
TOURISM AND SUSTAINABLE DEVELOPMENT STRATEGIES IN RHODES: THE AWARENESS OF THE LOCAL SOCIETIES

Prof. Dr. Persa FOKIALI
University of Aegean, Rhodes, Greece
persa@rhodes.aegean.gr

Prof. Dr. Yota XANTHAKOU
University of Aegean, Rhodes, Greece
xanthakou@rhodes.aegean.gr

Prof. Dr. Rezan TATLIDIL
Ege University, Izmir, Turkey
rezan.tatlidil@ege.edu.tr

Prof. Dr. Ercan TATLIDIL
Ege University, Izmir, Turkey
ercan.tatlidil@ege.edu.tr

Prof. Dr. Maria KAILA
University of Aegean, Rhodes, Greece
kaila@rhodes.aegean.gr

ABSTRACT

Tourism is a vital industry in Rhodes as it is in many Mediterranean economies. And the adoption of a sustainable development strategy and the consequent sustainable development policies seem to guarantee long term viability of the tourism product. This sustainable development in tourism will have a direct effect on the societies who live especially in environmentally sensitive areas. For sustainable tourism development to affect positively these areas, it is important that all parts involved in tourism develop a common language and a common understanding about sustainable tourism development. The need of the societies' sensitization is recognized widely as a "must" for a successful adoption of sustainable development policies. In this article it is aimed to understand the awareness of the planners and other key figures

about sustainable development and the high school children about the knowledge of the term sustainable development and of relevant terms, understanding of the multidimensional and holistic (integrated) meaning of the concept, ability to identify the problems of tourism development and to connect them to sustainable or unsustainable tourism.

INTRODUCTION: TOURISM AS AN ECONOMIC BRANCH IN MEDITERRANEAN ECONOMIES

It is well accepted that, during the last decades, tourism proves to be a rising branch of economic activity in many parts of the world (Eligh, 2002). Various factors affect positively demand for it, such

as curiosity that motivates human beings to travel, the improvement of the living and working standards, the upgrading of global transport and communication and the improvement of educational level in many countries. The increasing demand is a strong motive for supply. The appearance of an increasing number of tourism destinations every year as well as the upgrading of tourism production in existing destinations promise to meet the needs of the demand side, while creating a competitive global market at the tourists' service.

It is not an exaggeration to state that some regions – among which many Mediterranean spots- are dependent almost exclusively on tourism (Fokiali, 1996). One of these spots is Rhodes, an island of 1,4 th. sq.m. and of a noticeable natural, cultural, and historical environment, situated in the south eastern part of the Aegean Sea. The prosperity of its 100 thousand permanent inhabitants rely heavily on the number of yearly tourists arrivals. This number in 2002 almost reached 1,4 million. In Rhodes, tourism and its related activities contribute by approximately 70% to the region's Gross Domestic Product and employment and for the past 50 years no other branch of economic activity could play a dynamic role –even in the sense of a second best alternative (PAP/RAC, 1993).

The dynamic trend of world's tourism does not imply that tourism is a non-risky field. On the contrary! It is a delicate as well as complex product; it is vulnerable mainly because tourists do not want to live risky while in holidays. Talking of risk in this field, one may distinguish two major features: The first concerns unpredictable factors of uncertainty, such as instabilities in the political field, terrorism, violent social and economic unbalances that could be of fatal impact. Less violent, yet equally dangerous, are some predictable risk factors. Among the latter one finds the threats of environmental degradation.

Environment in its widest sense, i.e. natural, social, cultural, economic and institutional, is in itself the major factor of tourism attraction. If environment is damaged then it is difficult for the area to continue being attractive. Though this seems to be an undeniable truth, environmental degradation is not a rare phenomenon in tourism destinations: Although an environmentally friendly branch, often tourism destroys what tourists want to see.

Preventing environmental damage is a particularly difficult task for a mass tourism destination when vast numbers of tourists every year invade in areas of limited carrying capacity. The classic short-term profit maximizing behavior in relation to the

absence of any long-term strategy often lead to violent environmental degradation, distorting development and creating economic, social, cultural and natural damages.

It should be noted that in many Mediterranean areas, the model of tourism development followed the mass tourism pattern. Rhodes is not an exception. Mass tourism has a long history on the island that starts in the sixties and follows the typical stages of an economic good (Fokiali, 2003). A stage of rapid development in the seventies and eighties is succeeded by a stage of mature development in the nineties and in the first decade of 2000. This last stage is characterized by some negative aspects: Loss of biodiversity, forest fire incidents, landscape degradation, noise, traffic, increase in seasonality of employment, low prices of the tourism product (PAP/RAC, 1996; Trumbic, 1993; MIO- ECSDE, 2001). The signals of conflicts between environment and development are obvious. Is there any solution?

SUSTAINABLE DEVELOPMENT AS A STRATEGIC TARGET FOR TOURISM

In both theory and practice, the adoption of a sustainable development strategy and the consequent sustainable development policies seem to guarantee long term viability of the tourism product.

Sustainable development provides a post-modern theoretical framework that promises current development without exhausting the inputs that make possible future development. It has its origins in Carson's book "The Silent Spring"(Carson, 2002) and its roots in the well-known Brundtland Commission's Report (Brundtland Commission, 1987). In the latter sustainable development is defined as that sort of development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Commission, 1987). Since the time of this Report, sustainable development followed a rapid evolution, being a central issue in World Summits, Congresses, projects and academic analyses. Through them, there is evidence that sustainable development has passed into political and policy discourse, if not into every day language (Redclift, 2005).

Although the large number of different definitions emerged by sustainable development analysts is confusing, one can distinguish some common axes

of convergence in different interpretations (Hopwood, 2005). No one denies, for example, that sustainable development refers to the harmonization between two main issues - development and environment. All agree in addition that sustainable development promises long-term economic viability while sustaining natural, social and cultural environmental balances. It cannot be contradicted that, in a sense, sustainable development promises justice since it declares a fair game between the present and future generations. Such a justice finds a lot of supporters who are satisfied from the idea that sustainable development does not reject as non-ethical the present income and consumption, even if this means that present prosperity is allowed under the constraint of guaranteeing future income and consumption.

Along similar lines, there are but few who could consider false the concept's core objective "-a kind of ethical imperative- *which* is to provide to everybody, everywhere and at any time the opportunity to lead a dignified life in his or her respective society" (Spangenberg, 2005). More important, no one could deny sustainable development's valuable contribution emerging from the fact that it offered to the globe the first integrated overview of the environmental aspects of development from an economic, social and political perspective (Redclift, 2005).

