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## ENVIRONMENTAL PROTECTION – KEY PREREQUISITE FOR SUSTAINABLE TOURISM ON THE MEDITERRANEAN

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**Abstract:** The Mediterranean is grown up as one of the most developed tourist regions on the Earth, but development of mass tourism brought to the big saturation of space, causing environmental problems. As a consequence, today the Mediterranean is faced with a great challenge: how to preserve natural and cultural values as a basis for tourism industry and, in the same time, to keep high reputation on the globalized tourist market. In this work are analyzed the environmental effects of tourism and problems aggravating the concept of the sustainable development. There are also shown the key measures, that can enable development of tourism on a sustainable basis. Particular attention is dedicated to institutional and organizational factors having a crucial role in defining guidelines related to protection and sustainable usage of the Mediterranean Sea with its coastal area.

*Keywords:* Mediterranean, environmental protection, sustainable tourism.

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## INTRODUCTION

Warm sea, long and warm summers and mild and short winters; quality sand beaches; attractive island archipelagos; richness of plants; magnificent landscapes; numerous historical monuments that testimony different cultural cycles through which the Mediterranean was passing etc., offer excellent possibilities for tourism development.

The Mediterranean grew in one of the most developed geographical unities on the Earth, where are registered 1/3 of total annual international international tourist arrivals. Among the first 5 countries that are realized the greatest circulation of foreign tourists in 2005, 3 are Mediterranean countries: France, Spain and Italy. The major part of tourist circulation on the Mediterranean is realized in European countries, in relation to Mediterranean African and Asian countries. In 2005 in European part of the Mediterranean were registered 158 millions of foreign tourists (19,6% of participation in the world tourism), whilst the realized incomes were about 140 billions US\$ (20,6% of total incomes in international tourism). The assessment of the WTO declare that the positive development tendency of the Mediterranean tourism will continue till 2020. The average annual growth rate of foreign circulation in mentioned period will be 3%, and this would result over 340 millions of foreign tourists visiting the Mediterranean in 2020.<sup>2</sup>

### 1. TOURISM EFFECTS ON THE MEDITERRANEAN ENVIRONMENT

Tourism in the Mediterranean area has emphasized *seasonal* and *spatial* concentration: in the summer period it is realized over 40% of total annual circulation, and the majority of facilities and of infrastructure is located in the narrow coastal belt – e.g. in the coastal part of Spain, France, Italy and Greece is realized over 2/3 of total circulation in the Mediterranean.

Expansive growth of tourist circulation during last 3 decades is followed with extensive construction of tourist facilities, infrastructural and recreative contents, caused big saturation of the space and degradation of natural and cultural values of the Mediterranean littoral, as the basic motives of tourist movements. Extensive construction of tourist facilities in the narrow coastal belt, brought to the increasing of erosive processes, changing of authentic appearance of littoral landscape and putting in danger of biodiversity. For the needs of tourist building, in the period after 1960, about 2/3 of sand dunes in the Mediterranean part were destroyed. The great numbers of Mediterranean plants (about 500) are imperilled and there is a danger of their disappearing from this macro region (EEA, 2003).

Construction of 300 thousands of hotels on the Balearic Islands resulted with very serious saturation of the space and imperilling of natural environment. In danger is island region with the greatest intensity of tourist development in Spain, emphasized relation between number of beds and number of domicile inhabitants, that, according the figures from 1998, was 373,3 beds on 1.000 of permanent inhabitants. This degree of tourist development greatly overpasses ecological and social and cultural carrying capacity of this region, what enables the tourism development on the sustainable basis. Because of that, the regional and local authority bodies were forced to make more strict

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<sup>2</sup> available at: [www.unwto.org](http://www.unwto.org)

the conditions for the future tourist construction to preserve natural, cultural and traditional particularities of this region as the basis of the future development.

The undeveloped mechanisms of the environment protection contributed to this great tourist construction, because only 6% of Mediterranean littoral, including the islands, are put under the state protection. Even on the surfaces which are declared as protected, the protection measures are not performed in practice because the tourist construction processes are intensive. This is quite common in Greece, southern Spain and Cyprus (EEA, 2003).

