

Diego Garcia Integrated Natural Resources Management Plan, September 2005

5.0 Outdoor Recreation

5.1 Introduction

This chapter covers recreational activities related to the natural resources of Diego Garcia. The outdoor recreation program and recommendations discussed in this chapter are intended to improve morale and personal fitness while maintaining or enhancing the atoll's natural resources.

Recreation is any form of enjoyable discretionary physical or mental experience pursued during leisure. Lasting benefits from recreation include improved mental or physical health, a greater commitment to conservation efforts, and a better sense of self-worth and place in our environment.

NSF Diego Garcia, through the Public Works Environmental Branch, may assist the Morale, Welfare, and Recreation (MWR) office to develop the installation's outdoor recreation program by establishing an outdoor recreation management section and appropriate cooperative agreements. The MWR office would then implement, maintain and operate outdoor recreation-related projects. Coordination is conducted with the MWR offices for outdoor recreation-related projects and operations. MWR supports and participates in management of the outdoor recreation program.

5.2 Background

5.2.1 Definition of Outdoor Recreation

Outdoor recreation activities take advantage of the natural resources of an area to benefit assigned and support personnel. In general, such recreation activities can be categorized as either passive or organized; or as concentrated or dispersed. The following briefly describes these various types of activities.

Active-appreciative activities require some physical effort and are pursued mainly for the appreciation of environmental qualities. Social interaction and education may be additional motives for participation. These include cycling, hiking, jogging, running, and swimming.

Passive-appreciative activities require little physical effort and are pursued primarily for the enjoyment derived from social interaction, nature appreciation, or a combination thereof. Types of passive-appreciative activities are bird watching, wildlife and flora observation, identification, photography, camping, picnicking, sightseeing, and sunbathing.



Figure 5.1 Passive –appreciative recreation

Extractive-challenge activities require varying degrees of physical exertion in which the primary attraction is the opportunity to extract "trophies" from the environment such as fishing competition, and shell collecting. Nature appreciation and social interaction may be additional motivation factors.

Resource-expressive activities are those in which a natural resource provides the vehicle and/or challenge of the event. Manmade facilities or products are important to the successful undertaking of the sport; however, the main constraint is availability of the proper natural resource. Activities in this category include off-road biking, water skiing, wind surfing, kite surfing, sailing, snorkeling and kayaking.

Facility-expressive activities largely focus on the instruments of the activity rather than the setting in which it takes place. The primary motives of these activities are active expressiveness and social interaction, with only limited emphasis placed on environmental appreciation. Facility-expressive outdoor recreational activities, with the exception of the golf course, skeet range, and marina, are not included in this plan.

Concentrated recreational activities occur within limited areas that can accommodate intensive use. Various recreational facilities such as the athletic fields and outdoor swimming pool exemplify this classification. Waterskiing seems to be concentrated within a small portion of the vast lagoon that can accommodate additional participants. The limited stretch of off-road bike trails is at present a concentrated activity.

Dispersed recreation activities occur within larger areas, which can accommodate limited use. These activities include on- and off-road hiking, jogging, and biking; water recreation in the lagoon, ocean and lagoon fishing, and nature appreciation activities in the forested areas.

5.2.2 Definition of Recreation Resource Areas

An outdoor recreation resource area is a land or water area with characteristics that make it suitable for one or more specific outdoor recreation activities. These characteristics are defined as the natural, physical attributes that make up a land or water area such as topography, drainage, water bodies, vegetation, wildlife, and aesthetic appearance.

Special interest areas have outstanding features—natural or man-made—that contribute cultural value to the area. Special interest areas may provide passive recreation opportunities. Special interest areas include cultural, natural, and scenic resources, as defined below.

Cultural resource areas include the following: (1) areas containing archaeological sites with the remains of past societies and/or fossil remains which contribute to the study of the past, and (2) areas that contain historic sites that commemorate lives or occurrences in world, national, or naval history. Historic sites may commemorate a specific historic event, a period in history, or be unique or illustrative.

5.2.2.1 Cultural Resources

Cultural resources are classified by the categories of significance defined below, and described in detail in the NAVSUPPFAC Diego Garcia Cultural Resources Plan.