Summarizing, one may distinguish three basic characteristics of sustainable development, i.e.

- a. Sustainable development has two core axes, the environmental and the developmental one.
- b. Each of these axes is multidimensional, the dimensions being ecological (natural), economic, social, cultural and institutional.
- c. Sustainable development implies integration of the multiple dimensions of environment and development into a holistic strategy.

The above characteristics in relation to the concept's normative identity create the background for the establishment of an entire ideology -if not philosophy- consisting of principles that are easily acceptable. However these characteristics reveals also the concept's disadvantages. Thus, in spite of their attractiveness, sustainable development policies and practices are not easily applicable; the relevant goals are not easily quantified, and the concept's definition still remains vague. Research results in this field cannot always be freed from

ambiguity -though one should recognize that a lot of research is carried aiming particularly to establishing sustainability indices and measuring of carrying capacity. Manipulated by both environmentalists and economists, sustainable development sometimes appears either as the environmental, cultural and social protection under the constraint of a fair, controlled growth and sometimes as growth under the constraint of protection and conservation of environmental inputs. In this sense, the limits of growth and the limits of environmental preservation are set arbitrarily and the final result of a sustainable plan could be frustrating for both -environmentalists and neo-liberal market economists. These drawbacks justify why that some critics talk about the "oxymoron" of the concept (Redclift, 2005) and some consider sustainable development as an intellectually empty rhetoric construction that promises heaven but results in policies that at the end are "neither sustainable nor developmental" (Luke, 2005).

It seem challenging to consider the presence of such hard skepticism as an indication that sustainable development has an ideological weight that cannot be ignored and it is these grounds that justify why sustainable development has been characterized as "a new paradigm" or as "perhaps the most challenging policy concept ever developed" (Spangenberg, 2004). Within the framework of such thoughts, whether supporter or opponent, one easily accepts that, at the emergence of the concept, perceptions about environment and development cannot stay the same any longer.

THE MULTIPLE DIMENSIONS OF SUSTAINABLE TOURISM

In an attempt to apply sustainable development in Tourism, World Tourism Organisation defines sustainable tourism development as development "that meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged as leading the management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems" (World Travel and Tourism Council 1995).

This definition -which surely is along lines similar to those of the Brundtland Report - allows to consider sustainable tourism development as a multidimensional concept that attempts to harmonise development and environment in an integrated way. Specifically the concept can be

analyzed along the following dimensions (Spangenberg, 2005,):

Ecological

Economic

Social

Cultural

Institutional

Within the framework of the above, sustainable tourism development consists of :

- The environmental challenge in the form of resistance against degradation of the natural basis of human life;
- The economic challenge in the form of increasing present income while guaranteeing future income;
- The social challenge in the form of promotion of social justice, security and equality;
- The cultural challenge in the form of preserving and promoting culture and aesthetic values;
- The institutional challenge in the form of promoting participation of the local societies in strategic decision making

Under such circumstances, policies toward sustainable tourism development require the integration of environmental, social, economic, institutional and cultural objectives into a coherent strategy, safeguarding the essential interests of each dimension.

AWARENESS OF LOCAL SOCIETIES

The dispersion of the concept of sustainable tourism development does not leave societies unaffected, especially if these live in environmentally sensitive areas. In such areas the ideological aspect of sustainable development influences substantially the ways of thinking, the beliefs as well as all sorts of practices and activities. Of course this change takes place if citizens adopt the concept and realize that only through a sustainable tourism development strategy,

welfare and prosperity from tourism could last in the long run.

Talking about local societies, one has in mind (a) groups of people on the one hand and (b) all individuals – members of the society in the other. Awareness of the local society on sustainable tourism development issues implies that both, specific groups and individual members of the society know, understand, make use and develop stances and attitudes in harmonization of a sustainable model's basic principles.

In many Mediterranean areas key-planning institutions and policymakers have already made the appropriate adjustments (in both their rhetoric and action) in order to meet the requirements of a sustainable tourism development: The issue of sustainable development is of high priority in their agendas and debates and many sustainable development practices and policies are planned and materialized.

However this is not enough. For sustainable tourism development to affect positively these areas, it is important that all parts involved in tourism develop a common language and a common understanding about sustainable tourism development. This is not easy. It implies that not only authorities and institutions but also the members of local societies are sensitized appropriately. The need of the societies' sensitization is recognized widely as a "must" for a successful adoption of sustainable development policies. Indicative in this aspect are the conclusions and declarations of World Summits on environment and development. (United Nations, 1992 and 2002) in which the need of active participation of citizens is considered as a prerequisite for meeting the goals of sustainable planning.

Among the groups of society's members that should be aware of the concept of sustainable development one could mention the schoolchildren since they represent tomorrow's active citizens.

EMPIRICAL RESEARCH QUESTIONS AND METHODOLOGY

The above analysis provides the framework of the empirical investigation that is carried in this work. The basic hypothesis that is empirically investigated is that in areas that rely on tourism the success of sustainable tourism development plans depend on public participation. Public participation can be interpreted here as knowledge of the relevant concepts and principles as well as wide application

and use in both official planning and every day practice. The representatives of official planning are some key- figures in the local and peripheral authorities, services, unions, NGOs etc. Representatives of everyday life are massive groups of inhabitants -the schoolchildren being one such groups. Knowledge about sustainable development is interpreted in (a) direct familiarization to the term “sustainable development” or to relevant terms and (b) identification of the impacts and effects of sustainable tourism strategies on the area.

This basic hypothesis leads to a series of research questions which may be grouped in three categories:

- Knowledge of the term sustainable development and of relevant terms;
- Understanding of the multidimensional and holistic (integrated) meaning of the concept;
- Ability to identify the problems of tourism development and to connect them to sustainable or unsustainable tourism.

The above categories of research questions were investigated in two ways, each referring to a different target group. The results are described below.

RESULTS: THE AWARENESS OF THE PLANNERS AND OTHER KEY-FIGURES ABOUT SUSTAINABLE DEVELOPMENT

For the island of Rhodes, sustainable development is not a new issue. Early in the nineties the concept was introduced in the regional planning dialogue and a number of programs and projects were launched aiming to introduce sustainable targets, actions and practices in favour of the island’s long-term tourism development viability. Among such programs worth mentioning are: the Project CAMP for the Island of Rhodes, which was launched by the United Nations Environment Programme (UNEP); the case study of the Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO- ECSDE) on Planning Sustainable Regional Development, The three basic core European Development Plans of the Region of South Aegean (known as Community Frameworks of Support) that cover the period from the mid nineties up to 2006, INTERREG I and II etc.