Tourist circulation of Mediterranean littoral has *emphasized seasonal concentration*, because in the summer period over 40% of total annual circulation is realized. Season concentration of tourist circulation has economic and ecological implications. Big concentration of tourists in the season needs great investments and extensive construction works to build the capacities which will optimally satisfy tourist needs. On the other hand, if those capacities are not used as they should out of the season, and this represents the greater part of the year, we need to question about the economic justifiability of their construction. Also, employment of local inhabitants out of season is greatly decreased. Emphasized concentration of tourists in the period of the peak of the season brings to higher pressures on tourist attractions and built facilities which are conditioned by the space saturation and negative ecological consequences.

Traffic with accompanied infrastructure, as an element and a factor of tourist movements, is highly responsible for damages that tourism produces in the environment of Mediterranean littoral. The greatest danger causes motorized tourism because car is using about 70% of tourist clients in Europe, where the participation of the road traffic in the tourist circulation of the Mediterranean countries is even more emphasized. The growth of motorized tourism represents economic welfare for the Mediterranean, but it results with increasing air pollution, noise and traffic on the main roads and on the shortcuts, which culminate in the period of maximal concentration of tourist demands.

Ensuring of adequate quantity of water in the summer period is a big problem of many Mediterranean places because existing supplies of water in the peak of the season are very often insufficient. The average consumption of water in the littoral centres of Mediterranean is 400 litres on a tourist day. But in some regions the water consumption during the summer season is bigger and as a consequence the water shortage is quite often. However, this valuable resource has to be used in the more rational way.

Working of tourist objects produces great quantity of waste waters which very often don't have adequate treatment of cleansing and pollute nearby rivers, beaches and the sea. Cleansing of waste waters is maybe one of the most urgent problems on the Mediterranean. The evaluation is that about 70% tourist centres of the Mediterranean drain waste waters in the sea without previous filtering. According the researches made several years ago, from 1500 of analyzed beaches on the French Mediterranean and Atlantic coast, every fifth beach doesn't satisfy very strict ecological criteria which will be obligatory on the EU level from 2015. The main problems are related to elision of unfiltered waste waters and the great pollution of littoral.<sup>3</sup>

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<sup>3</sup> available at: [www.europa.eu.int](http://www.europa.eu.int)

The treatment and laying down the raw sludge in many Mediterranean centres are not solved in the adequate way, where tourist staying contributes in making a big quantity of sludge. The estimations of the World Tourism Organization say that the tourists in the Mediterranean directly contribute to the production of 2,9 millions tones of raw sludge annually whilst, according to estimations of future tourism growth on the Mediterranean, in 2025, the quantity of raw sludge could increase to 12 tones annually as a consequence of tourist circulation.

In summer the increased quantity of energy is being spent on the air conditioners to make tourists' stay more comfortable during high temperatures, but these devices transmit phreons damaging the ozone layer, and spend more and more electrical energy. Growing interest for summer recreative activities contributes to construction and settlement of marines, yacht storage, aqua-parks, etc. Water skiing, surfing, yachting and cruising, animate more and more guests and these kinds of activities increase pollution of the Mediterranean Sea and grow a noise above the level of tolerance.

Cultural, environmental and historical values are also delicate on the exterior pressures and because of that they have to be often restored which increases expenses of their opening to the visits. Generally, ecological consequences that produce unbalanced tourism development in the Mediterranean littoral are manifested on several levels.

Firstly, *local inhabitants* are faced with many pressures and challenges - exhausting of limited natural resources, water pollution and air pollution, increased noise level, possible ecological accidents.

Secondly, consequences of imperilling of biodiversity and over-pollution of air and water resources are more and more manifested as well as *regional character*, which have influence on the whole Mediterranean.

Thirdly, emissions of pollutants as the consequence of intensive development of traffic, usage of air-conditioners, disappearance of wood, contribute to the effects of greenhouse and exhausting of ozone layer, what is the ecological problem of *global character*.

## **2. THE KEY PROTECTION MEASURES OF ENVIRONMENT AND CREATION OF SUSTAINABLE TOURISM**

Many international institutions and expert teams spent a lot of time, after UN Conference about environment and development (Rio de Janeiro, 1992), to elaborate the most important activities for gradual application of the concept of sustainable tourism. The wide range of related measures and activities which are taken by state bodies and organization, economy sector and scientific and educational institutions is very wide and includes following activities: *adequate planning, carrying out legislation, using of economic instruments, performing exploring activities*.

