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The Socioeconomic Importance of Eco-Resort Management Practices

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Abstract: In recent years, ecotourism has become an increasingly important alternative form of sustainable tourism. Couran Cove Island Resort, which is located on South Stradbroke Island off the Gold Coast in Queensland, Australia, is an eco-resort on one of the world's few naturally occurring sand islands. As an ecotourism-based resort, Couran Cove is active in implementing a range of initiatives for sustainable management of its environment, which is particularly important as it is home to a wide variety of plant communities. Consequently, the resort has a niche market of ecotourists. This paper examines how Couran Cove Island Resort applies the principles of ecotourism in its environmental management and marketing practices.

Keywords: Ecotourism-based resort; Couran Cove; Conservation; Environmental education

1. INTRODUCTION

Ecotourism is often regarded as a form of nature-based tourism and has become an important alternative source of tourists. In addition to providing the traditional resort-leisure product, it has been argued that ecotourism resort management should have a particular focus on best-practice environmental management, an educational and interpretive component, and direct and indirect contributions to the conservation of the natural and cultural environment (Ayala, 1996). The purpose of this paper is to examine critically the practices, problems and challenges faced by Couran Cove Island Resort, which is a large integrated ecotourism-based resort located south of Brisbane on the Gold Coast, Queensland, Australia (see Figure 1). As the world’s population becomes increasingly urbanised, the demand for tourist attractions which are environmentally friendly, serene and offer amenities of a unique nature, has grown rapidly. Couran Cove Resort, which is one such tourist attractions, is located on South Stradbroke Island, occupying approximately 150 hectares of the island. South Stradbroke Island is separated from the mainland by the Broadwater, a stretch of sea 3 kilometers wide.

More than a century ago, there was only one Stradbroke Island, and there were at least four Aboriginal (including the Kombamerri, Noonuckle, Goenpul and Quandamoooka) tribes living and hunting on the island. Regrettably, most of the original island dwellers were eventually killed by diseases such as tuberculosis, smallpox and influenza by the end of the 19th century. The second shipwreck on the island in 1894, and the subsequent destruction of the ship (the Cambus Wallace) because it contained dynamite, caused a large crater in the sandhills on Stradbroke
Island. Eventually, the ocean broke through the weakened land form and Stradbroke became two islands. ‘Couran’ to the Kombamerri people means the Moreton Bay ash tree.

Couran Cove Island Resort is built on one of the world’s few naturally-occurring sand lands, which is home to a wide range of plant communities and one of the largest remaining remnants of the rare *Livistona* rainforest left on the Gold Coast. Many mangrove and rainforest areas, and Malaleuca Wetlands on South Stradbroke Island (and in Queensland), have been cleared, drained or filled for residential, industrial, agricultural or urban development in the first half of the 20th century. Farmers and graziers finally abandoned South Stradbroke Island in 1939 because the vegetation and the soil conditions there were not suitable for agricultural activities.

Figure 1. Couran Cove Island Resort, Queensland, Australia.
2. SUSTAINABLE PRACTICES OF COURAN COVE RESORT

Being located on an offshore island, the resort is only accessible by means of water transportation. The resort provides hourly ferry service from the marina on the mainland to and from the island (see Figure 1). Within the resort, transport modes include walking trails, bicycle tracks and the beach train. As an ecotourism-based resort, most of the planning and development of the attraction has been concentrated on the need to co-exist with the fragile natural environment of South Stradbroke Island to achieve sustainable development. Planning initiatives take into account the building of accommodation, water and energy supply, liquid and solid waste disposal, pest management, community involvement and environmental education.

3. CONSERVATION

European settlement in Australia for the past 200 years has depleted many plant and animal species on South Stradbroke Island. Its ecosystems have already been modified substantially through cattle grazing, agriculture, fire, logging and extensive sand mining. Couran Cove Island Resort has implemented an extensive revegetation and rehabilitation program to help restore and preserve a wide range of valuable plant species, such as the many varieties of ferns, swamp orchids, epiphytes and rainforest trees (see Figure 2). This program is also intended for bringing awareness to the community about the essential role played by these habitats in the ecosystem of the island.