Having these in mind, it is expected that regional planners as well as key-figures in the area’s development field are highly familiar with the concept and philosophy of sustainable development. This has already been confirmed empirically in the past. Indicatively a detailed analysis of the degree of sustainable development awareness of planners and other key –figures was carried within the framework of the project of MIO- ECSDE, by means of a detailed questionnaire which was drafted and circulated to 70 key-players and major stakeholders in the field of tourism and environment. The participants come from national regional and local authorities, government bodies, tourism bodies, consultancies, socio-cultural bodies, research centers and NGOs (MIO- ECSDE, 2000). The results reveal a high level of knowledge and understanding of sustainable development issues.

For the purposes of this work, an attempt was made to re-confirm the key-figures awareness on sustainable development strategy by means of a semi-structured interview that was addressed to key-figures in local authorities, the development planning sector and the sector of tourism. The results reveal re-establish the view (a) that sustainable development is adopted as a strategic goal and (b) that the key figures involved in planning are well aware of the sustainable development principles. Some of the typical answers are reported below:

“We should save inputs for future generations. We all know that future belongs to our children and parents are willing to make sacrifices for their children” (Key- person in Prefectural Authorities).

“... There should be a sustainable management of water resources. This is necessary for the viability of the islands in perpetuity” (key-person in the planning services).

“Sustainable tourism should rely on culture” (person at the sector of tourism).

This general consensus does not necessarily mean that there are no differences in the views and stances concerning sustainable tourism development. However the limited number of interviews does not allow any further generalizations.

RESULTS: THE AWARENESS OF HIGH –SCHOOL CHILDREN

The group of young pupils was approached by means of a structured questionnaire. This was drafted specifically for the purpose of this work and circulated to a sample of 289 pupils of the 1st grade of upper secondary schools in Rhodes. 203 pupils have responded.

Knowledge And Use Of Terms Related To Sustainable Development.

The first part of the questionnaire refers to the response of pupils to specific terms related to sustainable development. These terms are:

- Development
- Environment
- Sustainability
- Viability
- Sustainable development

The questions refer to:

- a. whether high school pupils of the age of 15 have met these terms; how often this happened in the past years;
- b. where from have they heard them,
- c. whether they use such terms;
- d. where they use them,
- e. whether they feel that they know their meaning
- f. whether they can give a sentence or an expression using the terms.

With respect to the frequency according to which the pupils meet these terms the results show that:

- All the participants are acquainted with the terms development and environment. More than 80% meet the terms more than once in a month's time. The term "environment" seems more familiar and almost half of the pupils report that they meet the term very often.

- The case is not the same when referring to the terms sustainability and viability. Here most of the participants report that they either they have never heard or they have met the term but only rarely. The situation seems to be almost similar with respect to the term "sustainable development". Almost 40% have never met the term and almost half report that meet rarely the term.

With respect to the sources where from the pupils have heard these terms, the answers show that:

- School is the most important place where children get acquaintance with the terms "environment" and "development". TV and the radio hold the second place. Noticeable is that the rate of pupils that consider TV as the most important source of relevant information is significant. Conversation at home seems to of less importance in this respect.
- So far as the terms viability, sustainability and sustainable development is concerned the situation changes. TV, newspapers, but also the family, seem to be the most important sources that provide information about the terms. For these terms school holds but the fourth place.

With respect to the use of the terms by the participants under consideration the results are as follows;

- An exceptionally high rate of pupils make use of the terms development and environment. However exceptionally high are the rates of those who do not make any use of the terms viability, sustainability and sustainable development.

With respect to the question concerning the place where pupils use such terms the results show that the majority of pupils use the terms at school and only a small rate use the terms in other occasions.

With respect to whether the participants feel confident about the exact meaning of the terms, the data have shown that:

- Most of the pupils seem confident that they know the meaning of the term "environment".

- A smaller rate (yet higher than 50%) appears confident about the meaning of the term “development”
- Most of the students though feel uncertain about the exact meaning of the words sustainability, viability and sustainable development. (Note that the answers originated only from the pupils that have met the terms and this implies that the rate of schoolchildren that do not know the meaning of these terms is even higher).

The invitation to the participants to give a sentence or an expression using the terms under consideration revealed that the word environment and development were used correctly though most of the times the children focus in a narrow definition of the term. The most preferable dimension for environment seems to be the ecological one (e.g. “The natural environment in the countryside was perfect”) but there were also typical sentences that related environment to culture (e.g. “The Medieval environment in the Old City of Rhodes... “). In many occasions, the answers show that schoolchildren are highly influenced by school culture when using these terms. For example they use the term “environment” to describe school environment (e.g. “This pupil needs a change of school environment”). Similarly they make use of the term “development” in order to refer to the growth of a child (e.g. “the child develops rapidly”).

With respect to the term “viability”, it is worth noting that the children avoid using this word in a sentence and those who dare seem to prefer to make an attempt to give a definition of the word (e.g. “viability is the ability to live” or “something that lives”). The same applies to sustainability where almost all the correct answers concentrated in that it is “something that lasts for ever”. However sustainability was probably the term that collected the greatest number of wrong or irrelevant answers.

Many pupils avoided to give a sentence of the term “sustainable development” but those who answered gave quite clever answers trying to connect the terms sustainability and the term development resulting in that sustainable development is development that lasts for ever –a definition that seems acceptable.

Knowledge Of The Multidimensional And Integrated Character Of The Terms Environment And Development

The second part of the questionnaire is devoted to the response of pupils to the multidimensional and integrated meaning of the words “development” and “environment”, as main “ingredients” of the concept of sustainable development. In this part the pupils were asked in the form of open questions to write down three words that they remember when they see the word “environment” and three words that they remember when they see the term “development”. In the same section there are three “close” questions referring to the multiple dimensional definition of these two terms and the participants were asked to select the correct definition. The results are reported below:

With respect to the words related to environment, it is noticeable that 100% of schoolchildren were ready to give an answer. The degree of readiness was not that high for the word “development” where the relevant words obtained did not exceed 83%.

