Scientific Information to Describe Ecologically or Biologically Significant Marine Areas

Grenada. 12-01-12

Title/Name of the Area: Coastal marine area around the nation of Grenada and the lower Grenadines Archipelago.

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Abstract. Grenada, Carriacou and Petite Martinique comprise an archipelagic state. To the east is the Atlantic Ocean and to the west the Caribbean Sea. While Grenada does not claim any deep sea habitat as ecologically or biologically important at this time, the open ocean that surrounds it is of critical importance to the economic welfare and livelihood. Fishery and tourism represent two of the fastest growing sub-sectors and the protection and conservation of the marine environment are priority policy issues. Coastal ecosystems, ranging from littoral mangroves to sea grass meadows and associated coral reefs (including beaches) provides the basis for a significant portion of the national wealth. In this light these ecosystems provides the focus for government's policy for their protection and conservation through the establishment of Marine Protected Areas (MPAs). In addition the location of country's EEZ raises the issue of a trans-boundary nature especially as a result of the flood plumes from the great rivers of South America (Orinoco).

Location: The state of Grenada is located between 12^{o} 13' north and 12^{o}10' north, and 061^{o}02' west and 061^{o}40' west. The territorial sea and EEZ occupies a larger area that this exact location. (See Fig. 1 & 2). This area is within the national jurisdiction of Grenada and is not subject to a submission to the Commission on the limits of the continental shelf at this time.

Feature description of the proposed area. The proposed area forms part of an Island System within the southern Caribbean archipelago. On the western side, the continental shelf is narrow, quickly descending to depths in excess of 400 meters close to shore (1.5nm). In the north, south and east the continental shelf is relatively more extensive (8 to 12 nm in the east ranging in depths from 0 > 200

meters in the deep slope). The shelf extends to approximately 25 nm southwards to Trinidad and 25 nm northwards into the Grenadines).

Within the latter are high productivity ecosystems such as mangroves, sea grass beds and coral communities which dominate the coastal margins of the islands (Insular Caribbean Ecological Features TDA – CLME, 2007). These communities provide the habitats critical to marine biological diversity, fisheries, tourism and the ecological services they provide. These characteristics provide the impetus for their protection at the policy and governance levels.

The ecosystem functions include the influencing of the productivity of these coastal communities (mangroves, sea grass beds and coral reefs) as well as spawning, nursery and foraging habitats for economically and ecologically important species and food security. In addition the protection afforded against coastal erosion and the maintenance of clean water is also major considerations. The productivity of the area is also enhanced by the seasonal plumes of the Orinoco River (Insular Caribbean Ecological Features- TDA- CLME, 2007 & Fig.3)

As is the case with many Small Island Developing States (SIDS) the level of scientific research within the area has been hindered by the limited available resources.

Feature condition and future outlook of the proposed area. A definitive statement of the current status of the proposed area (static, declining, improving) is at best difficult given the limited amount of scientific studies. However, it has been determined that coral reefs and mangrove communities are threatened by coastal developments, Land Based Sources of pollution (LBS) and improper fishing practices. Global threats to these communities include global warming (causing region-wide episodes of coral bleaching and death), sea level rise and ocean acidification. Some species (for example marine turtles, queen conch and certain corals) are already listed as endangered.

As with most coastal ecosystems the communities identified are vulnerable to anthropogenic actions. Those of global dimensions result in the doubtful future for the economy (fisheries, tourism and biodiversity) and food security of the local population. In view of this the government is pursuing opportunities to engage local, regional and international agencies and universities to undertake urgently required research into the exact status of these ecosystems. In addition government has implemented the precautionary approach through a vigorous program of establishment of Marine Protected Areas (MPAs). In Collaboration with other Caribbean states under the Caribbean Regional Fisheries Mechanism (CRFM) government is adopting an ecosystem based approach to fisheries governance.

LIST OF FIGURES IN THE ATTACHED APPENDIX