

AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Proposals submitted pursuant to Resolution on Ranching

A. PROPOSAL

Maintenance of the Malagasy population of *Crocodylus niloticus* in Appendix II.

B. PROPONENT

The Republic of Madagascar.

C. SUPPORTING STATEMENT

1. Taxonomy

- | | |
|--------------------------|---|
| 11. <u>Class:</u> | Reptilia |
| 12. <u>Order:</u> | Crocodylia |
| 13. <u>Family:</u> | Crocodylidae |
| 14. <u>Species:</u> | <i>Crocodylus niloticus</i> Laurenti (1768) |
| 15. <u>Common Names:</u> | Malagasy: Voay (small and medium-sized animal)
Mamba (large animal)
English: Nile crocodile
French: Crocodile du Nil
Spanish: Cocodrilo del Nil |

2. Biological Data

Since this proposal relates specifically to Madagascar's Nile crocodile (*Crocodylus niloticus*) population, no information on other countries is included.

21. Population Status: Madagascar has no precise estimates of its crocodile population, because its remote habitat and banditry by "dahalo" (cattle thieves) have made surveys difficult.

However, evidence of nesting in the Besalampy area, reported by O BEHRA and RAMANDIMBISON (1992) in an article entitled "Implication des populations rurales dans le ranching à Madagascar" [Involvement of Rural Populations in Ranching in Madagascar] (1992), has provided some indication as to the status of the population.

Recent surveys performed as part of Project TCP/MAG/8954, "Development of Crocodile Ranching in Madagascar", indicate that the population level of the Nile crocodile is stable in Madagascar.

211. Survey Results

East Coast: As a result of demographic pressure, the East Coast is no longer an area of interest. Very low crocodile densities have been observed on the Canal des Pangalanes and the Maningory.

West Coast: The regions most favourable to the crocodile lie in the western and northwestern parts of the country. Initial surveys on the major rivers in the west, however, have shown generally relatively low densities. In contrast, a few rivers, including the Maningoza, the Manambolo and the Mahavavy, have relatively high densities.

The Mangoky has a density of approximately 0.27 crocodiles/km. If this figure is compared to the surveys of other rivers, such as the Sofia and the Bemarivo, and to night and aerial surveys, the densities are much higher. Various observations thus indicate a minimum density of 4.2 crocodiles/km and a maximum density of 9.2 crocodiles/km in the area of interest (below the Sikily River).

Initial observations on a 140 km segment of the Mahavavy, between Kandrehio and Sitampiky, indicate a density of 0.5 crocodiles/km.

The highest densities, however, have been recorded on the 20 km of river bordering the Kasizy Special Reserve.

On the Manambolo, the average gross density ranges from 0.11 to 1.75 crocodiles/km. These are minimum estimates, and entirely reliable, as confirmed by studies performed during the 1990 egg collection campaign organized as part of Project TCP/MAG/8954, "Development of Crocodile Ranching".

However, certain small stretches of rivers ranging in length from 15 km to 25 km, such as the Tsianaloka and Tsionga, have higher densities.

The lakes adjacent to this river have estimated densities ranging up to a minimum of 23 crocodiles/km.

On other, more winding rivers with small adjacent lakes, including the Sambao and the Maningoza, densities range from 0.29 to 0.52 crocodiles/km. In fact, 26 adult crocodiles have been observed (24 on adjacent lakes and 2 on the river), together with 78 nests, including 54 on 6.50 km of river.

O BEHRA and HUTTON (1992) estimate the number of crocodiles living in accessible areas at between 21,000 and 34,000.

212. Results of Nesting Site Surveys: Nearly 2000 eggs were collected during the egg collection campaign in the Besalampy region, despite the initial lack of data on nesting sites. Given the number of nests destroyed and the time spent searching, this may represent an estimated 6000 eggs during this collection period.

The entire Besalampy area (Sambao and Maningoza), from Ankasakasa to Soalala (Manomba) and Cape Vilanandro, probably offers a potential 15,000 to 20,000 crocodile eggs.

In the Antsalova region, more than 800 eggs were collected along a short stretch of the Soahany River (approximately 50 km). This area thus offers a potential 5000 eggs.

The region between the Mahavavy and the Manimbolo offers a minimum potential of 20,000 to 25,000 eggs.

Further surveys are required in other regions of the country, particularly in the north, where promising crocodile densities have been observed (Mananjeba River and certain lakes in Vohemar).

While estimated population and density are helpful in indicating the status of the crocodile population, evidence of nesting is more significant in assessing population trends.

These nesting sites are indicated on a map given in the appendix (Appendix I).

22. Population Trends: In his 1988 field and study report on crocodiles in Madagascar, Olivier BEHRA notes that, prior to the period of intensive hunting, crocodiles were found throughout the country in very large numbers.

While certain ethnic groups in Madagascar consider the crocodile sacred and have protected it (BEHRA and HUTTON, 1988), crocodiles have been trapped by various means since the turn of the century (Petit G, 1925).

In the early years of the century, the "colonialist Governors" took steps to reduce the population levels of these "dangerous animals", in the belief that neither sports hunting nor trapping by the Malagasy could control their numbers (O BEHRA and HUTTON, 1988).

To achieve this goal, they offered bounties ranging from 0.15 (old) French francs for the destruction of one egg to 5 (old) French francs for the destruction of any crocodile more than 2 metres long (J O Mad and Dep N° 1539).

Decary R (1950) reports that one resident of Marovoay (literally, place of many crocodiles) collected 7000 eggs for bounties in a three-week period.

On the Ikopa (altitude 1400 m), near Tananarive, it was once possible to see more than 100 crocodiles out of the water in a single day. On Lake Alaotra, crocodiles were so numerous and so unaccustomed to being hunted that canoes would be followed by more than a dozen at a time, and several would have to be killed before they could be dispersed.

One of the most striking reports on the status of the crocodile relates to the quantities exported by one Hixidjee, who controlled approximately 95% of the market. One thousand skins a month were exported from Madagascar around 1947, when hunting was at its peak.

This over-exploitation resulted in a spectacular decline in the crocodile population, and the suspension of commercial hunting by the government of Madagascar immediately following ratification of the Convention of Washington.

Hunting was prohibited throughout the country to permit the crocodile population to recover.

In his final report for the "Development of Crocodile Ranching in Madagascar" Project, O BEHRA (1991) concludes that the crocodile populations are of adequate size and unlikely to become endangered.

Using population estimate models developed by GRAIG, GIBSON and HUTTON, O BEHRA and HUTTON (1992) estimate the annual increase of the wild population at between 1600 and 2700 animals.

In conclusion, all the available information suggests that the crocodile populations of Madagascar are not endangered.

23. Distribution: According to various studies of its geographic distribution, the Nile crocodile is found at low altitudes throughout Madagascar, particularly along rivers and lakes.

The studies performed in 1987 by O BEHRA and continued in 1988 by HUTTON and BEHRA as part of the "CITES Nile Crocodile" Project and those performed as part of Project TCP/MAG/8954 have produced reliable information on the range of the species (see Appendix II).

The collection of eggs and capture of newborns have also provided useful information. Other sources of information regarding the distribution of crocodiles are available as well. Reports from officials of remote communities on losses of human life and domestic animals complement these data.

A letter sent to all forestry agents on crocodile-infested regions supports the information thus obtained.

24. Available Habitat: One of the most serious problems facing the crocodile is the evolution of its habitat. At one time, the crocodile enjoyed a generally favourable habitat throughout the country.

Today, increasing demographic pressure and the resulting expansion of farming are the primary factors leading to the inevitable reduction of the areas suitable for crocodiles.

Nonetheless, certain areas are closed to human use because of their legal status. These include the Protected Areas (Integral Natural Reserves, National Parks, Biosphere Reserve, Special Reserves, Forest and Fishery Reserves), a total of 6,637,902 ha, or 34.21% of the country's forest lands. In addition, another four forest areas are currently undergoing classification.

These forest areas, which are closed to all human activity, ensure the survival of the species. In Madagascar, the crocodile's habitat consists of lakes, lagoons and large ponds. A total of 176 such sites, covering an area of approximately 16,957 ha, are found throughout the country. They are distributed as follows:

- 3 in the Province of Antananarivo, including Lake Itasy (13,500 ha);
- 12 in the Province of Antsiranana, including Lake Saheka (1000 ha);
- 11 in the Province of Fianarantsoa, including Masianaka Vangaindrano (1329 ha), Alampotsy (1098 ha) and the Tampolo Manakara (517 ha);
- 83 in the Province of Mahajanga, including Amparihabe Sud Maevatanàna (1247 ha), Mandrozo Maintirano (1471 ha), Lake Kinkony (13,900 ha), Bevoay Maintirano (165 ha) and Bemamba (1586 ha);
- 20 in the Province of Toamasina, including Lake Alaotra (2200 ha), Mahajery Moramanga (2016 ha) and Rasoabe Brickaville (2250 ha); and
- 47 in the Province of Toliary, including Nima Belo-sur-Tsitibihina (1547 ha) and Ihotry Mosombe (951 ha).

Other sites include a number of low-altitude rivers. The 20 such rivers along the West Coast include: the Mangoky (575 km), Mahajamba (344 km), Mahavavy (152 km), Betsiboka (438 km), Sambao (152 km) and Ikopa (365 km).

The principal rivers on the East Coast are: the Mananjary (205 km), Mangoro (274 km), Mananara (321 km) and Matitanana (114 km). Madagascar's waterways total 8098 km in length.

In summary, a general survey of the crocodile's habitat indicates abundant water resources, a large proportion of which are generally unused by man because of the difficulty involved in access.

25. Geographic Trends: At one time, the crocodile enjoyed a generally favourable habitat throughout Madagascar. It should be noted, however, that rice farming is widespread, rice being the country's major staple. Because this type of crop requires land which can be flooded, it naturally encroaches extensively on the crocodile's potential habitat, in marshes, ponds, lakes and rivers.

As a result, the banks of lakes Alaotra, Itasy and Bemamba, once considered prime locations for large crocodile populations, are now covered with rice.