- Category I: An area of great importance to the national cultural heritage that must be preserved. Category I sites are eligible for nomination to the National Register of Historic Places (NRHP). This category of cultural resources is not applicable on Diego Garcia.
- Category II: An area of importance to the cultural heritage of the installation that should be preserved.
- Category III: An area of value to the cultural heritage of the installation that should be preserved, if practicable.

• Category IV. An area that has been inventoried but has no special value at this time.

5.2.2.2 Natural and Scenic Resource Areas

Natural and scenic resource areas are categorized as follows:

- Botanical areas containing individual specimens or communities of plants that are important because of their form, color, occurrence, location, life history, arrangement, rarity, cultivation, or other features. Appendix 4 reports the results of recent flora surveys at Diego Garcia.
- Geological areas containing outstanding or unique formations or significant features of the earth's development, including outstanding natural features such as major watersheds.
- Ecological areas containing relatively undisturbed ecosystems of suitable size to make ecological concepts and principles known to the general public, such as ponds, marshes, or mature or virgin forest stands.
- Zoological areas populated with animals (including birds, mammals, fishes, reptiles, amphibians, and invertebrates) that are significant because of their visibility, rarity, uniqueness, ecologically significant impact on land character, or other features.
- Wildland areas possess outstanding opportunities for solitude and primitive recreation.
- Scenic areas characterized by outstanding natural beauty.

5.3 Policies and Programs

Federal, DOD, and Navy directives, regulations and programs that affect natural resources management generally are identified in Chapter 2 and are described in Appendices B and C. Although the FGS contains no specific standard for recreational use of natural resources, the installation is require to develop a program for conserving, managing, and protecting natural resources. Promoting outdoor recreational activities associated with natural resources can increase awareness and appreciation for important habitats, plant communities, and endangered species.

Land access restrictions and boating and fishing regulations are provided in BIOT laws and plans attached to the Exchange of Notes 1966 and 1976. These list restricted access areas, provide access procedures to other areas, and detail rules related to boating and fishing activities

Access to land on the east side of the lagoon is restricted and requires a daily entry fee and approval from the BRITREP (See Figure 5.3).



Figure 5.2 Gate to restricted area

There are no plans to develop the restricted area, and outdoor recreation recommendations will focus on properties permitted for daily use.

As shown in Figure 5.3, the restricted areas in the lagoon are established for safety and environmental protection, and affect boating and fishing activities. The BIOT authorities introduced restricted areas on January 24, 1994 (CO Temporary Memorandum No. 1/94 and by NSF Harbor Operations authorities in September 1993. These areas are marked by buoys and include: (1) the southern lagoon across the Plantation Point, (2) the northeastern side of the lagoon, (3) the pass between the Eclipse Point and Middle Island, and (4) along the fringing seaward reef from Barton Point to West Island. Details are explained as follows:

- Recreational boats are allowed anywhere in areas A, B, and C, and may transit the restricted area with written permission from BRITREP to a rest and recreation point 200 yards (182 m) north of East Point. The fringing seaward reef between West Island and Barton Point is restricted to boat passage.
- Fishing by boat is allowed in the lagoon only in areas A, B, and C, but is allowed anywhere in the ocean within the permitted range of the atoll. Shore fishing using handline or "rod and reel" is allowed except in areas where a "No Fishing" sign exists. "No Fishing" signs are posted on selected sections of the shoreline to protect turtles and their nesting habitat.

Lack of Knowledge of Flora and Fauna

Because many U.S. military personnel are only at Diego Garcia for a oneyear tour or less, and due to the lack of natural resource education, there is a general lack of knowledge about the plant and animal species present within the facilities. An educational program is recommended for all base personnel to enhance appreciation of the resources.

DoD policies and programs applicable to Diego Garcia are reflected in the FGS. The FGS is updated on a regular basis and it is recommended that guidance on outdoor recreation be included in the update.

5.4 Objectives

The primary natural resources-related outdoor recreation objectives for NSF Diego Garcia are:

- Optimize outdoor recreation benefits within the constraints of the military mission and capability of the resources.
- Identify, protect, and preserve significant natural, cultural, and scenic resources.
- Wherever possible, provide for multiple recreational uses of natural resource areas.
- Minimize conflict among competing recreational uses.

5.5 Resources Analysis

5.5.1 Methodology

Natural resources on Diego Garcia were evaluated by reviewing available literature and by conducting detailed surveys for flora and fauna. The inventory lists of natural resources on the site are provided in Appendices E - K and summarized in Chapter 4. Consideration was given to identifying those natural resources that could be used for outdoor recreational purposes. Cultural resources are the subject of a separate Cultural Resources Management Plan.