Coming from the specific influences of tourism on the environment of Mediterranean coast, and respecting the fact that those influences very often penetrate in the influences of other activities which are preformed on the same space, we will show the most important instruments for successful control of the tourist influence on the environment in the Mediterranean littoral.

The most important instrument represents *integral approach to tourism planning*. Since the tourism has always been a complex system, with its planning it is necessary to integrate the development of all its segments, offer and demand, physical and institutional elements. Each system would be more functional and more efficient if we approach to its planning in the integral way, with the coordination of development of all its parts. Having in mind that tourism is an open system, with its planning it's necessary to integrate tourism in the context of general economic and socio-cultural development of specific Mediterranean region, its particularities and material resources. In this way the possibilities of conflicts among great number of subjects who claim to the same resources in some area, are decreasing.

Benidorm is, for example, littoral community in the province of Alicante in Spain, with 45.000 inhabitants, where the tourism influences on the environment are managed in the efficient way. The basis of tourist potential represent quality beaches of the surface 37 ha, clean and warm sea and mild Mediterranean climate. In 1990, local bodies accepted Strategy Plan of tourism development which was preceded by the design of complex study of space capacity, environmental characteristics and necessary infrastructure that can follow the tourist development. The basic objectives of this Plan are directed to the improvement of infrastructure and to the functioning of public services, preserving of natural and cultural values and enrichment of offer with new recreative and cultural contents and strengthening of promotional activities. An integral approach of tourism planning contributes to the harmonization of tourism and environment of a specific area.<sup>4</sup>

As regards *standards* having the objective to fit tourism to capacity of natural and socio-cultural environment, the most important are:

- standards of environment protection (standards of air quality, standards of drinking water and water for bathing quality, standards of permitted noise level) that are carried out by the national or international legal acts, and which can be corrected and intensified depending on concrete situation and problems;
- standards of surface to an user of the space and standards of density and of appearance of constructed capacities, that should be specified by the space and planned instruments on the regional and local level.

Standards of surface to an user, should be defined according geographical, eco-systems, social and economic characteristics, number of domiciled inhabitants, existing infrastructure and constructed buildings of specific part of the Mediterranean where you can use experience of similar types of spaces in the world and it is necessary to adapt them to the local and regional characteristics.

*Standards of development and of appearances of tourist capacities* should regulated the problems concerning the location, density of construction, size and other physical characteristics of these capacities, their balanced integration in the natural and built environment, including even the control mechanisms of their application.

With the simple comparing of the number of disposable beds in hotels and the space of some area in km<sup>2</sup>, as indicator of construction density, you can't get satisfactory results of influences of this kind of construction on the space capacity and on the

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<sup>4</sup> available at: [www.emeraldinsight.com/insight](http://www.emeraldinsight.com/insight)

environment in some Mediterranean region. This would mean, for example, that density of hotel construction in the riviera of Budva is about 70 beds on km<sup>2</sup> of the space. And this is higher density than in Costa Brava or Mallorca in Spain, which shows that the space saturation passed upper level of tolerance, with which we wouldn't agree. Because of that even the standards of density of construction capacities can't be specified on the basis of some precise mathematic formula but the space component that shows the number of beds on km<sup>2</sup> should be analyzed in the context of geographical and ecological characteristics of Mediterranean area, tourist equipped objects, realized circulation and the number of domiciled inhabitants.

*Zoning* is the most important segment of planning and organization of Mediterranean tourist destination space, with which, basing on the valorization of particularities of some space (vegetal, geomorphological, hydrographical, climatic, cultural and landscape particularities, the state of infra and superstructure, traffic connections), are established the zones with different purpose and level of usage. Particularly sensitive surfaces are put in the higher degree of protection where the construction of buildings and infrastructure is controlled and even excluded. On the other hand, development and construction are directed to the areas with higher supporting capacity.

In the aim of repelling the negative effects of excessive tourist construction, on Cyprus a big importance was given on the protection of environment in the last decades. With the legal acts it is emphasized determination for tourist construction of less density (not concentrated construction) and the measures for strict and more consistent protection of coastal space are proposed. According to this, in the coastal space wide 3 km are signed so called "white areas", as the areas where, because of high degree of space saturation is temporary prohibited any kind of tourist construction.

