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The Islands of North Aegean Region:  
Tourism Potential and the Issue of  
Seasonality.

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## **Abstract**

This paper examines the North Aegean Island Region, in terms of tourism development and the issue of seasonality that these islands face. The particular nature of the islands seems to lead to seasonal tourism arrivals and has negative impacts on the local economies and communities, on the general environment and the tourism enterprises. Based on an extended research on the tourism development and related issues, the need for examination of the accessibility, progress, competitiveness, infrastructure and similar issues has occurred. A Literature Review on the topic reveals the barrier of seasonality with its intense impacts. The potentials of the Region, and of each island separately, are presented in order to reach a conclusion, on whether there are or not, possibilities for a better future touristic performance in this specific area. The forecasts are positive. After a SWOT analysis, recommendations are given for the next implemented policies and strategies for tourism development. The conclusion is that if there is a sustainable strategic plan, adjusted to each island characteristics and based on the general travelers' trends, there can be a significant tourism development. The phenomenon of seasonality cannot be totally eliminated, but it can be decreased to a satisfying level.

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## **Chapter 1 – Introduction**

Tourism is recognized as one of the main sectors of development in all countries and as a basic source of income, job- creation and wealth. Tourism can affect the image of a country and often influences many national and international policies. The desirable condition, for every country, and in particular for tourism destinations, is to be attractive to tourists, competitive, innovative, to deliver quality services to guests and to increase the market shares on national and international levels. Tourism contribution in the global GDP continues to grow every year. In 2012 the contribution was 9% of world GDP, generating more than 260 million jobs (WTTC, 2013) and the growing rates were higher than other significant industries. There are important challenges for tourism development, such as the current economic crisis, globalization, scarcity of natural resources and seasonality. Destinations need to invest in infrastructure progress, in human resources and in innovation in order to be competitive.

Europe seems to be the leader in Travel and Tourism terms. According to the Travel and Tourism Competitiveness Index of 2013, the top ten tourism destinations were: Switzerland, Germany, Austria, Spain, U.K., United States, France, Canada, Sweden and Singapore. Seven of the top ten were European destinations, whilst Greece ranked 32<sup>nd</sup>. The previous year, Europe, which still suffers from the economic crisis, attracted many tourists from the USA, China and Japan due to the weaker European currency. According to the World Travel Trends Report of 2012, travelers ask for attractive images and stability of the destinations they desire to visit and, in addition, the personal financial power of the consumer is a fundamental factor influencing selection of the destination.

Apart from the popular summer holidays in places with extraordinary beaches and clear waters, tourists seek other forms of tourism as well. Tourists crave for authentic experiences in nature, interaction with local communities, and often want to help the protection of the environment of the destination. At the same time visitors need to feel safe and secure. New forms of tourism are being developed, based on the particular characteristics of every destination. It is very important that these new forms can be sustainable, meaning that touristic businesses take into consideration the

protection, conservation and preservation of natural, cultural, build environment and the local communities. This new demand by the visitors' side creates the potential for more destinations to be involved with tourism and create new jobs and income while being sustainable.

Europe includes a number of islands that are already, or have the potential to become, tourism destinations. It is estimated that there are 362 European islands with a permanent population of more than 50 inhabitants and another 228 with smaller population (ESPON 2013 Program). Islands seem to be, unfortunately, considered as non-attractive places for permanent residence and to do business. Insularity, remoteness, isolation and smallness are obstacles for the development of many economic activities on islands. Tourism is an industry that can be developed and create jobs and income, nevertheless there are important challenges. Touristic businesses that operate on islands should take into consideration the new trends of travelers, in order to develop new forms of tourism and offer a totally focused and differentiated touristic product to the visitors based on what they seek. Islands have usually rich natural and cultural environment that offers identity and authenticity to each island, as a tourism destination. Accessibility is always an issue when speaking of islands and it depends mostly on weather conditions. Especially for smaller and remote islands, accessibility affects touristic arrivals and creates seasonality in terms of tourism.

Greece is one of the popular European destinations. It is famous for its history, culture, the Greek way of life and of course for its islands. The Greek economy is significantly influenced by the tourism performance of the country. In 2013 there was an increase in tourist arrivals and revenues from inbound tourism. It is worth highlighting that arrivals in regional airports of Greece were increased in high levels. For the first semester of the year the rise was 15% more than the year 2008, which is considered a good tourism period for the country. The second semester of 2013 the increase was 17% higher than the same period of 2008 (ITEP, 2013). A general statement for Greece is that during the Spring and Summer months, of every year the touristic movement is more intense due to the weather conditions, which are appropriate for summer holidays. This situation has led to the creation of peak seasons in a plethora of Greek destinations and especially in the islands. The tourism movement seems to be seasonal and it is very common for many places to have a low

season wherein tourism enterprises are closed or under-operate. Seasonality has many negative impacts on the destinations, the local communities, the general environment and, of course, on the businesses.

Vulnerable to negative impacts of seasonality, and other issues, are the islands due to their particular nature. Islands are usually isolated, small in size and in most cases insufficiently connected with the mainland. Very important is the issue of accessibility, which is insufficient for many Greek islands. During winter months the levels of accessibility to the islands can be dramatically low. In Greece there are several insular Regions and some of them face extreme levels of tourism seasonality, transportation and connection to mainland.

One of the insular and peripheral Regions of Greece is the North Aegean Region, which is consisted of nine islands in the Aegean archipelago. According to Kallikratis (the system used to identify the different Regions of the country) every Region is responsible for planning and implementing policies at a regional level, under the principles of sustainable development and social cohesion of the country and after taking into consideration national and European policies. North Aegean Region consists of small, medium and big size islands and it is considered to have the potential to develop new forms of tourism, according to the travelers' trends. If a path of sustainability can be followed then great results are certain, and these islands can be considered attractive and competitive concerning their touristic performance. The categorization of these islands depends on the population that each one has, so only two of the nine islands are considered big, Chios and Mytilene as they have a permanent population over 50.000 people (EUROSTAT, 2011).

The North Aegean Region is a special case of an insular Region because the islands are different in terms of size and level of development. Regarding tourism, the Region has much potential to be more attractive and tackle various negative issues. Policies, strategic plans and differentiated strategies should be implemented in order to achieve progress in terms of economy and tourism. The aim is to reach the targets through a sustainable process and by taking into account the special characteristics of every island.

Tourism seasonality is considered a very important negative factor for this Region and that is why this study focuses on this topic. In this part, the Introduction,

general information about tourism is given in order to reach a point and present more focused elements of the Region. The following part, which is the Literature Review, includes an overview on the issue of seasonality while presenting important information about tourism in general. The phenomenon of seasonality, the causes and impacts are being examined, in order to relay a fundamental understanding to the reader. In the chapter of the Data Analysis, information that has been collected through a difficult and lengthy process and is presented and analyzed. Data concerning the background of the North Aegean Region for tourism development is given, and the aim is to find out what are the future potentials of each island for a better touristic performance and the possibility of tackling seasonality. The fourth chapter presents the methodology through which the previous parts have been written and the data was collected. The final part is a conclusion, the result of the study and the recommendations related to the specific area which is being examined.



## Chapter 2 - Literature review

### General View of Tourism

Over the last decades tourism has developed, on a global level, and it is now one of the biggest industries offering various career opportunities. Tourism affects variable sectors of the economy and is a dominant economic sector in many countries. Numbers reveal the significance of tourism. From 1952 to 2005 touristic arrivals were increasing by 6,5% every year, reaching 806 millions in 2005 (SETE, 2012). Through all these years tourism grew more and more, and in 2012 the international tourist arrivals reached 1 billion. A continuous increase is expected, and the World Tourism Organization predicts the arrivals to exceed 1.5 billion travelers by 2020 (SETE, WTO, 2012). The following table shows the international tourists arrivals by region until the year 2012.

REGIONS	2000	2005	2010	2011	2012	2011 (Share %)	10/09	11/10	12/11
	(millions)						(% change)		
<b>WORLD</b>	<b>678</b>	<b>805</b>	<b>952</b>	<b>996</b>	<b>1.035</b>	<b>100</b>	<b>6,5</b>	<b>4,7</b>	<b>3,8</b>
Developed Economies	422	461	507	531	550	53,1	5,2	4,6	3,6
Emerging Economies	256	344	445	466	485	46,9	8,0	4,8	4,1
<b>Europe</b>	<b>389,4</b>	<b>447,0</b>	<b>487,6</b>	<b>517,5</b>	<b>534,8</b>	<b>51,7</b>	<b>3,0</b>	<b>6,1</b>	<b>3,3</b>
EU-27	328,1	358,1	372,0	390,9	400,1	38,7	2,6	5,1	2,3
North Europe	47,8	62,4	63,8	64,8	65,1	6,3	1,8	1,6	0,4
West Europe	139,7	141,7	154,3	161,0	165,8	16,0	3,9	4,3	3,0
Central & East Europe	69,3	90,4	95,9	105,3	113,7	11,0	3,4	9,8	8,0
South & Med. Europe	132,6	152,5	173,5	186,4	190,2	18,4	2,4	7,4	2,0
<b>Asia &amp; Pacific</b>	<b>110,1</b>	<b>153,6</b>	<b>205,1</b>	<b>218,1</b>	<b>232,9</b>	<b>22,5</b>	<b>13,2</b>	<b>6,4</b>	<b>6,8</b>
Oceania	9,6	11,0	11,6	11,7	12,1	1,2	6,1	0,9	4,0
South Asia	6,1	8,1	12,0	13,4	14,0	1,4	19,5	12,0	4,4
<b>America</b>	<b>128,2</b>	<b>133,3</b>	<b>150,3</b>	<b>156,3</b>	<b>162,1</b>	<b>15,7</b>	<b>6,4</b>	<b>4,0</b>	<b>3,7</b>
North America	91,5	89,9	99,3	102,1	105,6	10,2	6,7	2,8	3,4
Caribbean	17,1	18,8	19,5	20,1	20,9	2,0	1,6	3,0	4,0
<b>Africa</b>	<b>26,2</b>	<b>34,8</b>	<b>49,8</b>	<b>49,2</b>	<b>52,3</b>	<b>5,1</b>	<b>8,5</b>	<b>-1,1</b>	<b>6,3</b>
<b>Middle East</b>	<b>24,1</b>	<b>36,3</b>	<b>59,2</b>	<b>55,3</b>	<b>52,6</b>	<b>5,1</b>	<b>13,5</b>	<b>-6,7</b>	<b>-4,9</b>

Source: UNWTO, *Tourism Barometer Vol. 11, January 2013.*

Europe has an increasing number of arrivals from 2005 to 2012. Mediterranean European destinations are interesting cases because of their climate

and the 3S effect (meaning sea, sun and sand) during summer months, which make the destinations in this part of the world more attractive for summer holidays. Greece is one of the countries that benefits from the 3S effect during summer season, yet this is understood as a double-edged sword simply because it is essential for a country like Greece to attract more tourists during the rest of the year.

