1. Introduction

Since the 1992 Earth Summit in Rio de Janeiro, there is increasing awareness of the importance of sustainable forms of tourism. Although tourism, one of the world largest industries, was not the subject of a chapter in Agenda 21, the Programme for the further implementation of Agenda 21, adopted by the General Assembly at its nineteenth special session in 1997, included sustainable tourism as one of its sectoral themes. Furthermore in 1996, The World Tourism Organization jointly with the tourism private sector issued an Agenda 21 for the Travel and Tourism Industry, with 19 specific areas of action recommended to governments and private operators towards sustainability in tourism.

In this context various tourism stakeholders including environmental and development organizations have a vested interest to use the potential positive impacts of tourism, especially in the fields of poverty alleviation and conservation of natural and cultural assets. As this paper will point out, the role of tourism as a development tool can be especially beneficial for coastal areas when developed in a sustainable manner and integrated in broader management efforts like ICM.

Therefore, the World Tourism Organization, as the leading international organization in the field of tourism, has been putting much effort in promoting a more sustainable development of tourism in coastal areas, especially in small island states. This focus of WTO’s work recognizes the very specific situation of these complex ecosystems, that are faced with strong natural and human pressures as well as a great presence of tourism activities.

2. Specific situation of coastal areas

Coastal areas are transitional areas between the land and sea characterized by a very high biodiversity and they include some of the richest and most fragile ecosystems on earth, like mangroves and coral reefs. At the same time, coasts are under very high population pressure due to rapid urbanization processes. More than half of today’s world population live in coastal areas (within 60 km from the sea) and this number is on the rise.

Additionally, among all different parts of the planet, coastal areas are those which are most visited by tourists and in many coastal areas tourism presents the most important economic activity. In the Mediterranean region for example, tourism is the first economic activity for islands like Cyprus, Malta, the Balearic Islands and Sicily.
Forecast studies carried out by WTO estimate that international tourist arrivals to the Mediterranean coast will amount to 270 millions in 2010 and to 346 millions in 2020 (in 2000 around 200 million foreign visitors per year). In addition to these impressive figures of international tourism, we must not forget domestic tourism movements which are much higher than international tourist arrivals, though more difficult to quantify; the growth of domestic tourism is likely to be faster in the so-called emerging economies.

Nevertheless, tourism stakeholders are only one user group of coastal zones among a multitude of other different stakeholders of land and water resources with often conflicting interests. Therefore, coastal areas are characterized by a high conflict potential and the risk of overexploitation of still intact coastal habitats for tourism and other purposes, particularly in the case of developing countries and small island states.

Coastal areas, therefore, present a high environmental and socio-cultural vulnerability, but at the same time sustainable coastal tourism can be a major instrument for the economic and social development of many countries, and thus contributing to poverty alleviation. This is particularly important for small island states, where tourism is often the highest contributor to the GNP and to foreign exchange flows.

3. Problem Scenario

Dangers for the potential deterioration of coastal habitats stem from a variety of sectors active in the coastal area and also in the hinterland, e.g. pollution from industrial resources, from agriculture of from mining activities. Pressures on the resources of a coastal area may actually be greater from activities outside the coastal area than from activities within it and, vice versa, unsustainable practices at the coast may also have negative impact on outside areas.

Main sources of impact are:
- Residence in the coastal zone
- Fisheries and aquaculture
- Shipping
- Tourism
- Land-use practices (Agriculture, Industrial development)
- Climate change

Resulting problems are:
- Loss of marine resources due to destruction of coral reefs, overfishing
- Pollution of marine and freshwater resources
- Soil degradation and loss of land resources (e.g. desertification and salinification due to excessive water use, overuse of fertilizers, erosion)
- Air pollution
- Loss of cultural resources, social disruption
- Loss of public access
- Natural hazards and sealevel rise
- Climate change
Many of these risks for coastal areas are also related with intensive tourism. Uncontrolled tourism development can lead and has led to the degradation of coastal ecosystems due to anchor damage on coral reefs, destruction of mangroves for development, which in turn causes siltation of coastal waters, beach erosion, oil leaks from boat engines, the physical damage to the reef and seagrass bottoms caused by divers and snorkellers, improper waste and sewage disposal, as well as the general outward flow of economic benefits resulting from tourism and other socio-economic issues.

Especially small island states are under increasing pressure due to their limited resource base (e.g. freshwater and land) and limited capacities of waste disposal under conditions of an increasing resource demand (tourism, population growth in developing countries).