However, the crocodile habitat zoning study performed as part of the FAO-funded project has produced a relatively acceptable estimate of range levels. Three types of ecological units have been identified on the basis of crocodile numbers and distribution:

- the western regions, which have high concentrations of crocodiles (22.3% of the country);
- the central regions, which have moderate crocodile populations and low crocodile densities (54.2% of the country); and
- the eastern regions, which have low crocodile densities (23.5% of the country).

The map shown in the appendix illustrates the geographical trends of the range (Appendix I).

26. Threats: Three major problems face the implementation of a programme for the management of the crocodile population and its rational and sustainable development.

First of all, the major threat to the species lies essentially in the gradual reduction of its habitat by the expansion of farming as a result of demographic growth and by the drying up of certain areas, primarily as a result of careless bush fires.

Next, man's unshakeable aversion to crocodiles because of the threat they pose to human populations and domestic animals reduces the potential for exploitation.

This type of problem can contribute as well to the disappearance or deterioration of areas suitable for crocodiles.

The third problem is social in nature. It lies in the fact that a small handful of individuals derive enormous profits from the crocodile population, while the poorest residents of the areas in which they are collected or hunted receive virtually nothing.

These problems are creating serious anxiety among international conservation agencies and even within the administration of CITES, because of the real threats which they pose to conservation.

The Nile crocodile must therefore be protected from any activities which may threaten its continued survival, through:

- the establishment of a rational exploitation programme;
- minimization of risk to human life and domestic animals; and

- education of rural populations to reduce their hostility to the crocodile through greater awareness, on which the action plan is based.

The results of the proposed country-wide inventory of crocodile populations should permit the resolution of some of these problems.

3. Use and Trade

31. Use at the National Level

311. Commercial Hunting: In classifying the crocodile as a game animal (Decree N° 88-243 of June 15, 1988) in an effort to maintain the employment which it offers to Madagascar's craftsmen, the Ministry responsible for the Administration of Waters and Forests has reauthorized hunting, suspended since 1975, for the local market.

This year, five hunting permits for 400 animals have been issued to commercial operations.

This type of hunting prohibits the killing of animals having a ventral width of more than 45 cm, in order to protect animals of breeding age, and the export of all products and derivatives.

Under no circumstances may a permit holder exceed his annual quota of crocodiles, which is assigned to him for a period of three years.

312. Special Hunting: The policy of the government of Madagascar as regards the exploitation of the crocodile population is based on the establishment of a system of rational and sustainable use in a manner supported by public opinion.

For example, the species is to be managed in a manner consistent with socioeconomic development and without undue risk to human life and domestic animals.

The Management Authority has therefore assigned the quota of 100 (one hundred) potentially dangerous animals permitted by CITES (1992 to 1994) to commercial operations and approved ranches. Animals obtained under this quota are to be used either for export or for ranching.

313. Crocodile Ranching: The national policy for the conservation of the crocodile involves the establishment of a system of rational and sustainable exploitation, based on ranching. This industry is consistent with the national interest in promoting exports, a potential source of the foreign currency essential to the nation's economic life.

The classification of the crocodile as a game animal, the ban on commercial hunting from 1975 to 1985, the protection of certain habitats (protected areas) and the involvement of the rural population in the development of crocodile ranching are important measures for the protection of the species.

Recent studies of nuisance animals by forestry agents show that the crocodile populations are healthy and not endangered (see appendix).

By definition, this type of operation requires the collection of eggs from the wild and, in some cases, the capture of newborns.

3131. Collection of Eggs: For purposes of ranching:

- ranchers are permitted to collect as many eggs as their incubators can accommodate;
- eggs are to be collected in October and November, at the peak of the nesting season, in the Besalampy, Maintirano and Miandrivazo regions, under the supervision of representatives of the forestry service;
- eggs are to be marked on the top with an X so that they remain in the same vertical position during boxing and incubation;
- the collection areas are to be supervised by local forestry agents; and
- in accordance with the provisions of the specifications and hunting regulations, collection permits are to be issued only to ranches having technically appropriate facilities.

3132. Incubation of Eggs: The collected eggs are to be carefully placed in cartons of fine sand or coolers, and transported by cart or porter from the collection area to the airfield for shipment to the ranch.

Newborns are to be kept in plastic basins until the umbilical cord has healed. They are then to be transferred to their own ponds.

3133. Breeding Stock: Between 1990 and 1992, there were no plans to introduce breeding stock. This year, two companies (REPTTEL and CROCORANCHING II) have been assigned breeding stock captured from the wild under the 1993 quota (nuisance animals).

3134. Capture of Newborns: Operators lacking the financial resources to install incubators are authorized by the Management Authority to capture newborns in order to set up their operations.

3135. Restocking: This year, for the first time since the implementation of the "Development of Crocodile Ranching in Madagascar" Project, ranched animals were returned to the wild when a number of crocodiles from the REPTTEL Company's ranch were released in the Ikopa River.

In short, the conservation policy implemented by the Management Authority has fully complied with the criteria established under the terms of the Resolution Conf. 3.15.

32. Legal International Trade: Under the terms of the Resolution Conf. 5.21, regarding special criteria for trade in taxons included in Appendix II, Madagascar is one of the member states assigned export quotas of 1000 animal skins from the wild.

The sixth session of the Conference of the Parties, held in Ottawa, renewed Madagascar's quota of 1000 skins from live animals taken from the wild.

In 1988, CITES approved extraordinary quotas of 2874 skins.

At the seventh and eighth sessions of the Conference of the Parties, held respectively in Lausanne, SWITZERLAND, and Kyoto, JAPAN, the country was again granted quotas of 2000, 3000, 4000 and 4300 ranched skins for 1991, 1992, 1993 and 1994 respectively.

These exports can be broken down as follows:

Year	Company	Skins	Articles
1990	REPTTEL	853	–
1991	REPTTEL	1204	2
1992	REPTTEL	1344 (ranching: 696; farming: 648)	–
1993	REPTTEL	1759 (ranching: 1305; farming: 454) (51 breeders and 403 young)	
	VOAY	4 processed ladies' bags	10
	CROCORANCHING II	54 (raw skins: 50; skin samples: 4)	2

No live animals have been exported since the implementation of the "Development of Crocodile Ranching" Project.

It should be noted that each permit bears a security stamp. Departmental officials are responsible for tagging and measuring products for export.

34. Illegal Trade

341. National Level: Local sales of articles produced from crocodile skins with large scales provide clear evidence of illegal hunting, since commercial hunters are expressly prohibited from taking animals having ventral widths of less than 45 cm.

The Directorate of Waters and Forests has therefore taken steps to reduce poaching, including:

- stricter control over the illegal hunting of crocodiles;
- education of those using crocodile skins in their work (craftsmen, merchants); and
- control of unauthorized exports from the Ivato airport.

Information on the measures taken in connection with the illegal national trade is given in the appendix.

It should be noted:

- that widespread banditry, particularly on the West Coast, an area particularly suitable for crocodiles, tends to reduce illegal hunting, since the "dahalo", or cattle thieves, have no hesitation about confiscating the weapons of any hunters they encounter (for example, the body of Mr DELANESSAN, a crocodile rancher from Mahitsy, has never been found); and
- that no agent has submitted a "notice of illegality".

342. International Level: Personal effects produced from crocodile skins leaving the country under the terms of Interministerial Order 760/80 are now closely monitored by the officials of a number of departments (Customs, Waters and Forests, Police and National Police), and owners are required to repatriate products which they have been permitted to take out of the country.

Measures have also been taken to ensure that the products of local craftsmen are not exported in commercial quantities directly to other countries, such as Mauritius.

However, the sociopolitical conditions existing in Madagascar from 1991 to 1993 made it very difficult to exercise control over illegal exports, and products may have been shipped to Mauritius from various ports (Toamasina, Mahajanga, etc) rather than the Ivato international airport, since Madagascar is an island.

The Government, in an effort to protect the country's biodiversity, is currently attempting to establish control mechanisms at the various ports of embarkation.

35. Real or Potential Effects of Trade: All crocodile skins from ranches approved by the Management Authority are intended for export. None are intended for domestic trade.

Because only approved ranches are authorized to market products from ranched animals, poachers may well be providing illicit exports to the outside world (for example, Mauritius).

As regards the effects of ranching for purposes of trade, Mr O BEHRA (1991) has concluded, in his final report on the "Development of Crocodile Ranching in Madagascar" Project, that "the crocodile populations are of adequate size and unlikely to be endangered by this activity".

The same expert, in his report on the crocodile ranch management programme (1992), confirms that "hunting, recognized as a potential element of a rational management programme, does not threaten the survival of the species".

4. Rearing in Captivity

The ratification of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the inclusion of the crocodile in Appendix II (subject to quotas) have made the development of captive rearing operations in Madagascar imperative.

The country currently has eight such operations, six of which are operational (2 farms and 4 ranches) and another two under construction.

Antsobolo-Mahitsy Farm: This is a small farm with a capacity of approximately 300 animals, established in 1969.

To ensure its economic viability, this farm has been authorized to capture live crocodiles and to collect eggs, and has been approved by CITES.

REPTEL Company Farm: The REPTEL Company has been approved as a farm by CITES. This farm, originally isolated in the Marovoay region, has now been moved to Ivato, 12 km north of the capital. It has some very interesting facilities. A large semi-natural pond has been developed to serve as a nesting site for breeding stock.

Ranching

VOAY Company Ranch: This ranch collects eggs in the Besalampy region: 3000 eggs in 1990 and 2266 eggs in 1991. O BEHRA (1990) estimates that this region produces 15,000 to 20,000 eggs.

The Company currently has 1805 crocodiles over one year of age but measuring only 50 to 100 cm in length. This is probably related to heating problems.

Internal management problems, combined with the drop in skin prices, have also led to difficulties on the farm. This year, the administration failed to participate in the egg collection.

SOCROBE Company Ranch, Miandrivazo: This ranch is located in western Madagascar, 420 km from the capital. This is one of the warmest parts of the country.

