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The Effects of Tourism in Greek Insular Settlements and the Role of Spatial Planning

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Abstract During the second half of the twentieth century, Greece has experienced changes on all levels of economic, social, and environmental sectors which are associated directly or indirectly with the rapid growth of tourism. The impacts of this growth have decayed local resources and jeopardized the country's sustainability in the long term. This kind of development has influenced the country's insular regions which due to the lack of industrial development have a great dependency with the tourism sector. So the wealth of islander Greece depends almost exclusively upon tourism. Moreover, the intense development of tourism often contrasts sharply with the protection of uniqueness, as it implies urbanization and exploitation of resources. The question that the paper tries to answer is if spatial planning of Greece has managed to control the pressures of tourism in the insular built environment and particularly to the settlements. The current paper examines the way tourism has influenced the Greek insular settlements population and spatial characteristics. It examines the changes of population during the last 20 years and the environmental problems that are caused by the intense development of tourism infrastructures. It also investigates the spatial planning tools that are used in urban and regional levels for the insular areas sustainability. Finally, it argues that tourism should be properly planned and researched in order to achieve equitable return on the resources that are utilized for the provision of tourism services, while ensuring the sustainability of environmental assets.

Keywords Insular settlements · Spatial planning · Greek settlements

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Introduction

Most of the world's population lives in a variety of settlements that are rapidly changing. More specifically, the changes that have taken place in Europe show that urbanization has increased while simultaneously the countryside loses its population. This fact is caused as consumption patterns are completely different throughout Europe from what they were 20 years ago. Mobility, new types of housing, communication, tourism, and leisure have emerged as major components of consumption by households in Europe, whose size and composition are also undergoing profound changes: many more households, smaller in size with higher consumption rates per individual. In this context, the coastal areas in particular and, to a lesser degree, the mountainous, are being urbanized at an accelerating rate—for instance, urbanization of the coast grew about 30 % faster than inland areas.

This urbanization process takes place in Greece during the last 50 years with intensity that differs according to the changes of the country's productive base. During the second half of the twentieth century, Greece has experienced significant changes on several levels of economic, social, and cultural life which are directly or indirectly associated with the rapid growth of tourism (Galani- Moutafi 2004) that caused the development of tourism infrastructures in the coastal areas. The collapse of the primary and the secondary sector and the simultaneous gigantism of the tertiary sector, especially tourism, changed the way the county's population is spatially distributed.

It is estimated that in 2000, the Greek economy depended heavily on tourism, as tourism's contribution varied between 50 % and in some areas 90 % of the Gross regional product (Buhalis 1999). This intense tourism development has contributed to the anarchic development of the Greek coastal and insular regions that follow a single development which diachronically decayed local resources and jeopardized the sustainability of these regions in the long term. Despite tourism activity relying on the environmental quality more than any other economic activity, this is often disregarded in local planning (Buhalis 1999). Tourism development often contrasts sharply with the protection of uniqueness as it implies modernization, change in culture, urbanization, and exploitation of resources (Coccosis 1987).

The 95 inhabited Greek islands with their traditionally built-up environment on the one hand and the unspoiled sea on the other made Greece a desirable destination since the 1960s (Buhalis 1999). As spatial planning was not "prepared" for this kind of growth, the areas that faced intense pressures were environmentally exploited as by that time all policies focused on the profit's maximization by tourism activities. The results of this development also influenced the hinterlands as the mutation of the country's productive base led to the abandonment of the traditional agricultural and industrial activities and simultaneously to intense population relocation towards the coastal touristic zones. But what is the role of spatial planning for the confrontation of the tourism effects on the insular settlements?

For the development of the settlements, the spatial planning was a determinant factor. The regional and urban plans that have been applied during the past decades have not managed to propose policies for the settlements development that would designate their characteristics. At present, spatial planning policies often reflect the logic of the market. Through the legislation of uncertain restrictions that faced fragmentarily

these areas, in many cases mass tourism caused the violation of carrying capacity and adverse esthetic interventions in the historical and cultural environments of these areas (Galani- Moutafi 2004).

The current paper is structured by two sections. In the first section, it presents and analyzes the demographic characteristics of the insular Greek settlements. It examines their population changes during the last 20 years and the spatial problems that are caused by intense tourism development. In the second section, it focuses on the tools for settlements spatial planning and it points out the need for the formulation of specified policies that can be applied for these areas development.

Definitions and Categories of Settlements

Human settlements and territorial patterns are the modular building blocks of the landscape (Le 1972). According to historical geographers and archeologists, many different settlement models have been defined. These definitions are mainly based on geographical site analysis which makes an assessment of land qualities and natural resources in the surroundings that were important for the founding of the initial settlement and development during history (Anthorp 1987, 1990; Baker 1971; LaGro 2001; Unwin and Nash 1992). The criteria used to specify what settlements are, vary widely from country to country so it is not possible to give a single definition. However the main principles for the definition of an area are population's size, urban characteristics as types of areas, predominant economic activities as manufacturing and services or an administrative function. However, most censuses combine these four aspects. So, the most common classification is the distinction in rural, urban, and semi-urban settlements. For the current paper, initially, it is necessary to define what settlements are, according to the Greek classification of urban areas. The criterion of the Hellenic Statistical Authority is mainly the recorded population, so it defines as settlements the urban areas that are inhabited by less than 2000 residents.

