

**THE NEED OF SPATIAL TYPOLOGIES IN TOURISM
PLANNING AND POLICY MAKING: THE GREEK CASE**

45th Congress of the European Regional Science Association

"Land Use and Water Management in a Sustainable Network Society"

Vrije Universiteit Amsterdam

23-27 August 2005

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1. INTRODUCTION

Tourism is a worldwide socio-economic phenomenon stemming from the human need for leisure, contact with nature and the desire to visit new places and cultures. The growth of tourism is an outcome of many factors such as rising standards of living, improvements in transport, the growth of income and free time, the “industrialization” of tourism, etc. At the same time, tourism has many impacts, both positive and negative, on the economy, society, the natural, built and cultural environment of the host community at the place of destination.

Tourism can be especially important for less developed regions, proving income and employment, fostering economic development and contributing to a decrease of inequality among regions

The adverse impacts of tourism at a destination are a cause of particular concern since tourism depends on natural and cultural resources. The deterioration of the natural and cultural environment can have adverse effects on a tourist destination and future tourism development prospects. (Coccossis & Tsartas, 2001).

Tourism is the most representative example of an economic activity which is dependent on the quality of the environment (Priestley, et al, 1995).

2. TOURISM IN GREECE

Worldwide, the number of international arrivals shows an evolution from 25 million international arrivals in 1950 to over 760 million in 2004, corresponding to an average annual growth rate about 6 percent. According to WTO (2005) Europe is the most popular tourist region. Europe has the biggest share in the world's accommodation capacity, accounting for about 38 percent of the world total. Western

Europe continues to lead with a 35 percent market share (in international tourist arrivals), followed by Southern Europe with 33 percent. Both regions are, together, responsible for almost 70 percent of inbound tourism in Europe. France firmly leads the ranking of the most visited countries and territories.

These growth trends will continue not only for Europe (which will continue to have the biggest share in the market) but also for the Mediterranean region according to WTO forecasts until the year 2020 (Tourism 2020 Vision, 2004). An estimated of 235 - 350 million tourists will be visiting the Mediterranean coasts by 2025, possibly double the current figure, with mass tourism being the primary form. Italy, Spain, France, Malta, Cyprus, Tunisia, Greece etc., are considered as highly touristic countries.

Greece is at the 15th place in the world ranking of tourist destination countries. According to the Greek National Statistical Organization there is an increase in tourist arrivals, overnight stays and income generated by tourism services. Foreign tourists arrivals in 2001 increased by 2.88% compared to 2000, foreign tourists constituting 79.83% of total arrivals. In the last three years tourist arrivals declined.

For 2001 which was a benchmark (highest growth) year, 61,567,209 overnight stays of domestic and foreign tourists were registered in hotel units. Domestic tourists generated 14,983,243 overnight stays compared to 46,636,293 of foreign tourists.

The income generated by tourism services in 2004 (according to the National Bank of Greece) reached 10.3 billion euros. Greece is ranked 10th worldwide in terms of total revenues from tourist services.

The active hotel potential of the country is 670,000 hotel beds in 8,900 hotel units with an additional 600,000 beds in rented rooms and apartments.

From the above it is evident that the dominant type of tourism in Greece is mass tourism. It is important in this context to highlight though the lack of long-term tourism planning in the country resulting to the sector's limited competitiveness, in relation to the global tourist markets which show fast growth rates, as well as to the

attraction of low income tourists traveling by charter flights, seeking cheaper accommodation and services etc.

Tourism activity is mainly developed along the coast and in insular regions of Greece due to their rich natural and cultural resources. The Greek coastal areas and islands concentrate also a large part of national population and economic activity which create pressures on coastal resources, some of which constitute the very basis of tourist developments. However, tourism development is quite different from one place to another. The study of tourism in this context is interesting particularly in highlighting the wide diversity of tourism-locality interaction.

The main objective of the present paper is to explore a preliminary typology of tourism destinations for the Greek coastal and insular regions, an effort which could be valuable in tourism planning. There are many dimensions variables that have to be considered in order for a typology to be established. For the purposes of the present paper only some will be used, those considered to be more important for a preliminary attempt. Also it should be mentioned the lack of available data of a consistent nature at a local level.