Sustainable growth is understood as an undeniably positive notion within tourism, yet at the same time its implementation is a major challenge. There are many negative factors that tackle the balanced development of tourism. The way of development in tourism for each destination is clearly connected to the individual characteristics of each destination. Every destination has particular strong-points, and things to offer, but threats to deal with as well, depending on its special characteristics. Generally, one of the biggest threats that tourism destinations have to face is seasonality. The islands of Greece, being mostly known as summer destinations, are faced, and must combat the issue of seasonality.

### **The phenomenon of seasonality**

Seasonality is a phenomenon that exists in various sectors. It describes differences between periods of the year (Devereux, 2011). The cyclical and periodic fluctuations of seasonality can be seen, for instance, during the process of production and consumption of a range of economic activities, such as agriculture, tourism and manufacture (Kuznets, 1993). In the northern hemisphere of the world the phenomenon is more intense, and clearly understood, due to the alternation of seasons, meaning that there are hot and cold seasons, summer and winter time. In areas like Africa and many tropical regions of the world seasonality is not as easily realized as it is in the northern part of the globe. This used to be an issue of a great importance concerning development policies during the 1970s and 1980s, but unfortunately after that time it disappeared from the Agenda, even though seasonality affects many dimensions of every-day life. It seems to be an important dimension of poverty and inability for destination development, and it is troubling that it has been overlooked for so many years.

A general definition states that seasonality is a characteristic of a time series in which the data experiences regular and predictable changes which recur every calendar year. A definition is given by Hylleberg, who presents seasonality as the

systematic, intra-year movement caused by changes in the weather, the calendar, and timing of decisions, directly or indirectly through the production and consumption of decisions made by the agents of the economy. These decisions are influenced by the endowments, the expectations and preferences of the agents, and the production techniques available in the economy (Hylleberg, 1992). Surveys on this issue conclude that tourism seasonality differs in intensity, depending on the examined area and its particular morphology. As Butler notices, although seasonality has received attention through the years, the first who studied it was Baron in 1975, it is not fully understood as a concept (Butler, 2001). In a recent research Higham and Hinch share the same view, claiming that seasonality in tourism can be defined as cyclical variations in tourism demand (Higham and Hinch,2002). Seasonality can be seen as a congenital characteristic of the tourism industry, as inevitably tourism destinations always face issues of it. Seasonality depends on various factors and affects dimensions of every-day life.

Not all destinations face the same level of seasonality because the intensity of it depends on the particular characteristics that each destination has. Urban destinations benefit from transportation links and appropriately trained human resources in comparison to regional areas. Regional and peripheral destinations are more vulnerable to the effects of seasonality (Bulter & Mao, 1997; Bond, 1996; Witt & Moutinho, 1995). Representative examples of regional destinations are extreme cold water islands, or islands far away from the continental part of a country. Seasonality affects all aspects of hospitality industries, such as employment and most of the time leads to seasonal employment, underemployment, or even unemployment (L.Jolliffe, 2003). Jang adds that the results of seasonality can be seen every year (Jang 2004).

Seasonality creates separate seasons. There are the so called *peak seasons* according to Common & Page (2001) when the tourist activity is intense and the low-seasons when it alarmingly decreases. Overcrowding occurs in peak-seasons and has negative impacts on the natural environment and the social life of destinations (Baron, 1975). Another issue during peak seasons is the low quality standards of services related to tourism (Jang, 2004). An extensive record of the impacts (concerning economic, social and environmental issues) of seasonality is given in the following table. The table shows the impacts for the supply side, which includes the business

owners or managers, suppliers, employees and local people, and the demand side which refers to tourists and visitors of the destinations.

## Impacts and Implications of Seasonality

<b>Costs</b>	
Commons & Page (2001)	Increased prices during peak season (placing pressure on goods and transport in the area and increasing supply costs for the enterprise)
Commons & Page (2001)	Budget management/cash flow
Commons & Page (2001); Goulding, Baum & Morrison (2004); Jang (2004)	Instability in income/return on investment (O-M) leading to high risk for O-M, investor and region
Goulding, Baum & Morrison (2004)	High-season income must cover annual fixed costs
Mourdoukoutas, (1988); Ball (1988); Krakover (2000)	Cost of seasonal recruiting
<b>Facilities</b>	
Commons & Page (2001); Jang (2004)	The under- or over-utilisation of resources
Commons & Page (2001)	Perishability of product – not able to stockpile the product or service
Commons & Page (2001)	Pressures on transport system and other infrastructure during peak periods
<b>Employment</b>	
Commons & Page (2001); Goulding, Baum & Morrison (2004)	Sporadic demand for labour inhibits the recruitment process: - shortages of seasonal workers led to seeking workers beyond local area - high recruitment costs reduce remuneration packages
Commons & Page (2001); Goulding, Baum & Morrison (2004); Jang (2004); Krakover (2000)	Sporadic demand for labour affects the retention and development of employees results in: - loss of skill and experience - lack of training and career opportunities - service quality inconsistency and reduced customer satisfaction - lack of commitment by workers - unhealthy fluctuations
<b>Environmental Protection and Safety</b>	
Witt & Moutinho (1995)	Gives environmental resources a post-season recovery
Butler (2001)	Crowding in peak season causing environmental pollution and increase risk of terrorism
<b>DEMAND SIDE</b>	
Jang (2004)	High prices – cost spreading (making tourists in peak season pay for low income in low season)
Jang (2004)	Crowding (hard to obtain quality and satisfaction)
Jang (2004)	Peak crowds may increase vulnerability to safety and threats (e.g. terrorism)
Krakover (2000)	Reduced availability of accommodation
Commons & Page (2001)	Pressures on transport system and infrastructure

The majority of literature analysis argues that even there are variations in tourism demand and supply, these variations cannot be totally eliminated, but they should at least be decreased in regards to their intensity (Butler,1994). There are certain destinations where the touristic season cannot be extended from a three-month period, which is usually summer time in the northern hemisphere, to a twelve-month period, but there can be efforts to extended it to a satisfying, for tourism enterprises and locals, level.

### **Regional and Peripheral Destinations**

Such destinations are the regional and peripheral destinations, which usually include islands. These areas are of increasing interest because challenges are created for tourism due to the combination of intense climatic conditions and the difficulty of access to these island destinations. This combination is considered a competitive disadvantage for the destinations and it leads to tourism seasonality. Baum believes that demand for “*peripheral tourism products*” exists and he stresses this demand especially for islands (Baum, 1996). Shaw and Williams have the same view and they give the examples of locations like Antarctica and the Falkland islands as destinations that can be considered proof of the possibility for peripheral destinations to be more attractive, and reduce their seasonality (Shaw and Williams, 2002). Both authors see potentials for this type of regions. Wanhill (1997) adds that as long as “green tourism” is in vogue, peripheral destinations, with richness of natural environment and remoteness –that otherwise are considered as disadvantages- will have the chance to be more attractive to tourists. He continues by stressing the issue of the lack of infrastructure and resources.

Seasonality can have an intensely negative effect on regional destinations like islands, yet at the same time the particular characteristics of each island can be considered as an advantage. Kakazu (2007) believes that islands are the most appropriate case for zero-emission societies and they can have high levels of tourism industry development. Kitrinou (2009) adds that islands could overcome the issue of accessibility by upgrading their Information and Communication Technologies System (ICTs).

European islands are areas that face seasonality, yet there is the background to tackle it with appropriate decision making, strategic planning and policies. European

islands are advantaged with natural and cultural beauty. Half of the West European coastline belongs to the islands and this means that there are requirements.

## **Chapter 3– Methodology**

The issue that is being examined in this paper is tourism in the North Aegean Region, an insular and remoteness area of Greece, and the seasonality this region is facing. Following the existing literature discussion about tourism the aim of the research is to present a phenomenon strongly related to tourism, which is seasonality. Seasonality depends on the particular characteristics of every touristic destination. This study firstly examines and analyses the general trends regarding tourism and seasonality on an international scale. With a macro to micro approach, the study goes on to observe and examine the same factors on a European island scale, on a national scale, for Greece, and finally examines tourism and seasonality in the particular area of interest. The examination of general trends concerning tourism is considered necessary because it is the path that leads to the understanding of the nature of seasonality, the causes and the impacts.

To have a holistic view of the theme, discussion is made that is based on literature review, journals from other authors and scientists, statistics and studies. Information is taken to be analyzed and commented from international, European and national organizations. Important and helpful through this process have been studies and statistical analyses from World Tourism Organization (UWTO), which gives detailed information about the development of tourism globally, trends, policies and annual exhibitions. Additionally EUROSTAT and ELSTAT the European and Greek statistical authorities show in countable and numerical ways the evolution of tourism arrivals, hotel occupancies and other measures. The observation and personal comment of statistics is a common way to come to conclusions when there is no available personal statistics. Other significant information sources have been The National Banks of different European members, giving details about employment related to tourism and basic economical indicators have also been useful. Official websites of other organizations publish studies and statistics for issues related to tourism, seasonality and its particular nature.

The progress of the paper is based on the deductive reasoning, meaning that from a general view we reach a very specific point. There was a high level of difficulty because there are various sources for tourism and seasonality, but there was



an obvious necessity to choose the appropriate information. This was a time consuming process and demanded focus and self concentration.

In line with the analysis of literature review and information from organizations is combined a geographical analysis of the area of interest. Seasonality in tourism is a phenomenon powerfully related with natural characteristics of destinations. The geographical position of the North Aegean Region seems to effect strongly the evolution of tourism in it. New technologies, information, communication and GIS systems are assets to be exploited to develop new forms of tourism. GIS is a computer based powerful set of tools for collecting, storing, retrieving, mapping, analyzing, transforming and displaying spatial and non spatial data from geographic world for a particular set of purposes that varies , so it is considered as appropriate for this research.

