

Globalization Vs. Sustainable Tourism: An Approach to Planning Tourism Destinations in Coastal Areas

by

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Abstract

Tourism is reputed to be the world's largest industry in terms of international trade. The tourism industry is rapidly expanding. The ability of tourism to generate foreign exchange revenue, create employment, and absorb unemployment has provided it with a political and social legitimacy. The economic benefits of tourism are however, the results of a fundamental process by which expressions and forms of environmental and cultural capital are traded. Environmental capital, in terms of natural resources and more intangible aesthetic constructs of landscape and built heritage is clearly recognized as a platform for tourism development. Cultural capital, in its artifactual form and mosaic of local cultures, together with its way of life and tradition dimensions, is also recognized to be at the root of tourism phenomenon. Yet, conflicts over the exploitation, over-usage, and contested use of the environment for tourism purposes will be further pronounced by the introduction of globalization with its transcontinental flows, patterns of social interaction, and so-called global mass.

This article thus explores the implications of globalization on sustainable tourism development. The concept of globalization is examined identifying key positions in favor of, and against sustainable tourism. Basic concepts of sustainability are explored as an attempt to outline an approach to planning sustainable tourism developments in coastal areas. The objective being to assist stakeholders in the planning and management of coastal areas while contributing to the conservation of natural and cultural diversity. The article concludes by providing a set of well defined guidelines for the planning and design of environmentally sound, aesthetically pleasing, and market-sensitive tourism developemnts.

Concepts of Globalization

Globalization, simply put, denotes the expanding scale, growing magnitude, speeding up and deepening impact of transcontinental flows and patterns of social interaction (Mc Grew, 2002). The term relates to the process in which technology, economics, business, communications, and even politics dissolve the barriers of time and space that once separated peoples (Eckes, 1999). Yet, the idea of globalization is a source of great controversy, competing theories vie for dominance not only on the streets but in academia as well.

Proponents of globalization often tend to associate it with perpetual prosperity and peace. Many even envisage an economic utopia in which money, capital, and skilled workers move rapidly across national borders in response to private sector decisions. According to the "Washington Consensus", the triumph of market-driven economics is both inevitable and

irreversible. President Clinton's Deputy Secretary of State once wrote in the Time magazine: "I will bet that within the next hundred years, nationhood as we know it will be obsolete; all states will recognize a single, global authority" (Eckes, 1999). But, by aggressively pressing their vision for an open and unregulated system, zealous proponents of globalization and deregulation may have successfully ignited nationalistic reactions and traditional appeals of localism, regionalism, and nationalism.

Critics however, are continuing to voice their criticisms and disagreement, claiming that globalization encroaches on national sovereignty, and endangers cultural diversity and environmental and labor standards. Activists, and ordinary citizens around the world - particularly in developing countries - question whether communities, cultures, and nations should be subordinated to the logic of an unregulated, market-driven system, or to a system regulated by international authorities (Eckes, 1999). In the aftermath of the Asian financial crisis, critics argued that giving too little attention to the local underlying conditions constitutes a recipe for disaster. Principal international financial institutions including the International Monetary Fund (IMF) reaffirmed this opinion in their annual report, indicating that pushing developing countries to open their economies prematurely to free flows of capital constitutes "an accident waiting to happen" (Eckes, 1999).

Globalization and Sustainable Tourism

Globalization with its transcontinental flows, patterns of social interaction, and so-called global mass has given the tourism industry free reign to develop throughout the world. In fact, tourism has led the globalization process in the areas of transportation, communications, and financial systems (McLaren, 1999).

The tourism industry has become a major sector of global economy since the later part of the 20th century and is rapidly growing at a tremendous annual rate. The ability of tourism to generate foreign exchange revenue, create employment, and absorb unemployment has provided it with a political and social legitimacy. As such tourism has been promoted as a panacea for "sustainable" development. Its potential to earn billions of dollars easily has resulted in it being viewed as a cure for debt-ridden countries. Furthermore, tourism has become part and parcel of multilateral financial institutions' package for financial bailouts for countries in distress (Gonsalves, 2003). Tourism is now being pursued as a serious development strategy for the Developing World.

However, the economic benefits of tourism are, the results of a fundamental process by which expressions and forms of environmental and cultural capital are traded. On the one hand, environmental capital, in terms of natural resources and more intangible aesthetic constructs of landscape and built heritage is clearly recognized as a platform for tourism development. On the other hand, cultural capital, in its artifactual form and mosaic of local cultures, together with its way of life and tradition dimensions, is also recognized to be at the root of tourism phenomenon.

Consequently, conflicts over the exploitation, over-usage and contested use of the environment for tourism purposes have over recent years attracted a great deal of attention. The rapid expansion of tourism is responsible for adverse environmental and socio-cultural impacts. Although the tourism industry is regarded as being kinder to the environment in general than most other industries, its very size and wide spread presence has created negative environmental impacts, both of a physical and socio-cultural nature. Natural resource depletion and environmental degradation associated with tourism activities undermine the important ecological systems and pose severe problems to many tourism destinations. With globalization, these threats will be exacerbated. International agreements that open up access to the local tourism industry by big travel and tourism transnational

cooperations (TNCs) will only speed up exploitation of the natural resources, culture, and way of life of indigenous peoples (Gonsalves, 2003).

Tourism should thus be involved in sustainable development, because it is a resource-based industry, which is dependant on nature's endowment and society's heritage. We can safely ascertain that sustainable development in tourism is premised on the notion that the economy and the environment - physical as well as socio-cultural are but two sides of the same coin, in other words, the two are intimately linked.

The continuation of tourism as a dynamic and viable industry is thus dependent upon the adoption of a strategic approach to planning and marketing. The hallmark of such an approach is the inclusion of systematic and structured analysis of broader environmental and socio-economic factors affecting tourism demand as an integral part of planning process (Faulkner, 1994).

Dimensions of Sustainable Tourism Development

Sustainable Tourism is a phenomenon of the 1990s, however its origins lie in the wider concept of sustainable development (Swarbrooke, 1998). Sustainable tourism operates in harmony with the local environment, community and culture, so that these become the permanent beneficiaries and not victims of tourism development. Achieving sustainability depends on a balance of private initiative, economic instruments and regulation, translating global principles into focused local action, and new public-private sector delivery mechanisms. This may give birth to a new and necessary tourism culture that bestows more importance to the environment as a valid raw material for sustainable tourism development.

According to the World Tourism Organization (WTO) sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. Sustainable tourism development can thus be envisaged as leading to management of all resources in such a way that we can fulfill economic, social, and aesthetic needs while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems (Murphy, 1994).