3. THE DEVELOPMENT OF TOURISM IN GREEK COASTAL AREAS

Coastal zones occupy less than 15 percent of the earth's land surface, yet they accommodate more than 60 percent of world the population. In the EU about one-third of the population is concentrated near coastal areas (EEA, 1999). Many (human) activities are developed along the coastline (agriculture, fishing and aquaculture, mining, trade, etc.), with tourism and recreation appearing quite often as the dominant ones. The competition for land and other resources leads often to conflicts and over-exploitation.

Greece is the country with the most extended coastline among all other Mediterranean countries. Greek total area is about 131,957 sq. km.(almost 26% of the total area), and the length of the coastal area is about 15,000 km. The Greek coastal zone is almost equally divided between the mainland and the islands (7,700km of coastal zone corresponds to 3,053 islands. Only 227 islands are inhabited (NSO, 2001)

Almost 38% of the Greek population and 90% of tourism and leisure activities is located along the coast both of the mainland and the islands, leading to an increased urbanization of the coast (Coccossis and Mexa, 2002a; Coccossis and Mexa, 1997).

In a first approach to understand the necessity for a spatial typology for the Greek coastal region it is important to study and analyze the characteristics of tourism growth in Greece:

- The model of tourism growth developed in the postwar period which is organized mass tourism especially during summer.
- A significant number of areas depend almost entirely (socially and economically) on tourism. As a result, the abandonment of productive activities can be witnessed in many places.
- The Greek tourism product is composed of infrastructure and services addressed mainly to mass tourism. The diversity and richness of natural cultural heritage offer however significant opportunities for alternative types of tourism which are gradually being developed.
- Lack of a comprehensive institutional framework for tourism development. The rapid growth of tourism in Greece – which derived from the government's efforts to increase foreign tourist inflow was not accompanied by the development of an effective institutional framework for the management and planning of tourism.
- The absence of any long-term planning in tourism development led to deficiencies in infrastructure and services (low-quality accommodation, insufficient infrastructures, lack of centers of information and problematic access in tourist regions). It is also important to mention the weaknesses in the upgrade of accommodation and other infrastructure until quite recently.
- Tourism growth is spatially located in certain regions of the country and is highly seasonal (in character), concentrating in the summer

months, which leads to high pressures in tourist destinations and deterioration of the built and natural environment.

- The limited and inadequate promotion of tourism product and the intensification of international competition led to decreasing competitiveness of Greek tourism product.

In spite of such deficiencies of Greek tourism, the wealth and diversity of the Greek natural and cultural heritage provide excellent opportunities for long term dynamic balanced growth. The necessity of a long-term strategy is evident.

A major characteristic of the Greek coastal and insular area is its heterogeneity as a different places demonstrate different patterns of tourist development as a of different characteristics, they have developed a different type of tourism and a the different stage of tourism development.

To analyze some differences spatially disaggregated data for tourism and tourist destinations have been examined at the level of coastal municipalities. The purpose of such analysis is to examine to what extent there are common characteristics in tourism destination.

4. THE INTERNATIONAL EXPERIENCE IN SPATIAL TYPOLOGIES

Tourism is developed in different patterns in space, depending on the specific characteristics of destinations. Typology can provide a useful analytical tool for tourism planning as it assists in the recognition of its spatial impacts, in terms of the spatial extent and the intensity of growth, contributing in the process of rational planning and in the adoption of effective tourism policy. A typology can contribute at all tourism planning stages, the analysis of the existing situation, the assessment of positive and negative impacts of tourism, the development and selection of alternative scenarios for tourism growth and in the specialization of policy per type of tourism destination.

Two categories of typologies are distinguished: those where the interest is focused either on (a) the characteristics of tourist demand or (b) the destination's characteristics. The present paper will deal with the typology addressing the supply

side of tourism (second category) concerned with the destination and its characteristics.

The following section presents some of the most interesting typologies of supply.

4.1 Supply typologies in coastal areas

Barbaza (1970) has conducted a regional study of the Mediterranean-Black sea coastline. He examined the following criteria 1) the size and the extent (spatial) of the existing population and the diversity of its activities before the introduction of tourism 2) the spontaneous or planned nature of tourist facilities supplied and 3) the localized or extensive nature of the tourist area. Using those criteria he distinguished three types of development 1) spontaneous development corresponding to areas like Costa Brava and Cote d'Azur 2) Resorts that come from a planned and localized development like the Mamaia (Romania) and Zlatni (Bulgaria) in the Black sea coast and 3) Extensive development to areas like Languedoc and Roussillon.

