

SUMMARY REPORT : SOMALIAN CROCODILE CONSULTANCY 1990.

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The prevailing situation in Somalia ( July to September 1990) did not enable the consultant to carryout reconnaissance surveys in the Jubba river. However, on the suggestion of the Director, Wildlife Department and the Chief Technical Advisor (TCP/SOM/8956), the consultant could carryout reconnaissance field surveys of the crocodile resource in over 200km stretch of Shabbelle river. Maximum time and emphasis on crocodile resource survey was given to the aquatic areas of the proposed Alifuuto Nature Reserve being developed by the FAO wildlife Project.

Based on these surveys the consultant is of the opinion that the overall density of crocodiles ( excluding the hatchling size class) in Shabbelle river may vary between 3-5/Km in different habitats. Considering the fact that Shabbelle is a narrow and shallow river ( average depth 2-3m and width 35-50m ), the density appears to be very good. The estimate of 70,000 crocodiles in Shabbelle by some authorities may be on the very higher side. For a seasonally territorial species like the Nile crocodile the Shabbelle river and its associated swamps do not provide the required all season habitat for such a high density of crocodile population.

This present density in Shabbelle may not provide for an option of continued wild harvesting of crocodiles. However, as a public relation measure a small number of nuisance crocodiles from crocodile menace areas may be taken off for a limited period. This could be resorted to by first identifying such areas and designating such areas to professional crocodile hunters at a royalty for each crocodile. This operation has to be carried out under the supervision of the Wildlife Department and the royalty thus collected may perhaps help the department to meet some of the costs of a future crocodile management programme.

The consultant, based on his interview with people in the field and in Mogadishu and after examination of some crocodile hides, believes that some level of organised crocodile killing is still prevailing. The areas where such killing may still be going on appears to be Afgoyi, Balcad, Jawhar, Xahawadley, Janalle and Shabllalle. The wildlife Department needs to collect information on this and step up the operation of the APU in these areas.

The best option for Somalia as far as crocodile conservation/utilization is concerned appears to be development of a chain of captive crocodile rearing centres ( later to be called farms) based on harvesting of wild-laid crocodile eggs. A model adopted out of existing crocodile management programmes elsewhere and refined to suit Somalian condition is being prepared by the consultant for consideration and to seek support of International Aid Agencies.

The Socio-economic condition of the rural community may not make it possible for them to invest either individually or as a community on establishment of the above proposed crocodile rearing centres. Therefore, substantial subsidy from national and International agencies will be required for development of such a network of crocodile farms.

Climatically, Somalia is ideal for crocodile farming. There are several localities along the Shebelle and Jubba river which could prove to be extremely good as basic requirements such as water, food manpower etc. are easily available. The major workforce for the proposed crocodile farms, however, needs to be judiciously selected and trained.

Except for a very small number of fisherman along the Shabelle river; particularly near Xhawadley, Kurtemwary and Shablalle Yarre, no other ethnic group of people have shown any understanding or inclination for crocodiles. These community can be ideally utilised in any future crocodile management programme for mutual benefit of both the project and the rural people. The nomadic and semi-settled people on the riverside have not yet come out of their previous lifestyle and practice and may need considerable time and training to get themselves used to a highly labour-intensive and disciplined regime of captive (livestock) crocodile management.

A key requirement will be the creation of a scientific cadre of crocodile resource managers and supervisors to control, administer and manage crocodiles, both in the wild and captivity. The selection of such a cadre should be based not only on their academic qualification and experience but also on their aptitude, motivation and love for strenuous, risky but adventurous outdoor work. Such suitable candidates have to be properly selected, trained and positioned in the field with very specific areas and job responsibilities if a national network of crocodile conservation and management programme is to succeed.

Needless to say the future of the crocodiles in Somalia depend on the condition and status of the wild riverine habitats. The increasing clearing of riverine vegetation for conversion into agricultural cashcrop land combined with disturbances due to setting up of pumpsets on the riverbed have caused considerable loss of crocodile nesting and basking habitats. This pressure, added to flooding of considerable quantum of nesting areas by reservoir waterspread may in fact have decreased the nesting areas further. It is therefore, imperative to set aside large stretches of riverine crocodile habitats as disturbance-free protected areas to arrest such disruptive biotic actions and loss of valuable crocodile habitat. Such protected human interference-free areas will also minimise the existing high level of man-livestock-crocodile conflicts that has already created a negative attitude of people towards crocodiles. The emphasis given to the creation and establishment of the Alifuto Reserve with substantial crocodile habitat is a good beginning in this direction.

The immediate future requirement of the wildlife department on the crocodile front is to a) chart out a crocodile protection plan b) select and train a cadre of crocodile managers c) develop a network of crocodile rearing centres following setting up of a model centre and d) develop a crocodile management policy.

9th September 1990.

Rating criteria for locating crocodile rearing centres:

1. Closeness to source of wild crocodile eggs
2. Climatological suitability
3. Availability of water
4. Closeness to food source
  - a. Natural food (fish)
  - b. Livestock waste
5. Daily management manpower with aquatic habitat experience ( Fishermen etc.)
6. Availability of fuel, electricity etc.
7. Closeness to other social needs ( School, market, hospital etc for staff)
8. Availability of craftsman for construction/maintenance.
9. Roadlink with major towns and other facilities (low rating if with only fair weather roads)
10. Prospect of tourism/other educational role.