The 7 dimensions incorporated within this definition provide an excellent example of the general multi-dimensionality and interdisciplinary concerns. The need for resource management reaffirms that tourism is an economic activity, which must be capable of making a profit in order to survive and benefit the community.

The fulfillment of social obligations, means more than inter-generational equity, it means respect for other livelihoods and customs. Such variety and heritage is a major resource for tourism in a world that is fast becoming homogenized into a global economy.

A major component of environment and culture is their aesthetic appeal. While the focus has often been on international markers, such as world-renowned sites, the aesthetic qualities of regular townscapes and general landscapes should not be overlooked.

These needs should be addressed within ecological parameters to sustain both the physical and human environments. In addition to the real concerns about the natural environment, conservation of cultural legacies should not be ignored. The ecological process needs to be understood so that tourism intrusions will have the minimal impact, especially in sensitive coastal areas.

The concern over maintaining our biological diversity is particularly germane to tourism, which thrives on the appeal of different flora and fauna along a distinctive sense of place.

Finally, the need to sustain our basic life support systems is paramount. If these basic needs are not yet met, then our higher level needs, like travel will fail to materialize.

Measures of Sustainability

While it is easy to conceptualize about the need for sustainable tourism development, it is far more challenging to develop an effective, yet practical measurement process. The literature in this subject shows carrying capacity techniques being applied in a variety of circumstances, often clarifying and confirming levels of suspected environment or social stress, but they leave open to discussion what it all signifies and what policy should be undertaken.

A major difficulty is that carrying capacity implies the existence of fixed and determinable limits to development and that if one were to stay below threshold levels no changes or determination will occur. However, it is known for a fact that all changes and modifications to the environment have an incremental effect, so some degree of change must be acknowledged and accounted for at all development stages. This is the philosophy behind the "Limits to Acceptable Change" (LAC) a process of measurement proposed by Stankey.

The LAC system is a framework for establishing acceptable and appropriate resource use with the primary emphasis being the conditions desired rather than the tolerance of a specific site. The process however, is a combined measurement and planning system not a policy.

Yet, both the carrying capacity and LAC processes examine sustainable tourism from the supply side of the host community, but if tourism is to be sustainable it cannot ignore the demand side of the visitors. Thought should be given to the demand implications of sustainable tourism development, specifically the benefits the visitors are seeking and the marketing strategies that can be applied to service both the visitor and the host.

Market research should identify which tourism niche is most appropriate from a business and environmental point of views. This kind of marketing analysis and strategy is being practiced in some Canadian national parks, moving away from the traditional promotional and operational focus to one which attempts to manage visitor opportunities and encourage public understanding of the twin mandate of conservation and recreation. The process uses market research to select target markets, specially the most appropriate public and private mix of opportunities and to guide the design of programs, services, and facilities. This however, requires an annual and seasonal monitoring system of visitor patterns and satisfactions to provide a visitor profile and strategy guide to the destination and the individual business members.

Planning for Sustainable Tourism Development Along the Red Sea Coast: The Egyptian Experience

Egypt has one of the fastest growing tourism industries in the world. Vast cultural and natural resources constitute principal attractions for visitors. The spectacular coastlines of the Red Sea and Gulf of Aqaba are home to a rich variety of coral reefs and associated marine life. Dramatic natural features of the region exemplified in the pristine coral reef ecosystem, rare but beautiful marsas, sharms and beaches, uncluttered coastal landscapes, and landforms carved out by wadis constitute a particular tourist attraction. However, these ecosystems are vulnerable and their protection requires special attention in the planning and design of tourism developments.

On the one hand, the fragile coastal reef ecosystem is easily damaged by intensive development of tourist facilities and the impact of tourist numbers. Landfilling of coastal zones to provide sandy beaches, destroys reefs and increases seawater turbidity damaging flora and fauna and resulting in the contamination of coastal sites. On the other hand, the increased demand and pressures of projected expansion of tourism activity in the central core of tourism developments undermines the cultural and built heritage, and places a strain on the existing infrastructure, leading to visual pollution, crowding and traffic congestion, and socio-cultural changes in the local population, ultimately affecting the well-being of the host community. A legitimate concern thus exists over unplanned tourism development in Egypt, particularly in coastal areas. Hence, the Environmentally Sustainable Tourism project (EST) funded by the USAID, was initiated in December 1995. The goal being, to enhance the capabilities of the Egyptian Government to develop the nation's expanding tourism industry whilst simultaneously safeguarding its rich cultural and natural heritage from decline and providing ongoing support to the local community.

A Planning Approach

In order to deal with the changing impacts of tourism on coastal destinations, new approaches are required that address the sensitivities of all users to proposals for change. The planning process requires clearer identification of impacts and of limits, reflecting the sensitivity of different attributes of the environment to different types and levels of impact or use. The objective being, to identify and sustain those qualities which visitors and locals value in each particular tourism destination setting. In order to achieve this a six-phase process, adapted from John Snyder's approach to ecotourism development was developed by the authors (see Fig. 1). The suggested approach builds upon the authors accumulated experience as urban planners, an earlier research investigation undertaken by one of authors in summer of 1999 for nine tourism developments along the Gulf of Aqaba, the Environmentally Sustainable Tourism project (EST) initiative funded by the USAID, and the documented experiences of others. The process is designed to provide options for tourism development that respect key sensitivities and involves the following:

1. Identifying the Attributes and Critical Element

The initial step in this process involves preparing an inventory examining and assessing the attributes and critical elements of the tourism destination. Characteristics of the biophysical and socio-economic environment, current and potential stresses, and demands or expectations of the host community should be investigated. This is in an attempt to identify development opportunity, constraints, and alternatives and is best accomplished by identifying and evaluating key environmental elements, ecological systems, as well as viable wildlife habitats. A quantitative as well as qualitative assessment of the local population is also essential and should comprise demographic and economic information such as population size and age, race, ethnicity, and occupational information as well as cultural values, overall goals, and vision for participation in the tourism development and implementation process.

2. Defining the Tourist Experience

The information obtained from the assessment of the critical environmental, socio-cultural, and economic elements should be combined to determine the full array of experiences that could be offered by a tourism destination. The result of this is a program plan that accurately defines the full range of activities, and the delivery systems required to safely and enjoyably conduct those activities.

3. Preparing the Development Plan

This phase of the planning process constitutes developing an action plan for managing implementation. It serves as a vehicle for ensuring the development of the program plan into a coherent and unified implementation plan.

The development plan describes the vision for the tourism destination and forms the basis for promotion and marketing, EIA reviews and approvals, and improvement on specific parcels. The plan should clarify the development objectives and outline a realistic path to achieve them. The development plan is intended to define the circulation networks (roads, promenades, corniches, trails, etc.), recreational facilities and open spaces (commercial centers, public beaches, marinas, parks, floodways, and protected areas), and the basic infrastructure and services (desalination plants, wastewater treatment facilities, institutional, educational and health facilities, and employee housing). The information provided by the development plan should not only identify the resources and their estimated cost for delivering guest services, but should also provide valuable input to other planning, design, and management tasks.

