# The Chagos Archipelago

# British Indian Ocean Territory (BIOT)

A lifeline for the ocean, a legacy to the world

The Chagos Archipelago is one of the last remaining places on earth where marine ecosystems and species function relatively unmodified and unperturbed. This makes it invaluable not only as a means for replenishment of other, more degraded, parts of the Indian Ocean, but also as a benchmark – and a beacon of hope – for the world.

Chagos represents an unrivalled conservation opportunity. No other place can provide similar returns in terms of benefit to nature and humanity. Placing the Chagos archipelago and EEZ under a robust and unambiguous protection and conservation framework would realize this potential, and the area would be held in trust for the citizens of the United Kingdom, countries around the Indian Ocean and the world community.

Creation of a protected area encompassing the Chagos Archipelago and its EEZ would create one of the largest Marine Protected Areas in the world, and the largest of its kind. Closing the entire sea area to extractive use would more than double the worlds combined area of no-take marine reserves, making significant gains on global and UK targets for marine environmental protection. Such an MPA would constitute both a lifeline for the worlds' troubled oceans, and an outstanding legacy for present and future generations.

# Chagos in figures

- Exclusive Economic Zone: at least 544,000 km<sup>2</sup> (approximately 636,000 km<sup>2</sup> including territorial waters), more than twice the total UK land area
- Shelf area 20,607 km<sup>2</sup>
- Coral reef 3,770 km<sup>2</sup>
- Seven atolls, nine submerged reefs and banks covering over 15,000 km<sup>2</sup> including lagoons
- The largest living atoll in the world, the Great Chagos Bank
- Sixty low-lying islands with a combined land area 63.17 km<sup>2</sup>, almost half of which is made up by Diego Garcia.
- at least 220 coral species and over 1000 species of fish
- 17 species of breeding seabird, a vital seabird rookery for the Indian Ocean
- at least 60 species listed on the IUCN Red List of endangered species
- the healthiest, most resilient reefs in the world.



#### Key features

<u>Geology</u>: The Chagos Archipelago lies at the southern end of the Maldive ridge in the central Indian Ocean, formed by volcanic activity of the Reunion hotspot. It is a complex combination of coralline structures, with the Great Chagos Bank the largest living atoll in the world.

<u>Biogeography:</u> Chagos is one of the most isolated archipelagos in the world, which has resulted in unrivalled marine ecosystem health. The area is invaluable as a stepping-stone and a source of larvae for reefs in the Indian Ocean. It is Britain's greatest area of marine biodiversity by far.

<u>Ecology</u>: The most notable feature of Chagos is its vast and rich coral reefs. Other important marine habitat includes sandy lagoonal habitats, seagrasses and mangroves, submerged banks, and large areas of pelagic and abyssal benthic habitats. These constitute invaluable refugia, breeding, nesting, nursery and feeding habitats for numerous sea bird species and sea turtles.

<u>Species</u>: Chagos is one of the most species rich coral reef environments in the Indian Ocean, including over 220 species of coral and over 1000 species of fish, and several endemic species. It is host to over 60 species on the IUCN Red List of Threatened Species, including sea turtles, cetaceans, sea birds, fish, crustaceans and corals.

### The benefits of a Marine Protected Area

<u>An environmental 'insurance policy'</u>: The wildlife biodiversity of Chagos is very rich. The archipelago is isolated and at the very centre of the Indian Ocean where it acts as a unique biodiversity refuge and a re-seeding bank for marine and island species, which are nearly all in decline elsewhere under pressure from the effects of human population growth. Protecting these functions serves as an environmental 'insurance policy'. Protecting the archipelago in its entirety would ensure integrity while also addressing a shortcoming in the global network of MPA, most of which are either too small or too far apart to be ecologically coherent.