The great importance for optimal space planning of tourist development has the *Environment Impact Assessment (EIA)* that represents the complex process of identification, predicting and interpretation of possible influences of some project on the environment. In mid-80's of the 20<sup>th</sup> century, the tourist capacities with following infrastructure had 4.400 km<sup>2</sup>, and according the long-term plans of tourism development of the Mediterranean till 2025 the surface caught with tourist capacities would wide on 8.000 km<sup>2</sup>. It is clear enough that the realization of these projects can't be made without previous detailed procedure of impacts analysis on the environment.<sup>5</sup>

Factor of *seasoned tourist circulation* of Mediterranean littoral can't be avoided and it is conditioned by the natural advantages for development of summer recreative tourism but there are some ways to make possible more balanced distribution of demand during the year and to adapt tourism on the ecological and socio-cultural features of specific area. It is necessary to choose, to develop and to promote those tourist contents which will attract the visitors in different periods of year especially in the out seasonal period. There are manifestations, conferences, etc, as well as addition of dominate recreative contents of supply in the summer. Enrichment and unifying of supply of the Mediterranean littoral with the supply and motives in the continental region, together with adequate billing policy and media promotion, could attract more tourists in those periods of the year that are not typical for tourist movements.

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<sup>5</sup> available at: [www.eea.europa.eu](http://www.eea.europa.eu)

*Ensuring of drinking water, cleansing of waste waters, treatment and delaying of raw sludge* – are top problems of tourist centres of the Mediterranean littoral. However, there are positive examples that show that the mentioned problems could be positively resolved. In already mentioned Benidorm, drinking water is spent rationally and water net is quality made. The waste waters are passing the process of purification and then they are used for irrigation. About 30% of waste waters is purified primary and 70% is purified secondary. As a proof, there is a fact that the consumption of water in the last years was 200 litres on a user per day. One part of raw sludge is recycled and the other part is put on the deposit place and it is buried in the ground.

In the aim of better management of road traffic in the Mediterranean macro region, it is necessary to put apart some practical measures with which all negative effects on the environment could be minimized.

*Prohibition of the new road constructions in the sensitive zones.* Tourist place should have good but controlled traffic access that means that main roads of high degree of charge mustn't pass through the central parts of tourist places, their recreative areas and the zones with accommodation facilities.

*Prohibition of traffic in the attractive but sensitive spaces and their transformation in the pedestrian areas.* In some Mediterranean places, central tourist places, where are situated cultural monuments and ambiantal units of great value, exclude the traffic, except bus traffic, whilst the space on the seaside is transformed in to the promenades.

*Promotion of public transport and ecologically favourable aspects of traffic.* In order to decrease negative effects of great flow of motorized tourists, in some Mediterranean destinations there are the actions of stimulation of public transport. If there is a usage of cars with high technical performances in the public transport or if the cars on the electrical power are present, the efficiency of those measures is even bigger.

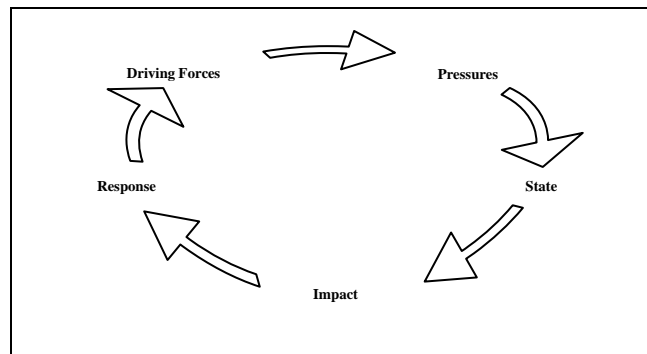
*The indicators of tourism impact on the environment* are specially significant for planners and making decisions bodies on the local level, helping them to carry out the following activities: assessment of the quality of the environment, and estimation of the level of harmonization between tourism and defined objectives of sustainable development; monitoring of dynamics and degree of realization of the spatial planning tasks; and determination of effectiveness and efficiency of the initiated measures and activities.

In order to create an adequate organizational and institutional frame for sustainable development and environment protection on the Mediterranean, it is desirable to use the model set by The European Environment Agency. The model, known as DPSIR-model, is based on the relationship between different human activities (including tourism) and environment, involving various groups of relevant indicators.