The ranch, with its relatively small-scale concrete facilities, is dependent on the capture of newborns. Its stock consists of 255 animals, including 158 captured in 1990 and 197 in 1992. This very simple approach to ranching could be of theoretical interest, because of the limited investments required.

CROCORANCHING II Company Ranch, Benasandratra: This ranch was approved in March 1992. The Directorate of Waters and Forests initially authorized the administration to capture newborns for the purpose of setting up their operation.

In 1992, its activities were based on the collection of eggs.

REPTTEL Company Ranch: Because the REPTTEL Company owns technically appropriate equipment for incubating eggs, its activities are still based on the collection of eggs in the Besalampy region.

As a result of the unfortunate drop in skin prices, it requested only 2000 eggs for incubation this year.

Details on each of these operations are given in the appendices to the present proposal (Appendices III and IV).

5. Conservation and Management

Madagascar has adopted an Environmental Action Plan (EAP), developed with the support of the World Bank and various lending agencies. Phase I of this plan involved the implementation of extensive measures for the conservation and protection of the biodiversity of Madagascar's ecosystems. The action plan covers 45 protected areas, representing a total of 1.4 million hectares of natural forest throughout the country, where crocodiles enjoy complete protection.

A study of endangered species of wildlife was undertaken in 1993 by ANGAP (Association Nationale pour la Gestion des Aires Protégées) [National Association for the Management of Protected Areas]. This study is still in progress.

In 1988, the Government adopted a management policy providing, among other measures, for the definition of the various areas of interest for crocodile exploitation. This study was performed as part of Project TCP/MAG/8954, "Development of Crocodile Ranching" (Appendix V).

In 1989, the Government of Madagascar decided to develop crocodile ranching, and asked the seventh CITES Conference to classify its crocodile populations in Appendix II in accordance with the criteria for ranching. The development of ranching is clearly intended to involve rural populations and private operators.

51. Legal Status

511. National Level: Under the terms of Decree N° 61-096 of February 16, 1961, the crocodile was classified as a nuisance animal and could therefore be hunted and slaughtered without restriction.

In 1988, however, the Government began to take an interest in the rational exploitation of crocodiles and adopted regulations (Decree N° 88-243 of June 15, 1988) classifying the crocodile as a "game" animal.

This means that crocodiles cannot be hunted or captured except by individuals holding commercial hunting permits issued by the Ministry responsible for the Administration of Waters and Forests, which are valid only during the legal hunting season (May 1 to the first Sunday in October) and outside the protected areas.

Section 16 of Order N° 60-126 of October 3, 1960, which establishes the regulations governing the hunting and protection of wildlife, authorizes the killing of potentially dangerous animals under certain conditions, including the supervision of forestry agents.

Animals having a ventral width of more than 45 cm are not to be hunted under any circumstances, in order to preserve breeding stocks, and all hunting is prohibited within the protected areas.

In 1991, a law relating to animal life was passed. Law N° 91-008 of July 25, 1991 includes a long chapter devoted to the preservation of the animal biological heritage. Section 32 states that, "except as otherwise provided, in the cases and conditions provided in section 34, animal species listed in the appendix to the "Washington" Convention on International Trade in Endangered Species of Wild Fauna and Flora shall not be exported".

Severe sanctions, combined with fines of FMG 500,000 to 1,800,000 and imprisonment for six months to five years, are provided for violations of this section.

In short, on the national level, the crocodile enjoys essentially appropriate status.

512. International Level: Madagascar is a party to the Convention. Trade in and exports of products from ranching operations are subject to the requirements established by CITES:

- skins must be marked with CITES security tags bearing the Company's marking system; and
- export permits must bear CITES security stamps.

Transactions not complying with the conditions imposed by CITES will not be approved.

An interministerial order has been adopted in accordance with CITES Article VII, authorizing citizens travelling outside the country to transport personal effects.

Various departments (Customs, Waters and Forests, Police and National Police) are currently taking steps to ensure more effective monitoring of the repatriation of products taken out of the country by nationals.

52. Species Management: One of the criteria to be satisfied by any proposal to be submitted to the Secretariat under the terms of Conf. 3.15 is that the operation must be primarily beneficial to the conservation of the local population, that is, where applicable, contribute to its increase in the wild.

While the crocodile is one of the animal species listed in the appendices to the African Convention for the Conservation of Nature and Natural Resources, signed in Algiers on September 16, 1968 and ratified in Madagascar by Law N° 70-004 of June 23, 1970, few of the countries within its range have implemented similar measures for the management of the wild population.

521. Monitoring of the Population: In addition, monitoring programmes of the wild population and personnel to monitor the regions populated by crocodiles are inadequate.

However, a number of countries within the crocodile's African range, including Zimbabwe, where the crocodile is of some economic importance, Botswana, Zambia and Malawi, have established monitoring programmes for their wild populations, the results of which show positive population growth.

Continued monitoring of ranching operations is provided by the quarterly reports on the status of the animals submitted by the officials of these operations. Each ranch maintains a file on changes in animal numbers, particularly in terms of mortality and causes of death.

522. Habitat Conservation: At one time, crocodiles were found in abundance in all the tropical regions of Africa, America, Asia and Australia; today, however, their habitats are under growing pressure as a result of the clearance of land for agricultural or industrial purposes, the draining of swamps and the modification of waterways.

Within the protected areas, where all human activity is strictly prohibited, crocodiles enjoy complete protection. Even outside these areas, however, some countries have taken steps to protect the habitat of the crocodile population.

In Botswana, wildlife, including the crocodile, is to be protected by zoning for territorial development.

The Government of Malawi, which has a great deal of surface water of little value to man because of its difficulty of access, has opted for intensive rather than extensive use of its water resources. Human settlement is unlikely to occur in swampy areas, because of the health risks involved.

In Mozambique, the creation of Lake Cohora Bassa represents a tangible achievement of the habitat conservation programme. This lake offers an extremely favourable habitat for crocodiles, whose numbers have apparently grown considerably.

In Zambia, the crocodile habitat has been expanded by hydroelectric development on a number of rivers and lakes (lakes Karita, Itezhi-Tezhi and Lushiwashu), resulting in a general increase in the number of Nile crocodiles in Zambia.

Three factors in particular have been involved in the destruction of the crocodile's habitat in Madagascar:

- bush fires dry up the sources of permanent waterways;

- the clearance of land reduces the areas favoured by crocodiles; and
- erosion transforms drainage basins into denuded areas where rain water runs off in torrents, leaving heavy deposits of silt in lakes, swamps and marshes.

Efforts to control these problems as part of the national strategy for conservation and sustainable development adopted by Presidential Decree N° 84-445 include:

- the creation of a bushfire brigade to develop public awareness of the damage caused by fires;
- the implementation of "integrated development" to prevent the destruction of areas unsuitable for rice farming (creation of Masoala National Park); and
- the protection of drainage basins, one of the major concerns of the Government of Madagascar.

It should be noted too that Madagascar has taken its wetlands (fresh water, coastal lagoons, mangrove swamps, etc) into consideration in controlling the establishment of rice farming in order to prevent the drainage of large areas, which can disrupt the hydrological balance of an entire region.

The measures implemented as part of this strategy have clearly produced positive results in terms of the growth of Madagascar's crocodile population.

The increasing numbers of this species are evident everywhere; in fact, the question was raised during the recent presidential visit to Tsaratanàna.

523. Management Measures: All the countries within the Nile crocodile's range are interested primarily in establishing programmes for rational and sustainable management. Two forms of management are involved:

- the management of wild animals; and
- the management of animals reared in captivity.

In a number of countries, hunting for wild animals is strictly prohibited, but the collection of eggs for ranching is permitted (Botswana). In Malawi, the crocodile is protected by law. For example, exports of wild or ranched animals are subject to CITES quotas.

Hunting and egg collection in national parks, game and forest reserves are prohibited without the authorization of the appropriate authorities, which is issued only when the objectives are clearly consistent with the goals of conservation of the species.

The Zambian Government has prohibited the collection of wild crocodiles for commercial export. In Madagascar, the Management Authority issues commercial hunting permits for the local market, subject to a quota of 80 animals per hunter per year.

Each country applies the measures it considers appropriate with respect to the collection of eggs and capture of newborns for ranching operations.

To ensure the success of Madagascar's programmes for the conservation and management of the Nile crocodile, the rural populations are to be involved in crocodile

ranching; the first collection in the Besalampy region in 1990, for example, demonstrated the possibility of interesting peasants in the development of crocodile rearing operations. Anyone locating a nest received 1000 Malagasy francs, or approximately FMG 40,000 (USD 26) (BOLTON, 1990). This is a relatively large amount to the local people, since undisturbed nests become their property.

Local people were also paid for transporting eggs.

Remote communities benefit from collection and capture operations as well.

53. Control Measures

531. International Trade: Beyond the CITES requirements for international trade (use of the universal tagging system, CITES permits and security stamp), little information is available: Papua New Guinea, for example, uses two kinds of tags: dark green for legally marketed skins and black for confiscated specimens.

In addition to these measures, Madagascar uses a marking system. Tags must include the abbreviation for the country of origin (MG) and for the operator (SV for Société VOAY), together with the registration number of the final approval issued by the Management Authority.

532. Domestic Measures: To ensure adequate monitoring of internal crocodile transfers, each country has adopted measures to ensure sustainable collections from the wild.

In Botswana, for example, the Fauna Conservation Act (chapter 38-1) stipulates that the crocodile, as a game animal, is to be hunted or captured only by those holding hunting permits issued under the terms of the legislation. Malawi has its own legislation on crocodiles as well. This act prohibits all hunting; as a result, the use of crocodile parts and derivatives in Malawi is virtually non-existent.

Under the terms of the Zambian National Parks and Wildlife Act, chapter 316, the crocodile is classified as a game animal and can be hunted only by those holding licences issued by the appropriate authorities.

Madagascar has no legislation dealing solely with the crocodile. Because of the unstable socioeconomic situation in the country, no action has been taken to date on the proposed act regarding the "rearing of crocodiles in captivity". The only provisions applied to date have been those of Decree N° 88-243 of June 15, 1988, which classifies the crocodile as a game animal subject to strict hunting regulations.