Today, the settlements are classified in three categories according to each recent census:

- Small-sized settlements: have less than 200 residents or less than 100 buildings.
- Middle-sized settlements: have population that varied between 201 and 1000 residents or more than 100 and less than 500 buildings.
- Big-sized settlements: have population between 1001 and 2000 residents.

The current paper will use this classification as the data that were provided by the Hellenic Statistical Authority are according to this classification.

The Changes of the Greek Inhabited Areas

The rapid change of rural areas during the twentieth century is defined by the decline of the traditional rural economic activities. Since the establishment of the Greek state, social, political, and economic changes shaped the country's spatial status. The rural areas that are characterized by low population densities, primary industries, and small settlements (Garrett 2007) were the base for the development of the new country since its proclamation

in 1833. The initial rural character of the Greek population gradually mutated into urban. This phenomenon was caused by population movements from settlements towards the cities with different rates, which depended on the prevailing conditions. The desire for a new life in the city that was combined with the dream for better living conditions, through the employment in tertiary sectors that were rapidly developing in the urban centers, led to the settlements abandonment and the urban centers gigantism.

It is characteristic that during the 1920–40 period, the urbanization trends were significantly burdened (urban population is the 33 % of the total), while during the Second World War and the Civil War, urbanization increased. So, in 1951, 38 % of the total recorded population lived in the cities (Kotzamanis and Androulaki 2009). The next 30 years were characterized by the huge tend for internal and external immigration/urbanization. In the late 1970s and 1980s, Greece experienced a dramatic increase of tourism that was facilitated by the maturity of competitive destinations, the existence of cultural and environmental resources, and the lower cost of living in comparison with the rest of the European countries (Komilis 1987; Papadopoulos 1989; Leontidou 1991). This kind of development led to the relocation of populations towards coastal settlements that were gradually mutating to urban centers. As the main tourism type focused on "sun, sand, sea, sex" types of products (Buhalis 1999), the insular and coastal zones of the country were the new destination of the residents of the hinterlands as new jobs were provided there. This un-planned kind of development failed to attract high-quality tourists and eventually caused the deterioration of the tourism product that continued to develop on the coastal zones. The recent (2011) census shows that still intense population relocation is recorded from the hinterland settlements towards the coastal and the insular settlements which today still face environmental exploitation. So, in 1853, the 79.4 % of the total recorded population was rural, while in 2001, the rural population of Greece was 28.6 % of the total recorded population (Fig. 1).

The Settlements Population Characteristics

The geomorphology of Greece combines mountainous and insular areas. The distribution of residents in the settlements in comparison with the other inhabited areas is shown in Fig. 2. The inhabitants of settlements are 28.6 % of Greece's population.

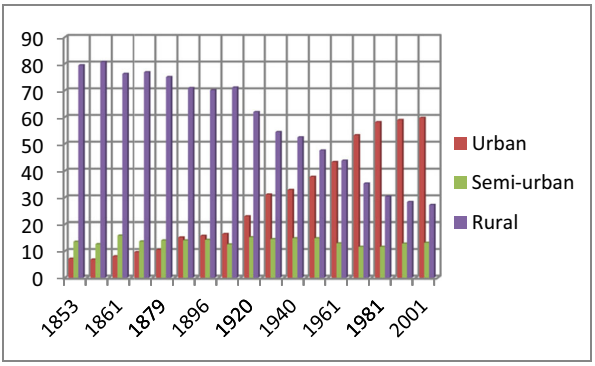


Fig. 1 The population of Greece according to the degree of urbanity (%). (Kotzamanis and Androulaki 2009)

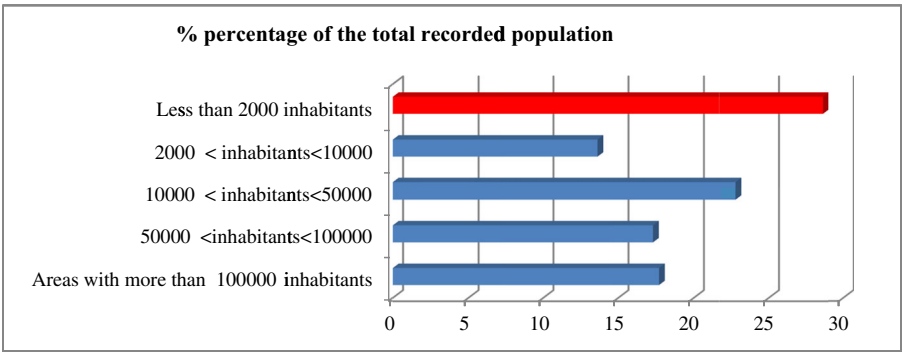


Fig. 2 The population's distribution in different sized urban areas. (Hellenic Statistical 2011)

A more detailed investigation shows that 81 % of the recorded settlements is inhabited by less than 500 residents while their average population size in 174 people (Table 1).

As for the areal distribution of the settlements, their majority is allocated in the continental regions, while in the insular regions, 35 % of the recorded settlements is allocated (Fig. 3).

For the investigation of the population's composition, the research will use the following demographic indicators (Gousios 1999): aging ratio (A.R.),[1] child ratio (C.R.)[2], and age dependency ratio (A.D.R.)[3].

