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**Residents' perceptions towards tourism in a rural Cretan
community**

ABSTRACT

The majority of past research on residents' attitudes has examined the influence of various factors such as sociodemographic characteristics, economic dependency on tourism, distance that residents live from the tourist zone and stage of the host community's development. In addition to this, the vast majority of research has been undertaken in regions where tourism is a prevalent economic activity. As a result, there are limited studies on residents' attitudes in communities where tourism development is in its infancy. Bearing this in mind, the current paper investigates the perceptions of residents in a rural Cretan community where tourism is not well developed although the area has great potential for further development. It also assesses the influence of two factors (number of residents and place of residence - coastal vs. inland) on residents' perceptions. Research employed a telephone survey on a sample of 65 residents.

The findings of the research revealed that people living in coastal areas and in higher populated communities supported stronger the positive impacts of tourism on the local economy, although they expressed higher concerns about its negative impacts on the natural environment. These findings are in accordance with Doxey's model, which suggests that residents' perceptions and attitudes are more positive in the early stages of tourism development. Also, the study of the Cretan rural community residents revealed that there is a development gap between coastal and inland areas, as well as, between areas with low and high population density. This study, taking into consideration the above remarks, proposes measures for the future development of the area.

Keywords: Residents' perceptions, rural areas, tourism development, coastal vs. inland areas, population density.

Introduction

Tourism has received considerable attention in the last four decades because of its potential for regional economic development (Barucci and Becheri 1990, Christaller 1964, Friedmann 1966). This is more evident in communities where the economy is highly dependent on agrarian declining activities and have limited alternatives for economic growth (Wanhill, 1997).

In the literature, it is generally accepted that in the initial stage of tourism development the investigation of residents' perceptions is essential (Allen, Long, Perdue and Kieselbach 1988, Ap and Crompton 1998, Maddox 1985, Murphy 1983). As Williams and Lawson (2001) support the perceptions and attitudes of residents towards tourism are particularly important for the future success of the tourism industry. If residents perceive tourism in a negative way, it will be likely for tourist enterprises to confront with considerable obstacles in the establishment and the operation.

In spite of the great importance of residents' perceptions for tourism-induced development, most studies have been undertaken in regions where tourism is a well-established activity (Mason and Cheyne, 2000). In addition, the vast majority of studies examine the influence of single factors on residents' perceptions, mainly sociodemographic characteristics, such as gender (Chen 2000, Milman and Pizam 1988, Pizam and Pokela 1985, Ritchie 1988); age (Brougham and Butler 1981, Chen 2000, Fredline and Faulkner 2000, Haralambopoulos and Pizam 1996, Ritchie 1988); education (Caneday and Zeiger 1991, Haralambopoulos and Pizam 1996, Hsu 1998, Husbands 1989, Kim 1986); and income (Lankford 1991, Haralambopoulos and Pizam 1996). Moreover, according to Andriotis and Vaughan (2003) and Andriotis (2004), the majority of early attitudinal research has been focused on factors such as the distance that residents live from tourist zones (Glasson et al., 1992; Murphy and Anderssen, 1988; Sheldon and Var, 1984); the economic and/or employment dependency on tourism (Ap, 1990; Caneday and Zeiger, 1991; Glasson et al., 1992; Madrigal, 1995; Martin, 1996; Murphy, 1981; Pizam and Pokela, 1985; Rothman, 1978; Snaith and Haley, 1994; Thomason et al., 1979); as well as, the stage of the host community's development (Allen et al., 1988; Dogan, 1989; Doxey, 1975; Duffield and Long, 1981; Gilbert and Clark, 1997; Johnson et al., 1994).

Taking into consideration the above remarks, this article seeks to add to the literature in two ways. First, it examines the attitudes and concerns of residents in a rural Cretan community where tourism is in the initial stages of development. Secondly, it examines these attitudes taking into account the number of residents and the type of residency, i.e. coastal vs. inland.

Research on host community attitudes

One of the most influential works of early host community research is that of Doxey (1975) who suggested that, as tourism increases the attitudes of residents pass through four stages (euphoria, apathy, annoyance and antagonism). In other words, Doxey's model assumed a predictable sequence of residents' attitudes. This sequence of attitudes has been questioned in two ways. First, many studies showed that residents' perceptions do not follow a linear evolution and consequently people may be more positive towards tourism even to a higher degree of tourist development (Horn and Simons 2002; Lawson et al 1998; Faulkner and Tideswell 1997). Second,

the sequence of attitudes in Doxey's model indicates a type of homogeneity in residents' attitudes in given host communities (Mason and Cheyne, 2000).