5.5.2 Classification of Special Interest Resource Areas (Natural and Scenic Resources)

The following provides brief overviews of each resource area by its classification. Important resource areas are depicted in Chapter 4.

5.5.2.1 Botanical Areas

The vegetation map in Chapter 4 depicts Diego Garcia's plant communities and provides descriptions of the different vegetation types. Essentially, for a small geographic area, Diego Garcia offers a wide variety of plant species for study and appreciation. Recognition of these can be integrated into the nature interpretive program, especially in the littoral forest near the cantonment and



Figure 5.4 Forested area

the wetland near Point Marianne. Food plants on Diego Garcia include the giant taro (*Alocasia macrorrhiza*), swamp cabbage (*Ipomoea aquatica*), and bilimbi (*Averrhoa bilimbi*), which are introduced species, and two native species, the coconut (*Cocos nucifera*) and tropical almond (*Terminalia catappa*). Of these five species found on the Native and Naturalized Plants Checklist (Appendix F-1), only the fruits of the coconut and the edible leaves of the swamp cabbage are used for food on Diego Garcia. The fish-poison tree (*Barringtonia asiatica*) has the potential to be used in fishing, but it is probably not used on the atoll.

The Cultivated Plant List (Appendix F-1) lists a variety of vegetables and fruit with anecdotal evidence of consumption of squash (*Cucurbita maxima*), sweet potato (*Ipomoea batatas*), mango (*Mangifera indica*), string beans (*Vigna marina*), chili pepper (*Capsicum* spp.) and papaya (*Carica papaya*).



Figure 5.5 Papaya tree

5.5.2.2 Geological Areas

The atoll as a whole is of geologic interest. Opportunities exist for interpretation of geologic and climatic processes such as volcanism, global warming and sea level rise, and atoll formation.

5.5.2.3 Ecological and Zoological Areas

Ecological and zoological areas include such locations as the wetlands near the well areas, Turtle Cove, the open grassland near Turtle Cove, the intertidal zones and the littoral forests. A more detailed description of these areas and the animals and plants that may be found in them occurs in Chapter 4.

Excellent examples of outdoor recreation opportunities in ecological and zoological areas follow:



Figure 5.6 Open grassland

The open grasslands are good spots for viewing migrant bird species, such as whimbrel, ruddy turnstones, and blackbellied plovers. The various marsh/wetlands serve as another important bird watching area because they are used as breeding and nesting sites for various bird species. The littoral forest near Eclipse Point is a good area for viewing red-footed boobies, ruddy turnstones, and brown noddies.

The littoral forests have many interesting species of plants and three types of land crabs, including the coconut crab.

The zoological areas marine include the fringe reefs Eclipse Bay, near the anchorage area and ocean side of the northern cantonment, and Turtle Cove at the south end of the atoll. Chagos Archipelago hosts approximately 220 species of reef building stony coral, more than 700 species of fish, threatened and endangered sea turtles, and a variety of marine invertebrates. Thus, the marine environment of Diego Garcia provides excellent opportunities



Figure 5.7 Stingray

for species identification and appreciation. Turtle Cove is an important habitat for turtles, sharks and many species of fish.

5.5.2.4 Scenic Areas



Figure 5.8 Panoramic beach view

The main scenic resources on Diego Garcia are panoramic views of beaches, the lagoon and vegetated areas of the atoll. Eclipse Point provides a good view of the islets at the mouth of the lagoon and is a good bird watching spot. The wetland adjacent to the terminal provides phenomenal air photographic opportunities of towering vegetation perfectly reflected in still water. Point Marianne combines historic and natural settings. Turtle Cove provides an excellent spot for observing hawksbill and green turtles, rays, sharks, mullet, silver fish, bonefish, shrimp, and many varieties of birds within a pristine setting of an intertidal habitat.

5.6 Known and Potential Recreation Activities

5.6.1 Dispersed Recreation Activities

5.6.1.1 Fishing

Recreational fishing is the only consumptive outdoor recreational activity permitted on Diego Garcia. It is a popular activity, but one that draws mixed opinions as to its potential impacts on the fish populations. Fishing occurs from the shore, from boats, and from other miscellaneous vessels. MWR operates a recreational fishing fleet consisting of Mako and Ocean Masters (OMs) vessels.