According to the 1991 census, 2,790,198 inhabitants were living in the Greek settlements. The A.R. indicator was 19.3 %, the C.R. indicator was 17.5 %, and the A.D.R. indicator was 36.8 %. A more detailed research shows that in 1991, the mountainous settlements were inhabited by 558,930 people, while the lowland and the semi-mountainous settlements were inhabited by 2,231,268 people. The indicators examination reveals that in the mountainous settlements, people aged over 65 were more than the corresponding of the lowland and the semi-mountainous settlements.

In 2001, the settlements population reduced in 2,779,593 inhabitants (0.4 % decrease). This decrease was not uniformly distributed, as in the mountainous settlements, the

1

$$\text{A.R.} = \frac{\text{Number of people aged 65 and over}}{\text{Total population}} \times 100$$

2

$$\text{C. R.} = \frac{\text{Number of people age 0-14}}{\text{Total population}} \times 100$$

3

$$\text{A.D.R.} = \frac{\text{Number of people aged 65 and over}}{\text{Number of people aged 15-64}} \times 100$$

Table 1 Classification of settlements according to their recorded population. (Hellenic Statistical Hellenic Statistical 2011 census)

Inhabitants	Number of settlements	Average population	Population's total
1500–2000 inhabitants	173	1.730	154.255
1000–1500 inhabitants	411	1.208	376.674
500–1000 inhabitants	1355	690	835.089
1–500 inhabitants	8072	174	1.404.575

recorded reduction amounted to 3 % (from 558,793 inhabitants in 1991 to 541,172 in 2001). A more detailed investigation shows that in the mountainous settlements, population's reduction is more intense as almost 45.6 % had less inhabitants in 2001 compared with 1991. The A.R. indicator amounts to 22.2 % (the corresponding of 1991 was 19.3), the C.R. indicator was 17.5 % (the corresponding of 1991 was 17.5), and the A.D.R. 34.1 % (the corresponding of 1991 was 36,8,3). It is characteristic that in most cases, the population's decrease varied from 10 to 250 inhabitants. Since most of the settlements were inhabited by less than 500 residents, this reduction is intense. It is also interesting that 30 % of the recorded settlements has increased their inhabitants, leading to a balance between the recorded population changes.

The investigation of the population changes phenomenon according to the settlements spatial characteristics shows that these changes were uniformly dispersed in the

Fig. 3 The areal distribution of settlements in the Greek territory. (Dimelli 2011)

Greek territory (Fig. 4). It is remarkable that in most of the cases, a settlement that "loses" population is close to another that "gathers" more residents.

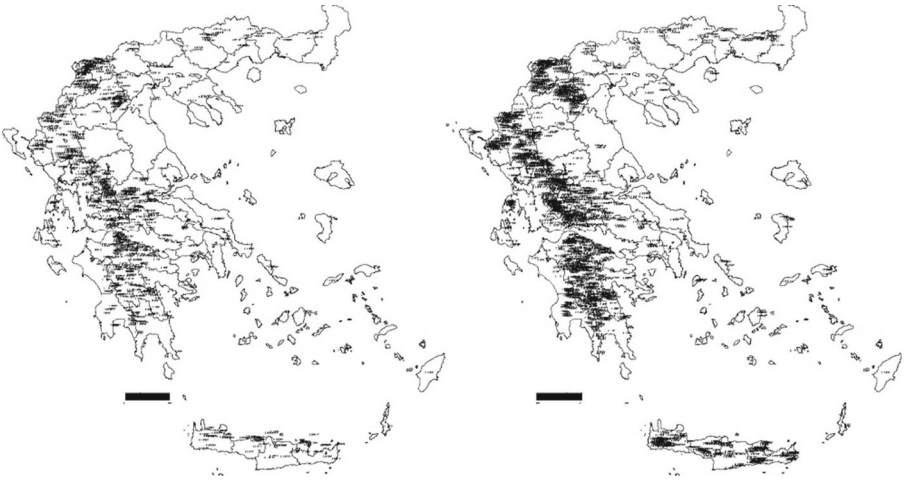
The Insular Greek Settlements

The Greek islands (Fig. 5) present geomorphologic variety. Apart from agriculture and fishing, their economy depends heavily on tourism, as their insularity and lack of infrastructure deprive it of competitive advantages in other activities (Konsolas 1994). So, tourism is emerging as a major stimulant of these regions economy as it is a major employer which occupies the 10.6 of the Greek labor force (Loukissas 1982; Konsolas and Zacharatos 1993). The economic impacts of tourism vary greatly according to the economic structure of each island (Loukissas 1982), but in most cases, the islands wealth depends almost exclusively upon tourism and hence supporting these destinations under the principles of sustainability is instrumental for the prosperity of the local population.

The effects of tourism on the insular settlements population are important as the coastal zones have developed infrastructures that "attract" new inhabitants. In the 227 inhabited Greek islands, 3188 settlements are recorded (26 % of the settlements total). These insular settlements according to the 2011 census were inhabited by 653,009 residents. The age composition of the insular settlements population is presented in Fig. 6. The A.R. indicator was 23.4 %, the C.R. indicator was 18.6 %, and the A.D.R. indicator was 39.5 %.

