ISSN 1355-6746

Chagos News

The Periodical Newsletter of the
Chagos Conservation Trust

No.23 **March 2003**

EDITORIAL

EGM
The Extraordinary General Meeting on 7 October unanimously approved our change of name from Friends of Chagos to the Chagos Conservation Trust.

AGM
The Annual General Meeting held the same day was well attended by some 20 members. Normal business was conducted.

CCMP
The Chagos Conservation Management Plan (CCMP) has been published and this Chagos News is dedicated to making it more widely known. The authors are Dr. Charles Sheppard and Dr. Mark Spalding and they have provided a summary over the next 6 pages.

PLR
The Peak Of Limuria Revision is now complete and approved for publication by all interested parties. The main outlet will be Diego Garcia where it will sell for $20.

BIOT Changes
The New Commissioner, BIOT and Head of the Overseas Territories Department at the Foreign and

Commonwealth Office is Tony Crombie who comes to us from Moscow.
We wish his predecessor, Alan Huckle, who gave us great support, all good luck in his new post of Governor, Anguilla.
Ann Furey, who was also a great help looking after the BIOT environment, has left for Kiev. Karen Maddocks who comes from a post in East Asia has replaced her in the BIOT Administration. We hope all will enjoy their new positions.
In Diego Garcia Commander Chris Davies has relieved Commander Neil Hinch as Representative of the Commissioner.

Environmental Zone
A Proclamation has been issued by the Commissioner establishing an Environmental (Protection and Preservation) Zone. This will have the same geographical extent as the BIOT FCMZ. The Proclamation has been signed and a copy, together with copies of the relevant charts and co-ordinates,

is being deposited with the United Nations under Article 75 of UNCLOS.

John Topp

The Chagos Conservation Management Plan

Introduction

Two years ago, the BIOT administration asked for a Chagos Conservation Management Plan (CCMP). Its aim was to take a fresh look at optimum ways for conserving the biodiversity and natural resources of the Territory. Various legal and management interventions already existed, of course, but there was a need for a comprehensive approach which would ensure the long-term protection of this region. The Archipelago is arguably the most important island and coral reef wilderness area in the Indian Ocean, and with its vast reefs and about 50 small islands, it is a place of enormous biological importance. To date, Chagos has suffered relatively little in terms of direct human impacts, which is the reason for its excellent condition. In addition, its central location provides a connection or stepping stone between East and West, and for this reason it is important too in the spread of species across the ocean, probably supplying new larvae to areas elsewhere which have been severely damaged by over-exploitation.

Another important point to the background of the CCMP arises from recent ocean warning events. In 1998, over 90% of the corals in the Indian Ocean, in shallow waters at least, were killed when waters warmed, an event unprecedented in human and even in recent geological history. Chagos did not escape. On its seaward reefs, mortality was extensive and, in many cases, very nearly total. The depths to which this mass mortality extended varied from deeper than 30 metres on slopes in the southern atolls, to only about 10 metres in the North. In lagoons, coral survival was much better, with about half of corals remaining in many places. The consequences of this were unknown at the time, though they could be guessed at. Clearly there were ecological changes, but there were also, and still are, very real risks of impacts on fisheries, on rates of erosion and island loss, and even possibly impacts spreading far beyond the Chagos Archipelago. This illustrated the importance of regular (or even irregular) monitoring, something which was not being done across the huge reefs of BIOT.

In order to manage anything, information is needed, and information is perhaps harder to obtain in Chagos then nearly anywhere else. The CCMP therefore also needed to summarise and analyse existing information, to serve as a basis for its recommendations. These recommendations, in turn, fell into two groups: how to ensure adequate information in future in order to allow management (e.g. through regular monitoring), and an assessment of what regulations, procedures or protocols should be changed or introduced which could be used for the conservation of the Archipelago. Always, we had to bear in mind the difficult access to most of the area.

BIOT also has an Environment Charter. Implementation of the CCMP will go some way to implementing the conservation objectives laid out in that Charter. It takes into account the legal framework, existing protected areas and management practices, and the particular conditions of the area, namely its remote and dispersed geography. The absence of a local population and lack of simple facilities highlights the inappropriateness of many conventional management methods, and yet rapid changes in this ocean confirm the need for up-to-date information and management methods based upon it. The document brings together the activities of all sectors which have an impact on natural resources, using an integrated approach. The plan is simple, and *must* be so due to the above problems, but it *can* be simple due to the lack of those complex human interactions which have killed so many other management plans or rendered them ineffective. Thus this CCMP could largely bypass many of the classic sectoral issues. It does so by the use of three key actions. Specifics are important, but if these three actions are implemented, many of the necessary details would automatically be accounted for.