To protect the crocodile population, the Management Authority has asked all agents throughout the country to exercise stricter control of illicitly collected wild crocodile skins (Appendix VI).

Commercial hunting requires the authorization of the Ministry responsible for the Administration of Waters and Forests. Agents in hunting areas have been so informed by the Directorate of Waters and Forests and instructed to monitor all transfers of skins (number, origin, etc.).

Products of hunting can be transported only with a pass from the appropriate officials. If these products fail to comply with the regulations, the offender will be charged.

6. Information on Similar Species

There are no other species of crocodiles in Madagascar and the proposal is submitted under the terms of the Resolution Conf. 3.15.

7. Other Comments

71. Government Policy on Crocodiles: The Nile crocodile is listed in Appendix II for Zimbabwe, Botswana, Ethiopia, Kenya, Malawi, Mozambique, the United Republic of Tanzania and Zambia (under the terms of the Resolution Conf. 3.15 on ranching) and Madagascar, Somalia, South Africa and Uganda (subject to quotas, under the terms of Resolution Conf. 5.12).

Madagascar's accession to CITES in 1975 eliminated all but its domestic market. In 1985, a quota system for member countries assigned it an annual export quota of 1000 skins. In 1988, Madagascar provided additional protection for its crocodile population by classifying it as a game animal. In 1989, the Government of Madagascar received a grant of USD 250,000 from the FAO, which it used, with the assistance of an expert in the field, to develop a ranching system in association with private interests.

This approach has resulted in the successful establishment of eight commercial operations, including 2 farms, 4 ranches and 2 facilities currently under construction.

In the conclusions to his final report, the expert states that the crocodile populations are of adequate size and unlikely to become endangered.

72. Inventory: An inventory was performed in 1987 and again in 1988 by O BEHRA and J HUTTON as part of Project TCP/MAG/8954. However, because of the brief period involved, the operation failed to achieve its proposed goals.

The Management Authority considers such an inventory a priority, for two reasons:

- first, the proposed management policy cannot be effective without a serious and realistic estimate of the potential crocodile population; and
- secondly, without this information, Madagascar will have no valid grounds for its interest in crocodile management at the Conference of the Parties.

It should be noted that the inventory is a matter of concern to the government and a number of international organizations, including the FAO.

A project entitled "Study of Potential Crocodile Population" has been submitted to the Ministry of Planning for funding and approved in principle by this Department.

It is also hoped that the FAO will approve the request for funding submitted by the Directorate of Waters and Forests for completion of the inventory.

73. Animal Monitoring: The current unstable sociopolitical climate in Madagascar and banditry by "dahalo" prevent the establishment of any serious monitoring measures.

In addition, the fact that Madagascar is an island with a long coastline makes effective controls impossible.

It should be noted, however, that the Directorate of Waters and Forests is working with the country's craftsmen to restrict illegal killing.

74. Nuisance Animals: Complaints of damage suffered by rural populations and their domestic animals as a result of the actions of problem crocodiles are frequently reported during official tours throughout the country (see attached press clippings).

The problem of management certainly centres on the existence of these animals and on the legislation waiving criminal or civil liability in cases of imminent danger.

First of all, under the terms of section 328 of Madagascar's Criminal Code, "blows or injuries inflicted in self-defence are not considered a crime or homicide".

This section refers to the utility of the unavoidable offence on the basis of the following principle: "an unavoidable offence is justified only to the extent that it permits the protection of a interest of a value greater than or at least equal to that of the property or interest sacrificed".

In addition, section 16 of Order N° 60-126 of October 3, 1960 provides that "no person defending his own life, that of another person, domestic animals, or crops against attack by birds or other nuisance animals may be charged with a violation of the provisions of this Order".

Finally, section 230 of Law 66-003 of July 2, 1966, regarding the general theory of obligations, stipulates that "no liability occurs when the damage arises solely as a result of the victim's actions, force majeure or the actions of a third party having the characteristics of force majeure".

Section 231 of the same legislation states that "no liability occurs when the person causing the damage does so as a result of a deliberate act performed to avoid more serious damage, unless he has contributed, by his own actions or through the animals or objects under his care at the time the damage occurred, to creating the situation necessitating such damage".

These provisions are still in effect and are applied in cases of individuals defending their lives and domestic animals against crocodile attack.

Discreet inquiries among merchants have indicated that most of the crocodile skin articles sold on the local market are made from the skins of nuisance animals killed by the rural population.

75. Grounds for the Application: The development of crocodile ranching is one of the primary concerns of Madagascar's Directorate of Waters and Forests.

It should be noted, however, that no rational management system can be established until the problems indicated above (inventory and nuisance animals) have been resolved. In addition, the legislation on crocodiles has not yet been passed, since the new Legislative Assembly has only recently been formed.

The Directorate of Waters and Forests earnestly requests that these problems be taken into consideration by the Parties to CITES.

Consequently, while the present proposal has been prepared under the terms of the Resolution Conf. 3.15, Madagascar seeks the application of Resolution Conf. 7.14 (ranching,

subject to quotas), to replace Resolution Conf. 5.12. Information on the collection of specimens from the wild is given in the appendix (Appendix VII).

The Management Authority therefore requests the Conference's understanding and support for its proposal to facilitate the marketing of ranched products and to resolve the continuing problems created by potentially dangerous crocodiles, which represent a serious obstacle to the country's socioeconomic development.

8. Additional Comments

Crocodile ranching should be subject to the criteria established under the terms of Resolution Conf. 3.15.

81. Paragraph b) i): The rearing of crocodiles in captivity in Madagascar is designed to contribute to the conservation of the local population and to its increase in the wild. The return to the wild of 5% of all eggs collected and 10% of all newborns captured will certainly contribute to the increase of the wild population (Appendix VIII).
82. Paragraph b) ii): Products produced for export by ranching operations will be accompanied by all documents required by CITES. They will be distinguished from wild skins by CITES stamps and tags bearing the abbreviations for the country of origin and for the ranch concerned.
83. Paragraph c) i): Section 212. indicates that collections of up to 6000 eggs a year and of newborns have no serious impact on the wild population.
84. Paragraph c) ii): The biological and economic success of crocodile ranching is virtually assured by the production of items for export.
85. Paragraph c) iii): All ranching operations devote extremely close attention to the treatment and health of their animals. CITES requires a detailed examination of food sources prior to the establishment of such operations.
86. Paragraph c) iv): All ranching operations agree to observe the provisions established by the specifications. For example, they are required to reintroduce to the wild 15% of all animals reared in captivity from hatched eggs and 10% of all animals taken from the wild.

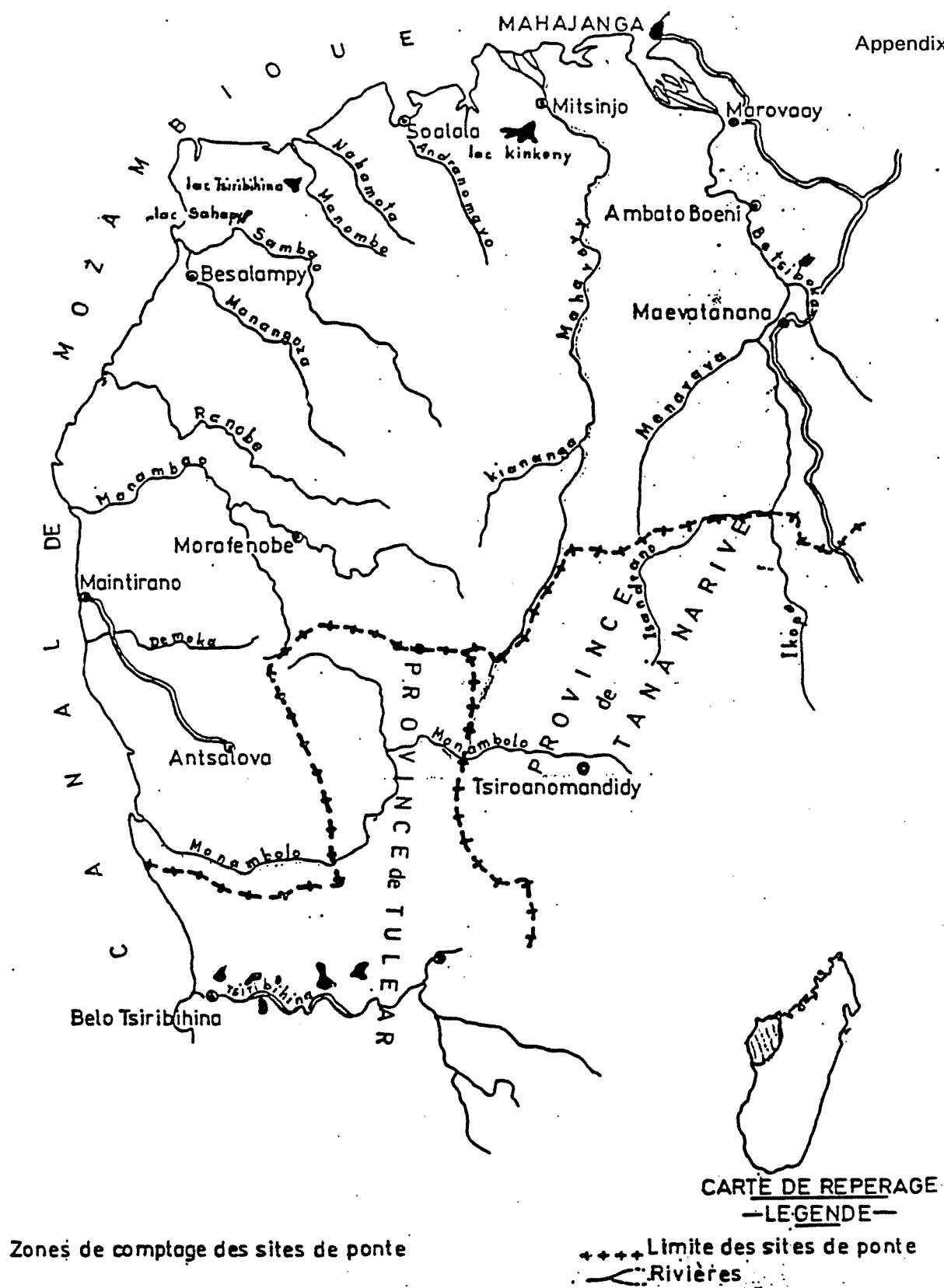
A number of crocodiles bred in captivity were returned to the wild this year by the REPTel Company.