The Effect of Tourism in the Insular Areas

The insular areas and more particularly their coastal zones face intense problems because of the anarchic tourism development and the expansion of its negative impacts



Settlements with population increase *Settlements with population decrease*

Fig. 4 The population changes of the Greek small settlements. (Dimelli 2011)

Fig. 5 The Greek islands (Dimelli 2012)

on the insular society and environment. The effects of tourism expand in social, cultural, and environmental sectors. The structure of the insular regions is jeopardized while a complete dependence on tourism and the reduction of the multipliers becomes inevitable (Loukissas 1982). The commercialization of cultural traditions is evident

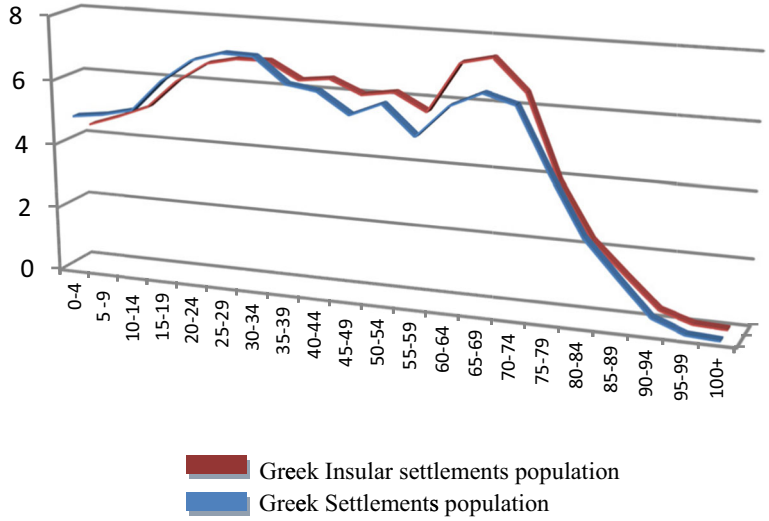


Fig. 6 The population's age composition in all Greek and in the insular Greek settlements (Dimelli 2011)

(Briassoulis 1993), while locals overwork neglecting their social, family, religious, and cultural obligations (Buhalis 1999). Despite environmental resources becoming central to destination's competitiveness, many regions go through an unparalleled exploitation due to inadequate planning and reinvestment in their sustainability. The tourism development has so far led to coastal pollution, waste disposal, and overbuilding are some of the impacts that are experienced in the Greek coastal zones and their settlements (Papadopoulos 1988). The infrastructure in Greece is incapable of supporting the superstructure growth of the last decades and thus telecommunications, transportation, services, water supply, and sewage systems are under extreme pressure in the summer peak months to satisfy the demand density (Buhalis 1999). The national tourism policy is supervised by the Greek National Tourism Organization and the Ministry of Tourism which share the responsibility for planning, implementation, and promotion of Greek tourism at the national and regional levels. But today, the Greek tourism industry is hastily built in response to demand for cheap accommodation which does not meet the needs of a market less sensitive to price and more concerned with quality and value for money (EIU 1993). Hence, unless the Greek tourism industry addresses a number of critical issues immediately, its future would seriously jeopardized resulting in a potential catastrophe of the Aegean region's economy.

Today, Greece's insular regions have profound implications as their social, economic, and environmental resources are exploited without ensuring their sustainability. Tourism development mainly takes place without any regional or urban plan of the area, respect for the natural and cultural landscape, analysis of whether there is demand and what the demand is after, and regard to what is happening in similar situations (Richter-Papaconstantinou 1992). The coastal areas are a conductive field for tourism exploitation while the abandoned hinterlands are threatened by the arbitrary activities of primary sector as overgraze. Recent maps show that the forest areas of the islands are less, compared with the corresponding areas of the rest of the country. This fact is caused by intense urban sprawl that results by arbitrary constructions and the few existing restrictions regarding building in non-urban areas. All the above weaknesses emerge from both the inadequate policies and spatial planning processes from the public sector as well as from the strategic weaknesses of the private sector. The issue of infrastructure is closely related to the oversupply which attracts higher demand than planned. Destinations often have limited infrastructure provisions which fail to follow the pace of development, generating pressure on the existing inadequate facilities (Buhalis and Diamantis 2001).

The limited existing scientific tourism research highlights the lack of comprehensive examination of tourism impacts in Greece; while it illustrates that tourism policy is based on insufficient documentation (Zacharatos 1989). Public sector research is almost non-existent, while the authorities seem uninterested in consulting the Greek tourism research produced by academics (for example Zacharatos 1984, 1989; Komilis 1987; Loukissas 1982; Papadimitris 1988; Papadopoulos 1985; Moore 1992; Tsartas 1989; Velissariou 1991; Fotis 1992; Buhalis 1991; Buhalis and Diamantis 2001) or the international tourism "body of knowledge" (Zacharatos 1989: 24). Consequently, tourism policy follows conventional wisdom and concentrates on attracting a larger volume of tourists, ignoring scientific methods to assess the economic, social, cultural, and environmental impacts of each tourism segment, assuming that the greater the tourism volume, the better for the national economy (Buhalis and Diamantis 2001).