Figure 5.9 Lagoon fishing boat

In addition, two LCM (landing crafts), anchored ships, and other small craft serve as platforms for fishing. The catch and release program includes billfish, sail fish, sharks and Napoleon/humphead wrasse. Table 5.1 provides a summary of fishing opportunities.

Table 5.1 Fishing Opportunities on Diego Garcia

Method	Availability	Fishing Areas	Target Fish
Shore fishing by handline or rod and reel	Daily	Peripheral reef north of the airfield, permitted areas on the lagoon between Eclipse Point and Point Marianne	Trevally, snapper, grouper, mullet, bonefish, goatfish, pompano, emperor, sweetlips and surgeonfish
Mako skiff	Eight skiffs available for hourly or half- day rental 7 days a week	Lagoon areas A, B, and C	Bottom fish, snapper, grouper, sweetlips, emperor and surgeon fish
Ocean Masters	Four available for daily rental 7 days a week	Troll fishing on ocean side only.	Trevally, jacks, tuna, bonito, and wahoo
Navy Landing Craft (LCMs)	One LCM for general fishing during weekdays and holidays. Available for charter on regular days, including weekends and holidays.	Lagoon entrance passes and peripheries	Bottom fish, snapper, grouper, sweetlips, and surgeon fish
Prepositioned MSC vessels		Lagoon anchorages	Bottom fish, snappers, grouper, sweetlips, and surgeon fish

5.6.1.2 Snorkeling



Figure 5.10 Great snorkeling spot

As previously mentioned, Diego Garcia has unique and diverse marine resources. Its atoll formation and rich reef structure of ease access appreciation of its marine biota. Snorkeling not only promotes morale and physical fitness, but also enhances understanding of the uniqueness and vulnerability of the marine biota. Snorkeling is allowed only in the lagoon from the beach. It is not allowed on

the ocean side of the island. Snorkeling is not permitted on the ocean side and some other parts of the lagoon. Recreational SCUBA diving is not permitted on Diego Garcia. These two restrictions are in place because of safety concerns and support limitations.

5.6.1.3 Hiking

There are several opportunities for hiking in different areas of the island. There are conditioning hikes that can be taken along DG-1 and on connecting roadways as well as along the cantonment's jungle trail/para course. In addition, there are stretches of beach that are suitable for hiking and beachcombing during low tides.



Figure 5.11 Jungle trail

5.6.1.4 Nature Study

Habitat areas that can be used for nature study include the forest, the wetland areas, Turtle Cove, and the lagoon. As discussed in previous sections, each of these habitats is a host to an array of interesting flora and fauna. Nature studies can also be accomplished while beach walking and beach combing. For example, the molluscan fauna of Diego Garcia is rich and large, and beautiful shells are common. BIOT regulations prohibit taking live shells, although dead shells may be collected. There are also abundant opportunities for bird watching, observing

land crabs and tide pool organisms or passively observing the entire atoll environment. Marine observations appear to be very popular, probably because of the more exotic nature of the organisms and the fact that it is done in/under the water.

5.6.1.5 Bicycling

Bicycling is a primary means for transportation and a popular recreation activity supported by MWR. Mountain bikes are available for a daily or monthly rental. Mountain biking is an excellent way to sightsee on and off the pavement. For example, riding along the scenic roadway is enjoyable and provides good exercise. The 7.5-mile (12 km) off-road bike trails through forested areas are maintained through self-help (Note: maintenance will be included in the next BOS contract). MWR and Cable & Wireless sponsor a twice a year tip-to-tip bike



race starting at Barton Point and ending at the Officers' Club. For this event, bikers and their gear are transported to Barton Point via LCM.

Figure 5.12 Off-road bike trail

Bike Safety

Management and safety measures include proper sun protection, adequate drinking water, and proper hand, knee, and head protection, particularly when biking on unimproved roads and paths. Wearing a bicycle helmet is mandatory when riding south of the airport and anywhere "off-road." Biking with a partner or within a group is recommended. Fiberglass potable water storage containers have been placed along DG-1 as far as Donkey Gate. Biking off of approved trails is potentially damaging to the environment, and is prohibited.