Peck and Lepie (1977) have conducted a study for small coastal communities in North Carolina. They have mainly used three criteria 1) the rate of development 2) Force of local society and 3) the impacts of tourist growth in the local society (pay-off and trade-off). They produced a threefold typology: a) rapid growth, b) low growth and c) temporary growth.

Gormsen (1981, 1997) developed a spatio-temporal model of development for seaside tourism at an international level. His model is based on the study of the historical development of coastal tourism essentially from a European perspective. The main criteria he used were: 1. The nature of lodgings, 2. The level of participation of local population and external factors which influence the growth of tourism and 3. The social characteristics of tourists. Using these criteria he recognized four Peripheries (regions): Periphery I (resorts in both sides of the Channel and Baltic sea area), Periphery II (resorts in the coasts of southern Europe), Periphery III (resorts in the coasts of North Africa, Balearic and Canary islands) and Periphery IV (resorts in West Africa, Caribbean, Pacific and Indian Oceans, South East Asia).

Wong (1986) conducted a study for the east coast of Peninsular Malaysia for developing a typology of resorts. The main criteria he used were 1. The scale and the

qualitative characteristics of the resort and 2. The extent of participation of the private and public sector in the growth of tourism. This way he produced a fourfold typology: a) Planned resort complex, b) Individual resort of international standard, c) Individual resort of national or local standard and d) Basic accommodation unit.

4.2 Supply typologies in mountain regions

Preau (1968) conducted a study in the French Alps for mountain development. He used three sets of factors: 1) The state of local community at the beginning of growth, 2) The rate of growth and 3) The general characteristics of environment of the region as well as the technical and economic probabilities of growth. He concluded in twofold model of development: a) the Chamonix model (pioneer tourists discovering the nature of the mountains, local society adapts and accommodates easily the tourist demand) and b) the Belleville model (image of a functional resort conceived by urban promoters, it is no longer the nature that is being presented to the tourists but the facilities).

Pearce (1978a) has proposed a typology for mountain areas using only one criterion which is the division of responsibilities of tourism growth. He identified two types of development: a) the integrated development by a single developer and b) the catalytic development where the initial development comes from a single developer with complementary developments by other companies.

4.3 Supply typologies in other regions

Lundgren (1982) focuses on the role of different places-destinations. He uses the following criteria: a) The degree of mutual attraction of tourists (inflow-outflow of tourists), b) Geographic characteristics and c) Offer of tourist services. He recognizes four broad tourist destinations: a) Centrally located metropolitan destinations, b) Peripheral urban destinations, c) Peripheral rural destinations and d) Natural environment destinations.

Finally Miossec (1976, 1977) has developed a model of tourist growth which incorporates the idea of a hierarchy of resorts. The criteria he used were the changes in: resorts, the means of transport, tourist behavior in the destination and the attitudes of the local population and decision makers. He recognizes four Phases where in the beginning there is a pioneer resort which is becoming finally a mature destination.

Evidence from typologies of supply demonstrates a diversity of interpretation of tourism development. depending on the scale and purpose of the undertaking. The diversity can be attributed to the differentiation of spatial (geographical) characteristics and the dynamics of tourism development.

A common criterion used for the development of a typology (for planning purposes) of tourism destination is the phase, or level, of growth. Another issue or criterion is the existence of a planning process in the development of the area. The growth (and vigor) of the local community in each destination is also important constituted of many factors such as the demographic and economic characteristics, the level of education, etc. The social background of tourists as well as their socio-economic characteristics contributes to the creation of the destination's image.

This review has shown that a few key criteria in the process of developing a typology of tourism supply can be used: the growth characteristics of the destination, (in terms of population, tourist accommodation) as well as, the characteristics of visitors.

5. SPATIAL TYPOLOGY FOR TOURISM PLANNING

Tourism for the majority of coastal and insular regions in Greece constitutes a major economic sector. Each region has its own structure and dynamics, characteristics, comparative advantages and constraints. Thus, it would be more appropriate for tourism planning to be consistent with the particular characteristics of each destination and with the demands of the local society for this sector. In every case participation of local society of a destination is important in order that planning and decision making will be representative and acceptable from the residents.

The study area consists of the total coastal and insular Greece whereas the minimum level of analysis (according to the established GIS database) is the lowest administrative unit-settlement level. Main aim of this effort is the creation of a typology for tourism destinations on the Greek coastal³ area – for planning purposes -

³ Meaning the coastal and insular area together

so the undertaking of policies and actions will be representative and appropriate for each type of tourist area.