Because the deficient scientific examination of Greek tourism and its impacts prevents the authorities from establishing quantifiable and measurable tourism policies, their policies are based on subjective and personal judgments, while feedback practices are rarely followed. Komilis (1993: 225) suggests that tourism planning in Greece is generally realized and exercised within a socio-political environment characterized by several factors, as a limited degree of political commitment, lack of social awareness, and acceptability of planning actions. When the conflicting interests and power of each member of the tourism industry are brought into the equation, where different partners attempt to influence legislation in order to maximize their own short-term profitability, regardless of the impacts on the destination and other enterprises, the planning process becomes more complicated. This results in an ineffective planning system and process, which produces policies unable to provide an appropriate balance between restrictive policies and control planning implementation.

The basic problems of the insular settlements wider regions are the following:

Urban Sprawl

Mediterranean urban areas are characterized by dispersed and horizontal forms rather at the expense of farming and forested areas (R'egionales 2001). The societies are highly depending on the use of private automobile, which combined with the lack of planning and controlling mechanisms explain the status of today's urban landscapes (Camagni et al. 2002). The arbitrary and non-planned constructions are common phenomena in Greece since the nineteenth century. This fact combined with the absence of controlling mechanisms and the constant urban areas expansion, legalizes and encourages the intense urban sprawl. So every peri-urban area can easily mutate to urban with very few restrictions.

This way for the past decades, the Greek urban tissue was expanding beyond its limits, against protected areas, forests, and coastal zones. A main way of development is the ribbon sprawl at the coastal sides of main roads that connects the insular cities with the settlements.

The examination of the urban sprawl intensity in Greece shows intense and very intense urban sprawl in the coastal settlements which degrades the natural environment. Another issue is that urban sprawl also deteriorates the traditional settlements that are in most cases characterized by high-density constructions and labyrinthine road networks, as the new sprawled buildings do not follow the traditional urban forms (Fig. 7).

Arbitrary Construction

Arbitrary construction is not exclusively a Greek phenomenon. Initially, it was a way for the coverage of the refugees and the low-income class housing demands as it was a cheap way of building. Today, most of the Greek arbitrary constructions are tourism infrastructures that take advantage of the lack of building restrictions and controlling mechanisms. More specifically, in the insular coastal areas, most of the arbitrary tourism constructions are exceeding the allowed building restrictions or are constructed in prohibited areas (Fig. 8).

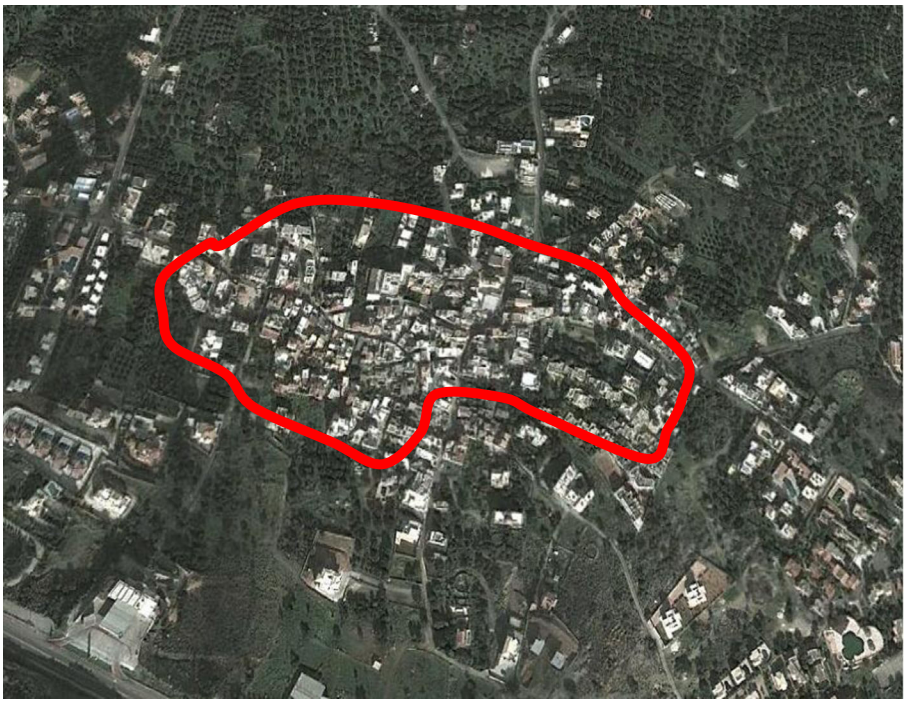


Fig. 7 Koutouloufari traditional settlement—the dense traditional core and the new sprawled areas. (Google Earth)

One characteristic case of the intensity of arbitrary constructions is Mykonos Island where the intensity between arbitrary constructions in the coastal zones and in hinterlands is obvious (Fig. 9).

Deforestation

The housing and touristic demands have led to intense deforestation of many Greek areas. The deforestation rates during the 1991–2001 decade showed that the majority of the Greek islands have intense deforestation. The consequences of deforestation are not limited in the environmental degradation but are also worsening these areas inhabitants living conditions via the caused microclimate changes.