87. Paragraph c) v): Ranching operations in Madagascar have begun to export skins in accordance with CITES requirements. All export products will be tagged and export permits will bear the standard CITES security stamps.
88. Paragraph c) vi): The Management Authority certifies that ranching operations will be carefully and continuously monitored to ensure constant compliance with the criteria. These annual reports contain detailed information on the status of the wild population and the performance of the ranching operations.

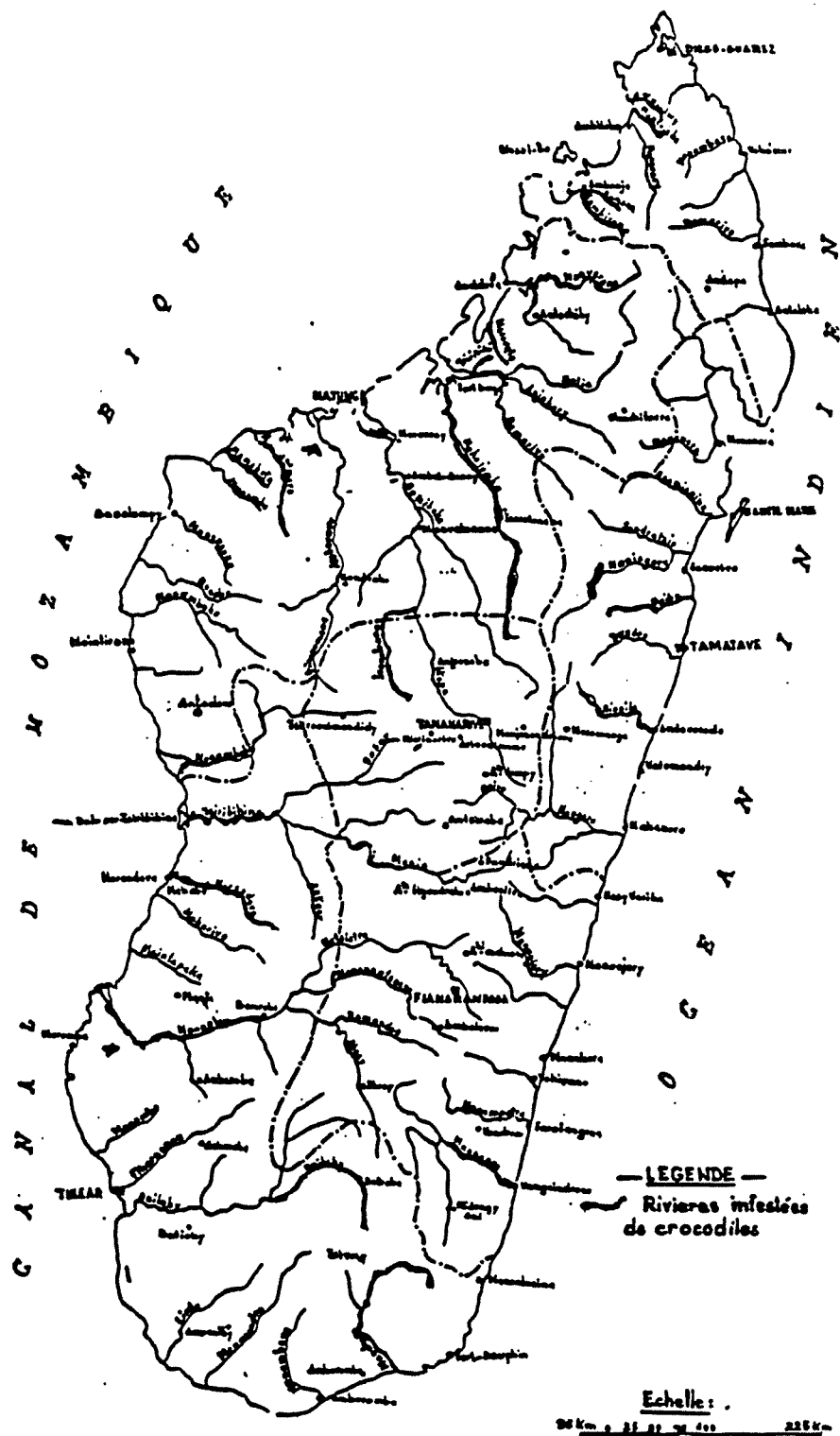
9. References

BEHRA O. Rapport d'étude préliminaire sur l'état et la conservation des populations de crocodiles (1988).

- BEHRA O. Mise à jour de la situation du programme de gestion et d'élevage de crocodiles à Madagascar (1992).
- BEHRA O. et J. M. HUTTON. Rapport sur l'état et la conservation des populations de crocodiles à Madagascar (1988).
- BEHRA O. et RAMANDIMBISON. Implication des populations rurales dans le ranching de crocodiles à Madagascar (1992).
- BLANC. Les reptiles de Madagascar et des îles voisines (1971).
- BOLTON Melvin. FAO Consultant. Rapport sur le développement des crocodiles à Madagascar (TCP/MAG/août 1990).
- BRAZAITIS P. Problems in the identification of commercial crocodilian hides and products, and effect on law enforcement. In proceedings of ... working meeting of a IUCN/SSC CSG. Publication new series. p. 110-116 (1982).
- DEMEMBER S. Conservation et exploitation rationnelle des crocodiles en Papouasie-Nouvelle-Guinée (1990).
- FAO. Compte-rendu final du projet "Développement de l'élevage de crocodiles à Madagascar" (1991).
- GRAY J.E. *Crocodylus madagascariensis*. The Madagascar Crocodile. Proc. Zool. Soc. London (1874). pp. 145-146 pl XXIII.
- HUTTON J. M. and K. R. VAN JAARS VELDT. Crocodile farming and ranching in Zimbabwe. G. J. Webb, S. Ramolès and P. J. Whitehead and Sons Chipping Norton. Australia. pp. 323-327 (1986).
- Rapport interministériel sur les études de feux de brousse (1980).
- VAILLANT L. H. Les crocodiles malgaches (1925).
- VIG. Croyances et moeurs des Malgaches (1875-1902).



Hydrography of Madagascar



REPTIL COMPANY CROCODILE RANCH

<u>Manager:</u>	Mr Christophe PEYRE
<u>Established:</u>	February 1990
<u>Location:</u>	Marovoay – Moramanga Toamasina transferred to Ivato in 1992
<u>Species:</u>	<i>Crocodylus niloticus</i>
<u>Nature of Operation:</u>	Ranching
<u>Origin of Stock:</u>	Specimens collected from the wild
<u>Collection of Eggs:</u>	– 1545 eggs (1990-1991) – 2616 eggs (1991-1992) – 3231 eggs (1992-1993)
<u>Births:</u>	– 713 animals (1990-1991) – 1950 animals (1991-1992) – 2368 animals (1992-1993)
<u>Present Stock:</u>	2180 animals (report October 1993)
<u>Exports:</u>	1992: 696 skins (1991 quota) 1993: 1305 skins (1992 quota)
<u>Marking System:</u>	MG/Nil/RP/R...
<u>Interim Approval:</u>	N° 903-MPAEF/DEF/ <u>SPN/FFE/CROCO</u> February 28, 1990 E.61/01/03
<u>Final Approval:</u>	Decision N° 686-MEF/DEF/SPN/FFE/CROCO, 05/03/92

CROCORANCHING II COMPANY CROCODILE RANCH

<u>Manager:</u>	Mrs Aline RALIMANANA
<u>Established:</u>	September 1990
<u>Location:</u>	Benasandratra
<u>Species:</u>	<i>Crocodylus niloticus</i>
<u>Nature of Operation:</u>	Ranching
<u>Origin of Stock:</u>	Specimens collected from the wild
<u>Capture of Newborns:</u>	– 455 animals (1990-1991) – 283 animals (1991-1992)
<u>Collection of Eggs:</u>	3878 eggs (1992-1993)
<u>Births:</u>	3415 (newborns)
<u>Present Stock:</u>	– 451 animals (1990-1991) – 254 animals (1991-1992) – 3108 animals (1992-1993)
<u>Marking System:</u>	MG/Nil/CRII/R
<u>Interim Approval:</u>	4399-MPAEF/DEF/ <u>SPN/FFE</u> , 27/09/90 P.21/04
<u>Final Approval:</u>	Decision No 710-MEF/DEF/SPN/FFE/CROCO, 06/03/92

VOAY COMPANY CROCODILE RANCH

<u>Manager:</u>	Mr Michel LOUYS
<u>Established:</u>	December 1990
<u>Location:</u>	Andasibe – Moramanga Toamasina
<u>Species:</u>	<i>Crocodylus niloticus</i>
<u>Nature of Operation:</u>	Ranching
<u>Origin of Stock:</u>	Specimens collected from the wild
<u>Collection of Eggs:</u>	– 3000 eggs (1990-1991) – 2266 eggs (1991-1992 – production of 1992) No collection of eggs in 1992-1993 and 1993-1994
<u>Births:</u>	– 2006 newborns (1990-1991) – 1001 newborns (1991-1992)
<u>Present Stock:</u>	– 1176 (1990-1991) – 629 (1991-1992)
<u>Marking System:</u>	MG/Nil/SV/R
<u>Interim Approval:</u>	Authorization N° 5883-MPAEF/DEF/ <u>SPN/FFE/CROCO</u> , 17/12/90 E.61/01/03
<u>Final Approval:</u>	Decision N° 3471-MEF/DEF/ <u>SPN/FFE/CROCO</u> , 11/08/92 P.21/04

The company has manufactured only 2 bags with the skins produced.