The analysis of the words concerning “environment” shows that the majority of children relate environment exclusively to nature. The rates of children that connected environment to other environmental dimensions (such as social, cultural, institutional, economic) are almost negligible. In a more detailed categorization of the words it is shown that

65% relate environment with plants, animals, forests etc

12% to terms related to environmental hazards (fire, pollution, etc)

14% to terms related to stances and attitudes for nature

9% to terms related to traditional buildings or architectural entities.

The main conclusion is that children have limited conception of the multidimensional meaning of the word environment, or that the ecological dimension of the environment is so dominant that covers all the other. If the latter holds then probably other dimensions would appear if the participants were asked to propose more than three relevant words.

With respect to the words related to “development” the schoolchildren answers follow a different pattern. A considerable rate of pupils sticks in the

economic dimension of the word. However, significant are the numbers of children that mention words relevant to the social and cultural dimensions of development. Noticeable is that there was no answer relevant to the environmental meaning of the term “development”.

While the conclusions from the open questions with respect to the multidimensional meaning of the words development and environment are not encouraging, the picture changes dramatically when one considers the answers to the relevant close questions. Thus, for the term “environment”, the majority of the participants in the sample connect environment to “nature, society, economy, culture and institutions”, with second choice “nature, society and culture”, while only a small percentage (16%) connects environment to “nature exclusively”.

The answers concerning the multidimensional character of the term “development” seem to follow a similar pattern. The majority of schoolchildren in the sample have chosen the multidimensional definition of the term “development” and only a small percentage connects development to the narrow economic meaning of the term.

Knowledge and Understanding of The Local Development Problems

The last section of the questionnaire investigates the children’s knowledge and attitudes about the existing situation and the problems that face the local economy and society with respect to tourism development. In this section the children were asked to identify:

- a. The main attractions of the island
- b. The islands’ main problems
- c. Areas that face most significant problems.

With respect to the islands main attractions the answers are almost balanced among natural attractions, services and cultural attractions –a combination of factors that seems in accordance with the inputs that a sustainable development model should be based upon.

With respect to the island’s main problems, the answers focus almost as a whole to environmental problems –with land based and water pollution standing in the first place.

Finally with respect to the problematic areas, the schoolchildren have identified spots that suffer

from environmental degradation. Such a degradation is due to the fact that either the areas under consideration are neighbouring to plants of inconsistent activities or they experience the results of unsustainable development in the past.

DISCUSSION AND CONCLUSIONS

It has been stated in the theoretical part that the issue of sustainable development, having being adopted in official declarations and elaborated in congresses, is introduced dynamically in political discourse and in strategic sectoral and regional planning. Within this framework it has been extensively applied –as an ideology and target- in the area of tourism development planning of Mediterranean coastal zones and islands. In these areas ecosystems are usually delicate, social and cultural issues are unique, carrying capacity is limited, hence strategic tourism planning should heavily rely on the preservation of environmental inputs. It is easy to provide evidence that policymakers, NGOs and planners adopt the sustainable development principles in their documents, projects and targets.

However it is still difficult to argue that sustainable development has expanded in such a width so as to become part of everyday life and conversation. If this were true one would expect schoolchildren to be more familiar with the term “sustainable development”. The empirical evidence in this work shows that there is still some way to go before this takes place.

Despite this finding, the situation is not discouraging. The results show that the schoolchildren know a lot about environment and development. They interpret the terms in a narrow sense –environment is for them mainly natural environment and development fits better in its economic dimension. It is difficult for children of the age of 15 to have a holistic view of all the environmental and developmental dimensions and the explanation could be that traditional educational approaches and didactic practices do not favour integration. The limited application of interdisciplinary approaches at school promotes segregated knowledge and this creates difficulties when the child is faced with the challenge of integrating knowledge originated from various sources or different modules.

It is also encouraging that the term “environment” and to a lesser extent “development” are used by pupils frequently. It would be even more encouraging if the pupils were using the relevant

vocabulary not only at school but also elsewhere. This would be an indication that the concepts related to sustainable development have become part of everyday life. However it is a positive finding that conversation about these issues is nowadays part of the school culture, particularly if one relates this with the major role of the school as an institution that facilitates socialisation and preparation for active citizenship.

One of the most important results is that the participants appeared ready to recognise and select – among alternatives- the right definitions of the relevant terms if these are presented to them in the form of close questions. Hence, the participants did not hesitate to select as correct the multidimensional definitions of the relevant terms instead of single-dimensional ones. The fact that this happened only when the definitions were given to them in the form of close questions, does not diminish the value of the result. It indicates that the children probably do not know “by heart” the terms (and it should be kept in mind that giving definitions is a difficult task), however recognition of the correct definition can safely be considered as a first step to knowledge.

The fact that the majority of children recognise the multidimensional and integrated character of

development and environment can be interpreted as readiness to consider sustainable development as an acceptable concept. One could react to such a thought arguing that the pupils’ awareness in this respect proves nothing more but the fact sustainable development promises everything –thus who could dare to reject it.

It is sure that any generalisation of the conclusions should not be attempted unless further work is done in this field. The limited size of the sample and the fact that the analysis refers to one single island that experiences a given type of development in tourism cannot guarantee extraction of the same conclusions in case of a bigger sample with schoolchildren of other ages and/or other areas. With this major limitation in mind, this work safely results in that the time has come for education to incorporate in its programs the issue of sustainable development. After all, if children learn about environment and development at school, then we do not see why they should rely on TV and other media to learn about a concept that connects these two basic terms, sets the basis for a long term viable development and certainly does not contradict neither the main targets of the educational system nor the development targets of the areas under consideration.

TABLES AND DIAGRAMS OF THE EMPIRICAL ANALYSIS

QUESTION 1. How frequently do you meet these words?						
	Never	Rarely	Few times	Often	Very often	Total
Development	0	16	29	98	65	208
Environment	0	8	18	85	97	208
Sustainability	64	105	34	3	2	208
Viability	35	161	12	0	0	208
Sustainable development	45	145	5	10	3	208
QUESTION 1. How frequently do you meet these words? (%)						
	Never	Rarely	Few times	Often	Very often	Total
Development	0	8	14	47	31	100
Environment	0	4	9	41	47	100
Sustainability	31	50	16	1	1	100
Viability	17	77	6	0	0	100
Sustainable development	22	70	2	5	1	100

QUESTION 2. Where do you meet these words?							
	School	TV / radio	Newspaper	Family	Friends	Other	Total
Development	88	63	27	20	10	0	208
Environment	145	35	20	4	3	1	208
Sustainability	35	41	36	21	11	0	144
Viability	36	48	52	25	10	2	173
Sustainable development	25	63	63	11	1	0	163