Agricultural Land Reduction

The reduction of agricultural land is caused by two parameters. The main cause is the constant cities unplanned expansion that is motivated by the cheap land prices of the peri-urban areas. The other cause is the abandonment of agricultural activity due to the change of the economic base or to the population's reduction. The principles of sustainable development impose that social, economic, and environmental parameters should be planned in order to achieve better living conditions for all the concerned

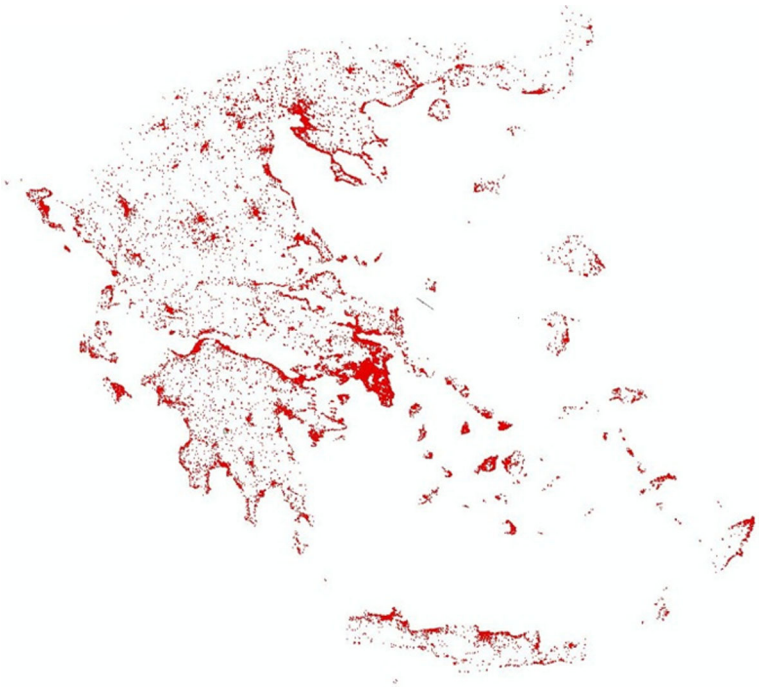


Fig. 8 Arbitrary constructions in Greece. (Ministry of Environment and Climate Change 2012a, b)

population. So, spatial planning should focus on policies that will provide better environments while more specifically regional planning should provide directions for all economic sectors that will lead to the regions development.

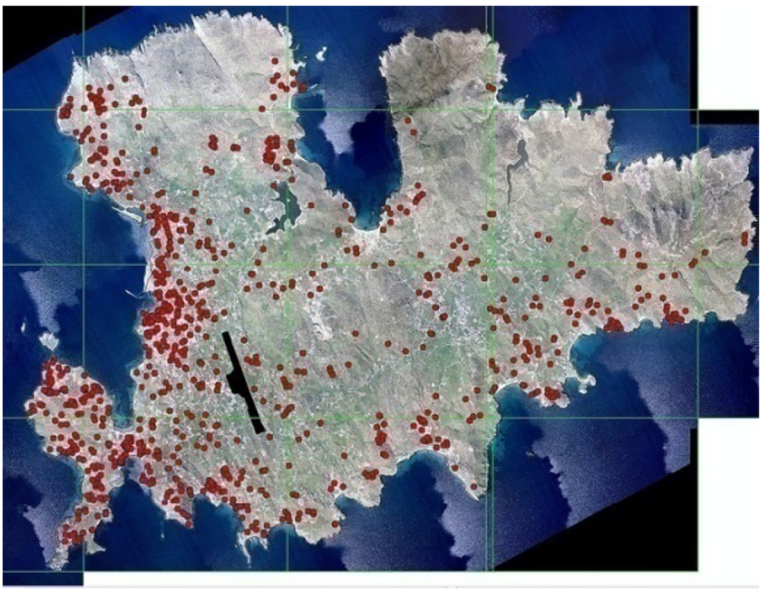


Fig. 9 Arbitrary constructions in Mykonos Island. (Ministry of Environment and Climate Change 2012a, b)

The Greek Spatial Planning System

One of the main problems of the Greek spatial planning system is that spatial planning is not connected with the country's strategic development planning. This fact leads to the formulation of policies that suggest ways of development without counting in the economic tools for their achievement. Nevertheless, the current paper will investigate the levels of spatial planning and the formalities they present for the settlements development in order to evaluate if they can solve the problems they face.

The Greek spatial territory is defined by many levels of planning that concern regional and urban policies, since the legislation of the 2508 Law in 1997 (Koutoupa – Rengakos 2004). National regional planning provides the principles for the country's development as it proposes the required infrastructures and the restrictions for the country's sustainable development. The sectoral regional plans, that specify the corresponding national regional plan, define the development zones and restrictions for sectors as tourism, industries, renewable energy sources, etc. (Ministry of Environment and Climate Change 2008a, b). All the above plans are coordinated with the European Union's spatial policies and provide development directions to the regional plans that are legislated for each of the 13 Greek regions. The regional plans provide the principles for every regions development and define the policies that should be followed by a lower planning level the general urban plans and the plans for open cities spatial organization which define the spatial strategies and restrictions for each of the country's municipality (Fig. 10). The urban plans are supplemented by municipal operational plans that define the principles for every municipality's development and by other more specialized plans the regeneration works that define the development of specific urban areas. But how do these planning tools affect the tourism development and its effects on insular areas?