SOCROBE COMPANY CROCODILE RANCH

<u>Manager:</u>	RAKOTONDRAMBOLA
<u>Established:</u>	November 1990
<u>Location:</u>	Miandrivazo – Toliary
<u>Species:</u>	<i>Crocodylus niloticus</i>
<u>Nature of Operation:</u>	Ranching
<u>Origin of Stock:</u>	Specimens collected from the wild
<u>Capture of Newborns:</u>	<ul style="list-style-type: none">– 163 animals (1990-1991)– 112 animals (1991-1992)– 137 animals (1992-1993)
<u>Present Stock:</u>	<ul style="list-style-type: none">– 158 (1990-1991)– 97 (1991-1992)– 123 (1992-1993)
<u>Exports:</u>	No exports to date
<u>Marking System:</u>	MG/Nil/SCB/R
<u>Interim Approval:</u>	Authorization N° 5012-MPAEF/DEF/ <u>SPN/FFE</u> , 02/11/90 E.61/01/03
<u>Final Approval:</u>	Decision N° 283-MEF/DEF/SEFLFB/FFE/CROCO, 27/02/93

FARMING/RANCHING OPERATIONS

REPTEL Company Farm, Ivato

<u>Manager:</u>	Mr Christophe PEYRE
<u>Established:</u>	
<u>Location:</u>	Marovoay – Moramanga Toamasina transferred to Ivato in 1992
<u>Species:</u>	<i>Crocodylus niloticus</i>
<u>Nature of Operation:</u>	Farming
<u>Origin of Stock:</u>	Delanessan Farm (10 animals) and wild specimens
<u>Eggs:</u>	<ul style="list-style-type: none">– 1000 eggs collected from the farm (1990-1991)– 1016 eggs collected from the farm (1991-1992)– 812 eggs collected from the farm (1992-1993)
<u>Births:</u>	<ul style="list-style-type: none">– 821 (1990-1991)– 997 (1991-1992)– 746 (1992-1993)
<u>Exports:</u>	<ul style="list-style-type: none">– 1989-1990: 853 skins, including 18 purchased from Mr Delanessan and 46 remaining from 1989– 1990-1991: 1206 skins, including 1204 ventral skins and 02 made into 06 belts– 1991-1992: 648 skins <p>It should be noted that 1993 exports are not included in the present report</p>
<u>Present Stock:</u>	<ul style="list-style-type: none">– 608 young crocodiles– 57 breeders

FARMING/RANCHING OPERATIONS

DELANESSAN Farm

Since the disappearance of Mr DELANESSAN of Antsobolo Mahitsy, the farm has been operated by the REPTTEL Company, under the terms of a private contract, a copy of which is attached.

ACTE SOUS SEING PRIVE

+++++

Entre les soussignés :

- C.A DE LANEISSAN représentant l'élevage d'Antsobolo
- J.C PEYRE représentant l'élevage du Haut Mangoro et l'Entreprise REPEL.

COPIE

Il a été convenu ce qui suit :

- Monsieur DE LANEISSAN confie à Monsieur PEYRE la commercialisation de sa production de crocodiles d'élevage (animaux vivants, oeufs, peaux, dérivés) sur une base de prix acceptée par les deux parties pour une durée précise. En cas de désaccord, cette convention devra être dénoncée par une des deux parties par lettre recommandée.
- / Monsieur DE LANEISSAN confie à Monsieur PEYRE la représentation de ses intérêts auprès des organismes nationaux et internationaux afin d'aligner une politique commune des élevages à Madagascar et sur l'Océan Indien. Toute correspondance pour être valable, devra mentionner "DE LANEISSAN" ou "ELEVAGE D'ANTSOBOLO" et être signée par les deux parties. Monsieur PEYRE s'engage à communiquer à Monsieur DE LANEISSAN, l'intégralité des résultats des démarches communes entreprises auprès des organismes nationaux et internationaux.
- Monsieur DE LANEISSAN et Monsieur PEYRE s'engagent à s'entraider techniquement et pratiquement sur la base de réciprocité de leurs intérêts.
- Monsieur DE LANEISSAN et Monsieur PEYRE ne seront pas réciproquement responsables des irrégularités, délits, etc commis par l'un ou l'autre dans la gestion de élevages.

Cet Acte Sous Seing Privé est fixé pour une durée d'un an à partir de la date de signature, renouvelable par tacite reconduction.

Toute modification ou annulation devra être mentionnée par écrit expédiée en recommandé.

Un double sera adressé à la Direction des Eaux et Forêts.

Fait pour servir et valoir ce que de droit.