Yet, it has to be said that tourism is not the main threat in most coastal regions. The tourism sector has a mutual interest in securing a high environmental quality in coastal areas since the degradation of the ocean waters and the sea coastline results in the degradation of the industry itself. Furthermore, a sustainable tourism management becomes increasingly a key factor for competitiveness in an ever-more open tourism market. Growing demands are made for quality surroundings in which nature, culture, exceptional places with an identity of their own are considered to be key values in terms of tourism appeal and local quality of life. Nevertheless, public and private tourism actors have to increase their level of awareness about the potential negative impacts of tourism in order to take the necessary measures to prevent or stop damage to coastal regions.

It becomes clear that there are no simple problems but rather a complex scenario in coastal areas. This involves various stakeholders with multiple and often conflicting objectives concerning the use of coastal resources, different productive capacities over space and time, greater or lesser linkages to upstream areas and beyond and multiple constituencies and institutions with varying responsibilities at different management levels. Therefore, integrated development and management policies and plans are urgently needed. As the Global Programme of Action for the Protection of the Marine Environment and the Regional Seas Convention already proposed, the use of sustainable tourism can be a particularly useful tool in this context.

4. The case of cruise ship tourism

A development that has turned out to be a severe problem for many coastal areas in the last decade is the increase in cruise ship tourism. The cruise ship business is the segment that has grown most rapidly during the last decade. While world international tourist arrivals in the period 1990 – 1999 grew at an accumulative annual rate of 4.2%, that of cruises did by 7.7%. In 1990 there were 4.5 million international cruise arrivals which had increased to a number of 8.7 million in 1999.

Particularly for many islands in the Caribbean, cruise tourism is an important market segment. In the period from 1990 to 1999 there was an increase from 13.71 million international tourist arrivals to 20.32 million (CTO). Meanwhile the number of cruise passengers increased from 7.75 million to 12.14 million in the same period. This means that in 1999 almost 2/3 of all arrivals to the Caribbean were cruise passengers.
Some of the associated problems are:

- Discharge of sewage in marinas and nearshore coastal areas from the increasing number of ships and recreational vessels within the Caribbean region is a problem. Larger ships have holding tanks for sewage, which are not permitted to discharge within four miles of the nearest land, unless they have approved treatment plants on board, while many coastal cargo vessels and recreational boats do not have holding tanks for sewage. Due to the lack of port reception facilities for sewage wastes, in most of the countries in the region the discharge in coastal zones is a common practice.

- The lack of adequate port reception facilities for solid waste, especially in many small islands, as well as the frequent lack of garbage storing facilities on board can result in solid wastes being disposed of at sea, and being transported by wind and currents to shore often in locations distant from the original source of the material.

- “Tar balls” on beaches indicate that oil tankers and other ships dump their oil and garbage overboard (despite laws against such practice), while pollution off Florida and in the Gulf of Mexico is causing serious concern.

- Land-based activities such as port development and the dredging that inevitably accompanies it in order to receive cruise ships with sometimes more than 3000 passengers can significantly degrade coral reefs through the build up of sediment. Furthermore, sand mining at the beaches leads to coastal erosion.

- In the Cayman Islands damage has been done by cruise ships dropping anchor on the reefs. Scientists have acknowledged that more than 300 acres of coral reef have already been lost to cruise ship anchors in the harbour at George Town, the capital of Grand Cayman. Proposals to increase the number of cruise ship moorings continue to threaten the reefs. And destroyed reefs destroy the tourist industry.

The potential socio-cultural stress produced by cruise tourism needs to be mentioned as well, since it means that during very short periods there is high influx of people, sometimes more than the local inhabitants of small islands, demanding food, energy, water, etc. and possibly overrunning local communities. The future task is the determination and monitoring of environmental and socio-economic impacts of cruises and a sustainable visitor management taking into account the site-specific carrying-capacity.

5. The challenge: The integration of tourism in coastal management

The situation described signals the need to integrate coastal tourism into broader coastal management plans which apply inter-disciplinary and multi-sectoral approaches to problem solving. Sectoral approaches have proved be to unsuccessful since problems have only been transferred to other sectors. Tourism has to be integrated in the sustainable development approach of coastal areas and it has to be kept in balance with other economic activities considering the site-specific carrying capacity (environmental and socio-cultural). ICM is the process which allows to integrate sustainable tourism policies in order to maximize social and economic benefits and minimize negative impacts of tourism on the coastal and marine environment.
The experience gained in coastal tourism destinations with a long tourism tradition, such as many Mediterranean areas, constitutes a yardstick for regions with an emerging tourism sector, so that they can avoid reproducing models that are today obsolete owing to their unsustainability. The cost of a rapid and unlimited extension of tourism can still be seen in many coastal areas and they often outnumber economic short-term benefits. The challenge is to design and develop tourism that draws on local assets, is well integrated economically, culturally and environmentally with these assets, supports local employment and other economic sectors and is sustainable in the medium and long-term. Therefore, the combination of the concepts of quality and sustainability is the cornerstone for the future development of tourism activities in the framework of ICM.