The three cornerstones

1. Extensive, fully protected areas – the 30% rule. Many of the World's protected areas have complex systems of zoning, with different levels of protection and permitted human use, sometimes changing with season or in cycles of a few years, which requires a local infrastructure and administration. Many such management plans seem to have been born from an attempt to minimise the hardship to local people, but many of them do not work well. A 'new' approach which is rapidly gaining wide success around the world is that if a third of any habitat is strictly and simply declared non-extractive, then, whatever travails afflict the remaining area, survival of that habitat, in that region, is almost certainly guaranteed. Not only that, but 30% is a large enough block to ensure that "overspill" of adult animals and exports of larvae from the protected areas could naturally restore damage that has been done elsewhere. We made much of the simplicity of this measure.

The area which needs to be covered, one third, may seem large but is based on much recent scientific argument. Protection under this scheme need not mean exclusion from all access, but in the case of reefs at least it does mean exclusion of all *extractive* activity, construction and other interference. The 30% proportion has been shown to allow: recovery of damaged areas; supply of new stocks of adults and juveniles to areas which are exploited; increased and restored catches in adjacent exploited areas; and maintenance of enough protected habitat to allow a natural ecosystem to persist, particularly in the face of changing climate and increasing exploitation elsewhere. BIOT already has extensive protection on land, but its marine waters are largely unprotected. There are some marine protected areas, but these are still open to some fishing, notably the licensed Mauritian fishery.

2. Scientific advisory group and a programme of regular monitoring and rapid managerial response. It is imperative to commence monitoring and to remain proactive. Many damaging impacts to reefs are simple, clear, and are not rocket science, but only with monitoring can we reach the more comfortable position in which a 'stitch in time

could save nine'. It is only through monitoring that we will be able to determine changes to key aspects of coral reef life, or to shoreline erosion or to introduced species. Coupled to monitoring, rapid managerial and legal response must follow. For example, boundaries of protected areas may need adjusting if and when rich sites are discovered. Examples would be the discovery by fishermen of a spawning aggregation of grouper, or the discovery of reef locations where coral survival was high. Such areas need protection if they are to serve as potential sites for future maintenance or recovery.

To oversee the information gathering, and to analyse what it means, a scientific advisory group is recommended, which could advise BIOT Administration pro-actively. It would follow the 'Code of Practice for Scientific Advisory Committees' issued by the Office of Science and Technology. In addition, it should determine priorities for occasional, larger scientific visits. The purpose of the scientific committee would be to suggest timely actions for issues which arise.

3. A practical mechanism for information gathering. The present fisheries protection vessel already supports regular patrols throughout the Archipelago for BIOT administrative tasks, and has supported several scientific projects in the past. While its role remains primarily fisheries protection and sovereignty issues, the continued use (occasional but more regularly) of this vessel for information gathering will be required. No greater size or cost of vessel would be needed, and nor would or should there be any conflict with present use.

These three points appear throughout the CCMP. One problem is that, despite several scientific visits, many huge areas remain unobserved in a scientific sense, and the approach taken here reflects this limitation. Time may not be on the side of the Chagos ecosystem. If these measures are to work in this rapidly changing part of the world they should be implemented rapidly.

The Archipelago is also exceptionally beautiful. Such considerations are commonly omitted from scientific documents, though scenic and aesthetic considerations do form key components, even the main basis, of many protected area designations worldwide. As all readers of *Chagos News* will know, this Archipelago merits protection for this alone. Indeed, its government correctly alludes to this aspect in several documents such as in several of its annual conservation reports and statements.

The management plan extends to some 50 pages and it is difficult to shrink it to six pages here while retaining all the interlocking points. Therefore it has been compiled as PDF files which are available from the authors on request. **Chapter 8**, for example, not amplified more here, describes in greater detail how the climate, including marine climate has changed, and how this affects the reef system on which the Archipelago is based. **Chapter 9** reviews all the legislation and international commitments relevant to the Archipelago. A bibliography (**Chapter 10**) lists all known publications about Chagos, at least to last year.

Some key elements of the CCMP

Long-term objectives are simple, indeed obvious:

To maintain or restore BIOT as an intact, functioning coral reef system and to maintain its resilience;

To ensure that all human uses of the natural resources of BIOT are sustainable and set within the context of an ecosystem and precautionary approach;

To conserve or restore to carrying capacity the populations of globally threatened or regionally and locally significant populations of native species;

To eradicate, control at non-damaging levels and prevent further establishment of populations of non-native species which could threaten biodiversity.