Signés: C.A. DE LANEISSAN

J.C. PEYRE

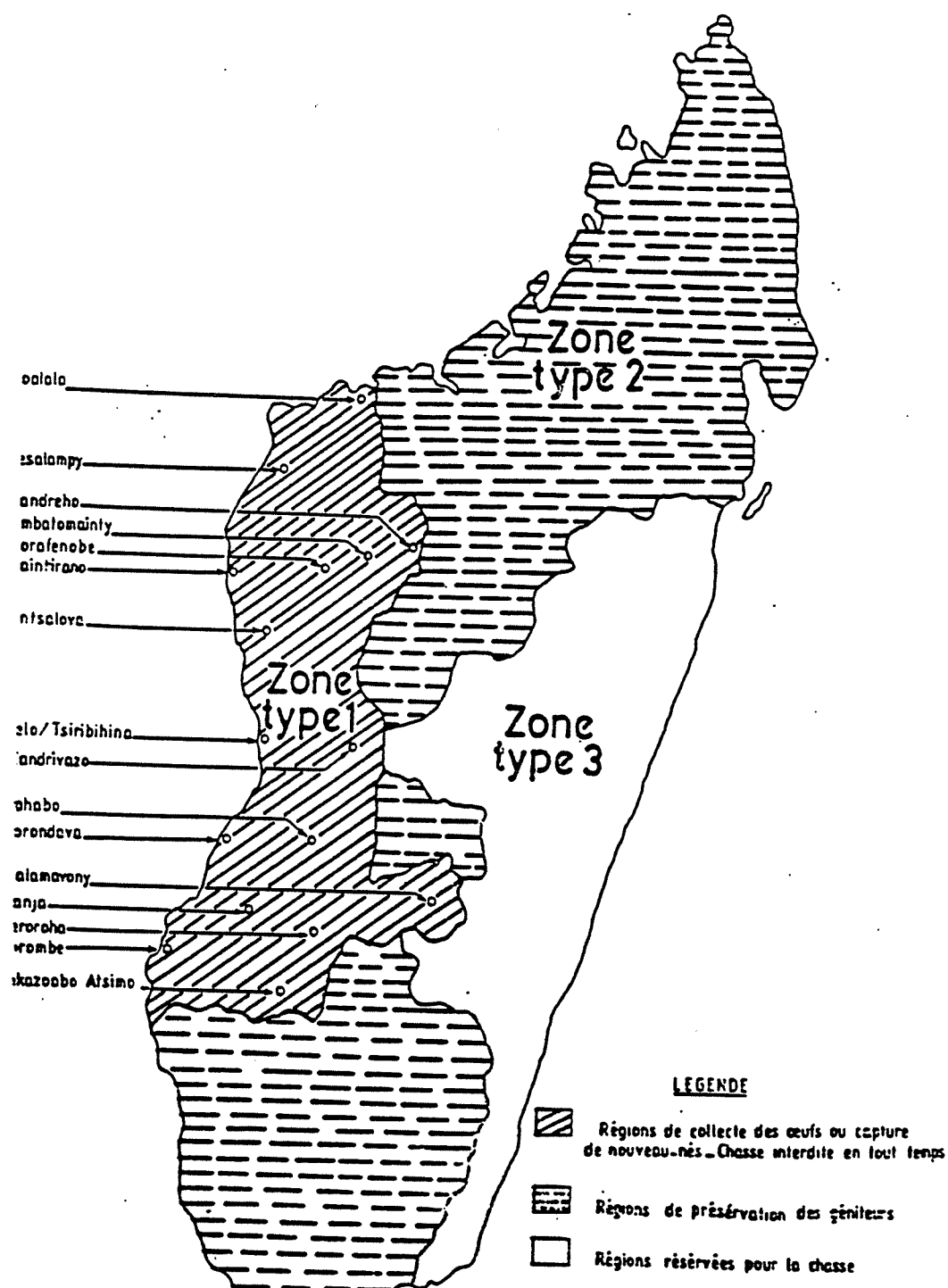
N° Legalisation

N° Legalisation

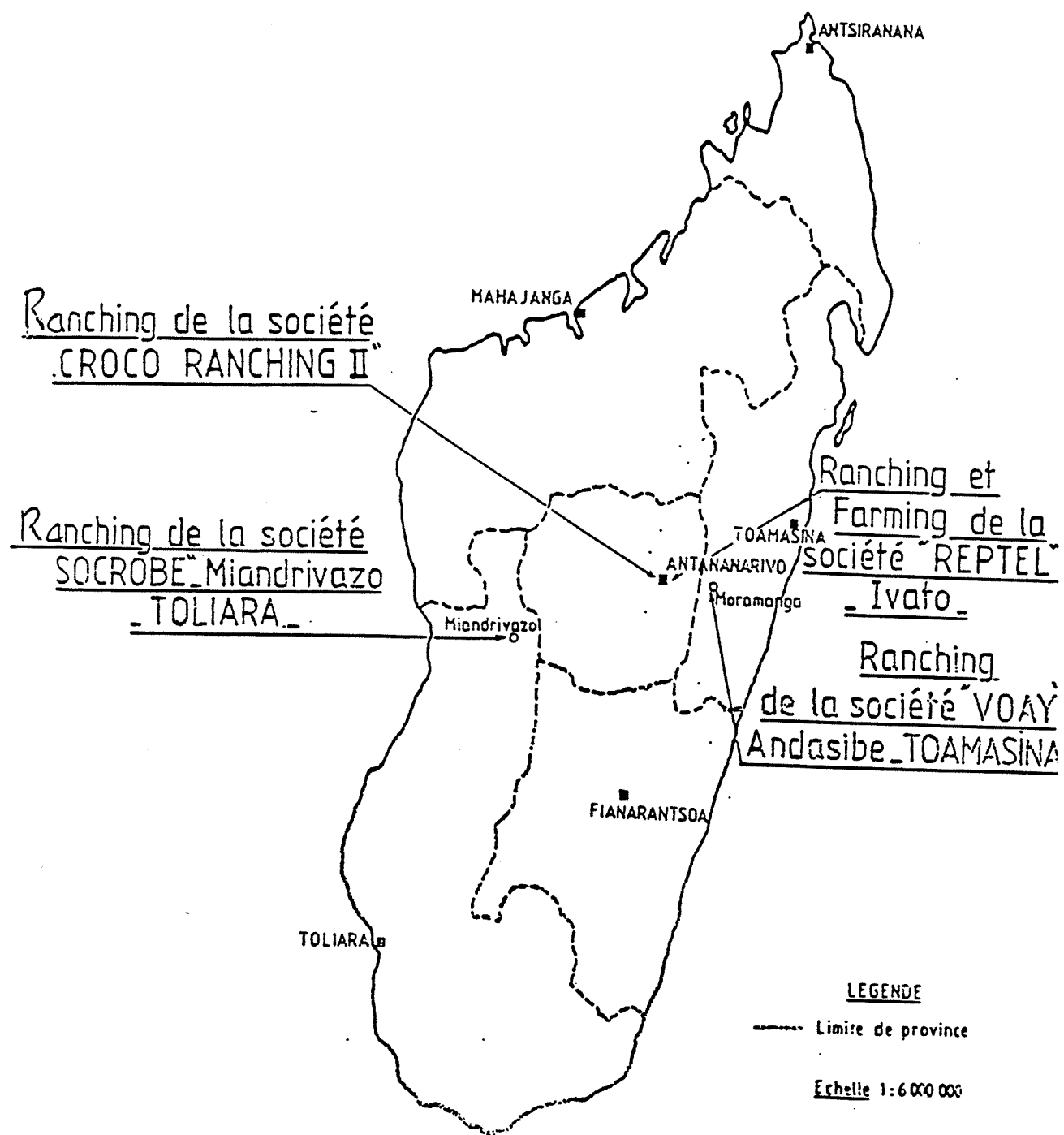
11809 - 5/11/84

10538 - 15/10/15

Distribution of Crocodile Populations in Ecological Units



Location of Crocodile Farms and Ranches Approved by the Management Authority



REPUBLIQUE MALAGASY
Tanindrazana-Fahafahana-Febamarihana

MINISTRE D'ETAT A L'AGRICULTURE
ET AU DEVELOPPEMENT RURAL

Antananarivo, le 12 JANV 1993

MINISTRE DES EAUX ET FORETS

DIRECTION DES EAUX ET FORETS

Le Directeur des Eaux et Forêts,

à

N° 89 -MEF/DEF/SEFLFB/BIOD/CROCO
P.21/04/01

() B J E T / Exploitation de la faune crocodilienne

REFERENCE/ Projet TCP/MAG/8954
"Développement de l'élevage de crocodiles"
à Madagascar, assistance préparatoire.

J'ai l'honneur de vous informer que l'étude de "zoning" effectuée dans le cadre du Projet porté en référence aboutit à l'identification de trois types d'unités écologiques selon l'importance et la répartition géographique de la faune crocodilienne.

La carte ci-jointe fait apparaître ces unités à savoir :

- Type 1 : Régions à faible densité humaine mais à forte densité de crocodiles (la grande partie de la Csa-Ouest)
- Type 2 : Régions moyennement peuplées où le crocodile peut être maintenu à un nombre compatible avec la population humaine.
- Type 3 : Régions à forte densité humaine mais à forte densité de crocodiles.

Dans les régions de type 1, les crocodiles seront épargnés par la chasse, même en période légale de chasse, sans/ ceux à problèmes, déclarés officiellement par les autorités locales. Ces régions seront réservées pour la collecte d'oeufs et/ou la capture de nouveaux-nés. Des mesures de conservation particulières devront y être menées.

REPUBLIQUE DE MADAGASCAR
Patrie - Liberté - Loyauté

MINISTRE D'ETAT A L'AGRICULTURE
ET AU DEVELOPPEMENT RURAL

DIRECTION DES EAUX ET FORETS

Antananarivo, le 13 octobre 1993.

Le Directeur des Eaux et Forêts

N° 5775 - MDR/DEF/SEFLFB/BIOD/CROCO

à

/)/) Monsieur Le Chef Cantonement Forestier
de

TRÈS URGENT

O B J E T : Contrôle de chasse illégale de crocodiles

REFERENCE : Lettre n° 89-MEF/DEF/SEFLFB/BIOD/CROCO
P.21/04/01
en date du 12.01.93.

Ma lettre, rappelée en référence, par laquelle j'ai eu l'honneur d'attirer votre attention sur la nécessité d'exercer des contrôles permanents de chasse illégale de crocodiles, reste jusqu'à présent sans suite.

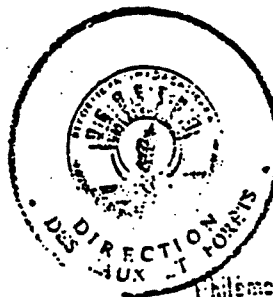
Par conséquent, je vous serais reconnaissant de bien vouloir m'adresser la liste des procès-verbaux dressés en la matière suivant tableau ci-joint.

Votre réponse devra parvenir à la Direction des Eaux et Forêts au plus tard le 31 octobre 1993, date impérative.

Ampliations :

- SPEF - Antananarivo
- SPEF - Antsiranana
- SPEF - Fianarantsoa
- SPEF - Mahajanga
- SPEF - Toamasina
- SPEF - Toliary

} *Pour information
et suivi



Philippe RAMBRIANJONAH

MARCANTSETRA, le 10 NOVEMBRE 1993
 Le Chef du Cantonnement des Eaux et Forêts

Monsieur LE DIRECTEUR DES EAUX ET FORÊTS
ANTANANARIVO

En réponse à la lettre mise en référence, j'ai l'honneur de bien vouloir vous rendre sans mon cantonnement, il n'existe pratique de chasse ni de capture de crocodiles.

Quant à la date impérative du 31 octobre 1993 exigée par vos soins, j'ai l'honneur de vous rendre compte que la lettre est arrivée à nous le 26 octobre 1993 pour être lue le 10 Novembre 1993; j'étais en formation à Fénérive-Est durant la période du 21 octobre 1993 au 03 Novembre 1993.

date du 12.01.93. Le document est pas parvenue.

Ministère des Eaux et Forêts
MAROANTSETRA -

POUR COMPTE RENDU

1. Total annual collections to be performed in the wild:

- 11. – 5600 eggs for ranching (1990-1991)
(REPTTEL and VOAY)
 - 7000 eggs for ranching (1991-1992)
(REPTTEL and VOAY)
 - 8200 eggs for rearing (1992-1993)
(REPTTEL and CROCORANCHING II)
 - 2000 eggs for rearing (1993-1994)
(REPTTEL Company)
- 12. – 400 animals for commercial hunting (1990)
 - 600 newborns for rearing (1990-1991)
 - 750 newborns for rearing (1991-1992)
 - 137 newborns for rearing (1992-1993)
 - 100 dangerous animals for rearing (1993 quota)

2. Wild specimens for export

100 potentially dangerous animals (1992 quota)

3. Specimens to be reared in captivity from eggs or newborns collected from the wild

- 31. – 2719 specimens from eggs (1990-1991)
 - 2951 specimens from eggs (1991-1992)
 - 4412 specimens from eggs (1992-1993)
- 32. – 618 animals from newborns (1990-1991)
 - 395 animals from newborns (1991-1992)
 - 137 animals from newborns (1992-1993)

4. Captive-bred specimens exported

- 853 skins (1989-1990)
- 1204 skins and 02 skins in the form of leather goods (1990-1991)
- 648 skins (1991-1992)
- 403 skins (1992-1993)

Additional Information

1. Annual collections from the wild

Campaign	Type	Form	Quantity		Companies
			eggs	newborns	
1990-1991	eggs	collection	4545		REPTTEL and VOAY
	newborns	capture		618	SOCROBE and CROCORANCHING II
1991-1992	eggs	collection	4882		REPTTEL and VOAY
	newborns	capture		395	SOCROBE and CROCORANCHING II
1992-1993	eggs	collection	7109		REPTTEL and CROCORANCHING II
	newborns	capture		137	SOCROBE
			16536	1150	

2. Wild specimens exported

50 skins (nuisance animals, 1992 quota)

3. Specimens reared in captivity from eggs or newborns collected from the wild, exported

- 4. – 2001, including 696 in 1992 (1991 quota) and 1305 in 1993 (1992 quota) by the REPTTEL Company
 - 4 skins made into two bags by the VOAY Company
 - 4 skin samples for the CROCORANCH II Company

5. Captive-bred specimens exported

- 853 skins (1989-1990)
- 1204 skins and 2 skins in the form of leather goods (1990-1991)
- 648 skins (1991-1992)
- 403 skins (1992-1993)



Monsieur Le DIRECTEUR
Des EAUX et FORETS
Nanisana,
ANTANANARIVO 101

OBJET : REINTRODUCTION DANS LA NATURE D'ANIMAUX ELEVES
EN CAPTIVITE

REFERENCE : Article 7 du Cahier des Charges

Monsieur Le Directeur,

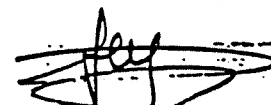
En exécution de l'Article suscit , J'ai l'honneur de vous informer
que notre Soci t  proc dera   la r introduction de 50 (CINQUANTE)
crocodiles dans l'IKOPA en aval de MAHITSY en pr sence de
Monsieur Olivier BEHRA et l'un de vos collaborateurs.