A rating out of 10 for each criteria may help decide which area scores the highest out of 100 to decide on the best locations.

S O M A L I A

Strengthening of Wildlife Management

TCP/SOM/8956(A)

CONSULTANT, CROCODILE MANAGEMENT

Terms of Reference

Under the overall supervision of the Director of Forestry Operations, the guidance of designated Technical Support and Operations Officers at FAO HQs, the direct supervision of the Chief Technical Advisor and in close collaboration with national counterparts, the Consultant will:

1. From existing information and reconnaissance field surveys, as appropriate, make an assessment of crocodile resources of the Juba area;
2. Review existing local technical and socio-economic information relevant to crocodile breeding and management;
3. Examine the results of appropriate crocodile management schemes undertaken in other countries and interpret their implications for Somalia;
4. Outline an action plan for crocodile conservation, breeding and management for Somalia, including marketing arrangements and financial implications;
5. Draft a Project Proposal for international assistance to a programme of crocodile breeding and management.

EOD: May 1990

Duration: 2 M/M

Duty Station: Mogadishu and field travel

Language: English

EH:erm  
19.3.90

G. Major elements (use a separate sheet for each objective)

<u>Immediate objective</u> 3.	<u>Success criteria</u>	
To develop a well established crocodile farming industry for the benefit of rural communities on the Shabelle and Juba rivers.	An annual foreign exchange earning from crocodile skin exports of 1.5 million U.S.\$ with potential for expansion, 75% of which accrues to local communities.	
<u>Outputs</u>	<u>Activities</u>	<u>Party responsible for the activity</u>
3.1 40 farmers trained in crocodile husbandary, licensed to raise crocodile and sell skins from mature stock.	3.1.1 Training, workshops for village-based crocodile farmers.	Crocodile farming expert and counterpart in wildlife Department.
3.2 20 crocodile farms along Shabelle and Juba rivers each producing 500 animals of skinning size per year beginning with 5th year of project. (N.B.A. smaller of number of skins will be produced in year 4 of project.)	3.2.1 Assistance with establishment of crocodile farms, provision of stock (hatching/eggs by wildlife Dept.) and ongoing advice re rearing and health problems.	Crocodile farming expert, counterpart & wildlife health specialist.
3.3. Annual sale (after 5 years) of 10,000 crocodile skins on overseas market.	3.3.1 Setting up of a skin harvesting and marketing procedure based on the production of the farms.	Crocodile skin harvesting and marketing consultant and C.T.A.

BC

## REPORT OF THE GOVERNMENT OF SOMALIA

Somalia is a country of 640,000 km<sup>2</sup> located between Kenya and the Gulf of Aden. Its fauna, which is among the most interesting in Africa, is relatively rich in variety of species. The coastline, being 3300 km in length, is the longest of all Africa (except South Africa), and presents an extensive variety of mostly unsurveyed marine ecosystems. As custodian of a number of important endemic species, as well as many which are shared with neighboring states, Somalia recognises that it has a great responsibility in the field of wildlife conservation. Bearing in mind severe economic constraints in the country at the present time and an acute shortage of trained manpower, the Department of Wildlife faces an enormous task, if it is to prevent the further depletion of many species populations. Species in particularly urgent need of increased conservation effort include the African elephant, the Black rhinoceros, Grevy's zebra, the dibatag, the Somali wild ass and the Reticulated giraffe. It is vital that a number of reserves be established and adequate management installed in order to increase protection to these and other species. In addition, we are aware of the need to improve the size and effectiveness of our anti-poaching unit and provide it with appropriate transport and other equipment.

Recently a number of important steps have been taken which give us hope that a new phase in Somalia's wildlife conservation and management has now begun. A manifesto setting out the government's up-to-date policy on wildlife has been drawn up and will hopefully be endorsed by the Council of Ministers this week, prior to its public presentation in the media. Modest funds have been made available via World Bank's Semi-mechanized Rainfed Agriculture Project to help us to initiate protection management in an adjacent swamp area astride the Shabelle River. This area has one of the best assemblages of wildlife species in the country and it is ultimately planned to elevate it to national park status.

From January to March this year F.A.O. provided us with a consultant to assist in evaluating the overall wildlife situation in Somalia and drawing up recommendations on the improvement of its conservation and management. As a result of these recommendations a one year project under F.A.O.'s Technical Cooperation Programme was initiated in September, with a view to providing immediate strengthening to our wildlife management, while drawing up plans for more major donor assistance. Other objectives of the F.A.O. Project include assistance with a) a total overhaul of Somalia's wildlife legislation, b) training for the Anti-poaching Unit, c) the planning and initiation of a crocodile ranching scheme, and d) drawing up a management plan for a wildlife reserve.

Parallel developments to this strengthening of the Wildlife Department include World Bank assistance, via the Central Rangelands Development Project, for the installation of three wildlife reserves, including equipment and staff training, in the Central Rangelands. EEC has recently finished a feasibility study on Bush Bush National Park which is in the southern part of the country and has potential wildlife importance, especially African elephants. Wildlife Conservation International is promoting a study of the conservation status of the Somali wild ass with a view to improving its protection. Much more assistance will be needed and we hope that potential donors will be encouraged to inquire as to the exact needs of Somalia's wildlife programme, which now stands on the threshold of a significant move forward.

19. Oct. 89