In addition, options for tourism development should be generated to investigate the effects of each alternative on the destination and its users. Such an approach will lead to the planning and design of tourism development plans that respect key sensitivities and include many different carrying capacities depending on which values are negotiable and which are not. Through the use of tools such as demand management, zoning, appropriate infrastructure design, environmentally sound facility operation and maintenance, monitoring, and site rehabilitation, the range of acceptable options could be enlarged. The continuing direct involvement of all affected communities in identifying key values and sensitivities, as well as their participation in the choice of development and management options, is critical to the success of this process (Dougherty, 2003).

4. Applying Sustainability Criteria and Preparing EIAs

The results of the development plan should be monitored to insure that they meet the established environmental, cultural, and economic goals. This could be achieved by identifying the environmental thresholds and tolerances of wildlife and botanical species, calculating the return on investment and social benefits accrued such as employment, skills development, household income, improved health and education etc., as well as determining the level of preservation of the local culture, indigenous practices, and heritage sites. EIA should outline actions to mitigate undesirable impacts, and the monitoring needed to determine the extent of damage to the environment. The EIA is to be prepared by a professional team of scientists, engineers and planners based on field investigations and research.

5. Performing Project Planning and Project Monitoring

Based on the above information, the development plan should be modified and subdivisions and land allocation altered to preserve environmentally sensitive areas, provide communal access to significant sites, and be consonant with the site constraints and the natural and socio-cultural resources. With EIA approval, detailed planning, appropriate design, and engineering work could proceed for infrastructure and other improvements. Environmental monitoring should include water quality testing, marine life surveys and coral growth measurements and should establish test locations and base line levels from which to evaluate changes. The estimated costs of construction, operations, and maintenance should also be provided as an integral part of the project-planning phase.

6. Implementing and Operating

The final phase involves construction of development projects and requires knowledge of the anticipated costs and revenues, the identification of sources of financing, and a plan for finance required to implement the project. The basis of a marketing strategy should also be identified and management plan be produced in order to establish guidelines for the effective performance of guest services, facility operations, community outreach, and environmental stewardship. Furthermore, job training and skills development for the host community should constitute part of the operating activities and should contribute to the realization of human

potential and enable the local people to become beneficiaries of the project. Research should also be undertaken regularly to identify changes in the environmental conditions that may effect the operations. The information serves as a feedback mechanism for continually evaluating the quality and integrity of the tourism experience.

This sustainable approach to tourism planning requires the services of a multi-disciplinary team of professionals who are capable of evaluating environmental, economic, and human conditions. The result of this process is an environmentally, economically and culturally viable tourism project that can adapt to change, and thus can be sustained.

Planning and Design Guidelines

Furthermore, and in an effort to assist the development community to achieve environmentally sound aesthetically pleasing and market-sensitive tourism developments, a set of well defined planning and design guidelines have been compiled by the authors to illustrate the "best practices" and insure the preservation, and protection of environmental and socio-cultural assets. These guidelines are not meant as prescribed steps and procedures, but as guiding tools assisting in the application of sound planning, design, construction and operation measures, and in managing environmental assets (Tourism Development Authority, 1998).

1. Development Guidelines

1-1 Guide Development to Reduce Pressure on Resources & Increase Visitor Carrying Capacity

Keeping the sea front more open and clustering development will enable destinations to maintain higher quality tourism experience for more visitors, and increase the carrying capacity of coastal assets, thereby expanding the number of rooms a destination can support (see Fig. 2).

1-2 Develop a Conservation Strategy for Public and Common Areas & Resources

Beaches, marsas, and sharms should be treated as rare jewels and protected. Committing such resources to one property may reduce its enjoyment by citizens and visitors.

1-3 Provide Networks for Pedestrians, Bicyclists & Horseback Riders as well as Motorists.

Setbacks from high water mark to building front lines offer opportunities for attractive promenades, pedestrian paths, coastal trails, "corniche", and a commercial and social center for the community (see Fig. 3).

1-4 Plan for Economically Vibrant Commercial & Service Centers

The commercial activities and resort support services both represent an important financial opportunity for investors, as well as an opportunity to create a "Community Center" environment that provides an attractive social outlet for guests.

1-5 Meet Employee Needs for Attractive Housing & Community Facilities

The development plan should provide sufficient, suitably - located employee housing within easy walking distance of commercial centers. This will create a quality of life that promotes high staff morale and productivity.

1-6 Locate Infrastructure components in Environmentally Appropriate Sites

Innovative infrastructure systems must be identified and located appropriately to assure environmental compatibility.

1-7 Provide Interpretive Facilities for Environmental Awareness

Environmental information centers can provide brochures, books, and other material that convey information about environmental protection. Visitors, residents, and staff will see themselves as part of a local system and share in the responsibility of its protection.

1-8 Modify Subdivision Plats to Expand Tourism Potential, Employ Better Environmental Practices, and Meet the Development Planning Objectives

The financial future of the resorts in any tourism development are directly linked to the extent to which environmental assets are maintained, and to the satisfaction of visitors with their overall tourism experience. Therefore, key improvements to the subdivision plats that are necessary to assure that these centers live up to their potential must be identified and implemented (see Fig. 4).

2. Marine Recreation Development

2-1 Zone Marine Areas to Ensure Safe Water Sports Use and Protect Sensitive Natural Area

Zoning is an effective means to separate incompatible uses (such as swimming and boating), direct visitors to appropriate areas (best diving sites), and protect particularly sensitive areas (fish nurseries etc.), (see Fig. 5).

2-2 Protect Coral Reefs by Providing for Vessel Mooring & Anchoring

Mooring buoys are an essential tool for limiting anchor damage on coral reefs. When integrated into a dive site management plan they can be used to direct swimming and diving activities to the most appropriate sites, as well as keep dive site use within estimated carrying capacities.

2-3 Design Environmentally Appropriate Access for Use & Enjoyment of Marine Ecosystems

Provide safe and easy access options to attraction such as, shuttle boats, floating walkways, submerged walkways, raised walkways to minimize possible damage to marine ecosystems and maximize the enjoyment of visitors especially those with special needs, including young children and the elderly or handicapped.

2-4 Design Artificial Beaches to Increase Recreational Opportunities & Avoid Environmental Impact.

In order to meet visitors expectations for water sports-related recreational activities, tourism centers and individual resorts often seek to provide artificial beaches i.e. floating pool or platform, wet beach etc, (see Fig. 6).