QUESTION 2. Where do you meet these words? (%)							
	School	TV / radio	Newspaper	Family	Friends	Other	Total
Development	42	30	13	10	5	-	100
Environment	70	17	10	2	1	0	100
Sustainability	24	28	25	15	8	-	100
Viability	21	28	30	14	6	1	100
Sustainable development	15	39	39	7	1	-	100

QUESTION 3. How often do you use the following terms ?						
	Never	Rarely	Few times	Often	Very often	Total
Development	15	86	56	50	1	208
Environment	3	56	108	40	1	208
Sustainability	102	100	3	3	0	208
Viability	188	10	10	0	0	208
Sustainable development	190	15	3	0	0	208

QUESTION 3. How often do you use the following terms? (%)						
	Never	Rarely	Few times	Often	Very often	Total
Development	7	41	27	24	0	100
Environment	1	27	52	19	0	100
Sustainability	49	48	1	1	0	100
Viability	90	5	5	0	0	100
Sustainable development	91	7	1	0	0	100

QUESTION 4. Where do you use the terms?					
	School	Family	Friends	Other	Total
Development	187	21	0	0	208
Environment	145	32	25	6	208
Sustainability	101	3	2	0	106
Viability	18	2	0	0	20
Sustainable development	14	3	1	0	18

QUESTION 4. Where do you use the terms? (%)					
	School	Family	Friends	Other	Total
Development	90	10	0	0	100
Environment	70	15	12	3	100
Sustainability	95	3	2	0	100
Viability	90	10	0	0	100
Sustainable development	78	17	6	0	100

QUESTION 5. Are you sure you know the meaning of the following terms?

	Sure	Not sure	Not know	Total
Development	97	98	13	208
Environment	138	50	20	208
Sustainability	18	82	44	144
Viability	25	102	44	171
Sustainable development	3	60	100	163

QUESTION 5. Do you know the meaning of the terms? (%)

	Sure	Not sure	Not know	Total
Development	47	47	6	100
Environment	66	24	10	100
Sustainability	13	57	31	100
Viability	15	60	26	100
Sustainable development	2	37	61	100

QUESTION 6: Words related to environment

	Number of answers	%	% of answers
Natural environment	595	92	92
Social environment	35	5	5
Cultural environment	18	3	3
Number of answers	648	100	100

QUESTION 6: Words related to development

	Number of answers	%	% of answers
Economic meaning	256	40	48
Social meaning	145	22	27
Cultural meaning	134	21	25
Number of answers	535	83	100

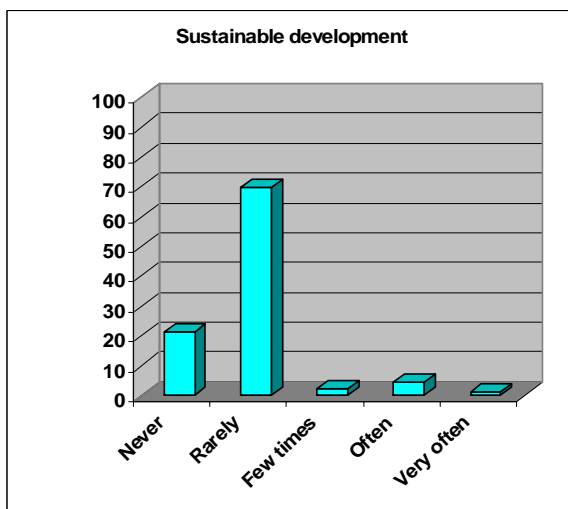
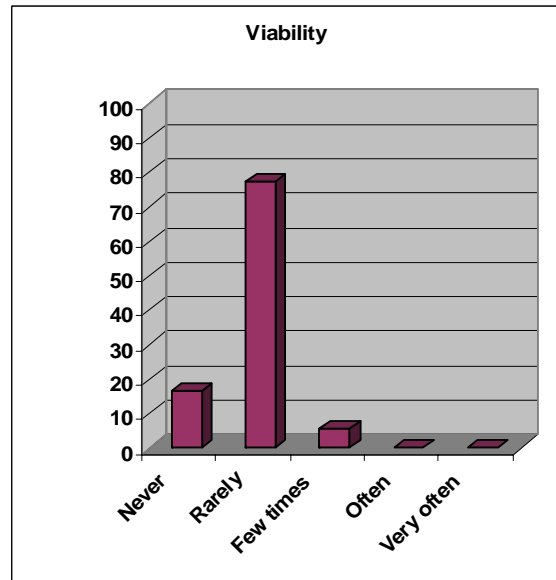
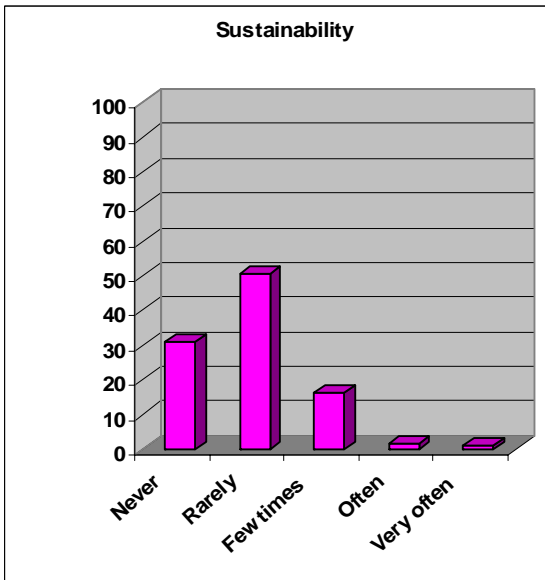
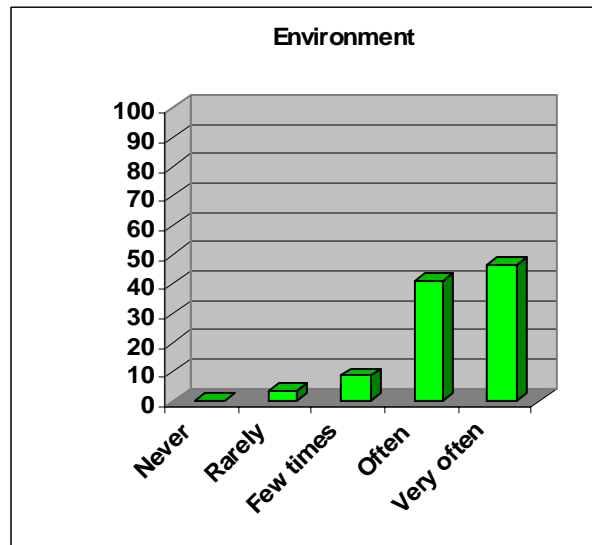
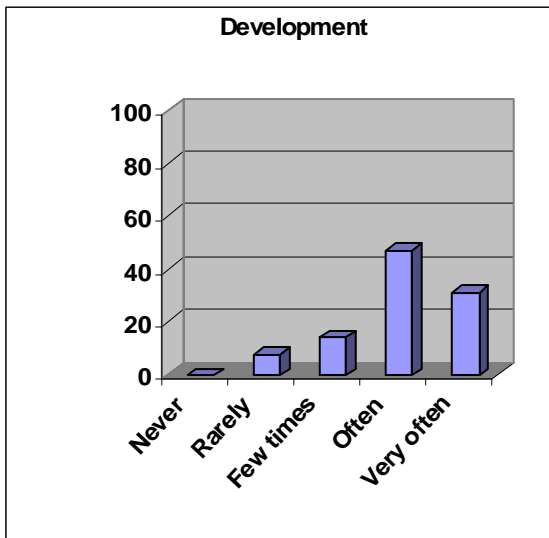
QUESTION 7: Do you connect environment with:		
	Number of answers	%
Nature exclusively	34	16
Nat, soc, cult	61	29
Nat, soc, econ, cult, inst	111	53
Society and culture	1	0
Society exclusively	1	0
Culture exclusively	0	0
	208	100