Figure 2. Vegetation Within Couran Cove Area.
After its construction, native vegetation was replanted around the resort to blend in with the environment aesthetically. For instance, all accommodation construction (eco-cabins), designs, materials used and colours are chosen to blend in with the existing landscape of the environment. Given the warm and humid climate for 9 months of the year, the cabins are built on stumps which allow air circulation under the buildings and the screened verandahs keep out insects. This type of cabin is built throughout the eucalypt woodlands, which allows the visitors to view the habitats of the woodlands undisturbed from their accommodation. Accommodation has also been built on the lagoon overlooking the water.

Walkways have been installed for conservation purposes. While not restricting access to view the natural environment, these walkways quarantine visitors from the more fragile areas. The walkways through the Livistona rainforest are raised above the ground to keep people off the delicate forest floor so that the cycle of decomposition, which is vital for their rejuvenation in a relatively nutrient poor sand, is not interrupted. Part of the walkways include a raised tower for visitors to view and appreciate the whole Livistona community from the canopy to the forest floor.

4. WATER AND ENERGY MANAGEMENT

South Stradbroke Island has groundwater at the centre of the island, which has a maximum height of 3 metres above sea level. The water supply is recharged by rainfall and is commonly known as an unconfined freshwater aquifer. Couran Cove Island Resort obtains its water supply by tapping into this aquifer and extracting it via a bore system. Some of the problems which have threatened the island’s freshwater supply include pollution, contamination and over-consumption. In order to minimise some of these problems, all laundry activities are carried out on the mainland. Some of the problems which have threatened the island’s freshwater supply include pollution, contamination and over-consumption. In order to minimise some of these problems, all laundry activities are carried out on the mainland. The resort considers washing machines as onerous to the island’s freshwater supply, and that the detergents contain a high level of phosphates which are a major source of water pollution.

The resort uses LPG-power generation rather than a diesel-powered plant for its energy supply, supplemented by wind turbine, which has reduced greenhouse emissions by 70% of diesel-equivalent generation methods. Excess heat recovered from the generator is used to heat the swimming pool. Hot water in the eco-cabins and for some of the resort’s vehicles are solar-powered. Water efficient fittings are also installed in showers and toilets. However, not all the appliances used by the resort are energy efficient, such as refrigerators. Visitors who stay at the resort are encouraged to monitor their water and energy usage via the in-house television systems, and are rewarded with prizes (such as a free return trip to the resort) accordingly if their usage level is low.

5. WASTE MANAGEMENT

Couran Cove has incorporated the waste management hierarchy into practical applications to minimise the impacts of waste on the environment. The hierarchy includes avoid, re-use, re-cycle and disposal of waste appropriately. In order to ‘avoid’ waste, the resort tries to bulk purchase to reduce excessive packaging. Organic waste, such as food scraps and cuttings, go through a much longer recycling process, whereby it is sorted, weighed, pureed, aerated, composted, and finally fed to worms. A vermiculture processing plant (also known as worm farming) has been established to re-use organic waste and the by-product, known as vermicast or worm castings, are used as soil conditioner and fertiliser in the resort’s landscaping and revegetation projects. Treated waste water is re-injected into the natural environment through a specially-built artesian system.

Recycling is achieved through an extensive program which ensures that all recyclable materials are collected, sorted, compacted and shipped to the mainland for recycling. Non-recyclable wastes are also sent to the mainland for disposal. Around the resort, including the cabins, three different types of bin are installed for disposal of organic, recyclable and non-recyclable waste accordingly.

State-of-the-art techniques are used for sewerage treatment by the Couran Cove Island Resort to ensure maximum treatment and minimum impact of wastes. Couran Cove uses the following processes in its sewerage treatment:

- Collection of sewerage - vacuum sewer pipes are used to collect and transport sewerage from housing to central collection areas along shallow trenches (the latter minimises potential negative environmental impacts on the forest and bushland areas).
- Treatment of sewerage – from primary to tertiary, with an added polishing stage which involves ultraviolet disinfection.
Disposal of sewerage – involves the treated effluent being used for irrigation, as well as being injected into the ground via a series of underground drippers.