Tourism has grown dramatically in coastal areas which also experienced increase of population. Since 2001 is the last population census year and a benchmark for tourism as well it is used as the main reference. Data from the Greek National Statistical Organization show that for 2001, 38% of the national population was located along the coast that is on 28% of the total surface area of Greece. The rate of change in coastal population was 11% for the decade 1991-2001, compared to 6.8% of the national total. The above data prove the dynamic demographic growth in coastal areas.

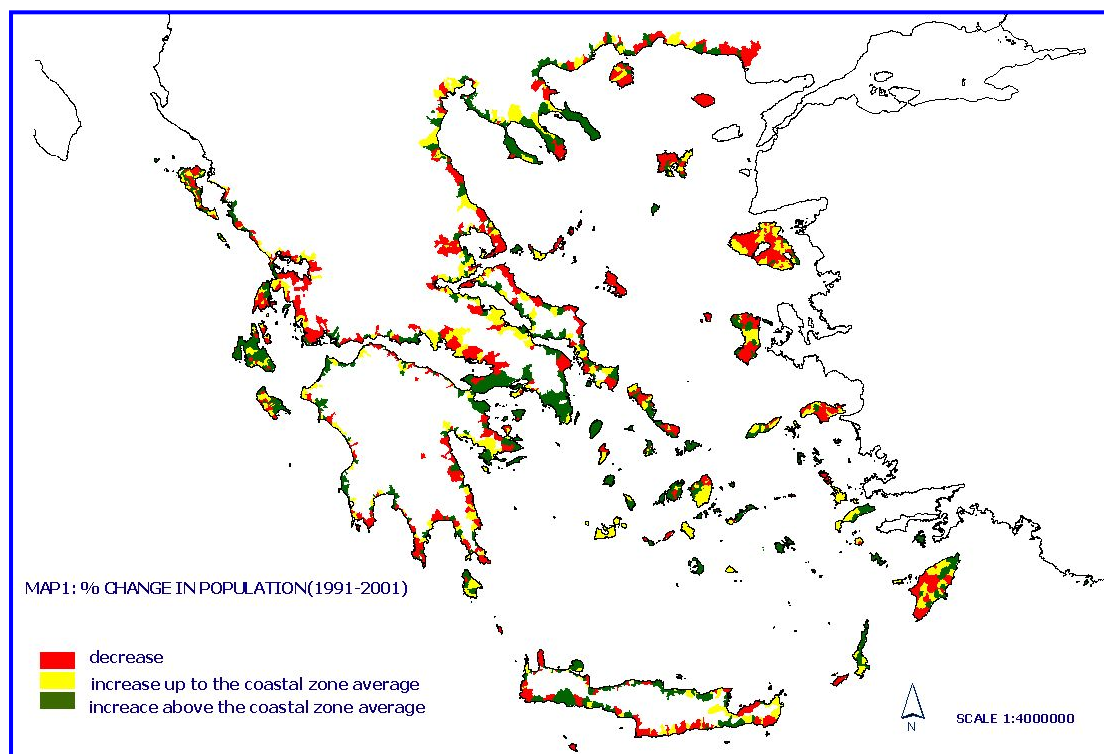
In 1991, 83.9% of the national capacity in hotel beds was located along the coast in comparison with 87% of 2001 demonstrating an increasing concentration. The increase in hotel beds for 1991-2001 is 40% for the national total and 46% for coastal areas.

A preliminary approach of this typology will be shown, based on the demographic and tourist characteristics of coastal areas. A database has been built using Geographical Information Systems with data from the National Statistical Organization and the Greek National Tourism Organization. Those data mainly concern demographical data, land uses, hotel and rent room beds, overnight stays etc.

Geographic Information Systems (GIS) have been widely used for creating, managing, analyzing and representing geographical information. (Goodchild F. M., 2000). Geographic Information Systems (GIS) applications in the field of tourism management and planning first appeared in the early 90's. Some of the key features of GIS that could benefit tourism planning include their ability to manipulate data and spatial attributes (Boyd and Butler, 1996) and provide necessary value added information (Bahaire and Elliott-White, 1999; McAdam, 1999), the ease in allocating resources between what are often conflicting demands (Townshend, 1991; Williams et al ,1996), their adaptability in requirements, needs and data changes over time (Beedasy and Whyatt,1999), and their ability to identify patterns or relationships based on particular criteria and support in this way decision-making (McAdam, 1999). A series of tourism indicators have been used to summarize coastal tourism destinations.