After having collected and analyzed the data, the study had to reach a specific point and come to some conclusions. A SWOT analysis is used to present the specific situation on the North Aegean Region's islands. In a SWOT analysis the external and internal environment of a business, or even a destination/ area, must be exhibited. Strengths, weaknesses, opportunities and threats of the Region as a whole and for each island separately are presented, in order to show the special nature that seasonality has in this area and to be able in the end to make some recommendations and remarks. As there was not enough time to make a quantitative research, SWOT analysis offers the chance for a qualitative one and for a general future forecast about tourism and the seasonality in the Region of North Aegean.

A general remark would be that islands of this Region deal with seasonality of course, differing in intensity and depending on the very special characteristics of each one. These islands are different in size, infrastructure, and population, making it difficult to set a common policy to be implemented and followed by all. The need for a separate strategy implemented by the island's authorities, touristic enterprises and residents is of crucial significance for a satisfying future and sustainable development of tourism. Traditional communities should take advantage of the natural beauty that their homelands have, develop new and attractive forms of tourism based on the principles of sustainability.

## Chapter 4 – Data Analysis – Findings

### North Aegean Region – Numbers and Figures – Seasonality

In this chapter the collected data for the Region of North Aegean islands are presented. The aim is to show the particularity of the Region in relation to tourism seasonality and to present the potentials for tourism development in the area. The 9 islands, of the region are different in terms of size and infrastructure. The islands have a noteworthy culture, beautiful natural sights and history to offer to visitors; nevertheless the potentials for each island are not at the same level. A SWOT analysis is a useful tool for examination of the destinations. In the analysis the existing Strengths, Weaknesses, Opportunities and Threats of the Region are presented.

#### North Aegean Region



The North Aegean Region is consisted of nine islands with 200.000 inhabitants in total. The population represents the 1.8% of the national population of Greece in the year 2011 (Eurostat, 2011). Although there is growth in the Region's economy, the last decade, the growing rates have been in a lower lever compared to the national and European rates. The GDP of the Region is still 76% of the EU average (1.4% of the national GDP for 2009 according to EUROSTAT, 2009).

A huge advantage for the Region is the rich natural environment that includes significant ecosystems and areas protected by the NATURA 2000 network. However,

according to ADE (Analysis for Economic Decisions, 2011) the smallness of the islands means that the natural resources are few and in some cases raw materials have already been exhausted, thus environmental management is needed. Another asset of the Region is the cultural richness that creates potentials for new forms of touristic activity. Given the fact that interest for culture and history by tourists is increasing, cultural tourism should be taken under serious consideration. Seasonality though, is obvious, when it comes to monthly visits to Museums and Archaeological Sites.

#### Admissions to Museums by month 2005 – 2013

Month	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	62.452	102.166	96.239	58.055	57.954	175.841	124.277	106.555	122.790
February	83.173	87.504	110.090	46.999	57.686	171.011	143.356	109.352	146.017
March	141.434	141.041	174.922	91.718	66.987	230.719	169.675	203.271	230.025
April	220.083	259.131	197.890	130.277	152.776	259.140	236.816	280.684	334.273
May	304.597	327.764	265.463	222.703	249.009	335.502	322.944	312.715	351.332
June	290.834	316.395	243.352	207.632	218.239	302.558	320.625	280.569	328.337
July	332.297	352.961	326.037	272.895	261.240	349.981	368.517	325.483	384.688
August	389.882	414.121	378.282	300.459	294.200	370.450	427.506	389.848	456.422
September	360.825	347.077	300.955	282.315	503.961	354.909	377.859	351.052	
October	289.861	265.921	216.806	243.532	443.363	307.426	303.713	300.106	
November	123.692	104.270	82.383	94.462	268.583	149.064	154.105	168.922	
December	92.998	77.114	60.545	43.817	240.007	130.178	112.097	147.132	
<b>Total</b>	<b>2.692.128</b>	<b>2.795.465</b>	<b>2.452.964</b>	<b>1.994.864</b>	<b>2.814.005</b>	<b>3.136.779</b>	<b>3.061.490</b>	<b>2.975.689</b>	<b>2.353.884</b>

#### Admissions to Archaeological Sites by month 2005 – 2013

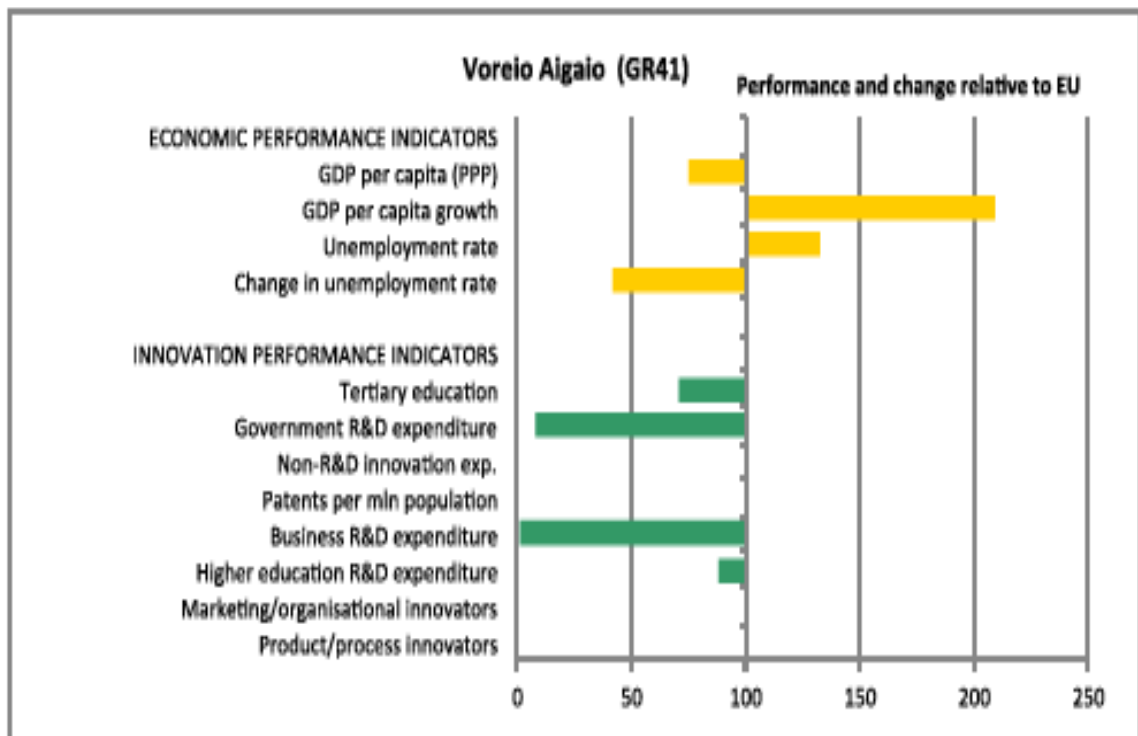
Month	2005	2006	2007	2008	2009	2010	2011	2012	2013
January	107.146	92.899	120.976	85.279	59.150	64.836	64.084	84.275	113.326
February	100.494	97.143	127.756	78.054	49.569	69.976	62.091	86.863	125.255
March	270.030	249.817	306.527	173.131	104.583	107.853	121.217	204.702	282.634
April	471.292	617.490	619.837	355.460	383.673	288.936	328.844	472.196	626.626
May	812.612	952.062	982.916	761.516	714.877	700.412	749.022	746.613	937.184
June	860.558	904.499	903.598	766.402	772.440	762.933	870.668	782.797	1.025.012
July	969.186	1.060.602	980.314	958.436	937.709	876.070	1.012.378	1.001.700	1.240.391
August	1.158.433	1.229.019	1.182.141	1.051.982	1.054.308	964.933	1.229.821	1.161.206	1.342.786
September	1.075.014	1.155.116	1.032.510	1.050.359	1.010.233	917.148	1.112.834	1.044.843	
October	789.346	816.680	748.135	719.536	633.265	558.547	683.826	741.126	
November	180.862	215.497	183.722	156.372	165.905	156.064	197.948	236.489	
December	98.573	125.841	74.039	60.775	85.287	79.345	84.912	131.035	
<b>Total</b>	<b>6.893.546</b>	<b>7.516.665</b>	<b>7.262.471</b>	<b>6.217.302</b>	<b>5.970.999</b>	<b>5.547.053</b>	<b>6.517.645</b>	<b>6.693.845</b>	<b>5.693.214</b>

**Source:** SETE, 2013, based on data provided by the Hellenic Statistical Authority.

There is a shown increase of yearly visitation rates. If we compare the numbers of February 2005 and February 2013 (100.494 and 125.255 respectively) the increase is obvious enough to understand that there is a raised interest and visitation to Museums and archaeological sites.

When it comes for the innovation performance of the Region, it is considered as weak, compared to the EU, as can be seen in the figure below. Insularity and remoteness from the mainland, small scale firms and businesses and the limited higher education are causes of this weakness. Tourism industry and the services sector can increase the attractiveness of the Region through innovation. Moreover it can give different options to tourists for visits to the islands during winter time which is the aim in this case, as the concern is seasonality in tourism.

Summary benchmark of regional innovation performance.



**Source:** Regional Innovation Monitor, 2011.

Regarding the human resources, only 1.3% of Greeks specialized in sciences and technology live in this Region. It is very important to highlight the Aegean University, as an assets of the area, which ranks 9<sup>th</sup> out of the total 21 Universities of the country.

Concerning the industrial specialization, the population focuses on the services and tourism sector. The European Cluster Observatory, which presents the specialization of the region's population shows that the people are specialized in bars, coastal water transport and in the area of services to the community. That means that islanders believe that the service and tourism sector are where they should focus on. This supports an appropriate future tourism development, as people know clearly what their aim should be and where they should focus on.

The Information, Community and Technology system is important for the development of businesses and destinations. The Observatory for Digital Greece, ranked the North Aegean Region 5<sup>th</sup> for PC usage and 4<sup>th</sup> for Internet usage in 2012. Between 2005 and 2008 numbers concerning PC and internet usage had been doubled. This is encouraging, considering that information technologies can support the development of the hospitality sector, which is vital for the islands.