2-5 Design Artificial Lagoons to Avoid Environmental Impact and Ensure Good Water Quality

Marine specialists must carry out a feasibility assessment and schematic design of the lagoon system to insure proper flushing and water exchange that maintains attractive and healthy water quality and avoids stagnant water areas with excessive sedimentation.

2-6 Design Jetties & Marine Structures to Minimize Impact on Marine Ecosystems

Jetties are marine structures that can be used to access recreational facilities, or as docks for small yachts or boats. Initial investigation should be carried out to identify the water depths, the soil formation and the areas where live corals and special species exist in order to identify suitable locations.

2-7 Locate and Design Marinas to Respond to Site Conditions & Provide Public Access

A market survey should be carried out before entering into the planning and designing stage, to provide guidance on the types, sizes, and numbers of boats to be accommodated and whether or not marina service facilities are desirable. Evaluation of a potential site for marina development should initially investigate the water depths, the soil formation, and the areas where live corals and special species exist in order to identify suitable location for building a marina.

3. Coastal Setback Use & Development

3-1 Maintain Public Access to Coastal Amenities

The setback distance from high water to building front lines is determined by the physical conditions of the site, including the topography shoreline attributes, wind exposure, presence of wetlands, wadis, dunes or other sensitive environments, parcel size, and prior development. An operations plan for maintenance of pathways, vegetation and other features within the setback is needed to minimize any negative impact.

3-2 Establish an Attractive Coastal Trail System

The coastal setback provides an excellent opportunity to create a trail system that would enable access to all coastal amenities and facilities within and beyond a tourism development, provide opportunities for bicycling, horse-backing and other recreational transport, and meet needs of emergency and security services. The trail system can serve as the spine that links all entertainment and recreation activities, making the destination's natural, recreational and social attractions available to all visitors (see Fig. 7).

3-3 Provide Light Structures Only Within Setback Areas

Permanent structures should not be permitted between the high water front line and the coastal building front. Light or non-permanent structures built of lightweight material can contribute to the use and enjoyment of the setback areas. In order to provide a comfortable, attractive environment for those using coastal trails and for those walking from resort properties to the beach and other coastal attractions, various facilities are desirable such as; shaded sitting areas; food and beverage services etc.

3-4 Minimize Excavation & Fill of Natural Terrain

Excavating, filling, and other alterations should be minimized as they can easily jeopardize the balance of natural processes and lead to unanticipated consequences including harm to sensitive marine ecosystem. A natural terrain can be used to protect areas along the shoreline from strong winds, which often disturb recreation and sunbathing activities. Where cutting and filling is required, measures should be used to minimize wind and water erosion and resultant sedimentation, particularly in areas close to the shoreline. Every effort should be made to use local materials, such as rock and sand, for retention and stabilization purposes.

3-5 Manage Irrigation Wastewater to Protect the Marine Environment

Treated wastewater effluent can be used to irrigate landscaped areas in the setbacks and in gardens which reduces the demand for fresh water. Unfortunately, much irrigation wastewater can easily reach underground shallow aquifers or move seawards and cause numerous negative impacts, such as alga over growth on coral reefs. A proper management scheme must be implemented to avoid excessive irrigation and reduce the amount of wastewater. The typical scheme should include a pipeline network to intercept and collect the wastewater.

4. Land Use Management

4-1 Encourage Access to and Protection of Birds and Other Wildlife Habitat

Unrestricted access, both spatially and temporally, can endanger and damage the unique and sensitive wildlife habitats. Trails may also have to be built to accommodate pedestrians in breeding and nesting areas.

4-2 Encourage Development of Ecolodges as a Complement to Conventional Development

An "ecolodge" is used to identify a nature dependent tourist lodge that meets the philosophy and principles of ecotourism. In an ecolodge the most important element is the quality of the surrounding environment; the nearby natural and cultural attractions, and the way the local population is involved.

4-3 Manage Undeveloped Uplands to Create Tourism Attraction

Investing in creating and managing upland sites behind the coastal strip increases the marketing advantage. Ecolodges can be an excellent solution for investment in the uplands.

5. Environmental & Landscape Design

5-1 Use Building Forms and Colors that Blend with the Natural Landscape

Local and traditional building forms and processes can be far less expensive and more attractive and unique than conventional styles.

5-2 Maintain Views of the Sea and Mountains

Preserve the best sea and mountain views for more shared functions that people really enjoy. As for guestrooms, they are used primarily for sleeping.

5-3 Take Advantage of the Micro-Climate

Use whenever possible natural and passive climate control solutions, it is cheaper and more environmentally friendly i.e. in the long term environmentally sustainable.

6. Infrastructure & Support Facilities

6-1 Design and Manage Facilities to Conserve Energy & Water Resources

The best design should minimize resource consumption and maximize operating savings. In addition to the clear financial benefits, the environmental benefits resulting from reduction of the resource use and the reduction of pollution levels can be significant. Such designs often offer, "pay back" periods of surprisingly short duration, resulting from the double benefit of reduced operating costs as well as reduced environmental impact.

6-2 Collect & Properly Dispose of Solid Waste

Whether designed for an individual tourist facility or for an entire resort village, solid waste management programs should utilize a balanced approach, including waste minimization, waste recycling, waste handling, and waste disposal.

6-3 Recycle and Reuse Wastewater & Properly Dispose of Brine from Desalination Plants

Uncontrolled sewage has a potential to seriously damage the ecosystem, and threaten human health. Wastewater disposal should be managed by implementing water use conservation techniques. Using less water means less will have to be produced in the desalination plant, and less will have to be processed at the sewage treatment plant. In each case, wastewater disposal problems and costs are reduced. The treatment and

reutilization of wastewater will also help reduce the cost of obtaining fresh water for non-drinking activities.

6-4 Locating Water Treatment and Wastewater / Sewage Treatment Facilities in Environmentally Appropriate Locations

Proper zoning of water supply and wastewater treatment facilities is important in order to eliminate or reduce risks of unpleasant odors and noises. The economics of infrastructure and piping is definitely a serious factor in determining the zoning of site facilities. However, the potential health risks and disturbances caused by these facilities must be assessed and considered.

6-5 Develop Attractive and Efficient Employee Housing and Support Facilities

Tourism planning should take into consideration the development of related businesses and population growth, as a result of the economic activity generated by the tourism industry. There will be a need for a full range of services and facilities including shopping, schools, medical clinics, religious facilities, parks and recreation facilities, as well as other community facilities and services.

6-6 Employ Traffic Calming Measures Within Tourist Developments

Priority should be given to serve and protect pedestrians and the handicapped, followed by cyclists and horseback riders, then those in electric carts and motor vehicles. Heavy or unrestricted vehicular traffic within tourist centers can pose safety hazards, and create nuisance conditions. Simple and easily implemented traffic control measures would protect the safety and comfort of guests.

