

SUSTAINABLE USE OF BIOLOGICAL, LANDSCAPE AND SOCIAL VALUES of Maio Island, Republic of Cape Verde

A PROPOSAL FOR AN ECO-ISLAND



Prepared for **Ministerio do Ambiente, Direcção-Geral do Ambiente**
by **Professor Tamás Székely**



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*Contact address: Department of Biology & Biochemistry, University of Bath,
Bath BA2 7AY, UK. Email: T.Szekely@bath.ac.uk*

RATIONALE

Maio is the most pristine and the least disturbed large island in the Republic of Cape Verde. Historically, Maio was subject to most agents of destruction associated with human's presence, although it was lucky to escape major threats that have destroyed many oceanic islands: industry and pollution, overuse of natural resources, invasive species and desertification, and mass tourism. Maio still has relatively unspoilt wetlands, grasslands, sandy beaches and marine ecosystems. The Island also has a strong local community that makes living from fishing, salt production and agriculture. Development of the island, however, is unavoidable and indeed desirable to improve living conditions, health care and education of the local people.

Here I propose to improve local's life and at the same time, preserve landscape and biodiversity values. My main proposition is that the Society for the Tourist Development of Boa Vista and Maio (SDTBM) should design a new developmental plan for the Island of Maio that will use the following principles:

1. improve the Cape Verdean's income and life style by respecting the local communities and the people's desire to keep the strong community structure;
2. respect the natural landscape and pristine habitats of Maio;
3. preserve and protect plants, animals and marine ecosystems on and around Maio.

I propose various activities that will draw on these principles. I anticipate that these suggestions will stimulate a discussion between different governmental agencies, NGOs and communities.

To make these development to happen, the engagement of the municipality, government institutions with an office based in the island, privately owned institutions, NGO's and conservationists, and the local communities are all required. By assessing the alternative options for development, I anticipate that a better consensus will emerge for the benefit of people and wildlife.

Photo credits: Pedro López Suárez, Tamás Székely, Natura 2000, PescaMaio presentation

INTRODUCTION

The Island of Maio is one of the 10 main islands within the Cape Verdean Archipelago. It has a land area of 275 km², and it is the most pristine large island in the Republic of Cape Verde, with a resident population of only 6740 people. Maio has the greatest potential for sustainable development, because of its beautiful landscape, undisturbed beaches, diverse plant and animal communities. There is no major industry polluting the environment, and population density is relatively modest. Maio so far has avoided the development that has destroyed much of Canary Islands, Madeira and the Azores: mass tourism. Most inhabitants live in the largest town and port in Vila do Porto Ingles, and their impact on natural resources is minor.

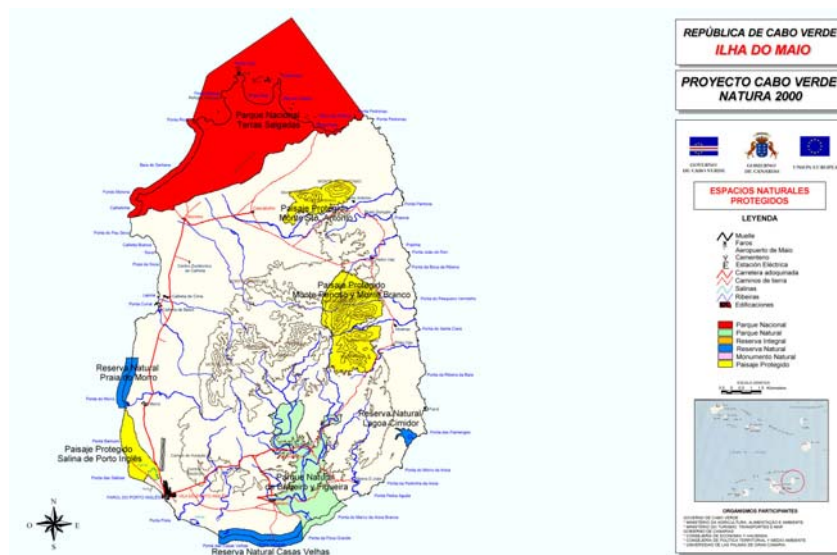


Figure 1. Protected areas in Maio Island, Republic of Cape Verde based on decree-law number 3/2003 that established a network of protected areas. In the Island of Maio, eight sites have been identified as worthy protection because of their biological, social, cultural and scenic importance.

Several ecosystems and habitats have an outstanding biodiversity value. Wetlands, sand dunes and lagoons (Salina de Porto Ingles, Terras Salgadas, Barreiro de Figuera) host migratory birds (waders, herons, egrets) and harbour endemic birds (Alexander's Kestrel and lagoon Sparrow).