However, the homogeneity has been criticized due to the fact that host communities usually encompass different people with different interests and views (Mason and Cheyne, 2000). Therefore, many studies gravitated their attention to the examination of various factors that may vary among individuals or groups and may influence residents' perceptions towards tourism in a different way. Some of these factors include sociodemographic characteristics, the distance from the tourist zone and the economic reliance on the tourism industry. In practice, the sociodemographic characteristics were proved to be of less value in the understanding of residents' opinions in many studies (e.g. Allen et al. 1993; Brown and Giles 1994; Madrigal 1993; Ryan, Scotland and Montgomery 1998).

In contrast, distance from the tourist zone was found to be a capable variable in explaining residents' attitudes (Andriotis, 2004). More specifically, according to some studies (e.g. Long et al., 1990; Pizam, 1978, Sheldon and Var, 1984) the perceived impacts of tourism are greater as the distance from the tourist zone decreases. Dependence on tourism industry was also a key factor in explaining attitudes in many studies (e.g. Ap, 1990; Caneday and Zeiger, 1991; Glasson et al., 1992, Thomason et al., 1979). According to this approach, which relies heavily on social exchange theory, the more money residents gain from tourism the more positive their attitudes become (Andriotis, 2004). Finally, the majority of attitudinal studies have been conducted in areas where tourism is already a prevalent economic activity (Keogh, 1990). As Mason and Cheyne (2000) state:

There are few studies on the perceived impacts of tourism either prior to any development or when it is not yet seen to be a significant economic activity for a region. The majority of research since the mid-70s, however, has been in the form of "snapshots" taken at a particular time, in a particular location, with most of the studies taken place where it was already economically important (p.392)

The studies that tried to fill this research gap can be divided into two categories. The first category encompasses studies that tried to highlight residents' perceptions on a longitudinal basis (e.g. Sutar and McLeod, 1993; Johnson et al., 1994). Sutar and McLeod (1993) carried out a survey on residents' perceptions before, during and after the event of America's Cup Defence Series that was held in Fremantle of Australia from October 1986 to February 1987. Their results suggested that residents of Fremantle thought that the event had a very positive impact on their quality of life. However, as Hernandez et al. (1996) indicated the study of Sutar and McLeod was concerned with a single event rather than the development of a tourist resort in a long-term basis. In addition to the previous study, Johnson et al (1994) carried out a survey investigating residents' perceptions of a ski resort area in the United States. This study was conducted in a former rural community that used to rely on traditional economic activities such as farming, oil exploration and mining and gradually developed its tourism industry. The findings of this study revealed that the vast majority of the residents (94%) supported strongly tourism development in the initial stage, but some years later, after the ski area started its operation, only one third of respondents perceived tourism in a positive way.

The second category tried to examine residents' perceptions in the pre-developed stage and more specifically before the establishment of a proposed tourism