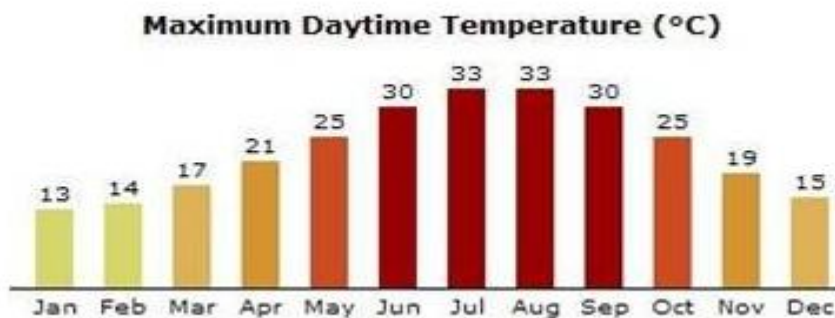
The insular nature of the Region is of course of crucial importance, as it influences the specialization profile of North Aegean. As Shaw and Williams (2002) believe, there are chances for such destinations to be attractive and tackle seasonality. The insularity of this region can provide some opportunities for what is known as entrepreneurial discovery process. This concept suggests that entrepreneurs and public stakeholders are exploring, experimenting and learning what an industry (in this case a region) should do in the field of Research & Development in order to build unique competitive advantage. For the North Aegean Region, one asset that is already being used is the rich biodiversity and environment of the islands. A good example is the producers of mastic of Chios who managed to make their traditional product famous globally.

It is difficult to decide whether the insularity is positive or negative. On the one hand, small size islands with a mass production of standardized goods (like 3Ss tourism) and insufficient accessibility create a negative image, but on the other hand, this is the reason why the islands have kept their environment and culture unspoiled and can be promoted as alternative and sustainable destinations. Future progress is about products based on quality and North Aegean islands can provide exactly this. The remoteness offers to each island a special identity while there are traditional products, which are Protected Designation of Origin Products and can retain their

competitive advantage. The most popular PDO products of the region are: mastic of Chios, olive oil of Mytilene, wine of Lemnos and Samos , varieties of cheese, like graviera and ladotyri and ouzo of Mytilene.

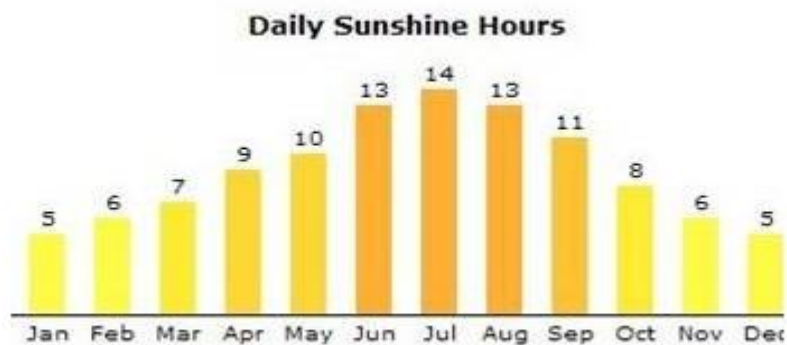
The North Aegean Region has competitive advantages which can be key drivers of tourism growth if they are used rationally and appropriately. Seasonality is of great concern in this case and it is strongly related to annual temperatures and the sunshine's level. Figures show that the North Aegean area does not face extreme weather conditions, so winter tourism can be a choice for tourists.

In Aegean Coast the Monthly Average of Maximum Daytime Temperatures are as follows:



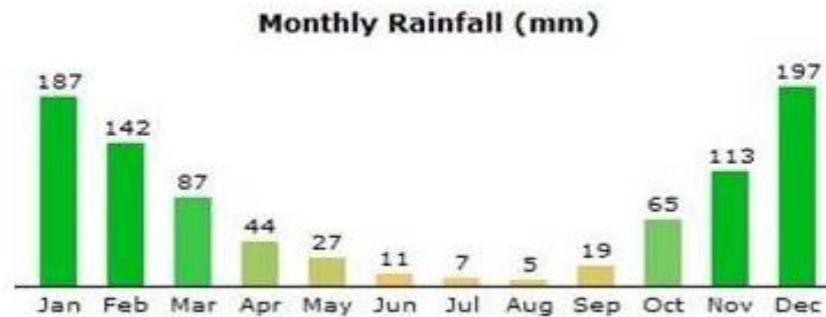
**Source:** Hellenic Meteorological Agency (2013)

In Aegean Coast the Monthly Average of Daily Sunshine Hours are as follows:



**Source:** Hellenic Meteorological Agency (2013)

In Aegean Coast the Monthly Average of Rainfall is as follows:



**Source:** Hellenic Meteorological Agency (2013)

Yet the phenomenon of seasonality is an issue. The peak season is between May and September, when the use of beds is doubled or even tripled, as the table shows.

Monthly use of beds –Greece.

Month	Use of beds %								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
January	30,5	26,2	25,2	25,2	25,3	25,4	22,5	21,9	19,9
February	30,1	29,9	27,9	28,9	29,5	28,0	25,9	23,9	20,7
March	37,7	32,3	32,7	32,5	32,4	34,3	27,8	23,9	23,1
April	36,1	33,8	29,1	32,6	31,6	29,0	27,3	23,1	23,8
May	53,0	48,6	49,2	49,8	48,2	48,7	43,0	40,6	40,5
June	65,8	59,9	63,9	68,2	64,3	64,5	58,3	54,3	60,7
July	83,6	72,7	80,3	83,0	76,2	76,4	69,5	68,2	70,3
August	94,0	80,8	91,4	89,9	81,4	81,5	75,0	73,8	73,6
September	70,7	65,9	72,6	73,4	66,9	67,5	61,2	58,6	59,2
October	49,5	43,7	45,5	44,3	41,0	39,7	35,1	32,4	30,6
November	32,0	27,7	28,3	30,8	31,5	29,5	26,6	21,0	17,6
December	37,5	28,4	26,9	31,1	31,7	28,4	27,5	22,7	18,3

**Source:** SETE, 2012.

We can observe that in recent years the numbers have dropped. The decrease is obvious, if we compare August 2003, when the usage of beds had reached 94% and August 2011, at just a 73.6% of the usage of beds. The economic crisis, global tour operators, which control many destinations and the strong competitiveness between different destinations have led to this situation. Tourism development should be based

on each destination's characteristics. Another important part of the general progress of tourism is the utilization of the existing infrastructure. Of course development needs to be within the framework of conservation of natural environment while as Kakazu (2007) believes, islands can be zero-emissions communities supporting sustainable development.

The creation of notable destinations is totally essential, according to the "Manifesto of the Island Chambers of Commerce and Industry of the European Union" (2005) which has been created to help European islands face isolation, seasonality and loss of quality in human resources. To have results, particular strategic plans, the consideration of tourism profiles and promotion are inevitable. The following analysis has been made for the purpose of the touristic promotion for the islands of the North Aegean Region, by the Region itself and it comes from an extent plan for the years 2007-2013.



## **SWOT Analysis of The Region**

A SWOT analysis concerns the external and internal environment of the Region as it follows.

### **STRENGTHS:**

- ❖ The geographical position in the Mediterranean Sea. Insular character of Region.
- ❖ High levels of sunshine during the year, high temperatures, low rainfall.(APPENDICES)
- ❖ Richness of cultural elements, differentiated from one island to another.
- ❖ Buildings and villages of architectural interest.
- ❖ Tourists can sense the safety and hospitality.
- ❖ Pure areas on the coasts and inland, not damaged by human intervention.
- ❖ Maintenance of 'identity' and authenticity on a satisfying level.
- ❖ Richness concerning natural and cultural background.
- ❖ University of the Aegean.
- ❖ Local products of high quality and variety.

## **WEAKNESSES :**

- ❖ Lack of cooperation locally and insufficient destination management.
- ❖ Occasional approach to tourism advance.
- ❖ Shortage of hospitality infrastructure.
- ❖ Lack of needed information for analysis and policy making.
- ❖ Distance between quality and price of services.
- ❖ Need for systematic and focused tourism training.
- ❖ Mass tourism product totally depended on tour operators.
- ❖ Insufficient tourism marketing.
- ❖ Bureaucracy as an inhibitory factor to the advent of visitors.
- ❖ Lack of information, especially for individual tourists.
- ❖ Necessity for enterprises' and infrastructures' quality certification.
- ❖ Insufficient movement for organized activities related to alternative form of tourism products creation.
- ❖ Geographical distance. Far away from markets in West Europe and the mainland of Greece.
- ❖ Economic inefficiency because of the decrease of the arrivals and the low prices of tourism packages.

## **OPPORTUNITIES:**

- ❖ Introduction of the touristic product into new markets, even though these markets are characterized by low purchasing power.
- ❖ Creation of new Greek tourism policy, emphasizing on promotional policies.
- ❖ Potential creation of differentiated tourists' preferences and smaller scale markets for focused products.
- ❖ Utilization of information technology systems in order to achieve direct promotion of information and sales of the touristic product.
- ❖ Taking advantage of the high levels of competition created due to economic crisis. According to The Travel & Tourism Competitiveness Index 2013, Greece ranked 32<sup>nd</sup>.(APPENDICES)

## **THREATS:**

- ❖ Enhancement of competition with constant broadening of the supply and low-cost destinations.
- ❖ Threat of formation of monopoly due to the decrease of tour operators in the area.
- ❖ Augmentation of the economic crisis in traditional markets with high GDP.
- ❖ Reduction of funds that come from national and European programs.
- ❖ Restricted levels of freedom for regional initiatives for international tourism development.
- ❖ Homogenization of strategic plans and policies for all destinations in Greece, which can cause the lack of tourism identity/authenticity of an area.

It is essential to examine and present the elements of each island separately and briefly in order to reach some conclusions and highlight the nature that seasonality has in this area.