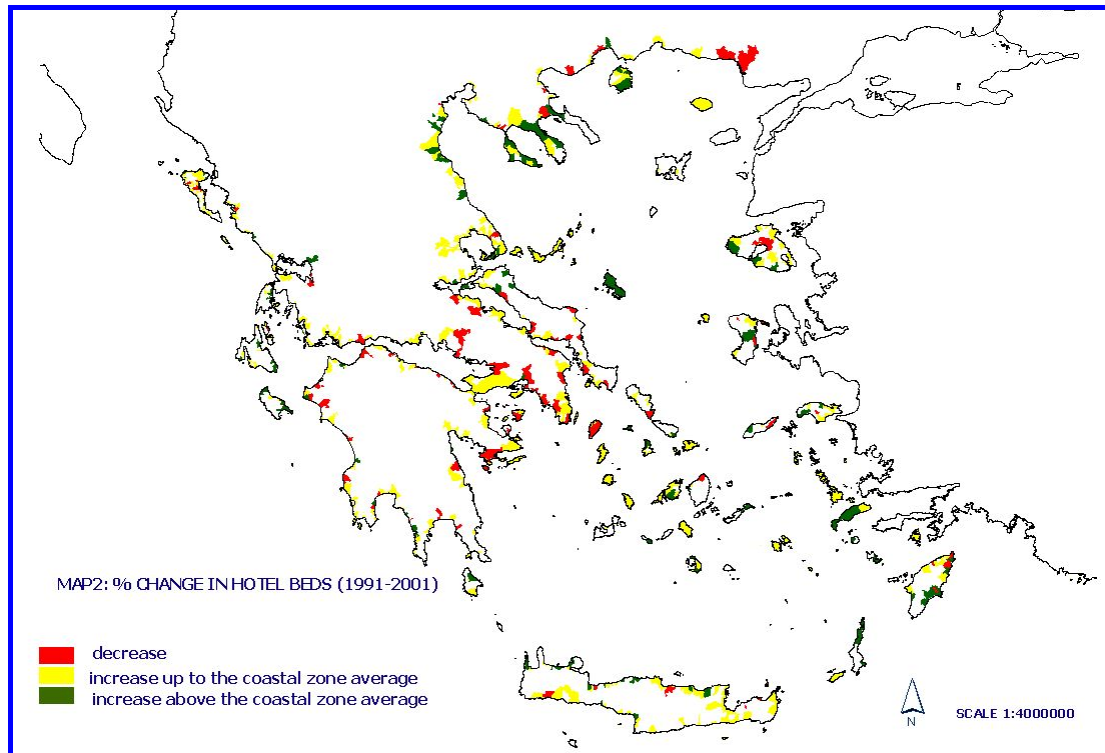
The typology is contribution of two factors: a) tourism growth and b) population growth. This typology that have been created through the GIS database using the simple rule “if..... then.....”. In this way can be seen that tourism and demographic dynamics of a destination are interrelated.

In Map 1, changes in demographic data of coastal municipalities are presented – most demonstrating population increase in the nineties. Population decrease evidenced in the islands of the Northern Aegean Region as well as the coastal areas of Eastern Evia, Southern Crete and Sterea Hellas due to the phenomenon of internal immigration from rural areas to urban centers or tourism districts. In contrast to the above, for the majority of tourist areas on the coast, as Cyclades and Dodecanese, Northern Crete, the Ionian Islands and in the big urban centers (Athens, Thessalonica, Patras) the population remains constant or is increasing.