The set of indicators called "*Driving forces*" comprises human activities having serious impacts on the environment (consumption of energy by various sectors and power-supply resources, passenger traffic, goods traffic, catering industry, etc.); The "*Pressures*" are the direct consequences of human activities (use of land, drinking water, ozone depletion substances, etc.); The Indicators called "*State*" imply the actual state of the environment protection (diversity of flora and fauna species, exceeding the marginal level of air-pollutants emission, temperature, consumption of oxygen in water flows, quality of waters for swimming, the level of hygiene at beaches, etc.); "*Impact*" shows the effects of

pressures on the environment (e.g. imperilled and protected species of flora and fauna). The Indicators called “*Response*” include measures, investments and other instruments showing reaction on changes of the state of environment (proclamation of protected natural and cultural areas, consumption of energy from renewable resources, cleansing of waste waters, etc.).

**Figure 1.:** DPSIR – model of environmental indicators



Source: available at: [www.eea.europa.eu](http://www.eea.europa.eu)

### 3. THE ENVIRONMENTAL MANAGEMENT SYSTEMS

The systems of environmental management or eco-management systems (EMS) are part of the overall management systems, comprising organizational structure, responsibilities, processes, procedures and resources for the development and implementation of environmental protection policy in a company/enterprise. Their main function is to provide conditions for consideration of environment-related issues in the course of making business decisions at all levels of management.

The general properties of EMS include:

- Identification of environment-related problems that are likely to occur as a result of business activities (for e.g., waste water release or accumulation of solid waste as a consequence of using hotel facilities);
- Appointment of subjects responsible for solution of the once identified problems;
- Identification of the degree of availability of technical and financial resources for problem solution;
- Elaboration of the content of the environmental protection action plan;
- Close formulation of procedures regulating submission of reports on the effects of action plan implementation (environmental performance);
- Definition of flows of information about the environment;
- Specification of activities for monitoring, evaluation, data publishing.<sup>6</sup>

The introduction of EMS makes it possible for a company/enterprise to resolve environmental problems in a systematic and economical manner, giving priority to prevention measures without excluding necessary corrective measures. In such a way, an organization improves control over environment-related expenditures while, at the same

<sup>6</sup> available at: [www.iso.org](http://www.iso.org)



time, reducing the environmental risk. In the past, environmental problems in enterprises were solved mainly after a negative report of the authorized inspection team, followed by a subsequent installation of protective devices, which considerably increased the costs of environmental protection.

For successful implementation of the concept of sustainable tourism on the Mediterranean, it is necessary to apply not only mandatory regulations prescribed by the state authorities but also some relevant market instruments that are voluntary in nature. The aim of the latter, including environmental management systems, is to provide self-regulation through the market, increased competition among environment-friendly companies, i.e., keeping out the companies that do not show environment friendly behaviour and are not concerned with the environmental protection.

The first known act of implementation of environmental management in tourism on the Mediterranean area dates back to 1997, when the Regional Government of the Balearic Islands initiated the ECOTUR programme, attempting to achieve a better integration between tourism and environmental protection. It seems reasonable why this step was first made in this tourist area, given that the development of mass tourism in the 1970s/80s caused a severe degradation to the environment, threatening to permanently undermine the fundamental substance of its future development. At the same time, the market battle was slowly being lost with the competing tourist destinations in the Mediterranean and other regions<sup>7</sup>.

The implementation of the ECOTUR programme was jointly financed by the Government of the Balearic Islands and the European Union, the resources of which were used by 126 hotels previously registered for participation in the programme. The first significant results were noticed at the end of 2001. By then, all the participating hotels had already completed the internal evaluation, but more importantly, six of them had obtained official certificates for their environmental management systems, issued by the Spanish National Accreditation Team. This made the six hotels the leaders in the implementation of the environmental management systems in tourism and catering service business. They publicly expressed a clear dedication to sustainable improvement of environmental performance of business activities.<sup>8</sup>

As for the environmental aspects of the business activities the EMS certified Balearic hotels have so far undertaken, data concerning resource consumption and waste accumulation are worth mentioning. Statistical data on the consumption of water, electrical energy and gas per tourist night were made public by all six hotels. They were highly significant for the estimation of the environmental performance of these hotels' activities. In addition, all certified hotels adopted several objectives for the improvement of their business: reduced consumption of water and energy, improvement of waste management, and control over noise level. With respect to other, also important, objectives (improving the visual impact on the surroundings, decreased emission of pollutants into the atmosphere, and promotion of natural-source energy), the hotels did not express commitment to them nor did they declare themselves to be able to achieve them in near future. Nevertheless, it should be taken into consideration that some of

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<sup>7</sup> Llobera, M., Rebassa, M., *ECOTUR Instalaciones: Implantacion de un Sistema de Gestion y Auditorias Ambientales en Instalaciones Turisticas*, Societat d'Historia Natural de les Illes Balears, Palma de Mallorca, 2001, p.23.