Komilis (1994: 71) explains that although the various levels of planning (sectoral, national/EU, spatial, or regional) are not mutually exclusive, but rather complementary, the regional level planning is more suitable for drawing sustainable strategies, especially

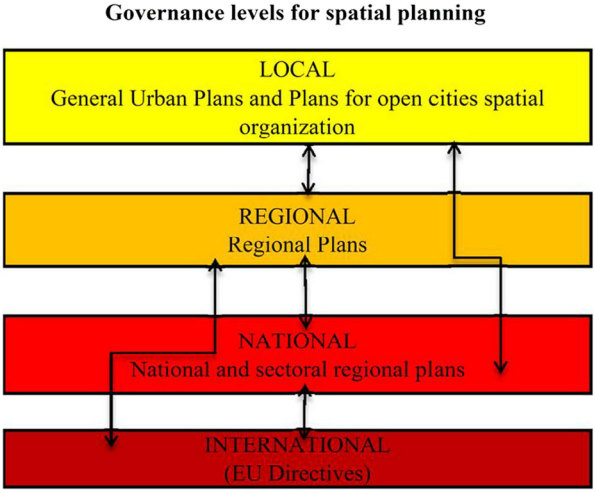


Fig 10 The relation between different spatial planning levels of Greece

for areas with dissimilar needs like the Greek destinations. So, the role of regional planning is important for the development of sustainable insular areas in Greece.

The principles for the insular settlements development are mentioned in the national regional plan which was legislated in 2008. According to its ninth article, the Greek regional policies should focus on the improvement of the dynamic settlements infrastructures and the further development of the mountainous and coastal regions. The plan also defines that urban centers, small- and medium-sized cities and settlements should organize networks in order to establish of partnership between urban and rural areas, responding to key demands for the population's retention (Fig. 11). Finally, it defines that coastal settlements and insular regions should be faced particularly with a more specific sectoral-regional plan that until today has not yet been legislated.

The basic tool for tourism developments, the tourism regional plan that was legislated in 2013 (Ministry of Environment and Climate Change 2013), divides the Greek territory in developed and developing areas, insular areas, protected areas, and others. Its main aim is to propose restrictions that focus on upgrading the existing infrastructures and the limitation of new ones in order to reduce the uncontrolled intense construction on the coastal and insular zones. In these areas, the mass tourism supply has exceeded the carrying capacity of these resorts, and their product has reached the saturation or decline phase of their life cycle. The same plan proposes that only the abandoned settlements can regenerate with the restoration of the existing buildings and the creation of new infrastructures. It also proposes that these settlements expansion should be controlled in order to avoid environmental degradation. So, it recognizes the sprawl process that characterizes the coastal settlements, and it proposes ways for its minimization. This happens because many insular destinations can no longer be positioned as irreplaceable unique products, due to their overdevelopment. Tourism supply has exceeded the carrying capacity of these resorts, and their product has reached the saturation or decline phase of their life cycle. So, the new framework seems to support a qualitative tourism development minimization of further socio-cultural and environmental damage.

On the other hand, the same framework proposes that all islands could develop new big-scale tourism constructions, which would encourage high-quality tourism but would be profitable only for some of the involved parties as the local societies would not nave economic benefits from this kind of development. So, this framework that has not yet been extensively applied as the procedure for its application is quite slow seems to reduce the degree of interaction of the population with tourists fact that will reduce their economic benefits, and it will worsen the insular environment which has already suffered from haphazard, uncontrolled building, and pollution of the sea and the flora and fauna are being effected by waste disposal.

The attempt for urban planning not only of urban centers but also for settlements as well began with the legislation of the 2508 Law in 1997. Until then, only specific settlements were planned if they presented certain characteristics like traditional architectural elements. So, after 1997, the Greek state started to plan the settlements and their wider regions in the frame of sustainable development. Since then, until today, applied plans define the limits of zones and the permitted building restrictions and assess the required infrastructures after calculating the future population as it results from the recorded changes. Planning was not concerned about particularities as the productive basis structure, the restoration of the existing built nutshell, the traffic problems