The three cornerstones are to be met by:

Conservation of a representative and viable sample of all terrestrial and marine habitats (the 30% protected area scheme), within which no extractive activity of any kind should be permitted, including fishing to the extent feasible;

Retain an ability to change or expand protected area boundaries according to new information, and include in them areas with newly discovered rare or endangered species, or important, newly discovered populations;

Establishment of the scientific advisory group. Participants on this group should include tropical island and reef scientists, fisheries scientists, the conservation adviser and others as needed. Formalisation of this would bring urgent matters to the attention of BIOT at an early stage, the intention being to be pro-active. It should establish, by the end of 2004, monitoring protocols and a planned programme for priority features, advise the BIOT government on visits by scientists to undertake monitoring and survey, and assist where possible applications from scientists for funding from conventional research organisations. It would inevitably disseminate the results of monitoring to decision makers and help determine the future conservation and nature protection needs with the BIOT administration;

Support for information gathering. As noted, continued use of the fisheries protection vessel is proposed as being by far the cheapest option for information gathering in this remote area;

Special attention for 'sentinel species'. There is a need for: regular monitoring of seabirds, turtles, reefs, corals, reef fish and some island plants, both within and outside designated protected areas;

In addition to regular monitoring, more substantial programmes should be mounted when needed, in response to identified needs. These are not expected to be more frequent than every 5 to 10 years; one was held in 1996, another is planned for 2006. The scientific advisory group would be expected to form links with other research groups.

The CCMP shows initial boundaries proposed for protection. These are in three main blocks, and the plan gives justification and reasoning for their selection. First is the 'northern grouping' which is complicated by the fact that access enjoyed by many

visitors takes place here, so that the visited areas naturally must be excluded. It includes Colvocoresses Reef, Blenheim, the western part of Peros Banhos and a northern section of the Great Chagos Bank adjacent to Nelson Island and including the submerged atoll Victory Bank. The second area is quite simply the western part of the Great Chagos Bank, encompassing all the islands there plus Egmont atoll. The third grouping is Centurion Bank, included because it is not a main focus of fishing, it is diametrically opposite the northern group, and is possibly one of the richest sites of all.

The CCMP's other chapters

Chapter 3 focuses on protected areas. It discusses the 30% rule and explains, briefly, its basis and benefits. It illustrates existing protected areas in BIOT. Several islands in the north are strict nature reserves, most of the eastern side of Diego Garcia and its adjoining lagoon are both restricted areas and a Ramsar site. The total area currently under some protection is about 19 km^2 of land and 377 km^2 of shallow reef. These represent about 35% of the total land area and 3% of reefs to 60 metres depth. For the islands the 30% rule is already achieved, especially since those included contain large seabird populations and, in some cases, important native hardwoods. For the reefs, much too little is protected., and too little is known about huge swathes of the Archipelago (e.g. eastern Great Chagos bank) to know how representative the present small protected zones actually are. Currently, marine protection is confined to lagoon areas in Diego Garcia and to very small areas around the Strict Nature Reserve areas of the northern atolls. Further, commercial fishing within some protected areas compromises them, so that the effective area of shallow reef protected is in fact less than the nominal 3%. Several atolls have to date been completely excluded because they have no permanent islands or are deeply submerged, yet these drowned atolls have similar marine biological characteristics to the islanded atolls, and their protection is equally important.

Chapter 4 covers the protection or eradication of various species. Chagos is host to many species which are included on the 'Red Lists'. Most species protection is achieved by proper protection of habitat, though special cases may require specific regulations. This chapter briefly describes current provisions and rules, and it refers again to introduced species and to species eradication issues. Plant conservation and species introductions are addressed too. Mentioned also is that Eagle island, the second largest island in the Archipelago, has been selected as being a priority for eradication of rats in order to allow recovery of plants, birds and turtles.

Fisheries is covered in **chapter 5**. The subject is merely touched on in the CCMP because it is already subject to survey and monitoring. The intent of BIOT is to ensure that both commercial and recreational fisheries, the latter in Diego Garcia only, are sustainable, reflect international obligations and collaboration, and incorporate an ecosystem and precautionary approach. Previous fisheries management provides good examples of successful management in BIOT, whose waters are one of few areas of the Indian Ocean with demonstrable and beneficial husbandry. The plan suggests strengthening in some areas and encourages continuation of several measures, such as the prohibition on drift netting, and the prohibition of fishing spawning aggregations.

