

VIEQUES (PUERTO RICO) CLIMATE AS A TOURISM RESOURCE

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The main objective of this paper is to explore the climatic characteristics of the island-municipality of Vieques, a small island some twenty miles east of the main Island of Puerto Rico. For sixty years, this small island had been under the control of the United States Navy and used as a target practice area for the U. S. Navy and its allies. The Navy eventually left the island at the beginning of the present century and the Island has been considering developing its tourist industry as the main source of promoting its economic development. As a small island in the Caribbean Sea, it has to compete with the other small Caribbean Islands for attracting the tourists mostly from the United States and the Western European nations.

Present day tourism needs to attract tourists from all socioeconomic levels and all parts of the world. The traditional tourism based on attractive beaches and lots of sunshine is giving way to environmental and cultural tourism, by which tourists search for areas that are culturally different from the places they come from. Many tourists now look for secluded, peaceful places, where they go just to rest, enjoy the scenery and quietness, away from the hassle of large cities with their repetitive suburban patterns filled with fast foods, expressways, and daily commuting routine.

Vieques is such a place. It is a small, somewhat undeveloped, slow moving island with small hotels, guest houses, beautiful beaches, and a very peaceful atmosphere.

People who come to Vieques tend to return every year and book their reservations on an annual basis. What does Vieques have to offer that these tourists come back every year to enjoy? In my opinion, its climate and its people. This paper will deal with its climate as a means of developing a sustainable tourist industry.

Vieques' climate is clearly an asset. To begin with, it has a maximum period of daylight ranging from 13.5 hours in June to 11 hours in December. There is no need to use Daylight Saving Time. It is a relatively level land with its highest point being Monte Pirata with an elevation of approximately 300 meters. Its maximum temperature varies from 32.2° C in August to a minimum of 29.8°C in February, for a temperature range of only 2.4°C. The maximum mean temperature is also in August with 27.5°C and the minimum in February, with 24.4°C, for an average range of 3.1°C. Daily temperature ranges vary between 9°C in June to 10.2°C in March, meaning that it warms up during

the day but cools off significantly at night. The wind regime is mainly the Eastern Trade Winds mixed with the daily sea breeze.

Skies are mostly sunny as the winds face little topographic obstacles which would force the air to rise and produce cloud and rain. The dry season extends mostly from December to April, where it ranges from 100 mm in December to less than 50 mm in April. The rainy season begins from May to November, with a minimum of about 140 mm. in May to over 160 mm. in September and October. Even this 160 mm. during the height of the rainy season is not much rain. During this rainy season, the rain is mostly the result of easterly waves or by the typical tropical afternoon convective shower resulting from the warming of the land surface. In essence, Vieques is a rainfall deficit area from approximately December to August, with a short surplus period from September to November. In fact, water is brought to Vieques from the island of Puerto Rico through a marine water pipe. Hurricanes are few and far between, as the recent hurricane history has shown.

Some comfort indices have been used to show how the temperature is felt under different temperature and humidity conditions. In general, the higher the temperature and higher the humidity, the warmer it feels. The first comfort index is based on a nomogram (see appendix) which shows how to calculate the effective temperature based on the temperature, the humidity and the wind speed. Although the temperature feels higher when it is more humid, a breeze will result in making the temperature feel less than it actually is. The temperature humidity index is also based on a combination of temperature and relative humidity. This index shows how temperature feels lower when the humidity is lower. Because Vieques has a lower humidity index, a higher temperature there does not feel as high as in the northern part of the Island of Puerto Rico where the humidity is higher than in Vieques and the south coast of Puerto Rico. Hotels and guest houses can keep these charts in visible areas, along with the temperature and humidity readings, so the people will be able to check how the temperature will feel like before leaving their lodging or planning what to do during the day. Because of the relatively long hours of daylight and sunshine throughout the year, Vieques is an excellent place to adopt both solar and wind sources of energy, which in the long run result in lower energy costs and a cleaner environment. True sustainable tourism is dependent on the use of these alternative sources of energy, which seem to be abundant in the Island, and the attraction of people interested in the environmental and cultural attractions Vieques has to offer. Small hotels and guest houses should be encouraged rather than the big luxurious hotels that abound in the larger island of Puerto Rico.