6. PEST MANAGEMENT AND OTHER CHALLENGES

Pest management is an important part of conservation. Couran Cove has adopted a holistic approach to pest management (for example, mosquito and cane toad management), which includes identifying pest species, researching the availability of natural predators, and investigating environmental friendly solutions. This approach was widely practised at the beginning, but the added pressures of increased visitors has resulted in the use of short-term expensive chemical treatments. However, the resort has incurred high financial and environmental costs through the use of fertilizers and pesticides.

Acid sulphate soils are common on the south-east coastal region of Queensland, and contain pyrites (or iron sulfide). When the soil is exposed to the air, sulphuric acid is produced, which can pollute watertables, waterways and wetlands, and damage aquatic life. At the Couran Cove Island Resort, the acid sulphate soils have been found in the seabed of the proposed site for the resort’s dock. The construction of Couran Cove has been challenged by this problem, which is overcome by separating the pyrites from the dredged sand. An airtight piping system is used to transport the sand to the soil treatment site where the sand is washed out and the acidic silt sinks to the bottom of the settling ponds. Eventually, the pyrites are buried under the water.

7. EDUCATIONAL INITIATIVES AND INTERPRETATION

Couran Cove has implemented a range of environmental and cultural educational initiatives. The interpretive centre at the resort serves as a hub for information on all activities, including advice as to what visitors should and should not. Development and human settlement have had negative impacts on some wildlife. For instance, there is evidence that wallabies have become accustomed to being fed by island visitors, which has caused the potentially fatal “lumpy jaws” syndrome. Consequently, signage and verbal education are used throughout the resort to discourage the feeding of native animals.

In addition, the centre is an environmental hub for learning about the natural environmental systems of South Stradbroke Island, its rich, diverse and delicate ecosystem, the island’s maritime history, original occupants, and fauna communities. Guided nocturnal and rainfall walks, interpretative beach walks and astronomy tours are conducted by the centre. The Aboriginal bush tucker walk enables visitors to explore the cultural heritage of South Stradbroke Island. Throughout the walk, there are interpretive signs which focus on Aboriginal history and culture (dance and folklore), and recent European colonisation.

The ecotourism management strategies of Couran Cove Island Resort also include encouraging visitors to play an active role in contributing to the health and viability of the environment. With an increasing number of visitors involved in planting native seedlings on the resort, the arduous task of reforestation and conservation is lightened. Employees are also provided with training to increase their awareness of the resort’s natural and cultural heritage, and its eco-initiatives. However, the proposed training has been reduced from two weeks to three days due to staffing pressures since the opening of the resort. Couran Cove Island Resort also organises special educational activities for schools, as part of community education on sustainable tourism.

An Environmental Research Trust has been established to promote and fund research at Couran Cove Island Resort. Some of the projects initiated include koala habitat surveys, flora surveys, frog breeding, revegetation, and microbat detection and identification. Couran Cove Resort also provides environmental data and research findings to the Environmental Protection Agency.

8. CONCLUDING REMARKS

This paper examined a case study of good management practice and a pro-active sustainable tourism stance of an eco-resort. In three years of operation, Couran Cove Island Resort has won 23 international and national awards, including the 2001 Australian Tourism Award in the 4-Star Accommodation category. The resort has embraced and has effectively implemented contemporary environmental management practices. It has been argued that the successful implementation of the principles of sustainability should promote long-term social, economic and environmental benefits, while
ensuring and enhancing the prospects of continued viability for the tourism enterprise (Brown and Essex, 1997).

Couran Cove Island Resort does not conform to the characteristics of the Resort Development Spectrum, as proposed by Prideaux (2000). According to Prideaux, the resort should be at least at Phase 3 of the model (the National tourism phase), which describes an integrated resort providing 3-4 star hotel-type accommodation. The primary tourist market in Phase 3 of the model consists mainly of interstate visitors. However, the number of interstate and international tourists visiting the resort is small, with the principal visitor markets comprising locals and residents from nearby towns and the Gold Coast region.

The carrying capacity of Couran Cove does not seem to be of any concern to the Resort management. Given that it is a private commercial ecotourist enterprise, regulating the number of visitors to the resort to minimize damage done to the natural environment on South Stradbroke Island is not a binding constraint. However, the Resort’s growth will eventually be constrained by its carrying capacity, and quantity control should be incorporated in the management strategy of the resort.

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