QUESTION 7: Do you connect development with		
	Number of answers	%
Econ	81	39
Econ + Nat	20	10
Econ + Nat + Soc + Cult + Inst	107	51
	208	100
<i>Meaning of abbreviations</i>		
<i>Econ= Economic prosperity exclusively</i>		
<i>Econ + Nat= Some economic prosperity and better natural environment</i>		
<i>Econ+ Nat + Soc + Cult + Inst= Some economic prosperity and better natural, social, cultural and institutional environment</i>		

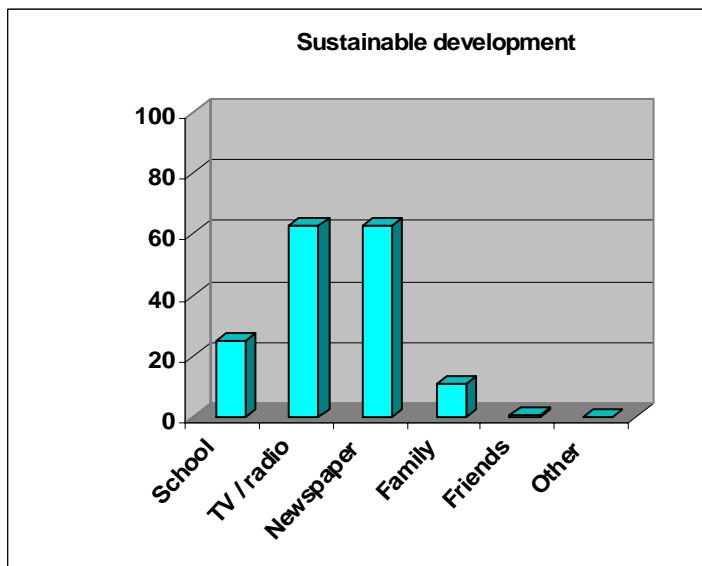
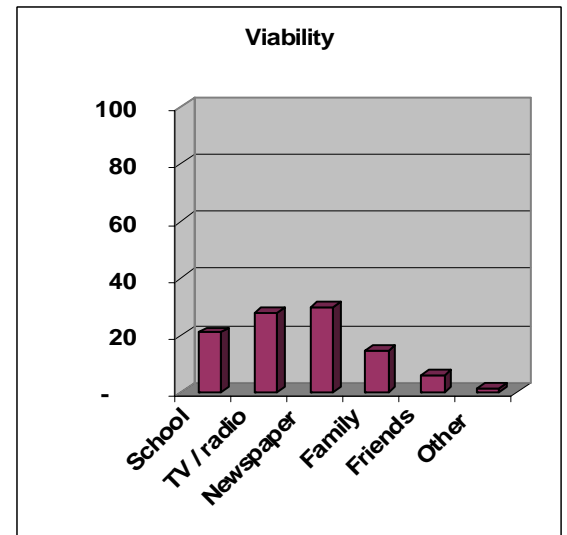
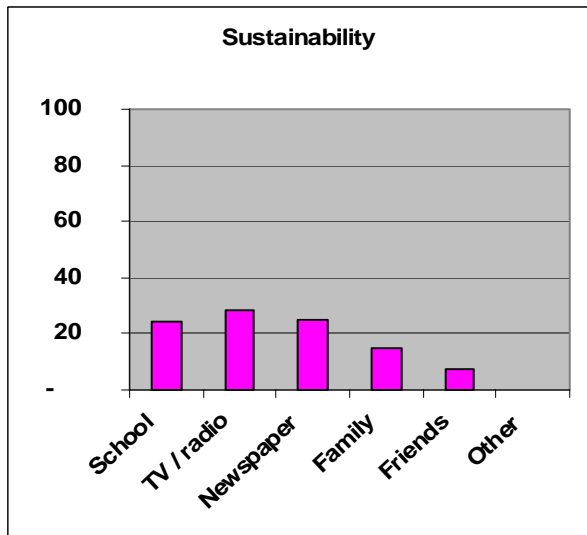
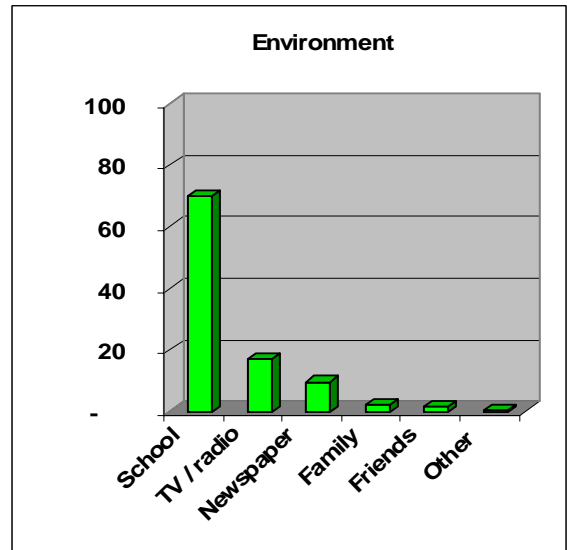
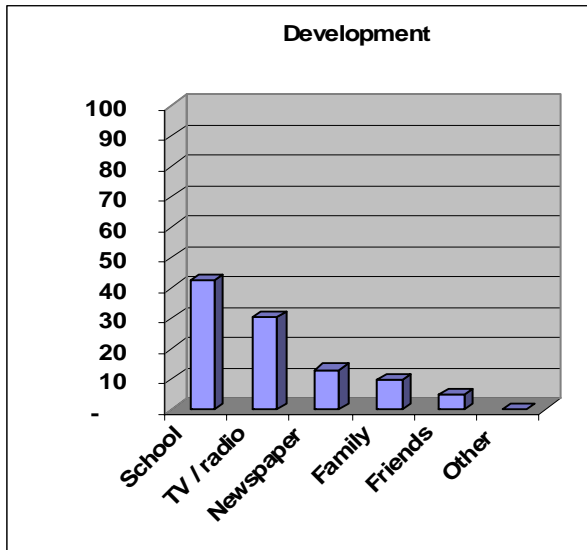
QUESTION 8: Write three attractions of Rhodes		
	Number	%
Nature	215	33
Culture	166	26
Society	23	4
Institutions	25	4
Services	219	34
Total	648	100