7. Construction Impact Management

7-1 Implement Construction Impact Mitigation Measures Identified in the Project's EIA

An understanding of potential construction impacts can be determined, and appropriate impact mitigation measures selected. In addition, and as part of the EIA review and approval process, a construction management plan with impact mitigation measures and field monitoring protocol, should be a condition of project approval.

7-2 Reclaim and Restore All Disturbed Areas

When the natural landscape is disturbed, serious environmental consequences can result (soil erosion, degradation of visual quality, loss of marine and terrestrial species etc.). Failure to incorporate simple restoration measures can result in needless damage and increase remedial costs. This can be managed in a manner that refines the quality and economics of the project.

7-3 Use Local Materials if Extraction and Processing are Low-Impact

Whenever possible, use the output of site extraction to produce local building materials. This will save transport costs, and will boost the local cultural and employment market. Natural and local building materials live in harmony with the local environment and bestow on the project a unique architectural character that can become an attraction of its own and afford creating a "sense of place".

8. Environmental Management

8-1 Encourage Leadership by Development for Local Environmental Management

Environmental management practices employed during project operations are needed to address long-term environmental issues including: conservation of scarce resources,

proper treatment and disposal of wastes, management of public open space, and protection of overall visual quality.

8-2 Prepare Environmental Management Plan and Conduct Environmental Audits

This includes development of an environmental management system and implementation of a variety of environmental audits.

8-3 Monitor Key Environmental Indicators

Environmental monitoring programs require periodic data collection using consistent methodologies and standardized data collection forms.

8-4 Promote Environmental Awareness

Promote visitor centers and provide interpretive facilities for use by the tourist.

Conclusion

To conclude it is but evident that globalization with its transcontinental flow patterns of global mass has given the tourism industry free reign to develop throughout the world undermining the environmental and socio-cultural resources of local cultures. However, for globalization to be sustainable it should not be read as a universal process of global integration in which there is a growing convergence of cultures and civilizations. For the unevenness of globalization ensures it is far from a universal process experienced uniformly across the entire planet (Mc Grew, 2002). Instead, it should be interpreted as a process by which a new sense of global belonging is created which transcends loyalties to the nation-state, and by which transnational social movements with clear regional or global objectives are developed, such as the "green movement" for preserving the environment.

Sustainable tourism development thus requires the realization and active exercise of ecological and social responsibility at the global, national, and local level. In addition, the successful implementation of sustainable tourism development principles in coastal areas would require integrated policy, planning, and social learning processes. Its viability would depend on the full support of the people it affects through their governments, their social institutions and their private activities.

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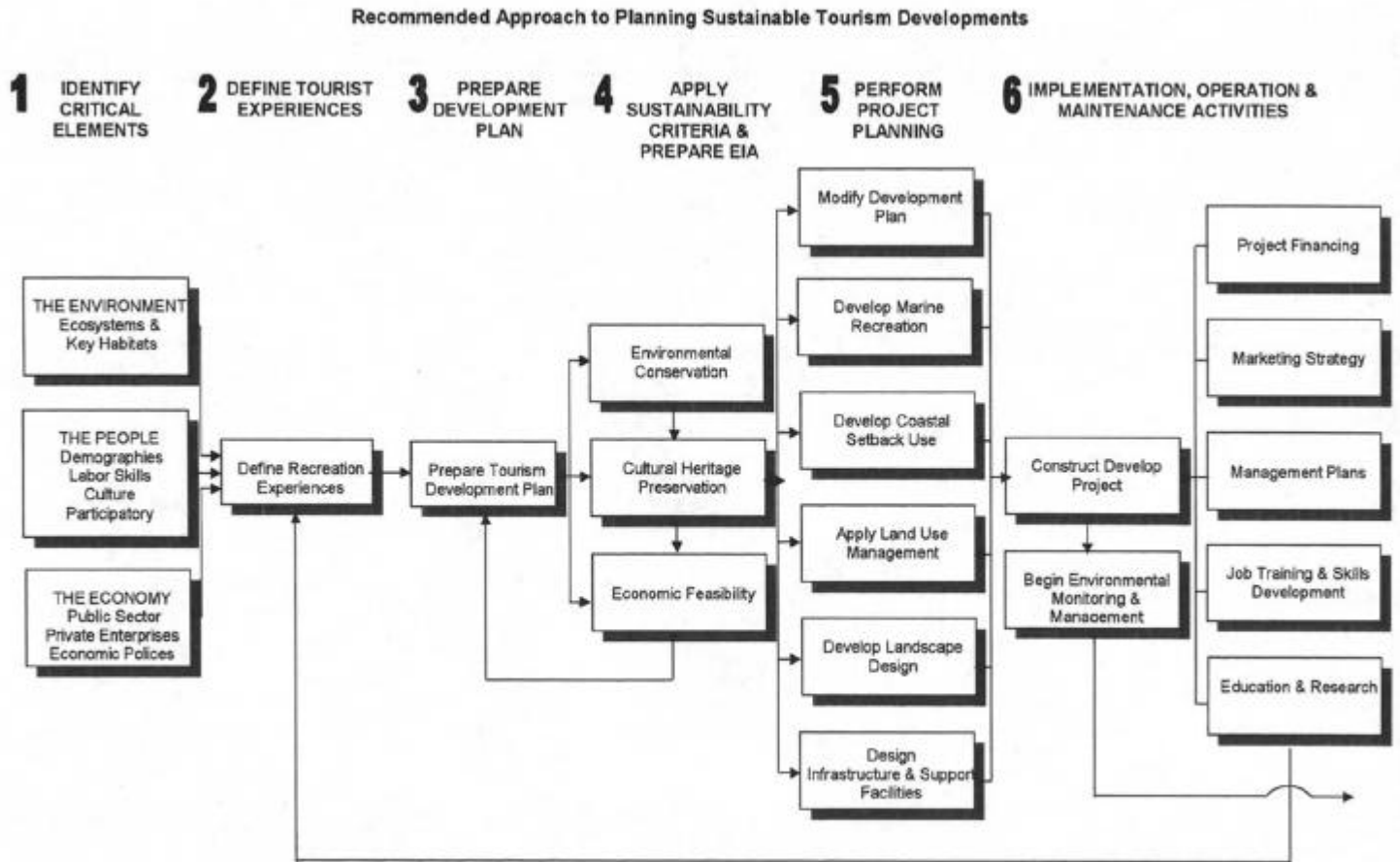


Fig. 1: An Approach to Planning Sustainable Tourism Developments
Adapted from: John Snyder, 1994