Approximately 600 individuals of Kentish Plover breed in Maio (about 200 individuals in Salina Porto Ingles), and with other wetlands (i.e. Casa Velhas, Lagoa Cimidor), making Maio the largest known Kentish plover breeding population in any island of the Atlantic Ocean. It is a genetically distinct population that may need to be recognised as endemic subspecies. In addition, up to 50 pairs of the endemic subspecies of Cream-coloured Courser breed on Maio, that represents the largest breeding population for the subspecies.

Maio is also an important breeding ground for Loggerhead Turtle. Capture of nesting females and collection of eggs has reduced the Maio breeding stock to critical numbers. Nonetheless, Loggerhead Turtles – the numbers have yet to be determined - still come ashore to lay their eggs.

Another important habitats are marine ecosystems. Maio has the second largest continental platform within Cape Verde, it concentrates a significant number of marine species due to direct positive influence of the underwater current rich in phytoplankton. Species include lobsters, calmars, octopus, molluscs, fishes (*Decapterus macarellus*, *Decapterus punctatus*, *Selar crumnophthalmus*, demersals, groupers, red porgy and sargus), sharks (including the whale shark), whales and dolphins. Maio has one of the last tuna stocks that is not overexploited.

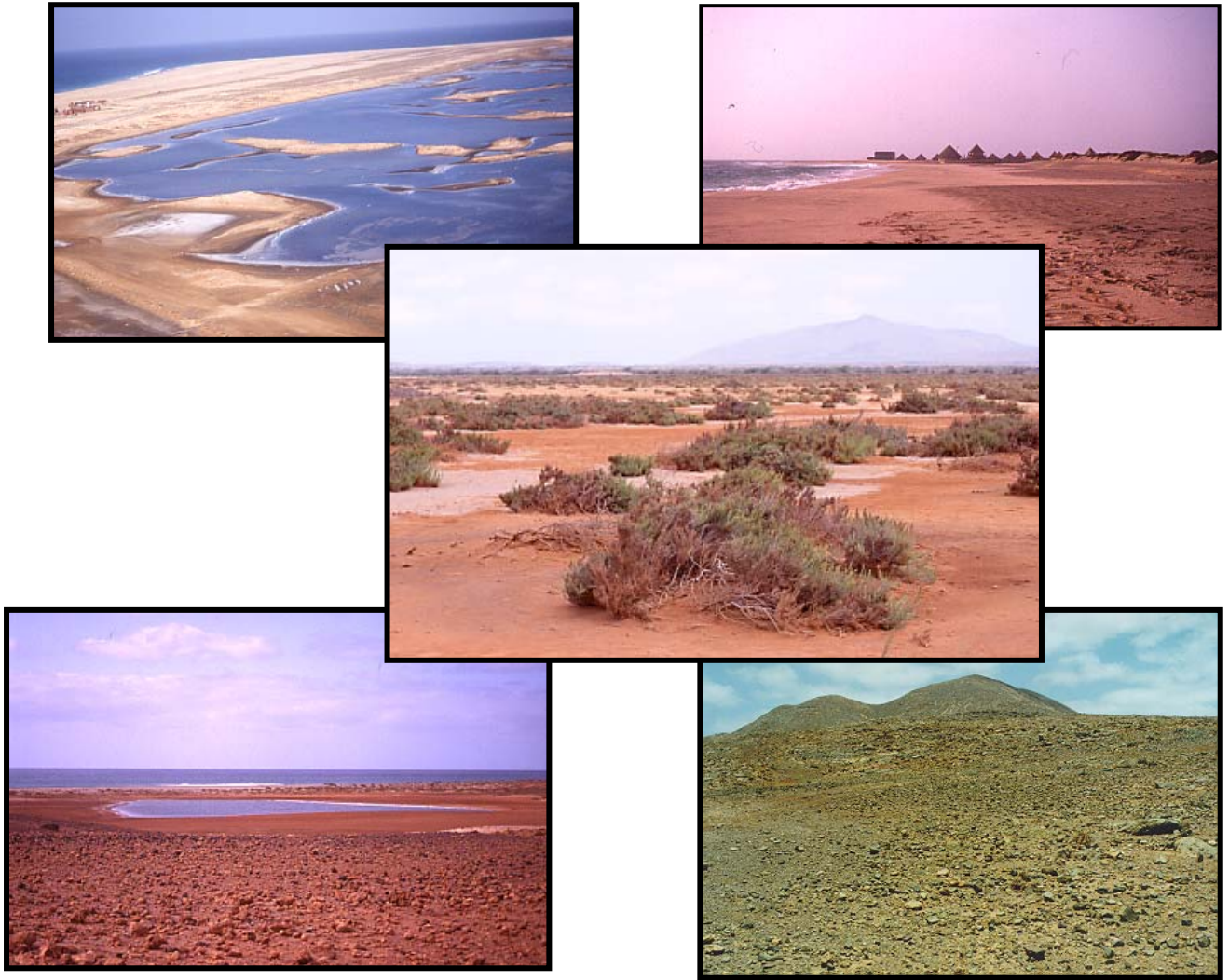


Figure 2. Characteristic ecosystems of Maio Island.