<sup>8</sup> available at: [www.ukotcf.org](http://www.ukotcf.org)

these objectives, primarily the visual impact, are difficult to quantify, so the hotels could not express with certainty a dedication to their accomplishment<sup>9</sup>.

#### 4. INSTITUTIONAL FRAME OF SUSTAINABLE TOURISM AND PROTECTION OF MEDITERRANEAN

Gradual maturation has to be reduced in forming of valid institutional frame for coordinate operations of Mediterranean countries in the field of protection and sustainable usage of the Mediterranean Sea and its coastal areas, met its first concretization in 1975. Then the countries of this macro region concluded in Barcelona *The Convention of protection of Mediterranean Sea from the pollution*, known as *Barcelona Convention*, and which has, since today, 21 members. Immediately after that, it is accepted also the Program of implementation of Barcelona Convention entitled **Mediterranean action plan**, which include the most important problems concerning the coastal areas' management, pollution assessment and eco system protection. In 1995 starts 2<sup>nd</sup> phase of coordinated protection activities of the Mediterranean, when the Barcelona Convention changes its name into *The Convention of sea and protection of Mediterranean coastal areas*.

*The Mediterranean action plan* (MAP) and *the Commission for sustainable development of Mediterranean* (MCSD), as a consulting body is formed for more successful implementation of this plan, with its headquarters in Athens, representing key institutional factors for performing sustainable development of the Mediterranean. Trying to make possible an adequate implementation of principles and guidelines of sustainable development, MCSD was maximally dedicated to the design of *the Mediterranean strategy of sustainable development* after 1995. The strategy was adopted after many years of work, on the meeting by the members of Barcelona convention in 2005<sup>10</sup>.

Mediterranean strategy is *frame strategy*, which purpose was to adapt international obligations to regional conditions, giving guidelines for national strategies of sustainable development and to start dynamic partnership among the countries on the different levels of development. In the Strategy is emphasized unavailability of sustainable development and the only way of surpassing following development challenges: a) Challenge of preserving environment; b) Demographical, economical, social and cultural challenges; c) Challenges of globalization, regional collaboration and management.

Starting from mentioned challenges, we define with the Strategy long-term vision of the Mediterranean as politically stable and prosperous macro region and it emphasizes importance of 4 objectives: Strengthening of economic development through the improvement of resources specific for Mediterranean; Minimizing of social differences and strengthening of cultural identities of local communities; Changing of unsustainable patterns in the production and in spending; and Improving of management on the local, national and regional level. In the Strategy are marked 7 *priority operating regions*, among which there is *sustainable tourism marked as one of the leader economic sector*. Having in mind actual effects of tourism development, the Strategy defines key objectives which should be achieved in the following period:

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<sup>9</sup> Llull, G, Introduction to environmental management systems, in: *Proceedings Advanced Seminar Environmental Management of Tourism Activities, November 14-19, 2005*, Universitat de les Illes Balears

<sup>10</sup> available at: <http://www.unepmap.org>

- ◆ Decreasing or alleviation of negative space-ecological effects of tourism, particularly in already existing coastal tourist areas;
- ◆ Promoting sustainable tourism which integrates social, cultural and economy aspects of development and leads to successful market valorisation of differences and particularities of the Mediterranean.
- ◆ Increase economic effects of tourism on local community, through promotion of regional pilot projects which shall contribute to better implementation of national and sub national programs of sustainable tourism;
- ◆ Improvement of techniques and assets for sustainable tourism management, through better coordination of public sector activities and of big international tour operators.

## 5. INTEGRAL MANAGEMENT OF THE MEDITERRANEAN COASTAL AREAS

Strengthening the awareness of necessity for integral management of coastal areas met the complete verification in the Chapter 17, Agenda 21, adopted on the mentioned Rio Conference. The mentioned chapter concerns the ocean protection, sea and coastal areas' protection and in it, it is explicitly defined a need to implement of integral management of coastal areas, including the Mediterranean that is a subject of this work.