The issue of visitors to the northern atolls is addressed in **Chapter 6**, and various changes to the present 'anchor at will' are suggested. The number of visitors is seasonal and variable, from just a few to several dozen yachts anchoring in Salomon lagoon. Damage comes from anchoring on the increasingly scarce live coral, and from the fact that some visitors clearly ignore the notices, and catch species including coconut crabs, indulge in prohibited activities such as spear-fishing, and so on. It is suggested that enforcement of the rules and application of penalties should follow in exactly the same way as is currently applied to illegal fishing vessels.

Chapter 7 focuses on Diego Garcia. General monitoring of the natural environment is the responsibility of the UK government but support should be sought from the US who are the main users. The Americans have their Natural Resources Management Plan, which has been partly implemented. It focuses mainly on the 'human environment' such as recreation sites. It does refer to environmental surveys and monitoring, though any information arising from that is not made available or has not been done. Particular issues identified in the CCMP for Diego Garcia include shoreline erosion, extraction of material from the lagoon, restoration of the trenched western reef, and the need to perform environmental assessments of all significant construction or landfill works *and* making those EAs available to the UK owners. Many of these measures have become especially important following the coral mortality of a few years ago which has accelerated degradation and change.

In summary, most of these chapters take a single issue and provide some of the background and the reasoning. The conclusions, and what the management plan proposes to do about each issue, are summarised up-front, in **chapter 2**, briefly described earlier, which can also be taken as a sort of 'Action Plan'. The intention was to keep it simple, on the basis that anything too complex or logistically difficult in such a remote area would probably fail. This brings us back again to the three key points of: large protected areas from which no extraction should take place, a scientific advisory panel, and a simple system of regular monitoring by which to obtain information, and without which no management can ever be more than ineffective guesswork.

No reader of *Chagos News* will doubt the value, or need, of conserving this extraordinary place. However, a word of warning: having a management plan is not the same thing as carrying out the actions that the management plan proposes, and is no substitute for having the information that would be obtained from implementing its proposed measures. In many parts of the world, the existence of paper on which a plan is written seems to be the endpoint of the process rather than its start, with the result that the environment of that area continues to degrade, in some cases until it is worthless. This CCMP is a start, and its proposed actions need to follow.

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Fisheries (This is an extract from the BIOT – Annual Environmental Summary)

Whilst longliner licences were issued on a steady basis, mostly to Taiwanese and Japanese flagged vessels, catch rates were poor and many vessels did not fish during their allocated licensed period.
Similarly, whilst 51 purse-seiners were licensed during November in anticipation of the busy period from December to February only 15 participated in the fishery accounting for 61 days in the BIOT FCMZ and catch rates were very poor.
Two Mauritian mothership-dory vessels were licensed for the inshore fishery concentrating on the northern to western edge of the Great Chagos Bank. Fishing was disrupted due to a medical emergency.
Adherence to licence terms and conditions was reported to be generally good. However, the dory crew had landed on some atolls within the FCMZ.
Vessels in transit through the Zone routinely reported to the FPV. These were mainly Sri Lankan, Taiwanese, or Indonesian flagged vessels. Reporting was generally good, but in some cases not all details required were submitted and some were suspected of fishing illegally.
Arrests of vessels for illegal fishing have increased dramatically in this last year. 15 vessels were stopped in total, 13 of which were Sri Lankan flagged, one Indonesian and one Mauritian. Three of these were given verbal warnings and released. All others were arrested. One vessel absconded, another which had run aground was abandoned, the crew arrested and repatriated. The rest were prosecuted and fined. In the majority of these cases, the fines have been paid in full, and money is only outstanding from one case, unfortunately where we imposed the largest fine. Earlier in the year we gave an interview to "Fishing News International" to raise the profile on our willingness to prosecute those vessels caught fishing without a licence.
This year we were able to agree to a two month review of the recreational fishery on Diego Garcia by MRAG. A preliminary survey was conducted to establish the characteristics and trends of the fishery. Logsheet returns were 100% from Ocean Masters and Makos, but the quality of the returns from Makos was poor. Landing Craft Motorised (LCMs) produced returns from only 50% of vessels and these were also of poor quality. These problems were addressed and improvements had occurred by the end of the two month period. Weight analysis showed that catches were regularly under-estimated by Ocean Masters (by 0.9%) and by LCMs (11.3%) and over-estimated by Makos (46%).
A shore survey during this period showed that 81 anglers caught 24.55kg of mixed reef species lagoon side and 63 anglers caught 10.9kg of mixed reef species oceanside.
Attempts were made to reintroduce a "sport fishery" logbook return scheme, which had fallen by the wayside since its initial set-up. The SFPO held fruitful discussions with the staff of the Moral, Welfare and Recreation Department of DG21 who manage the recreational fishery. He provided re-orientation and guidelines to encourage a greater level of coverage and monitoring and has made several recommendations for improvements.

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