trade. However it has been largely ineffective to date. The major problem has been education and co-operation with the law enforcement communities. The government recognizes this issue and through the creation of the CMU has the capacity to overcome it. In addition, the government believes that in implementing new laws that allow for the sustainable use of crocodiles in Egypt, they will be better able to regulate the trade with the assistance of the Universal Tagging System and established quotas, harvest/hunting permits, and facilities licences.</p>	
<p>The proponent states that they have not yet approved any ranching proposals</p>	

Supporting Statement (SS)	Additional information
<p>domestically because they are “certain that ranching will result in international trade whether it is legal or not”. The proponent has put in place a system for monitoring its crocodile population and use programmes that will be developed. At the start of their use programme no wild harvest will be approved, although limited trophy hunting in conjunction with a nuisance crocodile programme will be considered, should this become a necessity.</p> <p>The CMU will be responsible for outreach with the local Lake Nasser fishing community, the Nubian people, and any parties involved in the use of crocodiles.</p>	
<p style="text-align: center;"><b><u>Similar species</u></b></p> <p>No other crocodile species or other similar species exist in Egypt.</p>	
<p style="text-align: center;"><b><u>Captive breeding</u></b></p> <p>Currently there exist no captive breeding or artificial propagation efforts for <i>Crocodylus niloticus</i> in Egypt. Several entities (private and government) have expressed an interest in this, but no permission has been granted. The government in Egypt feels it is prudent to establish a managed and legal system through which captive situations can sustainably exploit the crocodile resource prior to permitting these activities.</p>	
<p style="text-align: center;"><b><u>Other comments</u></b></p>	<p><i>In their review of the proposal, the IUCN SSC Crocodile Specialist Group made the following comments:</i></p> <p><i>There is a technical problem with Egypt's proposal.</i></p> <ol style="list-style-type: none"> <li><i>1. In seeking a transfer from Appendix I to Appendix II, Egypt has chosen "ranching", in accordance with Resolution Conf. 9.24 (Rev. CoP14) Annex 4 (2d), which requires adherence to Resolution Conf. 11.16. This is a more restrictive option than if the amendment to the Appendices had been sought under the normal (non-ranching) provisions of Annex 4 of Resolution Conf. 9.24 (Rev. CoP 14).</i></li> <li><i>2. Resolution Conf. 11.16 paragraph e requires that proposals be submitted 330 days before the meeting of the Conference of Parties. As this was not complied with by Egypt, the proposal may be rejected.</i></li> <li><i>3. The option of amending the proposal, so that it could be assessed as it stands under Annex 4 (non-ranching) of Resolution Conf. 9.24, may be complicated, because it could be interpreted as being less restrictive than the original proposal. Hence the proposal may need to be withdrawn, or risk defeat on technical grounds.</i></li> <li><i>4. A way forward that may be available to Egypt would be to amend the proposal so that it can be considered under Annex 4 (non-ranching) of Resolution Conf. 9.24, with</i></li> </ol>

Supporting Statement (SS)	Additional information
	<p>a voluntary "zero export quota to remain in place pending a further proposal to be considered by the 16<sup>th</sup> meeting of the Conference of the Parties". This would be more restrictive than the original proposal because of the zero quota.</p> <p>5. If the Parties approved the proposal amended in this way, it would signal to Egypt that the Parties were acknowledging the improved status of the Nile Crocodile populations in Lake Nasser and that they were sympathetic to Egypt's intentions, although no exports would be possible until Egypt prepared a proposal to CoP16 at the earliest to inform the Parties about the actions taken which justified the removal of the "zero quota". Such an approach would be consistent with the present proposal, which does not seek to export any skins or other products until 2013 (Webb, 2009).</p>

**Reviewers:**

Tom Dacey, Crocodile Specialist Group.

**References:**

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