## Prefecture of Lesvos : Limnos, Lesvos, Agios Efstratios.

### *Limnos*

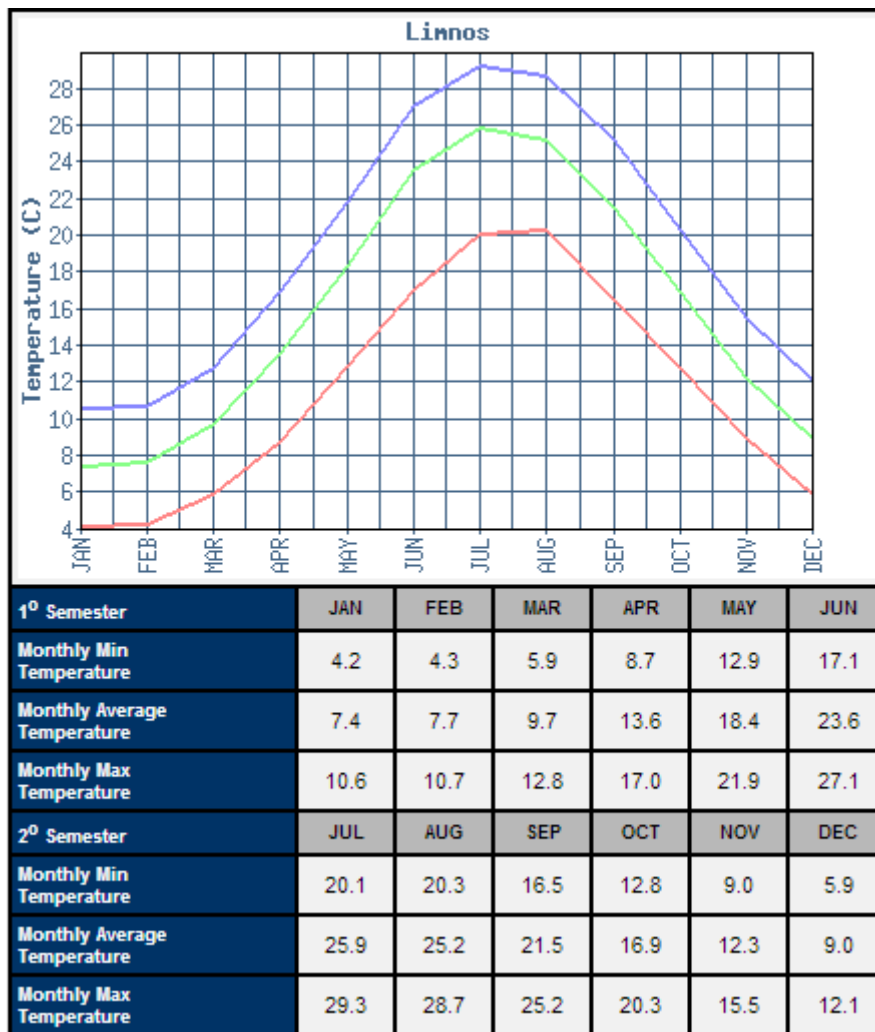
Economy is based on the primary productive sector, on services sector and on tourism. Tourism is growing rapidly, but there are problems. The scarcity of natural resources, the peripherality of the area, the ageing of the islanders and their decrease and the lack of focused strategic planning are some of the main problems. The disadvantages of Limnos have led to limited development of the tourism sector, although the advantages and potentials are great.



Map of Limnos

Limnos has a breathtaking landscape. Based on the existing sources a new focused touristic product can be developed. Flora and fauna are rare enough to be remarkable, local products like wine, feta cheese, ouzo, honey and the beaches combined with sun and sand are tactile aspects that Limnos can take advantage of. The climate is mild all year round so tourists have the benefit to visit Limnos any time of year. If someone wants to visit the island for other reasons apart from its beaches, summer is not considered as the best season.

Limnos' monthly average temperature 1980-2010.



**Source:** Hellenic National Meteorological Service(2014)

As can be seen on the table, Limnos has rarely low temperatures, during January to March. This fact in combination with the low levels of humidity and rain (APPENDICES-TABLE ) can be supportive to the statement of Hylleberg (1992) about weather as a causation of seasonality in tourism.

The target market of Limnos comes from West Europe and Northern Greece and in recent years a more frequent visit from Bulgarians is observed. Markets from Scandinavian countries, Belgium, France are considered to have visitors with a high income to spend on the island so they consist one of the target markets. Russia and Turkey present an interesting, upcoming market and even though the number of arrivals is still low, an increase is expected. Australia and New Zealand are possible target markets too.

Forms of tourism that can be developed:

- *Nature tourism*: bird watching, spa tourism, hiking, wild nature, fossils observing.
- *Cultural tourism*: visits to ancient villages, museums, churches. Making tourists an active part of the actual products.
- *Nautical and sports tourism*: organized underwater activities and water sports in general.
- *Educational tourism*: Limnos can be an attraction for scientists and conferences by leveraging areas of historical and mythological interest combined with potentials given by Aegean University on issues like environment, gastronomy and Greek nutrition.

The progress of the accessibility of Limnos during 1980s and 1990s and the development of basic infrastructure in combination with the incentives for more development by the government resulted in the progressive development of Limnos as a tourism destination. New hotels in Mirina and Plati became an attraction for foreign tourists while the incorporation of the island in packages supported its attractiveness. As we can see in the table, the hotel units have increased since 1988.

## Progress of number of Hotel Units and Beds of Limnos

### Number of Hotel Units / Number of Beds

<b>Municipal Department</b>	1988	1993	1995	1997	2007	2008	2009	2010
<b>Mirina</b>	8/599	12/761	15/912	17/1316	17/136	18/1359	17/973	17/980
<b>Kaspakas</b>	-	1/28	1/28	1/28	1/28	1/28	1/28	1/28
<b>Plati</b>	-	2/346	2/346	2/346	2/346	2/346	2/346	2/346
<b>Moudros</b>	1/41	3/75	3/75	3/75	3/75	3/75	4/97	4/97
<b>Romeikos Gialos</b>	-	-	-	-	3/180	3/180	3/180	2/166
<b>Kontia</b>	-	-	-	-	1/32	1/32	1/51	1/51
<b>Varos</b>	-	--	-	-	-	-	-	2/112

**Source:** ELSTAT, 2013

The west side of the island is more developed {villages such as Moudros, Plati, Mirina lay on the west side. See the map.}. The number of the Units has been tripled between 1988 and 1995, stabilized until 1997 and since then new Units are created. When it comes for smaller tourism enterprises the collection of information is really difficult but approximately since 1988 their number has been doubled.

## Museums of Limnos

<b>MUSEUMS</b>	<b>AREA / VILLAGE</b>
Museum of Limnos	Mirina
Pre-historical Mirina – archaeological area	Mirina
Church Museum of Limnos' Metropolis	Mirina
Poliohnis Museum	Moudros
Museum of Folklore	New Koutali
Museum of Nautical Tradition and Sponge Fishing	New Koutali
Information Center of Hortarolimni and Alik	Moudros

(Source : ANEL, 2013)

In recent years there is an effort for more quality in tourism development. Type of lodging is differentiated. Culture is one of the aspects to focus on and present to visitors. Furthermore the creation of two Conference Centers is of crucial importance. The results are satisfying the investment of funds on cultural importance areas has been proved to be right.

Still, accessibility is a problem. Sea and air itineraries need to be more frequent and of higher quality. Seasonality and the small duration of tourism season are connected to this issue. The island is considered as an isolated destination. During the last years the promotional movements for the identity of the island have positive results but more support is needed to eliminate the negative effects of seasonality and accessibility. Nature and culture are basic aspects to be based on during this effort.



## Lesvos

The Municipality of Lesvos is the biggest in Greece concerning its size and the 18<sup>th</sup> in relation to its population. Population reaches the number of 105.000 inhabitants, (ESTAT, 2012). Annually 800.000 tourists visit the island, 2/3 of whom come from abroad.

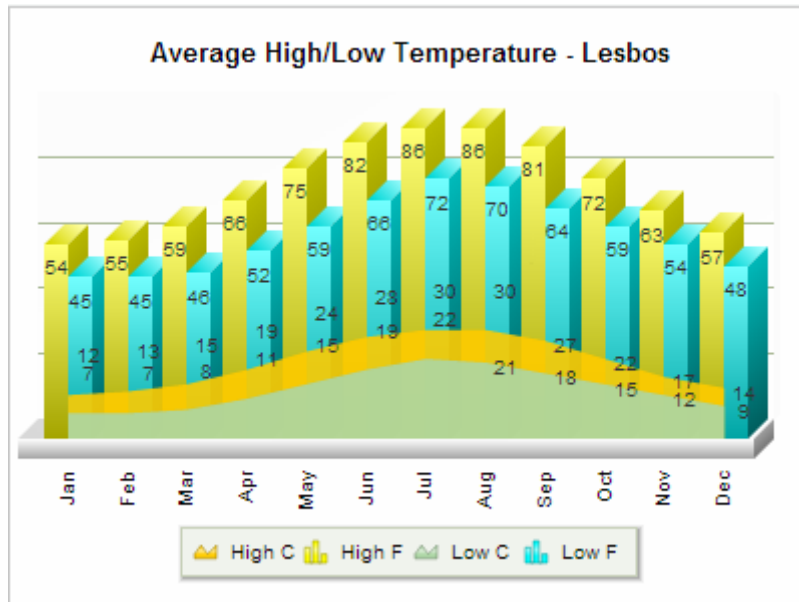


Map of Lesvos

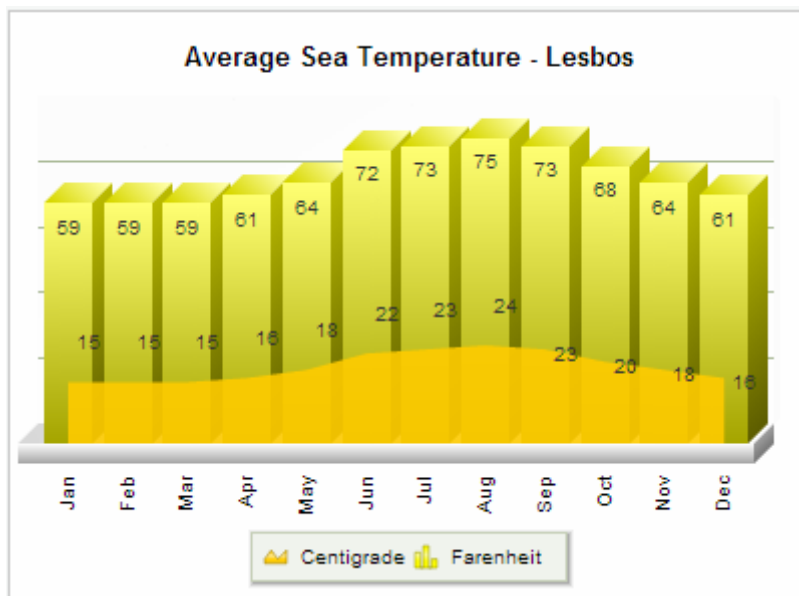
Other significant economical sectors are the production of olive oil and products (Loumou, 2000). As for tourism, the beds are about 9.400 and there are many medium level gastronomical enterprises. The majority of high quality hotels are located in Molivdos, The rest of tourism infrastructure such as museums, agencies, shops, are unfortunately in lower levels but with planning and management can be developed. A positive element of this island is the plethora of local products, the extraordinary nature which is promoted as a tourism attraction, the island's cuisine and the Aegean University that gives chances for educational tourism.