Comptant sur votre franche collaboration,

Nous vous prions d'agr er, Monsieur Le Directeur,
nos sentiments les plus distingu s.

Antananarivo, le 19 Novembre 1993

Le Directeur,


J.C. PEYRE

REPTEL B.P. 563 - ANTANANARIVO - MADAGASCAR

REPUBLIQUE MALAGASY
Ranindrazana - Toamasina - Fianarantsoa

MINISTRE D'ETAT A L'AGRICULTURE

Antananarivo, le 15 OCT 1992

MINISTRE DES EAUX ET FORETS

Le Directeur des Eaux et Forêts,

DIRECTION DES EAUX ET FORETS

N° 4588-MEF/DEF/SEP/DIOD/CROCO

M. Les Chefs des Services Provinciaux

- de : - ANTANANARIVO
- AMPSIKANANA
- FIANARANTSOA
- MAHAJANGA
- TOAMASINA
- TOLIARY

O B J E T - Crocodiles à problèmes.

Certains éleveurs de crocodiles ont émis le souhait d'être autorisés à s'adonner au farming, c'est à dire élevage de crocodiles pratiqué à partir des reproducteurs.

Le système de farming, dont la constitution initiale nécessite le prélèvement des géniteurs dans la nature a été vivement contesté par les Parties membres à la CITES car, selon eux, l'élevage ne doit pas porter préjudice aux crocodiles sauvages mais, doit contribuer à l'augmentation de leur effectif par la réintroduction dans la nature des animaux issus des centres d'élevage.

Lors de huitième session de la Conférence des Parties, tenue au Japon au mois de Mars 1992, cette mesure restrictive a connu un certain assouplissement qui aboutit à la possibilité de capturer à l'état sauvage des crocodiles reconnus dangereux.

Par conséquent, pour pouvoir orienter les éleveurs intéressés, j'ai l'honneur de vous demander de bien vouloir m'adresser le plus tôt possible la liste des zones sérieusement infestées de crocodiles causant des problèmes aux populations.

signé : Philippe RANFIANARIJANOA

COPIE CONFORME TRANSMISE N° 469 MEF/DEF.4/DEPLF/SP

à

- M. Les Chefs Chef : - AMPSIKANANA
- MAINTIRANO
- MAHAJANGA

PARTEYAN...
SP...
...
... MAHAJANGA

Pour éléments d'information à envoyer directement à DEF avec supplétion à Chef S.F.4

AMPLIATION :

DEF ANTANANARIVO ✓

Pour compte rendu

Mahajanga, le 03 NOV. 1992

Le Chef de Service Provincial
des Eaux et Forêts



RANINDRAZANA Jean Philippe
Ingénieur des Eaux et Forêts

h 11 92
Date d'arrivée 9/128
Date d'expédition
Affranchi

N° 469 SEP/3113
Date 19/11/92
Chargé 45

RAJ/RAD
REPUBLIQUE DEMOCRATIQUE MALAGASY
Ministère de l'Environnement - Forêt - Pêche - Faune

____/ O I T - ____/ R A N S M I S

à Monsieur Le DIRECTEUR DES EAUX ET FORETS

- Antananarivo -

MAHAJANHA
DIRECTION DES EAUX ET FORETS
N° 1508 - MPAEF/SPEF.4/DPN
E.67

- Requête du Fokonolona à Befanjava pour une
opération de battue 1

N° Arrivée	SPN.3106
Date arrivée	24.12.89
Closé	

" Pour compétence et régularisation "

MAHAJANHA, le 15 Decembre 1989

LE CHEF DE SERVICE PROVINCIAL DES
EAUX ET FORETS, p.i.

RAKOTONIRINA Aimé Joseph
Ingénieur des Eaux et Forêts

---oio--- FIVONJONANA FOAMASINA II ---oio---

i i
.

_/)/)angataka fitaovana entina manana voay amin' ny Sampandraharahan'ny Rano sy Ala ny mponina noho ny hameranan'ireo biby ireo amin'ny renirano ao amin'ny Firaisan Foulpointe sy Andonabe satria efa misy olona roa isao no efa voaratra ary omby iray no efa matiny.

.
.

Antananarivo, le

N°92.042 -Ph./CAR/CF.-

☒ - EXTRAIT ☒ - CONFONDE ☒ - RAIKIS

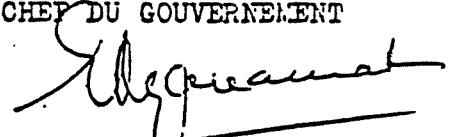
à .

Monsieur /e MINISTRE DES EAUX ET FOR

- ANTANANARIVO

" POUR ATTRIBUTIONS "

/e PREMIER MINISTRE,
CHEF DU GOUVERNEMENT



Antananarivo, le 10/04/1964

Il s'agit d'une requête formulée par les collectivités rurales de Foulpointe et d'Andonabe pour l'acquisition de matériel d'abattage de crocodile qui a tué deux personnes et tué un boeuf.

- Fivondronam'ny Fokontany: Mahajanga II
- Firaisan'ny Fokontany: Mahajemba-Usine
- Fokontany: Ambalabe-Befanjave

Ambalabe, faha 28/10/1981

Ny Fokonolona
Ambalabe Befanjave

Ho an'Andriamatoa.
Lehiben'ny Ala sy Rano
- Mahajanga -

Antony: Fangatahana alalana
hitifitra biby mpanimba
Voly sy fandriava biby fiompy

Toninahitra sy hafa lehibe ho an'areo ao
ahazoanay Fokonolona ato amin'ny Fokontany
Ambalabe-Befanjave ao manao izao fangatahana
izao noho ny Antony ho lazaina manaraka eto:
1/- Tsapanay sy hita tato anatin'ny taona efatra
nifanesitesy dia niteny na ny voay amin'ilay
Renirano atao hoe Andrandava izay ato.
amin'ny Fokontany an'ny anay. Roa noho izany
toe-javaha izany dia efa betaka ny olona-
na ny omby nita io Rano io matin'ny voay
na dia eny ambonin'ny lakana aza -
2/- Eo izany roa eroa biby mpanimba ny voly
(vorn-drano), betaka roa ny varinay simba
ao ambaribeby Marakora -

Noho ino antony voalaza ino dia mangataka sy
miangavy ianareo tsipon'andriamatoa aty ambonin'ny
izahay mba hikarakara olona hamongotra ino
biby notanaisaina manaraka ino -
Raha mitohy io toe-javaha io, ka hy misy fikarakara
hana hainana, dia betaka ny olona maty, eava ny
fananana sy matin'ny hanoanana ny vahoaka -
Raha tsy hafa lehibe ho an'areo
Ny Fokontany Fokontany
Ny Solon-tanam-pokonolona

Eugène
 de
 11-09-89
 11-09-89
 11-09-89



AR 05 820 05 du 02/10/83

NY FATIN'ILAY RAMATOA SY ILAY TOVOLAHY KELY LANIN'NY VOAY SISA HITAN'NY OLONA

Vaovao mampalahelo tokoa ily nitranga tany Mampikony, any amin'ny faritanin'i Mahajanga ily. Araka ny re maintsy dia olona roa (vehivavy ny iray, ary tovolahy kely kosa ny faharoa) no maty norambasan'ny voay teo amin'ny reniranon'Ampandroangisa, ny talata lasa teo.

Rehefa ho avy tokoa ny atambo, dia tonga amin'ilay fitenenana manao hoe «ny patsa iray tsy omby vava». Tsy ny vavan'ity voay namoan-tsampona tao amin'i Reniranon'Ampandroangisa kosa anefa no... tsy omby ireto olona mianaka narambany afakomaly.

Iza tokoa moa no nampam-po? Hanasa lamba no anton-dian'ity ramatoa teo

amin'ny loerana mahazatra azy, kanefa dia fahafatesana no nitsena azy. Alaivo sary an-tsaina kely ange ny zava-niseho teo amoron-drano raha vantany vao nipoitra ilay... «mamba noana». Dia tena ady sy tolona, araka ny fitenenana mahazatra tokoa.

Na dia niezaka nanavotena, hiala amin'ity biby masiaka nandramby azy aza anefa ily ramatoa ily, dia tsy afa nanohitra firay intsony izy. Nanampy trotaka izany kosa anefa ny kilemamy, satria araka ny re dia hoe vehivavy manan-takaitra ily norambasan'ny voay ily.

Mampalahelo, araka ny vopalaza, maty vokatra ny ratra maly nahazo azy ilay ramatoa. Nitovitovy

tamin'izany ihany kosa anefa, araka ny vaovao voaray, ny nanjo ilay tovolahy kely, izay angamba variana nilalao teo amoron-drano. Marihina fa namoy ny ainy vokatr'izany kosa ily zazalahy kely ily.

Angamba mba nisy 'azo nantensina ihany ny nahaveloman'ireto olona roa nohanin'ny voay tany Mampikony ireto, raha mba nisy olona nahita ka afaka namonjy azy ireo. Saingy indriny ! Niady irery tamin'ity biby masiaka izy mianaka, ka ny fatiny sisa tsy lanin'ny voay sisa hitan'ny olona.

Fotoanan'ny fahavaratra izao, saiky manerana ny Nosy manontolo. Manomboka miakatra ny renirano, araka izany, noho ny orana

entiny. Ka eo indrindra no ilam-pahamalinana fatratra. Indrindra ho an'ireo olona tsy maintsy hampiasa izany, toy ny hoe, hiampita rano, ohatra, na hanasa lamba...

Fa efa miresaka voay ihany, dia fantatra kosa izao, araka ny leo mandeha eto an-drenivohitra (ary 'azo inoana ny fahamarinany) fa toa hoe nasiana voay 3 ao anatin'ny farihin'Anosy. Maro no efa nahatsiakaitra izany, ary dia variana tokoa ireo izay nahita. Izany no natao, hono, dia mba tsy ahafahan'ireo mpanarato na mpaka trondro hiroboka eo intsony. Hafa kely ! Dia efa maheno izany ianareo izao ry ilery, ka dia asakazak'izay mbola mitady loza ihany !

r.m.