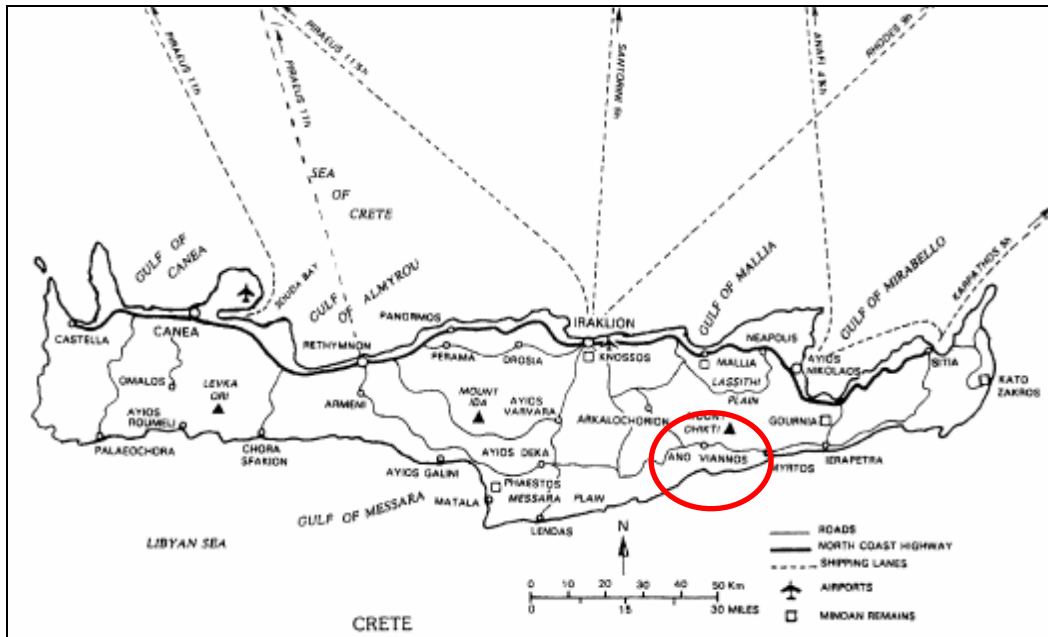
activity (Hernandez et al., 1996; Keogh, 1990; Mason and Cheyne, 2000). The studies of Mason and Cheyhe (2000) and Hernandez et al (1996) indicated that although residents were generally supportive to tourism development the overall findings didn't confirm the "euphoria" stage of Doxey. On the other hand, Keogh (1990) in a study examining residents' perceptions toward a proposed development in New Brunswick, Canada stressed the necessity of community involvement in tourism planning indicating that the less-informed residents had a more negative attitude towards tourism development.

In reviewing the existing literature on residents' perceptions towards tourism development in Crete only four studies have been undertaken (Andriotis, 2005; Andriotis and Vaughan, 2003; Kousis, 1984; Tsartas et al, 1995). The first two studies dealt mainly with the social impacts of tourism ignoring the economic and environmental effects. The two other studies took account of the overall impacts of tourism and they dealt mainly with the residents' perceptions in the big urban centers and the well-developed tourism resorts of the island. The findings of these studies overpraised tourism and tourism development for its positive on the economy, although they acknowledged various negative effects on the environment and the society.

The study area

This study was conducted at the municipality of Viannos, a rural Cretan community of some 6,000 inhabitants situated on the southernmost part of prefecture of Heraklion (Figure 1). The capital and seat of the municipality is the village of Ano Viannos, which is located 560 m above the sea level, 65 km away from Heraklion and 40 km from Ierapetra. The region consists of mountainous and coastal areas and its main features according to Papadakis (2002) are: the geographical isolation; the insufficient infrastructure (bad road connection with Heraklion city, lack of hospital); delay of growth in all sectors of economic and social life; abandonment of hinterland (according to the National Statistical Service of Greece (2005) in the period 1991-2001 the population has decreased about 10%); ageing of local population; and high dependency of the local economy on the primary sector (about 60% of the working population). Furthermore, it is a common phenomenon in residents of this area to leave their homes looking for a better life in the big urban centers of the island.

Figure 1. The sample area



Viannos lags behind in comparison with the other regions and especially the north coast of the island. The entire tourist infrastructure is concentrated in the coastal areas of the municipality and serves mainly small numbers of Greek and foreign tourists during the months of July and August. As showed in Table 1, the study area has an extremely small proportion of hotels and lodging houses compared to the prefecture of Heraklion and the rest of the island. Recapitulating the facts it is obvious that the municipality of Viannos is a region suffering from the development gap that exists between urban centres and tourism resorts of the north coast of Crete.

Table 1. Hotels and lodging houses in Crete, Prefecture of Heraklion and Municipality of Viannos (2004)

Region	Hotels	Lodging houses	Total beds
Crete	1,495	3,247	195,276
Prefecture of Heraklion	517	992	20,640
Municipality of Viannos	1	30	369

Source: Compiled by National Tourist Organization of Greece (2005) Regional administration of Crete

Sampling strategy

To select a sample frame the following process was adopted. Data were collected in the study area from January up to February 2006. Respondents were approached by telephone. This way of contact was considered as the most appropriate for the following reasons: there is a large dispersion of the population in the study area (about 32 residents per km²), there are difficulties in the realization of the survey locally due to financial and time constraints, and, finally the survey instrument was simple to be submitted by telephone.