QUESTION 9: Write the main problems of the island		
	Number	%
Land sources of pollution	56	28
Sea water pollution	48	24
Damage of traditional communities	25	12
Damage of traditional lifestyle	15	7
Fires and deforestation	19	9
Noise pollution	10	5
Optical pollution	15	7
Traffic pollution	15	8
	203	100

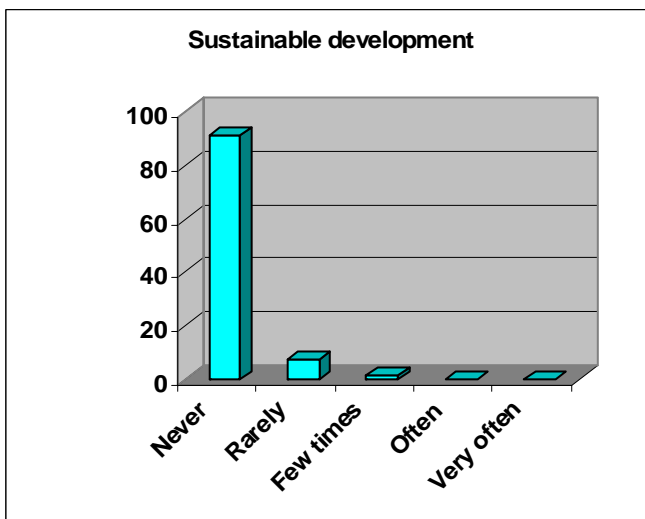
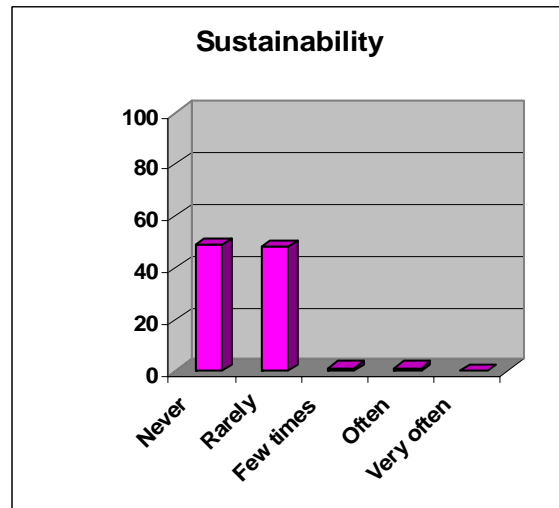
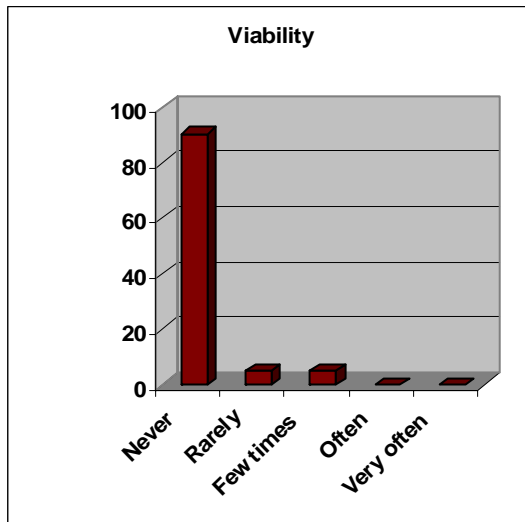
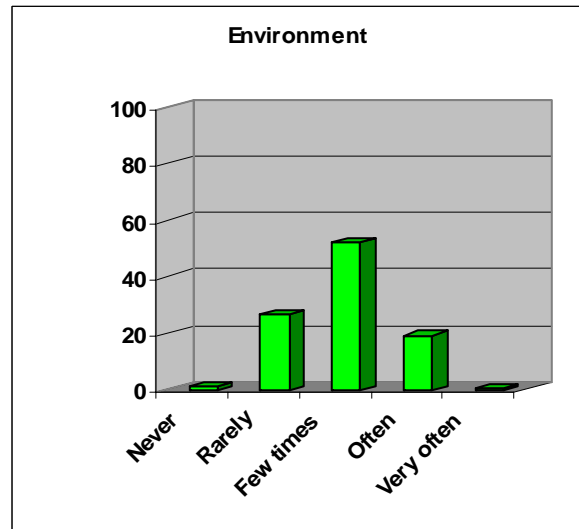
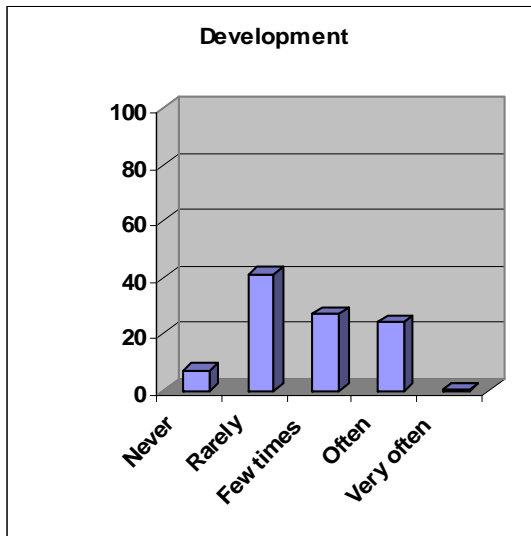
QUESTION 1. How frequently do you meet the following words? (%)