Lesvos hosts the Registered Office of the Region and the Aegean University which is a significant attraction for visitors. Its natural environment gives potentials

for tourism development. The ground is smooth and hilly, there are water sources, torrents, streams and underwater sources. The climate is mild and sunshine is in high levels all year round. Moreover the temperature of the seas is appropriate for winter swimmers.



Source: <http://www.holiday-weather.com> (11/01/2014)



Source: <http://www.holiday-weather.com> (11/01/2014)

Temperature does not fall lower than 7 Celsius, even in winter. Combined with the average sea temperature, which is always more than 15 Celsius, visitors can

enjoy the mild climate, while having mini cruises, scuba diving, and sailing. Many visitors prefer to get involved in such activities when there is no swelter.

It is important that natural ecosystems on Lesvos are protected areas belonging to Natura 2000 network. Detailed information for such areas can be found on the official web site of Natura 2000. Locals can use these areas as tourism attractions in the promotional movements as a trend for nature tourism is observed lately. The protected areas are: Kolpos (trick) of Geras , Elos Dipi, Aliko Area, Olympus Mountain and The Petrified Forest of Lesvos.

From 1991 to 2001 the increase of population was intense due to immigrants, and the Aegean University. The development of tourism led people to deal with tourism. When crisis came, a decrease of 5% was observed. Now the population of the island seems to be ageing, as numbers reveal. The 18% of islanders are over 65. It is potentially promising though that a 55% is under 40 years old. This fact gives chances for educated and trained youth that can manage the productive sectors of Lesvos, with innovative ideas, plans and vision for the island. In relation to educational level, 39,6% have the basic education, 20,8% the medium one and only a 20,5% have graduate Higher Educational Institutes.

The road network cannot satisfy the needs of visitors because it is extremely narrow in some cases and traffic problems occur frequently. The port and the airport aggravate these conditions especially during peak season by charging the center with crowd. This is one of the seasonality negative effects, as Common & Page (2001) have already stated. Overcrowding needs to be managed.

Concerning the energy management, the renewable energy sources are insufficiently exploited, when Lesvos has wind and geothermal sources. Furthermore local authorities should implement waste management and recycling policies. As for health infrastructure, it cannot service locals and tourists. Lack of medical staff and beds in hospitals in combination with low quality of health services create problems and a negative image.

Sports have more advanced infrastructure so sports tourism is an option for visitors. There is the National Indoor Gym in Neapoli, Mytilene, and the National Swimming Pool. Moreover there are two Stadiums in Mytilene and in Kalloni. A

plethora of sports infrastructure, teams and athletic clubs are added in this aspect of Lesvos. Of same importance seems to be the cultural richness of the island and its infrastructure. The Museum of Natural History, the Petrified Forest, information centers in Mytilene and Eresos, Soap Museum, the Olive Mill, which is a museum too, are basic places to visit. Lastly tours and routes are very popular. There is a network of 18 routes on the island provided by a European program, LEADER 2002+2008 and according to another program, PERIMENIS 2015, 12 more routes are expected. Byzantium castles, churches, traditional villages, archaeological areas are added to the above and the result is a potential for cultural and natural form of tourism to be improved in next years.

Lesvos is not facing an intense seasonality due to the fact that its accessibility is more sufficient than on other islands. Aegean University and the infrastructure in relation to culture, sports and education are the assets and islanders are not forced to be dependent on tourism only. Nevertheless there are problems that can be dealt with strategic planning, management and marketing in local, national and international level. The problematic sectors should be a priority for the Municipality and the locals. The general view is that Lesvos is not facing extreme problems as other smaller islands do.

### *Agios Efstratios (Ai Stratis)*

Agios Efstratios is an isolated island of Aegean, in the north-east side of the region. Ai Stratis' size is 44 square kilometers, the coastline is 30 kilometers and the permanent inhabitants are 370.



Agios Efstratios is known as a place of exile. The port and the only one village lay in the north-west side of the island. Beautiful beaches, clear waters and fishing grounds wait for their visitors. Islanders live from fishing and farming. Itineraries by sea connect Agios Efstartios with Limnos, with southern Greece, port of Lavrio twice a week and with northern Greece, to port of Kavala and Alexandroupolis. This is a basic weakness for the small island as during winter season problems occur and the itineraries are not as frequent. People cannot have access to Health infrastructures, general supplies needed for everyday life and big markets in general. There are two authorized by GOT (Greek Organization for Tourism) accommodation enterprises while seven more lodges can host visitors. There is a Bureau, a Post Office, a Health Center, a Police Station, a Harbor Station, and Customer Service Center. These are basic services due to the fact that the permanent islanders are so few. Lastly there is a small port and a heliport to serve visitors.

The anaglyph is rich and because of the existing underwater sources and flows there is a variety of morphology and ecosystems, so the island is included in the Natura 2000 network. Seasonal wetlands are created during spring by streams flowing through the hills. North coastlines host a beautiful forest, south-east and west coasts are rocky but they are the best places for sea birds' and hawks' nests. The sea is full of fish and the caves host seals, monachus-monachus, as the Marine Park of northern

Sporades is close. Tourists can visit small churches, areas of historical importance and natural beauty. There are mini tours on foot and by car and beaches that can be reached only by sea. The potential development of natural tourism is obvious for this island.

There are chances for the development of cultural tourism activities, combining tours and history guided tours. The paved road is only 3 kilometers long and it connects the village with the Profitis Ilias hill. The rest of the network is consisted of unpaved roads that are accessible for cars to reach any area of the island.



Road Network

This island is considered as a natural diamond and the weaknesses concern the insufficient accessibility and lack of tourism marketing. The simple infrastructure on the island create a unique destination for relaxing holidays and a suggestion would be the combined visit to the island while having holidays on Limnos. A co-operation in Regional level and promotional actions would be required to organize more nature activities on Agios Efstratios while the conservation of the natural environment is a priority.



## Prefecture of Chios : Chios, Psara, Oinousses

### *Chios*

Chios is near the coasts of Minor Asia and it is the 5th biggest in size island of Greece. Its coastlines are 213 kilometers long and there are 64 villages on the island. Chios is famous for local products as olive oil, wine, figs and mastic.



### Chios Island

A strategic plan for Chios island written by K.Mousouroulis (2012) includes extensive information about the productive, tourism and services sector. Strengths and weaknesses, opportunities and threats related to the development of the island and its tourism are examined. Appropriate actions on the island, in order to create income and jobs are necessary. This process should follow the principles of sustainability, by using the natural, energy and cultural sources in a sustainable way.

A first advantage for the island can be considered the airport and the port of Chios on the east side and a second port, of Mesta on the west side. Unfortunately, the first port cannot be used by ships with big length and the second one, shows low rates of passengers and freight movement. As for the airport the infrastructure of services for the passengers is totally insufficient. The existence of ports and airports is not enough unless it is combined with appropriate usage and high quality services.

The road network is also insufficient. There has been some progress due to various projects like detours of settlements and new road constructions, but there are

still many issues to be faced. Traffic jams all year round, lack of transportations and many accidents create a negative image for Chios. The highway is 38 kilometers long and there is a network of 26 provincial roads, 406 kilometers in total. It is disappointing that the island is in the top ten with the most car accidents in the country. Progress is needed to make Chios safer and attractive as the feeling of safety is important for tourists.

In relation to the productive sector, there is notable development mostly for the production of mastic, which makes Chios very popular indeed, and for fish farming. There are local products with authorized quality, creating a notable image for Chios. This is one of the strengths of the island, as there is a general trend to connect local products to a place in order to create destinations with identity, authenticity and recognition. On the other hand the fact that the economy of Chios is depended on the production of such goods is of concern. The shortage of sources and the inability of people to comply with the principals of sustainability when producing are considered to be serious problems.

The natural and cultural particularities of the area create significant opportunities for the development of a differentiated touristic product. The process needs to focus on the special aspects of the island. Chios has areas that are suggested to be protected by Natura 2000. The variety of flora and fauna make many areas of the island important. Moreover the traditional villages are possible attractions for visitors. Chios has managed to create a differentiated tourism product and now it should focus on quality issues to support the attractiveness and competitiveness even more.



## *Psara*

The small island of Psara lies about 18 km North-West of Chios. Psara can be reached by boat from the town of Chios, or by small craft from Limnia, the port of Volissos on the west coast of Chios. Small boats sail from the harbor of Psara to secluded, sandy coves and the nearby, even smaller island of Antipsara. The island's capital, Psara, is a small village set in the bay of Limena. The majority of the population, less than 500 people in total, lives in the village. The community has a small Archaeological Museum with findings from excavations of the island. Sites of interest on Psara are several mansions and a number of churches, particularly St. Nicholas. In the north side of the village is an 18th century monastery.



**Map of Psara and Antipsara**

Visitors who want to stay in Psara need to schedule their overnight there, as few rooms to let are in the only one settlement of the island. Houses are traditional and a walk to the square of the village will be interesting enough, as there is the popular Heroon monument, whereon there are written all the names of the Greek Heroes of 1821.

Psara is famous for the Greek Revolution of 1821. All the islanders are friendly and hospitable, according to tourists that have visited the place. The natural beauty, simplicity and quietness dominates this destination. Two churches, Agios Nikolaos and the Monastery of the Dormition are worth to be visited, as a building with a particular position and of great architecture, named Spitalia. Psara is not the best choice for night-life enthusiasts as there is only one bar operating there. On the other hand it is a suitable destination for visitors who appreciate tasty food. Seafood

and lobsters make the place a small heaven for epicures while prices are low in relation to the quality of food. The best time to enjoy food is the Feast of Virgin Maria, where tradition and fun are combined.