The choice of the sample became in three stages, as proposed by Malhotra (1996). In the first stage, local telephones were collected from the directory of the Region of Crete. In the second stage, a set of telephones was randomly selected from

the local list. In the third stage, a constant number was added in the last digit in order to modify the selected telephone numbers and overcome the bias of recent or unpublished numbers. The sample size calculation was independent of the total population and it consisted of 65 residents.

Questionnaire design

The questionnaire was prepared following a review of existing literature dealing with residents' perceptions towards tourism (e.g., Akis et al 1994; Andriotis and Vaughan 2003; Johnson et al 1994; Madrigal 1993).

The questionnaire consisted of 27 questions. More specifically, it was based on the answers to 7 sociodemographic and 20 Likert scale questions. The Likert scale questions were based on statements to which respondents were asked to respond in terms of a 7-point scale where 1 indicated strong disagreement and 7 strong agreement with the statement. The Likert scale questions investigated residents' perceptions of the economic, social, environmental, and, specific development issues.

Data analysis

For the analysis of data the Statistical Package for the Social Sciences (SPSS, version 12.0) was used. To examine the relationships between the two independent variables and the Likert scale questions t-tests and One-Way Analysis of Variance (ANOVA) were applied. T-tests were applied for the independent variable "Coastal vs. inland areas", because it is divided into two sub-groups. ANOVAs were applied for the independent variable "number of residents", because it is divided into three sub-groups.

Findings

Description of survey respondents

Table 2 presents the main sociodemographic characteristics of the sample. Men and women were almost equally distributed. The respondents belonged to the age groups 18-40 (23,1%), 41-55 (24,6%), 56-70 (30,8%) and many of them had received elementary and secondary education (49,2% and 41,5% respectively). In addition to these, the majority of respondents were farmers (30,7%) and pensioners (36,9%); they stayed in the area for more than 20 years (75,4%); and had an annual income of less than €10.000 (70,8%).

Table 2. Socio-demographic Characteristics of the Sample

	N	%
Gender:		
Male	33	50,7
Female	32	49,3
Total	65	100,0
Age:		
18-40	15	23,1
41-55	16	24,6
56-70	20	30,8
71>	14	21,5
Total	65	100,0
Income:		
0-€10.000	46	70,8
€10.001-€20.000	12	18,5
€20.001->	7	10,7
Total	65	100,0
Education:		
Elementary	32	49,2
Secondary	27	41,5
Higher	6	9,2
Total	65	100,0
Occupation:		
Pensioners	24	36,9
Farmers	20	30,7
House Keeping	8	12,3
Others	7	10,8
Civil Servants	4	6,2
Tourism related	2	3,1
Total	65	100,0
Length of residence:		
≤ 20 years	16	24,6
21-40 years	21	32,3
41-60	15	23,1
61>	13	20,0
Total	65	100,0

Explanatory variables of residents' attitudes

In the results of the ANOVA and t-tests some statistical differences were evident at the .05 level of confidence. More specifically t-tests (Table 4) revealed significant differences in 7 out of the 20 Likert scale statements. More specifically, residents living in the coastal areas were more likely to be opposed to further tourism development in areas of the vicinity. Many of the respondents claimed for example that the neighboring tourist resorts of Tsoutsouros and Ierapetra were in the saturation phase of their tourism development and for that reason it was necessary the municipality of Viannos to become the new tourist pole of the area. They also agreed to a larger extent that tourism has a positive impact on employment and on investment. Furthermore they supported that tourism provides incentives for the local people to stay in the area. While economic impacts were generally welcomed, the consequences of tourism development on natural environment were perceived in a more negative way. More specifically, many of the respondents expressed their concerns for camping on the coastline and litter the surround environment. However, residents of the coastal areas supported stronger that the benefits of tourism outweigh its negative impacts. Only a small minority of respondents in coastal and inland areas expressed some concerns about the negative effects of tourism on the social mores. It's remarkable however the fact that the respondents, in both coastal and inland areas did not perceive tourism as the main driving force for the conservation of the historical, cultural and traditional buildings of the area. This is because they believed

that the conservation of the cultural heritage is an obligation of the local community and it has to do little with tourism exploitation.