<u>A baseline and a benchmark:</u> The absence of human populations is the main reason for the present conservation status of Chagos as a rare surviving example of nature as it should be, where human pressures do not conflict with environmental needs and lead to degradation and impoverishment. Chagos is, with the exception of Diego Garcia, uninhabited, a status upheld through a 2008 House of Lords ruling which found no right of return on the part of the Chagossians. Because of this Chagos provides us with a scientific benchmark for environmental health, and an area to help us understand and deal with such problems as pollution, loss of biodiversity and climate change.

<u>A natural laboratory:</u> Chagos is of course vulnerable to climate change, ocean warming, sea level rise and ocean acidification. However, it will also have several key roles to play in the coming years in finding ways of dealing with these threats, since its seas and coral reefs are the least impacted by direct human impacts. It will provide a scientific control site to compare with other more impacted sites, a means of filling gaps in global climate monitoring programmes; and will contribute to our understanding of the processes that collectively create global warming and climate change, the threats they pose, and management options to counter them.

Enshrining these characteristics of Chagos in a legal framework will ensure the area can continue to provide its vital functions and services. The UK Government and the BIOT Administration have enacted significant legislation to protect this globally important environment. However, a more robust and extensive framework for conservation is needed to meet future challenges.

# A global milestone

Establishing a large-scale conservation area would serve to protect and perpetuate Chagos natural health, biodiversity and the vital services it provides to nature and mankind. It would also constitute a conservation legacy almost unrivalled in scale and significance. The entire Chagos Archipelago including territorial seas and exclusive economic zone would constitute the worlds largest tropical Marine Protected Area, increasing the marine area held in MPAs by 20%. Closing Chagos to all extractive use would more than double the worlds' no-take marine area.

A comparison with other notable large MPAs further emphasizes the value of Chagos:

- The Great Barrier Reef Marine Park, Australia. This World Heritage Site is 345,400 km<sup>2</sup> large, one-third no-take area. The adjacent Coral Sea Conservation Zone was declared in 2009, but puts few restrictions on extractive use. The reefs of Chagos are comparable in size and diversity, but significantly less impacted by man than those of the Great Barrier Reef.
- Papahanaumokuakea Marine National Monument, USA. The remaining commercial fishery will be phased out in the entire 362,075 km<sup>2</sup> area in 2011, but traditional use by native Hawaiians will be allowed, regulated under permit. The reefs are marginal, at the northern extreme of tropical coral growth, and not comparable to Chagos. The national monument was created through executive order by President George W. Bush and, together with the Marianas Trench Marine National Monument, a much acclaimed conservation legacy. The area has been nominated as a World Heritage Site.
- Phoenix Islands Protected Area, Kiribati. At 410,500 km<sup>2</sup> this is presently the largest tropical MPA in the world. The area has been nominated as a World Heritage Site. It is in some senses a Pacific analogue of Chagos, but the regional importance of Chagos surpasses that of Phoenix Islands.

# Scientific consensus

The case for more comprehensive environmental management of Chagos has been recognized by academic and conservation groups alike, most recently at a workshop under the auspices of the NERC Strategic Ocean Funding Initiative, 5-6 August 2009, Southampton. The workshop concluded, *inter alia*, that there is sufficient scientific information to make a very convincing case for designating all the potential Exclusive Economic Zone of the Chagos Archipelago as a Marine Protected Area, and whilst recognising that there is already relatively strong de facto environmental protection, MPA designation would greatly increase the coherence and overall value of existing BIOT conservation policies, providing a very cost-effective demonstration of UK government's commitment to environmental stewardship and halting biodiversity loss. The workshop was attended by many renowned scientists as well as representatives of several notable organizations working towards supporting environmental management of Chagos, including the Chagos Conservation Trust, the Pew Environment Group Global Ocean Legacy Programme, the International Union for Conservation of Nature (IUCN) and its World Commission on Protected Areas (WCPA).



IUCN Global Marine Programme www.iucn.org/marine



IUCN World Commission on Protected Areas – Marine www.protectplanetocean.org