The only way to reach the island is by sea. Itineraries from Lavrio connect the area with Southern Greece and more frequent is the connection with Chios. There is no option of renting a car. There is only a gas station and a bank to service the visitors.

Psara is one of the small islands of the Region. Given the fact that its smallness sets limitations for further development it should be promoted in combination with Chios. Daytrips or short stays are suggested for tourists that enjoy a longer stay on Chios. Such small islands cannot really develop the tourism industry in order to tackle seasonality. What they can do, is to be absolutely sustainable destinations for visitors.

## *Oinousses*

Oinousses is a cluster of small islands between Chios and the coastline of Asia Minor. The cluster is consisted of Gaidouronisi, Pontikonisi, Prasonisa, Pateroniso, Archontoniso and the Vatos islets. Inousses is the name of the one and only village in the island Oinousses. The size of the island is 14 square kilometers and the inhabitants reach the number of 1.000.



Map of Inousses

As it is obvious on the map the islands are very close to Chios. Itineraries from the central port of Chios last one hour and alternatively visitors can rent a boat from village Lagadas and after 20 minutes they will reach Inousses. Transport means are not necessary as the island can be explored easily. The road network is satisfying and offers access to the beaches of Inousses.

Accommodation choices are few, so tourists should book a room before visiting the island. All rooms to let lay in the only one settlement. Local cuisine is really an attraction for such small places. Fresh fish, wine and cheese are local famous delicacies. The first image in the port of Inousses is the mermaid statue. In the village there are beautiful mansions and small alleys. A walk will relax and calm any visitor. Two more monuments are worth visiting. The first is the Missing Sailor and the second is of the Mother from Inousses. The Maritime Museum will surprise tourists with a wide collection of ships, paintings, navy tools, books and documents related to the tradition of the island.



**The Mermaid Statue. Entrance of Port.**

This case is similar to the previous one. Oinousses may not be a destination for a long stay but they are surely worth a visit. The sense of isolation, the hospitality of islanders, and the natural beauty will offer a special experience to any guest. Of course such small islands cannot avoid the seasonal visitation, but at least what they can do is preserve the quality of the offered product.

## Prefecture of Samos: Samos, Ikaria, Fournoi

### *Samos*

The island has two ports, Vathi and Karlovasi, of mixed character. During the last years a new port is constructed on the area Malagari using National and European Union's funds. There is a daily connection with the ports of Ikaria, Cyclades and Piraeus either with conventional or power ships. Furthermore, once a week there is a connection with the islands of North Aegean and Dodecanese through the subsidized line from the Government. In addition, Samos is daily connected with Kousantasi of Turkey with two Greek and two Turkish ships. The existence of airport in Samos consists one of the most important reasons for the tourist evolution of the island since 1963. Furthermore there is a daily connection with Athens and weekly with Thessaloniki, Rhodes, Mytilene, Limnos. There are also daily connections during the tourist period through charter flights with England, Germany, Austria, Slovenia, Check Republic, Slovakia, Belgium, Holland, Switzerland and all the Scandinavian countries.



Map of Samos – Touristic spots and beaches

Tourists will be engulfed by the ancient Greek spirit on Samos. In Pythagorio there are the ruins of the "Wall of Polycrates", the "Ancient Theatre", the "Roman

Baths" and the famed "Eupalinio Tunnel" (1.036 metres), masterpiece of 6th century engineering that supplied the ancient city with water. In the archeological collection are memorial columns of the archaic period, column capitals and portraits of Roman emperors. In the city of Samos the fabulous archeological museum stands, with exhibits of great interest, sculptures, ceramics and bronze works. The giant 5.5 meters tall Kouros stands out as a unique find as does the sculptural composition by the Samiote Genelaos (6th century BC). Objects are on exhibit at the Ecclesiastical - Byzantine museum.

Samos offers the usual 3Ss touristic product for summer as there are many choices concerning its beaches, as the map shows. Accessibility is not problematic for this island and the choices for accommodation are many. Days and nights will be enjoyable as Samos offers sights, museums, monuments, beautiful beaches, shops, taverns, night spots and cultural events. Local products are also worth to be tasted. Samos is famous for its wine, which has been awarded many times. Combined with the local produced honey, 85.500 kilos are produced annually, ouzo, olive oil and oranges, these products create a particular identity for the island. Moreover wine tourism can be developed along with other forms of tourism on the island. The gastronomy is also a positive element as it usually is on islands.

Samos airport ranked 13<sup>th</sup> nationally concerning the tourist arrivals, but it was the only one of the 17 biggest airports of Greece that showed a decrease in arrivals. Generally 2013 had a decrease compared to arrivals in 2012.

#### Airport arrivals 2012 – 2013

	April	May	June	July	August	September	October	TOTAL
2013	873	12.089	19.772	25.810	24.412	18.418	2.183	103.557
2012	616	13.467	20.094	26.652	25.312	19.405	2.605	108.151
Διαφορά Difference	+41,72 %	-10,23 %	-1,60 %	-3,16 %	-3,56 %	-5,09 %	-16,20 %	-4,25 %

Source: SETE 2013



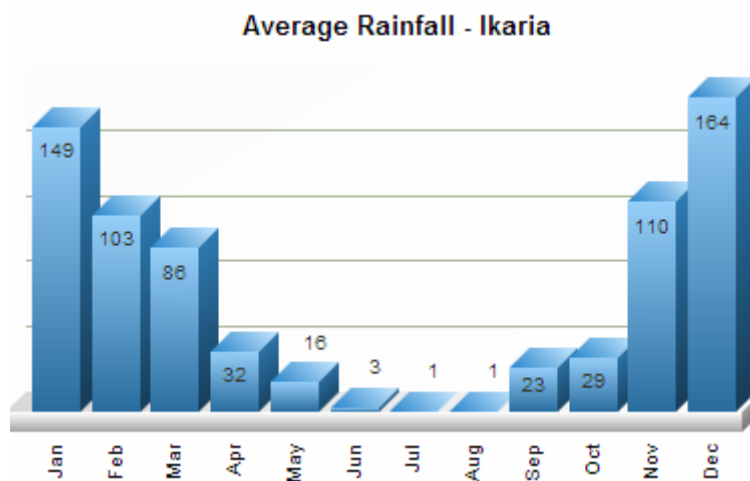
## ***Ikaria***

Ikaria is 19 km southwest of Samos island. The name derives from Ikaros, a person of Greek mythology. The size of the island is 255 square kilometers and according to ELSTAT, in 2011 the population was 8.312 inhabitants. The geomorphology of Ikaria has effected strongly the development of the island, which does not have natural ports.

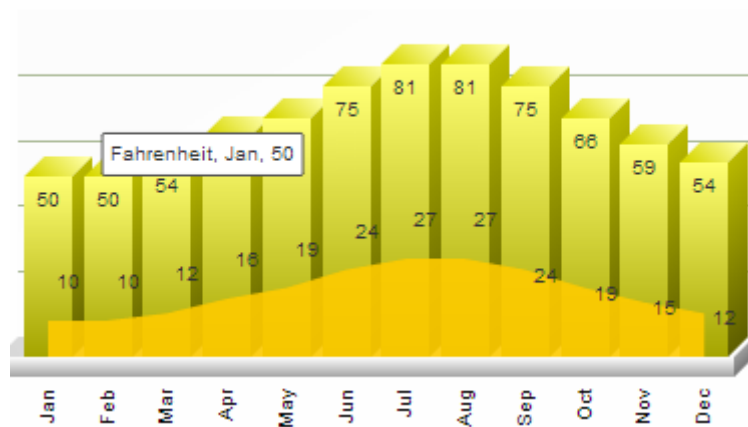


**Map of Ikaria – Position in Aegean Sea**

Ikaria has areas protected by Natura 2000 network. The climate is characterized by strong storms and winds.



Average Temperature - Ikaria



**Source:** Hellenic Meteorological Service,2013

Levels of rainfall are low during summer while temperature increases and tourists arrivals increase too for summer holidays. Moreover Ikaria has the most intense wind capacity of the country.

Tourism was developed after 1960s and has a seasonal nature. Tourist arrivals are increased during summer months and that is why inhabitants of Ikaria develop tourism only as an additional occupation for income. Ikaria is a destination where different forms of alternative tourism can be developed. Strengths for this island are considered the natural environment, with rich flora and fauna, the water resources, the traditional architecture of houses, and the settlements rich in historical and traditional elements. Furthermore the society is constructed in a special way; people love the island and live in a particular and simple way. Of course geothermal and wind energy can be used to avoid environmental damage. In addition, the geothermal sources create an identity for Ikaria that is popular for thermal springs and baths. This can be seen as a significant attraction for tourists, even during winter. Ikaria is also known from mythology, as the place where Ikaros fell and died in the sea. Monuments, museums and many other areas of cultural interest and of course local delicacies will surprise any visitor.

The weaknesses of Ikaria that concerns tourism attractiveness and development is firstly the geographical isolation and the absence of a natural port. Technical and social infrastructure, sea transportation and transportation on the island are also problematic. The society does not present progress in relation to other areas



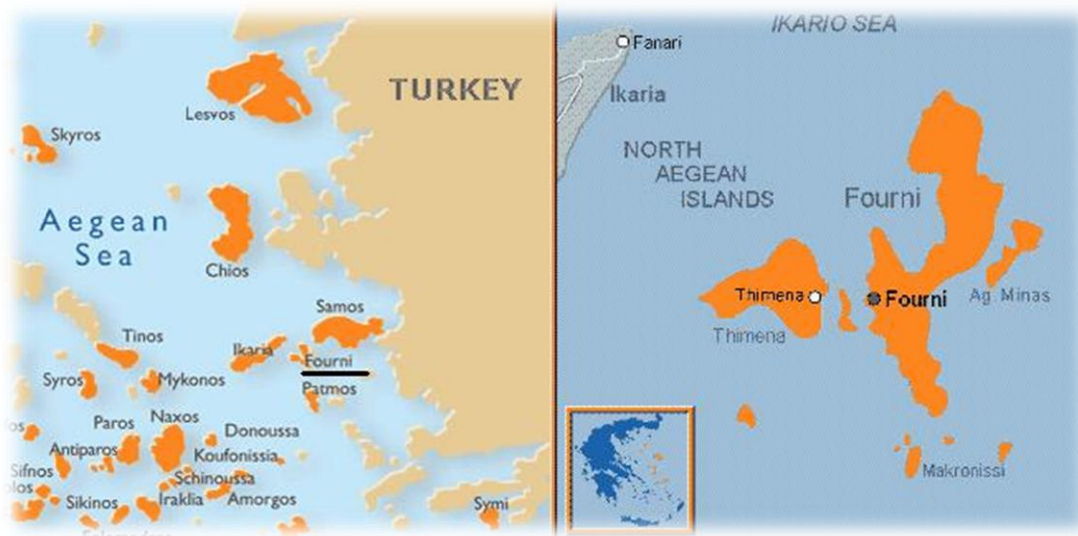
of Greece, while population is over-ageing and under-educated. This does not create potentials for a systematic tourism planning and development. Moreover mass tourism has caused serious damage to the natural environment and this can be harmful in combination with fires, overgrazing and illegal logging.