Table 3. Mean Scores and t-tests for Type of Residency

	Mean		t	df	Sig.
	CA*	IA*			
I. Economic impacts					
Tourism has a positive impact on local income	6.45	2.44	9.732	52.072	.000
Tourism has improved employment opportunities in the area	6.52	1.94	13.236	45.015	.000
Tourism attracts investment and spending in the area	6.64	2.38	11.265	40.086	.000
Prices of goods and services in the area have increased because of the tourism there	1.06	1.13	-.468	63	.641
Tourist enterprises of the area must belong only to the local people	3.88	3.88	.006	63	.995
II. Social and cultural impacts					
Tourism has a negative impact on social mores of the residents	1.30	1.19	.404	63	.688
Tourism has led to an increase of criminality in the area	1.00	1.00	-	-	-
Meeting tourists from other countries is a positive experience for the local people	6.27	6.09	.440	63	.661
Tourism can strengthen the cultural events of the area	1.61	1.25	1.207	59.483	.232
Tourism gives more benefits to foreigners than to local people	1.00	1.09	-1.000	31.000	.325
Tourism provides an incentive for local people to stay in the area	2.15	1.22	2.247	47.580	.029
III. Environmental impacts					
Tourism is the major cause of the illegal construction of buildings in the area	1.00	1.00	-	-	-
Tourism has a negative impact on the natural environment of the area	2.27	1.03	3.544	32.513	.001
Tourism leads to overcrowded places in the area	1.36	1.56	-.495	63	.623
Tourism provides an incentive for the conservation of the historical, cultural and traditional buildings of the area	1.36	1.16	.872	63	.386
Tourism has a negative impact on the quality of my life	1.18	1.34	-.540	63	.591
IV. Developmental and other issues					
The benefits of tourism outweigh its negative impacts	6.58	4.44	5.474	50.644	.000
Other places in the region have a higher degree of tourism development	5.55	6.44	-1.678	58.243	.099
The public sector must provide incentives to the people of the area in order to develop more tourist activity	6.36	5.56	1.808	59.367	.076
Adjacent areas to the municipality in which I live must attract more tourist activity	1.70	3.75	-4.378	56.612	.000

*CA= coastal areas, IA= inland areas

The values shown in bold indicate a statistical significant relationship at the .05 level of confidence

On the other hand, ANOVA tests (table 5) revealed significant differences in 5 out of the 20 Likert scale statements. In particular, residents leaving in areas with higher population density (more than 301 inhabitants) agreed to a larger extent that tourism had a positive impact on the local income, created employment opportunities

and attracted spending and investment in the area. Residents of higher populated communities agreed higher that tourism has a negative impact on the natural environment, although they supported stronger that benefits from tourism outweigh negative impacts. Finally, residents from areas with higher population density supported stronger that there is no need for further tourism development in adjacent areas. Instead they believed that further development is required for their own area.

Table 4. Mean Scores and ANOVA Tests for Population Density

Depended variables	Independent variable: Distance from the tourist zone				
	Mean			F	Sig.
	0 km	1-20 km	21 km>		
I. Economic impacts					
Tourism has a positive impact on local income	6.44	3.71	1.74	52.911	.000
Tourism has improved employment opportunities in the area	6.50	3.00	1.42	83.555	.000
Tourism attracts investment and spending in the area	6.63	3.71	1.63	74.474	.000
Prices of goods and services in the area have increased because of the tourism there	1.06	1.29	1.00	1.182	.314
Tourist enterprises of the area must belong only to the local people	3.97	4.43	3.32	.764	.470
II. Social and cultural impacts					
Tourism has a negative impact on social mores of the residents	1.31	1.43	1.00	.662	.519
Tourism has led to an increase of criminality in the area	1.00	1.00	1.00	-	-
Meeting tourists from other countries is a positive experience for the local people	6.25	6.07	6.16	.060	.942
Tourism can strengthen the cultural events of the area	1.53	1.57	1.16	.695	.503
Tourism gives more benefits to foreigners than to local people	1.00	1.21	1.00	1.871	.163
Tourism provides an incentive for local people to stay in the area	2.00	1.50	1.32	1.031	.363
III. Environmental impacts					
Tourism is the major cause of the illegal construction of buildings in the area	1.00	1.00	1.00	-	-
Tourism has a negative impact on the natural environment of the area	2.19	1.29	1.05	4.054	.022
Tourism leads to overcrowded places in the area	1.38	1.00	1.95	1.508	.229
Tourism provides an incentive for the conservation of the historical, cultural and traditional buildings of the area	1.28	1.57	1.00	1.473	.237
Tourism has a negative impact on the quality of my life	1.19	1.43	1.26	.191	.827
IV. Developmental and other issues					
The benefits of tourism outweigh its negative impacts	6.56	5.21	4.00	16.727	.000
Other places in the region have a higher degree of tourism development	5.50	6.57	6.37	1.619	.206
The public sector must provide incentives to the people of the area in order to develop more tourist activity	6.34	5.71	5.53	1.409	.252
Adjacent areas to the municipality in which I live must attract more tourist activity	1.72	3.50	3.79	8.432	.001