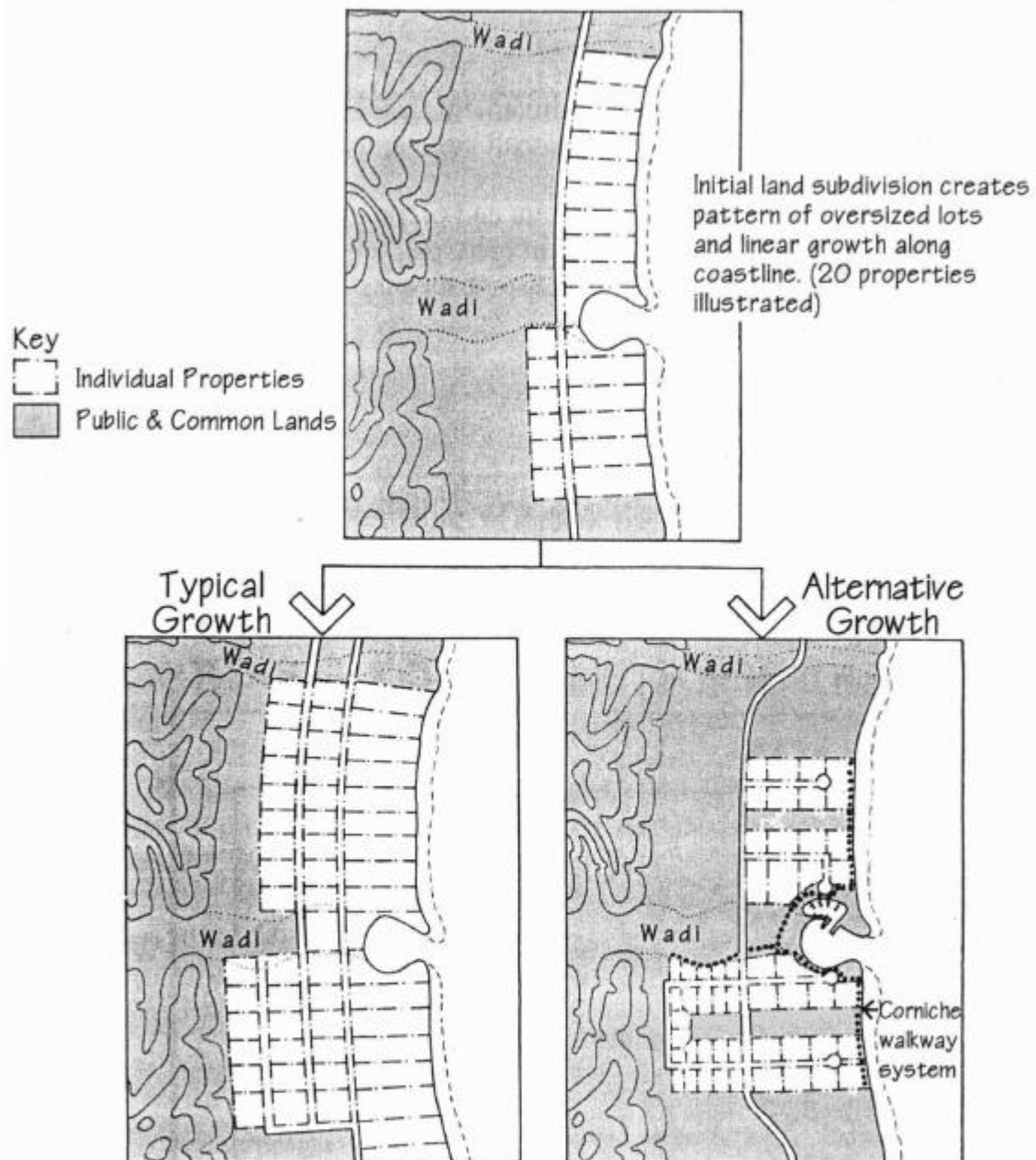


Fig. 2: Clustering developments will enable higher quality tourism
Source: TDA

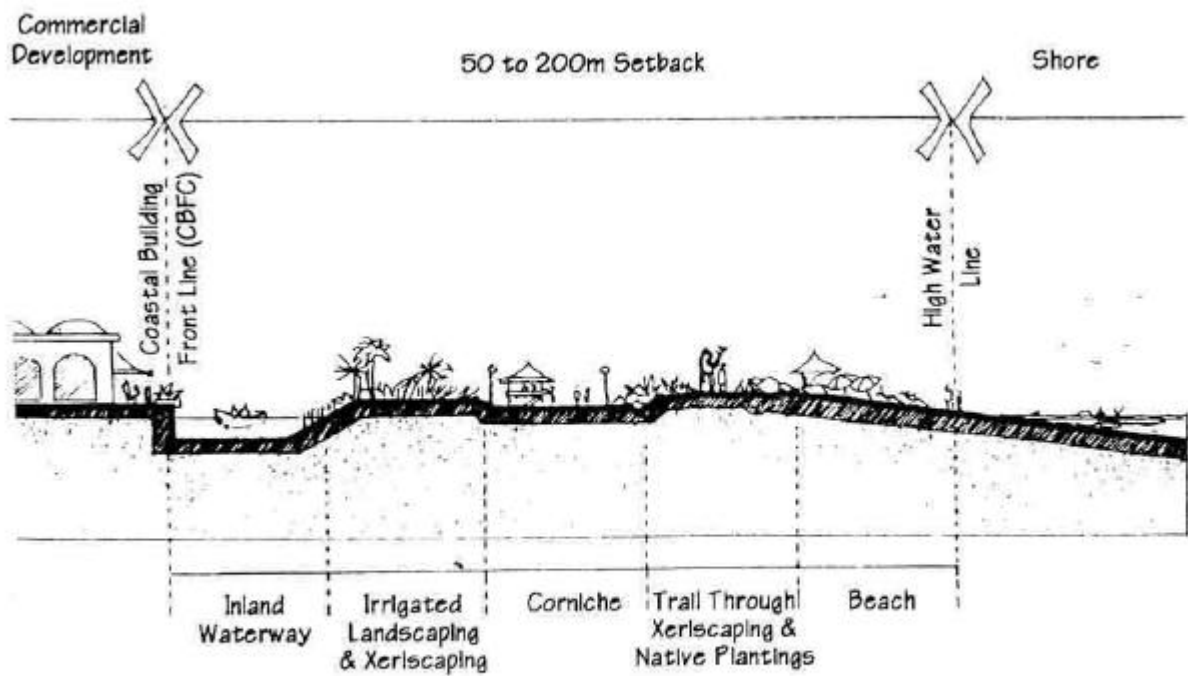


Fig. 3: Building setback provides opportunities for corniche, inland waterways, trails, beaches and landscaping
Source: TDA