Nevertheless the problems can be dealt as there are important opportunities for general progress. First of all the position of the Region is advantaged in relation to the East Mediterranean Sea. Tourism as an industry is continuously updating with the society of Communication and Technology playing an important role. Funding tools and new technologies for education and training are many. Moreover the environment is characterized by rich cultural heritage. Green growth and sustainable tourism are the aim and are possible solutions for the problems Ikaria is facing.

The economic crisis of the country, mass tourism and illegal actions in sensitive areas pose as the biggest threats. Insularity and double peripherality enlarges the disparities between islands of the Region, concerning unequal human, natural resources and infrastructure. The insufficient transportation system, along with the high cost and illegal immigration are considered as a significant threat for the development of tourism sector.

## ***Fournoi***

Fournoi is a complex of small islands between Samos and Ikaria. Fournoi, Thymaina and Agios Minas are inhabited. Ferries land to Thymaina and Fournoi from Ikaria and Samos. From 2008 there is a connection with Athens too, with stopovers in Ikaria and Paros. Fishing and tourism activities are the main occupations during the summer.



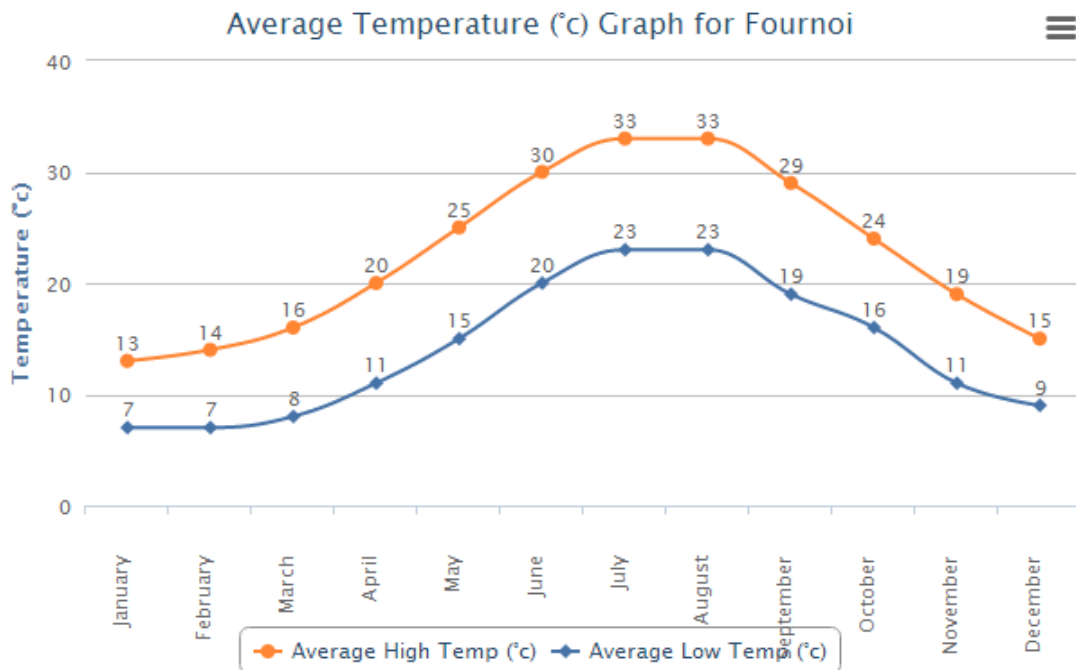
**Map of Fournoi – Position in Aegean Sea**

Fournoi can be included in the small islands category, taking under consideration the size and population. Fournoi has a population reaching 1.320 (ELSTAT, 2011). The rest of the small islands and the settlements have fewer inhabitants or none, according to ELSTAT.

Fournoi is a case similar to Ai Stratis and Oinousses. Small islands that offer relaxing holidays, suitable for nature lovers and tourists that admire a calm environment. Although the average temperature gives chances for visits not only during summer season, again seasonal visitation is observed. Nevertheless, a short visit to Fournoi in combination with vacations to Samos or Ikaria would be a great treat for any visitor.

Settlement or Place	Population	Island
Agios Minas	3	Agios Minas Island
Alatonisi	0	Alatonisi Island
Anthropofas	0	Anthropofas Island
Agios Ioannis Thermastis	1	Fournoi Island
Bali	6	Fournoi Island
Chrysomilea	104	Fournoi Island
Dafnolies	2	Fournoi Island
Fournoi	1,120	Fournoi Island
Kamari	14	Fournoi Island
Kampi Fournon	15	Fournoi Island
Kampi Chrysomileas	50	Fournoi Island
Kerameidou	7	Fournoi Island
Plagia	1	Fournoi Island
Kisiria	0	Kisiria Island
Makronisi	0	Makronisi Island
Mikros Anthropofas	0	Mikros Anthropofas Island
Petrokaravo	0	Petrokaravo Island
Plaka	0	Plaka Island
Plakaki	0	Plakaki Island
Strongylo	0	Strongylo Island
Thymaina	136	Thymaina Island
Thymainaki	0	Thymainaki Island

Source: ELSTAT, 2011.



Source: Hellenic Meteorological Service

## **Chapter 5 –Conclusion and Recommendations**

The study concerns tourism development in North Aegean Region, a particular insular area of Greece. The issue that is examined, is seasonality in tourism, the general potentials and problems of the islands in relation to tourism development and the positive aspects of each island are highlighted. The aim of the study is to show the intensity of seasonality, the impacts to the islands and then examine whether seasonality can be eliminated when and if islands follow specific policies.

A broad view is that insularity usually entails lower attractiveness in comparison to other types of destinations. On the other hand there are some similar characteristics of the islands of this insular Region that bring about the quality of their natural and cultural assets and a unique quality of life. Indeed, due to the intense insular nature of the North Aegean Region, every island has a special identity and local resources which lead to an opportunity of high quality touristic product. Some examples that contribute to the uniqueness and character of these islands are the olive oil of Mytilene, wine of Limnos and Samos, cheese (kalathaki of Limnos and ladotyri of Mytilene) and ouzo from Mytilene.

After having examined the problematic sectors of the islands, it is considered that emphasis to develop e-services, transportation, energy management and cultural appeal is needed. Unfortunately, transportation and accessibility to the islands follow the seasonal patterns, meaning that connection to islands is insufficient during winter times. This is a sector of priority to be updated and offer appropriate services to people all year round. Regarding the culture, there are numerous archaeological and religious sites on the islands, capable of attracting visitors, sites that have not been utilized thus. SMEs should be motivated to employ modern technology and maximize the outreach of the Region, to minimize the advertising and promotional costs, having as optimal goal to extend the touristic season.

It is possible that the theory of New Economic Geography is applicable and effectual, as it is a long-term strategy aiming in tackling under-utilization of potential social exclusion in specific places, through external interventions and multi-level governance (BARCA, 2009). The particularity of this Region is that it is part of an archipelago. It is considered that these islands deal with challenges, which are

differentiated from challenges that isolated islands face. It is believed that the touristic product's life cycle in such areas can be forecasted (Sheldon, 2008).

The important weaknesses that are the same for all islands of this Region are the insufficient transportation infrastructure that creates issues of accessibility and connection with the mainland which is strongly related to weather conditions and changes. Furthermore due to the size of the islands, the domestic market is also small for the producers. The created environment for businesses is uncompetitive and due to this, the small businesses struggle to be efficient. The resource constrains can be either a strength, or a weakness depending on the richness of each island in natural resources.

Insularity, which is mainly considered as a weakness, offers the islands an identity, authenticity and a rich natural environment. North Aegean islands offer the opportunity of the development of new, alternative forms of tourism, under the condition of utilization and sustainable use of resources. The islands are also rich in natural, religious, historical and cultural sites, attractive for the new types of travelers that prefer the authentic experiences, the connection to local communities and the involvement in every-day activities.

Even though the challenges are great, the islands have strong possibilities to be more competitive and attractive as tourism destinations. The competition is intense, though these destinations have assets to exploit in order to develop a touristic product of high quality, which should be focused and differentiated. The key is the sustainability strategies, due to the fact that the natural environment is a main asset of the Region. The natural environment should be protected, as it is vital for tourism and recreational sectors. Islands need to be sustainable, as they have valuable but vulnerable and scarce environmental resources. Sustainability is fundamental for the islands' long term prosperity. In addition, sustainable policies generate entirely new economic niches.

Based on the "Euro-islands Project", a strategy aiming to turn the handicaps into opportunities, according to the guidelines of "The 2020 European Strategy Priorities" is recommended. The whole study is summarized in the following suggestions. The aim of the Region's islands needs to be: quality islands, green islands and equal opportunities islands. Emphasis should be given on transportation in

order to achieve more sufficient accessibility. Sustainable strategies should be followed and sustainable policies should be implemented in order to have “green islands” with respect to environmental issues, and finally, all-year access to the islands should be attempted to become available. Through such actions these islands could become more attractive and competitive in the eyes of the national and international tourism market. These initiatives combined with proper promotion that projects the untouched natural beauty and traditional appeal of these destinations to the world, can have the power to extend the tourism seasons beyond the summer months.

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