The values shown in bold indicate a statistical significant relationship at the .05 level of confidence

Conclusions and implications

It has been argued that residents' perceptions are important for a number of reasons including the high degree of influence on visitors satisfaction and the consequent success of the tourism industry (Andriotis and Vaughan, 2003). The results of this survey are encouraging in general for further expansion of the tourism industry in the study area due to the positive attitudes that local residents expressed as far as tourism development is concerned. More specifically, the residents of the rural Cretan community under study perceived tourism in a positive way because of its beneficial impacts on the local economy. In addition to these the findings of this survey are consistent with Doxey's model, which suggests that residents' perceptions are more positive in the early stages of tourism development. However, Doxey's model implies that residents' perceptions change through time, as the number of tourists increases. As a result, for the confirmation of Doxey's model in the case of Crete, further community research in a longitudinal basis is required. Residents also expressed some concerns for the negative impacts of tourism on the environment. These concerns do not come as a surprise since an environmental awareness, associated with tourism activity, stands in a high degree in many local communities (Kousis, 2000; Tsartas, 1992). However, the local authorities is necessary to make more efforts in order to inform local residents and visitors on the environmental issues. In a practical level more rubbish bins along the coastline should be placed and community signs must warn tourists for penalties in cases of environmental degradation.

The findings of this study also suggest that there is a development gap between coastal and inland areas, as well as between areas with low and high population density. More specifically, the residents who live in coastal locations and in higher populated areas perceived tourism in a more positive way. This seems to be very logical since the vast majority of tourism activity in the municipality of Viannos is concentrated on the coast. On the other hand the economic and employment opportunities that tourism and some intensive agricultural activities (greenhouses) offer has resulted in the attraction of many residents from the interiors to the coastal areas creating a vicious cycle in the local economy. If coastal areas develop further their tourism industry, it is highly possible that inland areas will confront with even greater depopulation as well as with greater economic and social problems. Taking into consideration these findings it is strongly suggested that further action must be taken by public authorities to reduce the development gap that exists between coastal and inland areas as well as between small and big villages in the municipality of Viannos. First, inland areas can develop some alternative forms of tourism such as agrotourism, mountain and trekking tourism. In doing so, state funding in infrastructure and provision of incentives for locals is required. Second, a number of small-scale tourist facilities should be developed in order to increase the positive impacts of tourism in the inland areas. According to Andriotis (2002) the small hospitality firms in Crete compare to the large-sized establishments purchase their supplies locally and they tend to employ a higher number of family members. The above proposals may create a viable solution for the economic and social development of the municipality of Viannos and it is obvious that the public sector should be concerned in a more responsive way with the future development of the area.

Regarding the stage of the host community's development some actions are necessary in order to avoid unplanned tourism activity faced in most coastal resorts of

the island. According to Andriotis (2001) the unplanned tourist development of the island in combination with the uncontrolled building construction, the lack of land-use planning and the insufficient infrastructure has resulted in a serious aesthetic and environmental degradation for many tourist resorts. Consequently, the local authorities in municipality of Viannos must take some actions in order to protect locals' quality of life as well as the image of the area. First, they must design a detailed land-use plan for the area in order to avoid unplanned activities and illegal construction of tourist enterprises. Second, since locals praised tourism for its positive economic effects, a higher participation of local residents in the tourism planning process is required in order to meet local needs and desires more effectively.

Last but not least, improvement of infrastructure is essential in an attempt to increase tourist flow in the area, such as improvement of sewage network, construction of parks and provision of more public services. Furthermore, the road connection with Heraklion city and the inland villages needs to be improved in order to improve accessibility in the area.

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