Tourism development has to be oriented towards prevention and precaution. In the case of already heavily degraded coastal zones, ICM attempts to rehabilitate or re-create these areas as a compensatory mechanism and concerted integral rehabilitation plans are required. An excellent example of rehabilitation is provided in Calvia, in the Balearic Islands of Spain.

Since social demands for outputs from a coastal area usually exceed its capacity to meet all of them simultaneously, some regulatory process must be used to decide what mix of outputs will be produced. This decision process requires strategic vision, pragmatism, and, most important, the willingness of political leaders to balance immediate economic gains against medium- to long-term socio-economic and environmental consequences.

The **guiding principles** for coastal tourism development are, therefore:

1) Tourism is developed and managed in a sustainable manner and it generates benefits for the local population.
2) Tourism contributes to the sustainable development of coastal areas and the surrounding marine areas.
3) Tourism is fully integrated in coastal management plans.

Having set the central guidelines that should steer the integration of tourism in coastal management the following question focuses on implementation.

**Practical and regulatory instruments** for the implementation of sustainable tourism policies in coastal areas are:

- Inventory of assets and risk assessment to determine the respective socio-ecological vulnerability of the coastal region
- Carrying capacity assessments and respective land-use-planning
- Environmental impact assessment as part of a monitoring system which aims to control tourism developments
- Management of (often increasing) tourist numbers by means of visitor management techniques
- Defining and revising planning standards for tourism facilities, e.g. setback positioning of new coastal infrastructure at a safe distance from the dynamic beach
zone in order to increase protection from natural hazards and to prevent beach sand mining.

- Establishing preventive measures at “points of access” and at the most valuable and fragile areas of the coast. Developing sound access systems for ports, airports, main hike paths, etc. is as crucial as adapting them to the area’s carrying capacity.

- The creation of marine and coastal protected areas is an effective means to conserve coastal biodiversity and to ensure the sustainable use of parks and its surroundings. In this context, zoning and the creation of buffer zones are of utmost importance. An example for this is the Soufriere Marine Management Area (St. Lucia, West-Indies) specifying marine reserves, fishing priority areas, multiple use areas, recreational areas, and yacht mooring sites.

- The establishment of an impact monitoring system through the use of socio-economic and ecological sustainability indicators is an urgent necessity. Once identified these indicators have to be interpreted in a way that allows to monitor and steer tourism planning concepts like carrying capacity, site stress and destination attractivity towards the management objectives of the region/destination. An important contribution of the World Tourism Organization in this respect has been the development of a first set of indicators that can be used by local and national authorities (“A practical guide for the development and application of indicators of sustainable tourism”, WTO, 1996.) and of a methodology to identify site-specific indicators for implementation at different destinations. This was followed up recently by a series of practical workshops on sustainable tourism indicators in various countries including Cozumel (Mexico), Sri Lanka, Kukljika (Croatia), and some other coastal areas.

6. Recommendations for the involvement of tourism in ICM

Institutional strengthening and Capacity building

- The establishment of a legislative and institutional framework in order to assure the co-ordination of aims, policies and actions, from both the territorial and the sectoral points of view, including tourism, is essential for a successful implementation of ICM. Sustainable tourism policies have to be institutionalised.

- Therefore, it is of utmost importance to clearly define institutional responsibilities corresponding to the institutions’ specific capacities. A common understanding of the ICM concept, its principles, objectives, processes, strategies and approaches among stakeholders is important as well as a joint agreement to work towards these common objectives.

- Building local capacity to plan and manage coastal resources is essential in order to improve local revenue retention. Actual and future tourism stakeholders have to know about best environmental practices (alternative energy sources, wastewater and solid waste treatment, construction methods and materials, etc.) and should be enabled to implement them.
Communication and Participation

- Effective communication between policy stakeholders, community groups and the private tourism business is a cornerstone for integrated management. There is a need to 1) 'translate' scientific information so that it is understandable and relevant to other sectors and the public and 2) to establish concrete conflict solving mechanisms whilst seeking to improve co-operation and the building of partnerships.

- Participation of all tourism stakeholders in tourism planning, including local communities and indigenous people, during all phases of planning and management is essential, leading to the empowerment of locals, greater transparency and facilitating conflict management. An important concept is co-management, where local stakeholders share aspects of governance with the government, and community participation is an essential part of the management process.

- Public information, education and awareness-raising for travellers and hosts is essential. This means setting up mechanisms for public participation in conservation campaigns, establishing codes of behaviour for bathers, sea-going yachts and vessels, and tourists in general.

Planning

- Instruments for preventive, concerted and flexible planning like local Agenda 21, Integrated Tourism master plans, etc. have to be developed and improved.