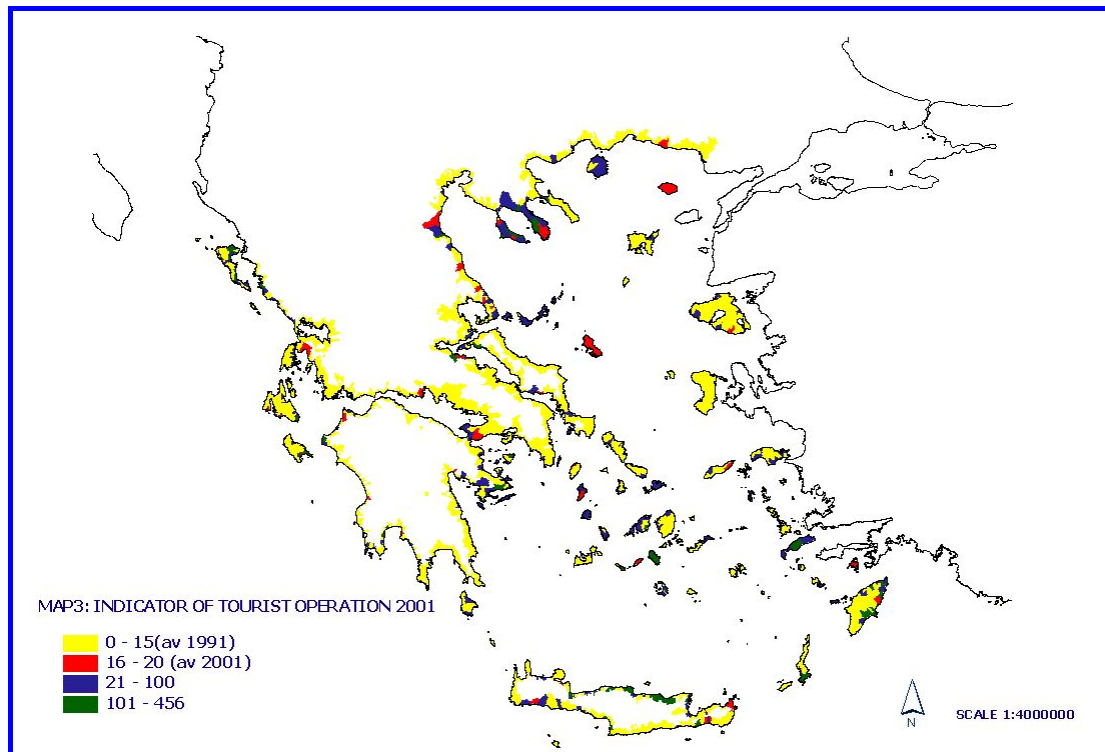
Map 2 shows the growths of tourist accommodation (hotel beds) for 1991-2001 period. The increase of hotel beds along most of the coast is particularly evident, due to the preponderance of mass tourism in the Greek product.

Fast growth is observed in some areas due to their short distance from Athens metropolitan area, evidence secondary housing, such as in Cyclades (Andros, Tinos, Sifnos, Kithnos, Tzia, Siros, etc.) and Corinthian Gulf.



As evidenced by maps 1 and 2, population and tourism growth co-exist in space, leading to the hypothesis that the two could be related at least for the majority of coastal settlements. In fact, tourism income and employment can retain or even attract population in host destinations. However, although tourism is a strong factor contributing to population growth, it is not the only one.

An indicator of tourist functionality for the year 2001 is presented in Map 3. This represents tourist intensity over the local population. The analysis of that indicator shows that tourist activity is intense in some areas. The Northern Aegean islands, Southern Crete, the Ionian Islands as well as big part of the municipalities of coasts are found in an initial stage of tourism growth while the already developed tourist destinations continue their ascending course.