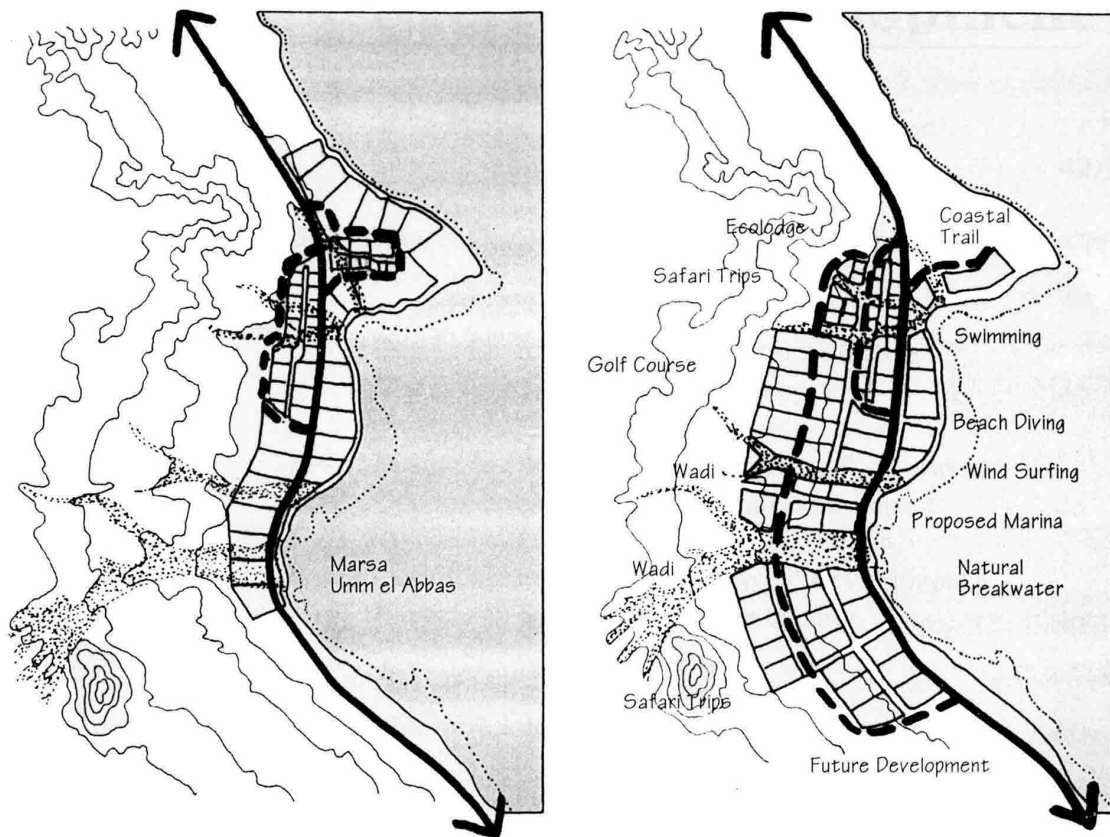


Fig. 4: Modifying subdivision plats expands tourism potential
Source: TDA

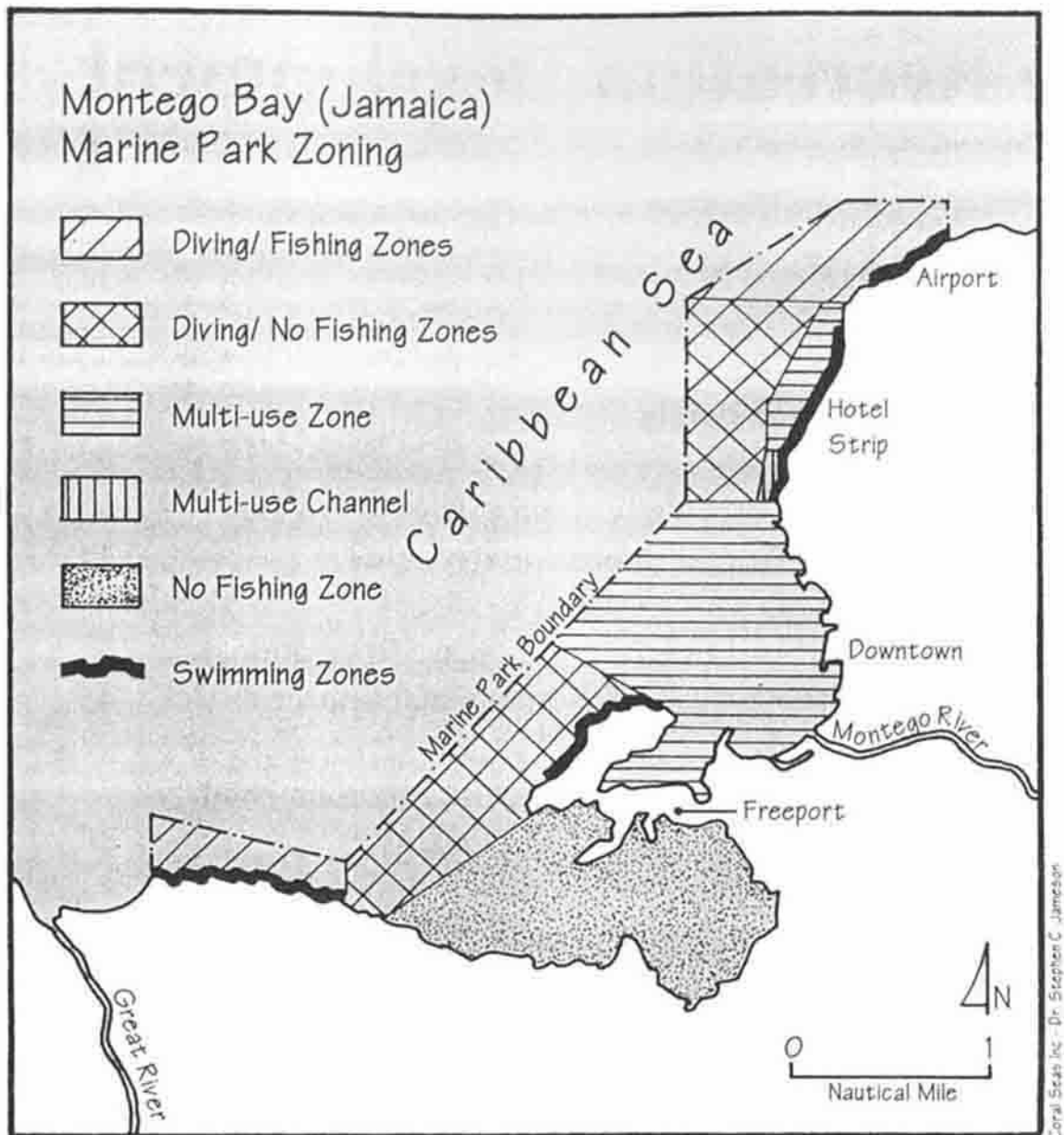


Fig. 5: Zone marine areas to separate incompatible uses