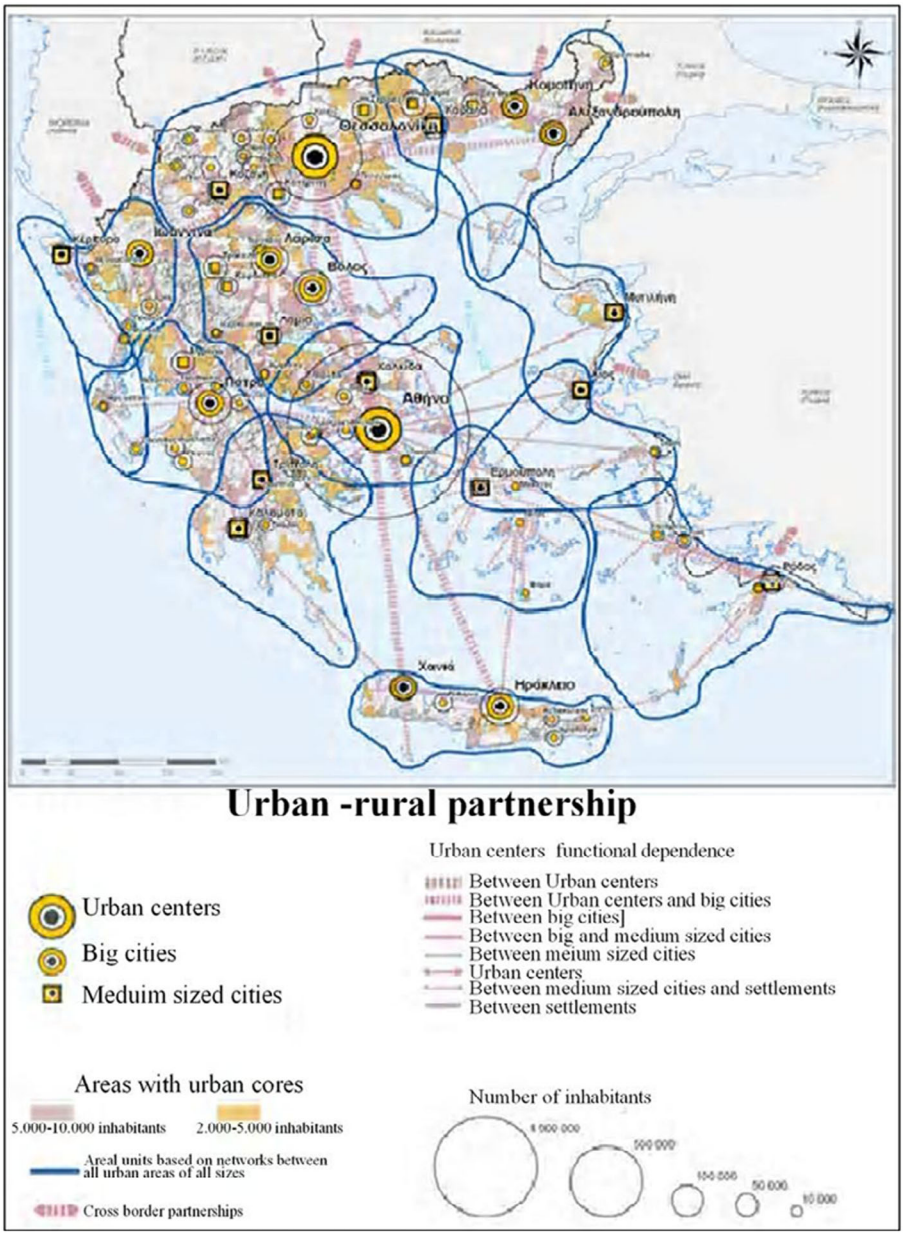


Fig. 11 Urban rural partnership as it is defined by the national regional plan. (Ministry of Environment and Climate Change 2008a, b)

solution, the arbitrary construction, the reduction of agricultural land, and the orientation of sprawled areas etc, fact that led to general proposals about the allowed land uses and building restrictions. This weakness of planning combined with the lack of controlling mechanisms and the delay of urban plans legislation led to a laissez-faire

in the sector of tourism where everyone was allowed to construct almost anything, almost anywhere. So, coordination with all tourism actors is essential, while spatial regulation is required to set objective and measurable limits and targets, in order to preserve local environmental resources.

Results and Discussions

The insular settlements present a wide geographical spread that through the years and the applied spatial policies still lack of infrastructure and utilities. The coastal areas are in many cases facing intense environmental problems due to tourism exploitation while the hinterlands are abandoned. The problems these areas present are fragmentarily faced from Greek spatial policies as they are not planned with the principles of a sustainable management strategic plan that would incorporate the economic and social mainstream. Regional and urban planning attempts to face settlements as networks, but the criterion for their classification is mainly their population. In regional planning, settlements are not faced according to their complexity which is affected by a plethora of parameters. In urban planning, the proposals focus on the required infrastructures for their functions as these results from the future population's estimates. These planning practices, lead to areas where road networks, wider regions, and other parameters that will create better urban environments, are ignored.

The new conditions that are dictated by rapid economic and social changes lead to an intense transformation process of the insular areas and directly affect the sustainability of regional socioeconomic modules. What is needed for the regulation of tourism is a combination of all state policies. A thorough examination of tourism impacts in each region would be a prerequisite for tourism planning as it will establish and provide scientific backing to strategic targets. The overdependence on tourism for regional development and welfare should be planned in terms of sustainable development in the framework of the increasing sophistication of tourism demand. So, it is essential for spatial planning to confront the environmental pressures in the Greek insular areas caused by intense tourism development. For the achievement of sustainable development environment, a holistic tourism approach is needed in order to facilitate the implementation of the tourism strategy, through monitoring and land use control. The regional planning should contribute to the maximization of regional development benefits in a way that utilizes and mobilizes the regional resource base, realizes regional inter-sectoral linkages, and is compatible with regional economic interests, societal values, and environmental assets (Buhalis and Diamantis 2001). It should also take into consideration the cultural and environmental resources of each particular region and the complexity of rural and urban functions. The planning process should promote the development of economic activities, rather than promote sectoral separation and single-sector developments. The ultimate objective will need to be the optimization of tourism impacts and the sustainability of resources for the long-term welfare of the indigenous people.

So, specialized approaches, which will record, update, and compare data with the use of a system of indicators, are necessary for the formulation of specific policies for development. The exported specific conclusions of such research based on existing dynamics and prediction of the expected trends can prioritize, prevent, encourage, or

discourage the parameters that contribute to the settlements development, through coordinated policies that will result from all levels planning. This will ensure a more integrated approach, in which all relevant policies can flexibly adapt to the specific characteristics of each area. Consequently, a grand strategy as well as a wide range of strategic directions, objectives, and tasks is proposed for Greece. It is important that consistent, long-term strategic planning should be undertaken in order to enable the preservation of the local resources and achieve sustainability at tourism destinations which will be reinforced by research, political will, and strategic planning.

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