ABSTRACT

Environmental Geology extends in scope beyond the study of rocks, tectonics and paleontology. It includes issues of resource management and conservation, as well as environmental legislation and enforcement. Coastal Area Management encompasses all these attributes and is particularly suited to the Caribbean Islands which suffer from conflicting demands on limited coastal resources.

Specific geologic issues comprise prevention of coastal erosion, intensified by destruction of such effective natural barriers as coral reefs and mangrove swamps; hazards to coastal communities from landslides, earthquakes and volcanic eruptions resulting from the tectonic setting of the West Indies island arc; mining of beach sands for construction materials; and excessive siltation caused by inland agricultural, mining or industrial activities often exacerbated by problems of solid waste disposal.

Responses of individual Caribbean nations to the recent challenge of coastal area management differ widely, but are focused on promotion of tourism and conservation of beaches, coral reefs and mangrove swamps. Results are presented from: (1) a survey of existing laws and regulations concerning the coastal environment, and their efficacy; and (2) interviews with beach users in Trinidad & Tobago and Jamaica.

The outcome of verbal responses to questionnaires stresses the continued need for public education, not only to enhance environmental awareness but increasingly, to stimulate a greater sense of responsibility for the vulnerable coastal area. Effective mechanisms should be put in place to allow for, and to encourage, increasing active citizen participation in the decision making process, and to make proper enforcement more palatable and persuasive.