Figure 3. Typical breeding birds: Cream-coloured Courser (left) and Kentish Plover (right).



Figure 4. Representatives of rich marine biodiversity.

The most important economic activities in the island are artisan fishing, salt production, livestock and agriculture. There is a strong community structure on the island: families have tight links going back to hundreds of years. There is strong support between people; the natives welcome visitors as long as they respect the islanders' life.

OBJECTIVES

The main objective of this Proposal is to outline of sustainable developmental paths for Maio. Specifically, I suggest developing the island

1. to improve the living condition, education and well-being of local communities;
2. to preserve existing lifestyles and strong community structures within populations;
3. to exploit natural resources in a sustainable and an eco-friendly way.

I propose that the current developmental plan by the Society for the Tourist Development of Boa Vista and Maio (SDTBM) to establish many thousand of new beds in Maio (in the forms of hotels, golf courses and residential/holiday settlements) as the main targets does not represent the interest of local people or biodiversity. Mass-tourism will likely to disrupt social structure and destroy much of natural landscape.

Instead, I propose other targets to achieve:

1. how many people and families had improved housing conditions, higher income and better education;
2. how much of the pristine beaches, rocky shores, sand dunes and wetland have been preserved for future generations of Cape Verdeans;
3. how well the fish stocks, marine animals, turtles and terrestrial species (birds, plants) are doing as a measure of living conditions.

Maio has three major resources: its people, its wonderful landscape and most valuable natural wildlife. A responsible developmental plan should consider all three aspects. Neither the people nor the landscape and wildlife are replaceable: once a pristine beach or a wildlife-rich habitat is destroyed, it is nearly impossible to recover it.

PROPOSED DEVELOPMENTAL DIRECTIONS

To develop a detailed plan requires substantial time and expert opinions from economists, sociologists, urban planners and ecologists. Here I limit myself to major directions and activities that should be further elaborated by consultations with experts:

1. Develop a new tourism plan that focuses on bungalows, eco-friendly residential homes and villas, instead of mass tourism. These developments should focus on selective areas within the island that takes into account the people's likely impact on landscape and nature. New touristic developments (hotels, holiday villa complexes) should only be approved after careful impact studies on social structure, landscape and biodiversity.
2. Develop eco-friendly activities that will make Maio attractive for visitors and overseas residents: there is a need for information materials, leaflets, DVDs and posters;
3. To alleviate and eliminate poverty alternative and eco-friendly ways should be developed for profiting from nature. Drought-tolerant plants should be tested to improve agriculture output, pilot drilling should explore use of underwater water for irrigation, and rainwater collections should be established on mountain hillsides and rainwater should be preserved in reservoirs. This will increase crop production and help livestock (cows and goats).
4. Solar energy should be used much more extensively, for instance for de-salinisation; currently the majority of electricity is produced by burning fossil fuels (oil) on the island; this is expensive and a non-renewing source of energy.
5. Given that the Island of Maio is endowed with the second largest continental platform in Cape Verde, marine flora and fauna should be better explored. Crustaceans, molluscs and fish species should be assessed, and instead of transporting the goods to Praia, a direct air-link to Canary Islands should be explored.
6. A micro-credit system should be introduced to assist small farmers and fishermen to start establishing their own business.
7. Potential investors (Cape Verdeans and foreigners) willing to develop in Maio should be screened for eco-friendly activities. Investors should be obliged to spend a small % of their investment on eco-activities (see below).
8. Infrastructure (roads, communication systems, shops, health care) should be developed, and these developments should consider long-term impacts. For instance, upgrading Maio Airport to an international status does not seem necessary: instead, a regular and reliable fast boat service should be introduced that transports goods between Praia and Maio. If such a service exists (eg a daily speedboat between Maio and Praia) this would be better for local communities than flights – largely because more goods can be transported on boats and they are cheaper than airplanes.
9. Assist eco-touristic activities (diving, sport-angling, birding, turtle watching) and establish native companies that benefit from the tourists. A major problem with mass tourism is that most profits are reaped by the foreign companies and only a small % is left for the locals.
10. Establish an effective network of protected sites on Maio. This should involve creating buffer zones around the existing protected sites, establishing new reserves (eg Ponta Preta Marine Reserve) and providing the facilities for managing these sites (guards, vehicles, offices).
11. Build a Biodiversity Education and Conservation Center that will coordinate eco-activities on the whole island including research, conservation and environmental education activities (i.e. school and tourist visits).