5.6.1.6 Motor Boating, Paddle Boating, Sailing, Canoeing, and Kayaking

Boating activities within the lagoon require adherence to safety rules and knowledge of weather conditions. Each provides varying degrees of exercise with low impact on the environment. The same areas that are restricted to fishing boats are also restricted to sailboats, kayaks, and canoes (Refer to Figure 5.3). MWR also has water ski boats and equipment that normally operate in the vicinity of the marina. The marina staff provides necessary operating instructions.

Boaters may be permitted by the BRITREP to sail within the restricted area to reach the rest and recreation point 200 yards (182 meters) north of East Point, and anchor overnight. Boaters must exhibit awareness of restrictions in place for specific boating activities. Water skiing is normally conducted in the vicinity of the marina.



Figure 5.13 Sailing class



Figure 5.14 Windsurfing

The existing paddleboat inventory will be surveyed. New sailboats were purchased in mid-2002; the inventory contains five 17' Hunters; three Hobie/Dart catamarans and fifteen PICOS. Additional inventory includes five single and double-person fiberglass kayaks, and a dozen windsurfing boards.

5.6.2 Known and Potential Concentrated Recreation Activities

5.6.2.1 Camping

There are no camping facilities on Diego Garcia.

5.6.2.2 Picnicking



side pavilions exist in the northern cantonment near the BOQs and BEQs. Parks (i.e., Seabee, Ye Ole, Firehouse Park) and the Beach House are also in proximity to the BOSC housing areas. No additional picnicking areas are recommended.

Several picnic areas and shore-

Figure 5.15 Cannon Point picnic area

5.6.2.3 Fitness Trails

The jungle trail/para course in the north cantonment area is an approximately four-mile (6.5 km) round-trip trek through the forest from the cantonment to receiver station. Access roads to water wells are also used for jogging and walking.

5.6.2.4 Swimming

Swimming is a popular activity anywhere in the unrestricted sections of the lagoon. Swimming/surfing is prohibited on the ocean side of the atoll.

5.6.2.5 Target Shooting

MWR has a skeet range located at the Air Operations area. Lead shot remains on land; if the range is ever shut down, area restoration and cleanup will be required. The remaining small arms ranges are used for training by U.S. and U.K. personnel and are not available for recreational shooting. Shooting may potentially disturb avian fauna and become a noise nuisance. Therefore, no additional recreational firing ranges are recommended for the atoll.

5.6.2.6 Golf

There is a nine-hole golf course and driving range located between Palmsville and Seabreeze Village. A large wetland comprises much of the course's north boundary.

5.6.2.7 Scenic Lookouts

Scenic lookouts include Eclipse Point, the wetland area near Point Marianne, and Turtle Cove on the southern tip of the atoll. Locations of these scenic lookouts as terrestrial recreational areas are shown in Figure 5.3.

5.6.3 Demand

The base loading population, including merchant seamen, is



Figure 5.16 Scenic view at Eclipse Point

approximately 3,650 persons. The actual on-island population is about 3,630 persons. Over the years, MWR has improved the quality and variety of recreational opportunities for the base population. MWR updates its five-year master plan periodically. The most recent five-year master plan calls for renovating many of MWR's facilities and replacing recreational watercraft.



Figure 5.17 The newly renovated Jake's Place at the Beach House beach

The value of maintaining varied opportunities cannot overemphasized due to the remoteness of the base and limited opportunities for offisland rest and recreation. Diego Garcia's natural resources support the promotion of new programs or activity enhancements to ensure a variety of available outdoor recreation for its assigned personnel.

5.7 Analysis and Evaluation of Outdoor Recreation Opportunities

To a large degree, botanical areas, zoological and ecological areas, and scenic points co-located. There are four main land areas of recreational value: Eclipse Point (popularly known as Canon Point), wetlands, the R&R Site at East Point Plantation and Turtle Cove. Natural interpretive programs can be implemented in all these areas for environmental awareness and nature appreciation. Eclipse Point has a myriad of secondary roadways ideal for jogging, unit runs, and organized footraces. Much of the ocean beach area is suitable for beachcombing/shell collecting (dead shells only). Picnic areas and pavilions are available throughout the cantonment and marina area. Water recreation—boating, sailing and fishing—is centered on the marina and lagoon.

In pursuing these recreational opportunities, environmental conservation measures and U.S. Navy and BIOT regulations must be observed to protect the natural environment and to ensure that proper precautions are being taken for the health and safety of the atoll's personnel.