According the UN definition, *Integrated Coastal Area Management* is a "process of realization of objectives and tasks related to sustainable development of coastal areas, adequate to related physical, social and economic conditions and founded on legal, financial and administrative systems and institutions." Briefly, ICAM means continuous and flexible process of resource management in the coastal areas because of realization of sustainable development.

Integrated management of coastal areas is not an exchange for sector planning (tourism planning or some other activities), but it primarily focuses the importance of relations between different sector activities to realize more adequate, widen and more comprehensive objectives. There are in question continuous, proactive and adaptable management resources processes, directed towards the realization of sustainable development in the coastal areas.

The coastal areas are areas of reciprocal penetrations, influences and exchanges between different physical, biological, social, cultural and economic processes and systems. No matter which, even the slightest change in some of mentioned systems can initiate series of chain reactions and important changes in other systems, which seem not be in direct relation with the place of beginnings and with the type of starting change.

The high degree of reciprocal dependent activities/resources explains why the sector approach of coastal area management wasn't successful and it didn't give satisfactory results. Each economic activity generates broad spectrum of influences on different resources of coastal areas, which combination can produce acute problems for resource basis from which the survival of these areas depends and it can bring to the conflicts of sector interests. The experience shows that efficient and economic solution for one sector (economic activities) can be, in economic and ecological sense, harmful for the needs of some other sector/activity. These experiences are made conclusion that the management of coastal areas should be based not only on the analysis of individual activities and their

influences, but also on the combined effects of sector activities and their influences on the coast resources.

## CONCLUSION

The new experts' predictions of the WTO predict that the further growth of tourism on the coastal part of the Mediterranean won't be as intensive as it was during the last decades of the 20<sup>th</sup> century, so it will decrease its participation in the total tourist circulation in the world. On the one hand, it can be explained that damaging natural and cultural values of the Mediterranean leads to the decreasing of its competitiveness on the international market. Beside that, the changing of trends on the international tourist circulation is more and more emphasized, because it decreases a part of mass coastal tourism, and it intensifies development of tourist movements motivated with the desire for knowing the specific natural and cultural characteristics of certain space areas.

The realization of mentioned predictions can be useful from the aspect of environment protection, because with this alleviate the tourism pressures on the natural characteristics of Mediterranean coast. However, there is still a fact that the growth of tourist movements towards the Mediterranean, even with slower rhythm, will be continued in the next period. As a consequence, in front of all participants of tourism process, and particularly in front of subjects which make important decisions, there is an obligation to improve negative consequences of former development and making future plans on the quality basis. In our opinion, in the following period, it is necessary to emphasize following activities:

- continuous monitoring and analysis of tourism effects on environment and socio-cultural community;
- putting the most important natural and cultural estates under more rigid regime of protection;
- initiation of complex programs of education intended to the participants of tourism process;
- intensifying international and regional collaboration, through strengthening of existing institutional factors (Barcelona Convention, Mediterranean action plan, Mediterranean commission for sustainable development, Strategy of Mediterranean sustainable development).

## REFERENCES

- Apostolopoulos, J., *Mediterranean Tourism: Facets of Socioeconomic Development and Cultural Change*, Routledge, London, 2001.
- European Environment Agency, *Europe's Environment – 3<sup>rd</sup> Assessment*, Copenhagen, 2003.
- EuroStat, *Statistics in focus*, Bruxelles, 2006.
- European Commission, Studienkreis Fur Tourismus: *Environment and Tourism in the Context of Sustainable Development*, Bruxelles, 1994.
- Font, X., "Environmental Certification in Tourism and Hospitality: Progress, Process and Prospects", *Tourism Management*, Vol. 23 (2002), pp. 197–205.
- Jenner, P., *Tourism in Mediterranean*, EIU Research Report, London, 1993.
- Jovicic, D., Ivanovic V., *Torist regions*, Plana-tours, Belgrade, 2004.
- Mathieson, A, Wall, G., *Tourism: Change, Impacts, Opportunities*, Essex, Pearson, 2006.
- WTO, *Observations on International Tourism*, Madrid, 1999.
- WTO, *Highlights (1995-2006)*, Madrid.
- WTO, Tourism Recovery Committee for the Mediterranean Region (Special Report - Market Intelligence and Promotion Section), Madrid, 2002.
- Weaver, D., *Sustainable Tourism: Theory and Practice*, Elsevier Butterworth-Heinemann, Oxford, 2006