- Tourism planning has to consider other sectors: 1) Hinterland development has to be an integral part of coastal zone development, 2) Inter-linkages with other sectors (e.g. agriculture) have to be considered to establish win-win-situations.

- Due to the limited environmental and socio-cultural carrying capacity of many coastal areas (especially SIDS) tourism development should be quality oriented (not “more/bigger” but “better” destinations).

- Establish benchmarking tools for coastal tourism.

- The polluter and user pays principle should be applied, reflecting the economic, social and environmental costs associated with the uses in question (i.e. charging prices for the use and access to coastal resources).

Management

- Responsible management of natural resources which minimize negative impacts (reduced energy consumption, waste generation, etc.): e.g. development and adoption of ecoefficiency and cleaner production strategies and policies, alternative designs of tourism facilities, local building materials. The private sector needs to be fully involved in the management of beaches.

- The key to successful coastal zone management strategy is information. To enhance resource development capabilities, each country should develop and maintain an inventory of its coastal tourism resources. Continuous monitoring and evaluation of these resources based on indicators for sustainable tourism as well as of the impacts of the ICM management activities are of great importance for a controlled development.
Creating and implementing new incentives, positive and negative, to induce changes towards sustainable tourism: voluntary industry codes, quality and operational standards, codes of conduct, eco-audits and introduction of ecolabels.

Building partnerships and co-operation

- Especially in the tourism sector, Public-Private-partnerships should be developed which could also improve sustainable funding. Private sector investment especially in marine protected areas and ecotourism is a promising trend (e.g. private nature reserve Chumbe Island/Tanzania).
- There is a need for trans-boundary co-operation since a particular portion of the sea is often shared by several countries and the impacts generated in one country are spread throughout its neighbours due to the sea currents. Furthermore, regional tourism management initiatives can also be a peace-building tool for international disputes since it is a relatively neutral area and gives hope for win-win-situations.
- International and regional co-operation networks should be promoted in order to exchange experiences of the successful integration of tourism in ICM and to initiate a joint learning process: need for site-specific adaptation of examples. The World Tourism Organization is currently setting up a network of mature coastal tourism mass destinations in order to exchange successful experiences and solutions adopted to avoid saturation and/or rehabilitate coastal areas.

Strengthen funding

- There is a need to ensure long term budgetary support for local sustainable tourism initiatives and projects, so that personnel and programmes are able to function in a stable environment, and continuity is guaranteed. Therefore, financing mechanisms have to be found in order to secure a sustainable tourism management of the coastal area over time and to afford the transfer of technology from developed to developing nations.

7. The role of WTO and other international organizations

Based on its existing know-how, experience and direct access to tourism ministries and other tourism stakeholders, the World Tourism Organization can contribute to the sustainable integrated management of coastal resources. It can assist countries in various forms:
1) to identify tourism development opportunities in coastal areas
2) to formulate the corresponding sustainable development policies and plans
3) to contribute to set up integrated coastal management plans and related instruments
4) to facilitate the establishment of interregional and international cooperation networks
5) to build strategic inter-sectoral partnerships to stimulate policy dialogue

Some of the recent activities and publications of WTO in this field are:
➢ The International Conference on Sustainable Tourism in Small Island Developing States (SIDS) and other Islands was convened jointly by WTO with UNEP in Lanzarote, Spain, 1998.

➢ Further regional meetings were organized in collaboration with UNEP, in Capri, Italy (2000) for the Mediterranean islands and in Hainan, China (2000) for the islands of the Asia-Pacific region.

➢ Work on sustainability indicators in tourism destinations: Several regional workshops on sustainability indicators of tourism development were held, based on demonstration study sites at coastal and island destinations selected by host countries, providing valuable experiences for sustainable coastal and island tourism development. The last indicator workshop held in Croatia in March 2001, was a continuation of the Capri Seminar promoting sustainable tourism practices in the Mediterranean islands.

➢ Missions of Technical Assistance; WTO is currently involved in the preparation of national and provincial tourism planning projects in various countries (e.g. China, India, Vietnam, Morocco, etc.), with UNDP or other funding; this form of technical co-operation will remain among WTO's priorities in the future, in spite of the reduction of UNDP funding.


➢ “Awards for Improving the Coastal Environment: The Example of the Blue Flag”, (1997). A joint publication of WTO, the Foundation for Environmental Education in Europe (FEEE) and UNEP.


➢ “Guide for Local Authorities on Developing Sustainable Tourism”, (1999), which includes core indicators for sustainable tourism in coastal zones.


➢ “International Conference: Sustainable Tourism in the Islands of the Asia-Pacific Region” WTO & UNEP. Sanya, Island of Hainan, China, 6-8 December 2000.