Sources: TDA

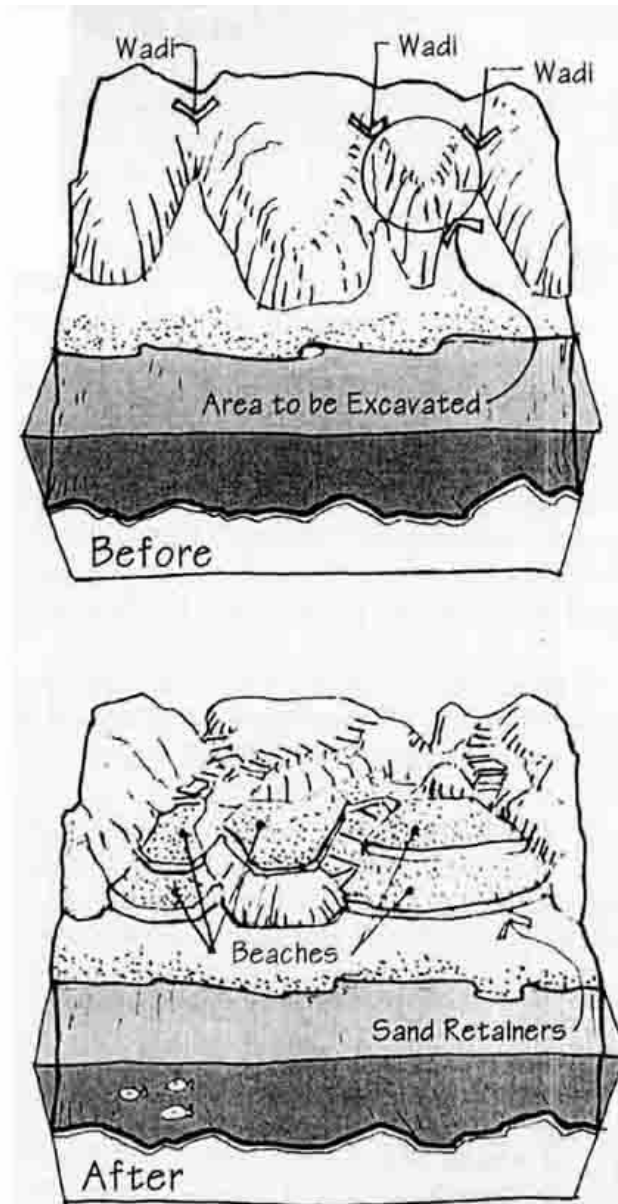


Fig. 6: Modifying small wadis into dry beaches
Source: TDA

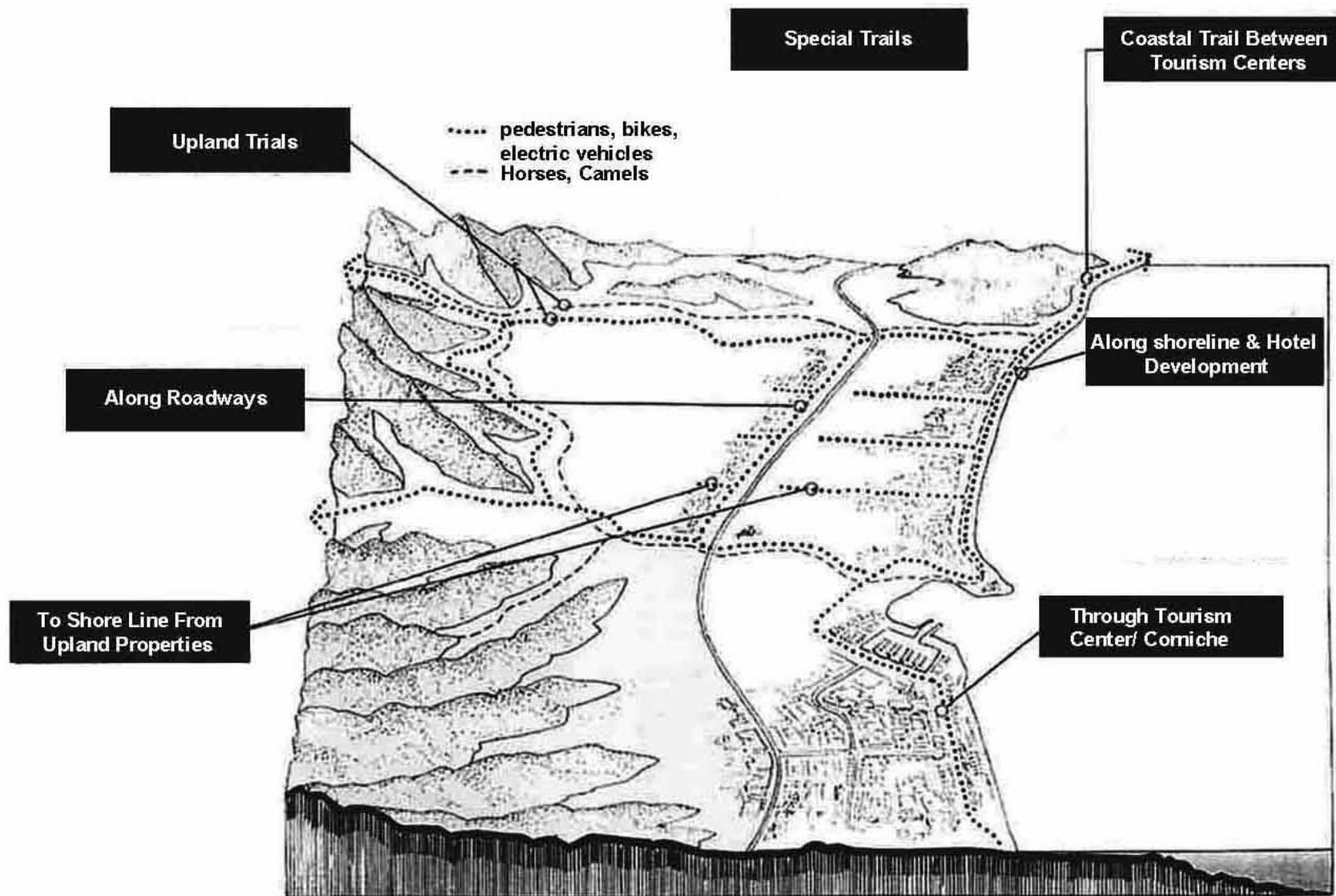


Fig. 7: Design variations for coastal trial system

Source: TDA