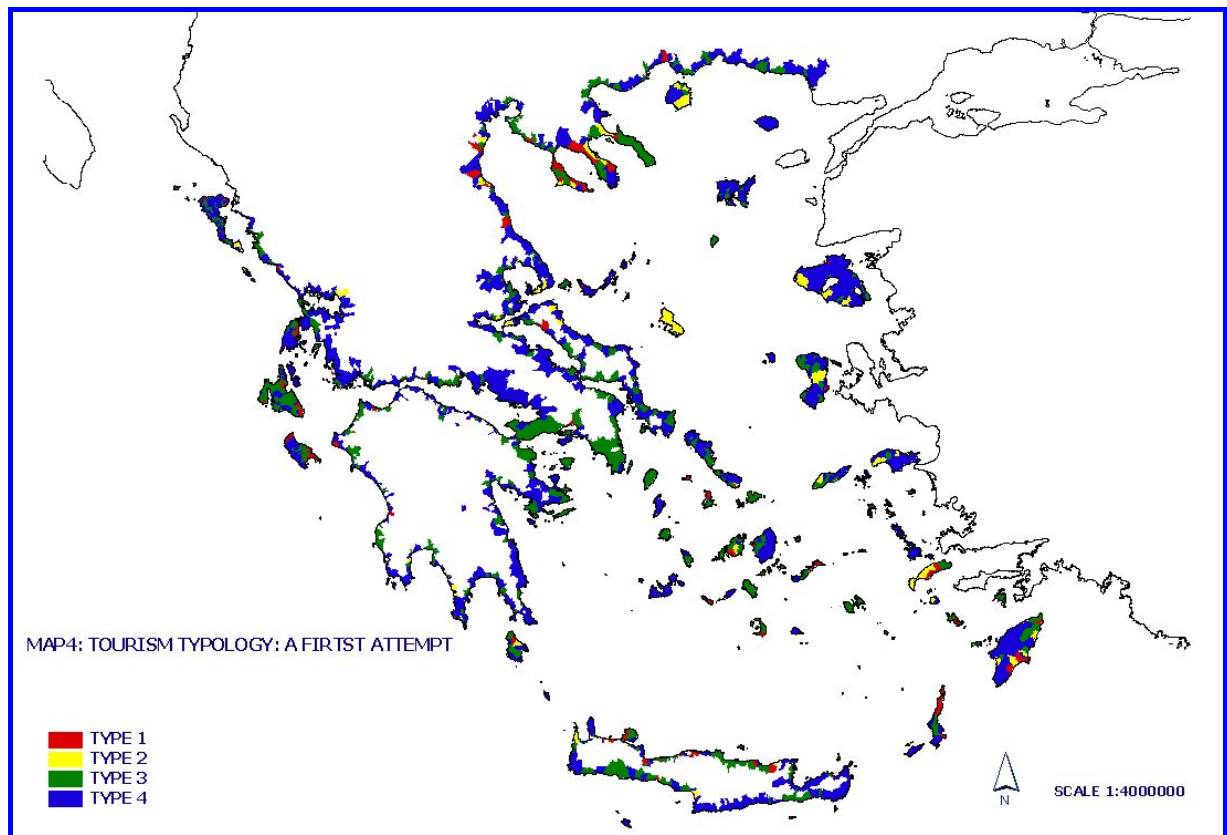


In the case of tourist destinations like Mykonos, Rhodes, Chalkidiki, Kos, Santorini, coastal settlements in Northern Crete, etc., although considered well developed, they evidence an increase in the number of hotel beds in spite of high intensity of tourism.

In Map 4, a preliminary attempt of creating a tourist typology for coastal tourism destinations is presented. The criteria used are growth of tourism and population as well as their interrelationship. In this way four types of destinations have been identified: areas where tourism and population are increasing compared to average values, areas where the population decreases while tourist increases (always compared to the average), in the third category examples opposite from the second category are found, while in the last category both rates decrease.

In the first category belong coastal municipalities which grow dynamically such as the islands of Santorini, Kos, Rhodes, Amorgos, Folegandros, Naxos, Karpathos, the coastal settlements of Chalkidiki, Cephalonia, Zakynthos etc. In category 2, are municipalities with tourism growth which however is not accompanied by respective growth in population. In category 3, municipalities do not present an important tourism growth, possibly due to the different orientation of the local

economy. Finally, in the fourth category are municipalities which are characterized by stagnation in their growth.



7. CONCLUSIONS

Tourism industry plays an important role in the economy of the Greek coastal regions and is regarded as one of the most important factors contributing to population stability, especially for islands, with their specific characteristics.

In addition, tourism is related directly to the quality of the environment in destination areas while the interdependence between tourism and natural environment is very strong. It is common knowledge that tourism growth is occurring in areas of high ecological value and is a great “consumer” of natural resources. If those resources are scarce, tourism development will not be sustainable.

Each destination has its own natural, social and economic characteristics and attracts different kinds of tourists, all forming the destination’s particular tourism character needing particular attention. Thus, planning for tourism should be based on

a rational, integrated process, adapted effectively to the particular characteristics of tourism destinations.

In the present paper, only two parameters were used (growth in tourism and in population) in order to create a basis for a typology. The scope was to show differences in the tourism development process. It has to be recognized that in order to create a tourism typology, more factors should be used so that the outfit will be representative for each coastal settlement. In this case it is expected that more than four distinct categories will be derived making the decision making process at the national level, more effective and comprehensive. Also the methodology that has been used in this case was the simple rule “if then...” is simple but it is representative when only two parameters are examined. In the case where more parameters should be examined so that the outcome could be more accurate and clear more sophisticated methods are needed. Finally, the use of GIS can give a dynamic profile in established typology as they can incorporate the potential for change in respect to a destination's characteristics.

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