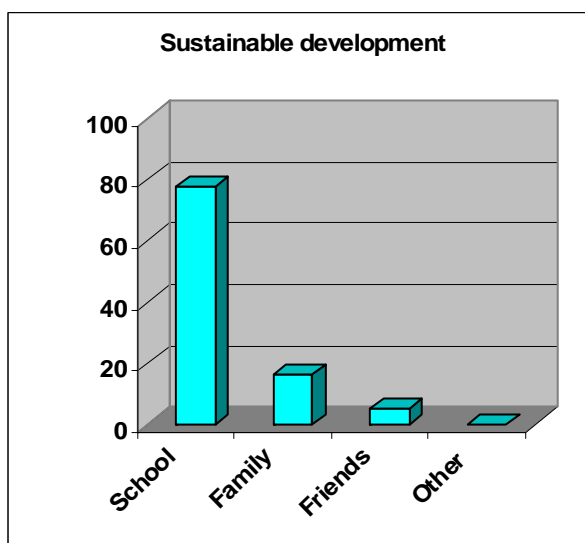
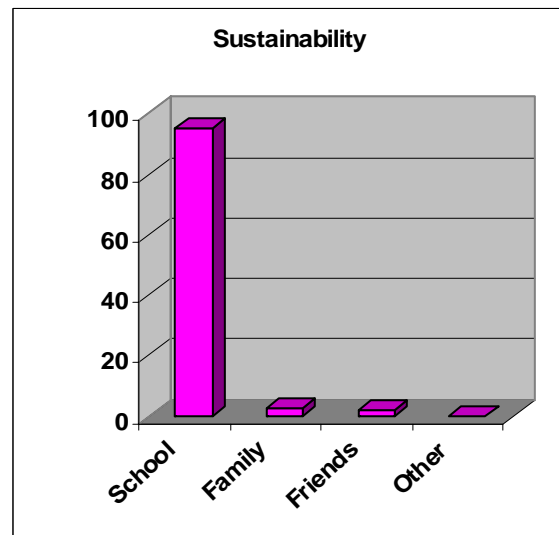
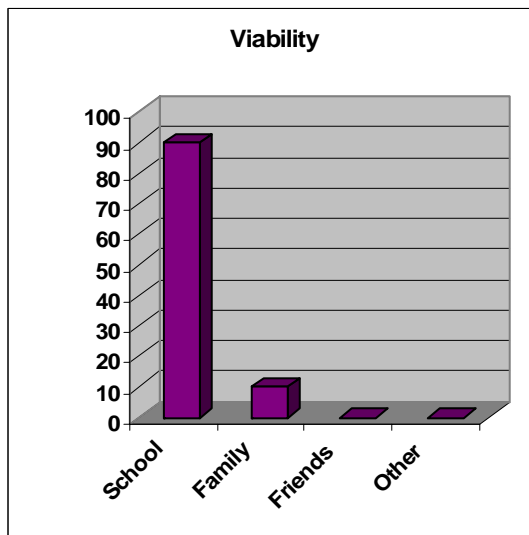
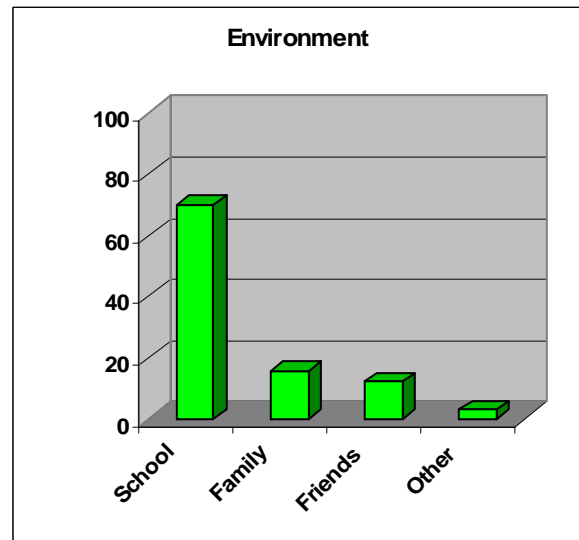
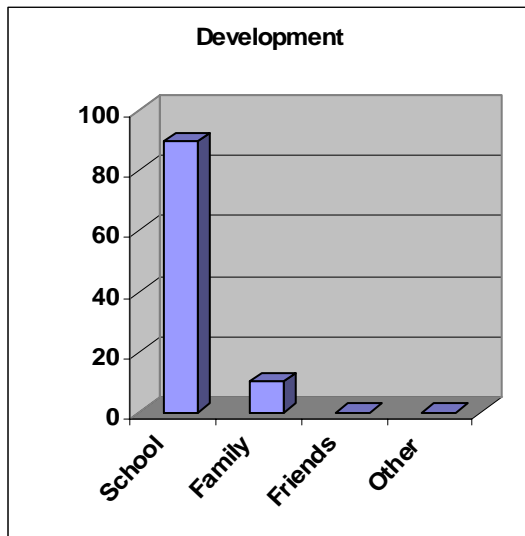
QUESTION 2. Where do you meet these words? (%)



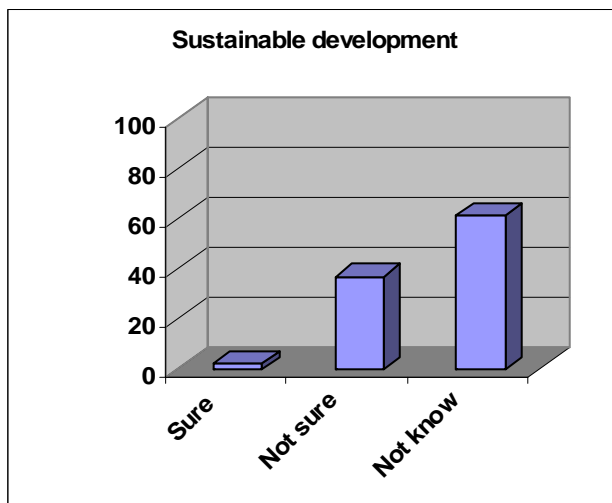
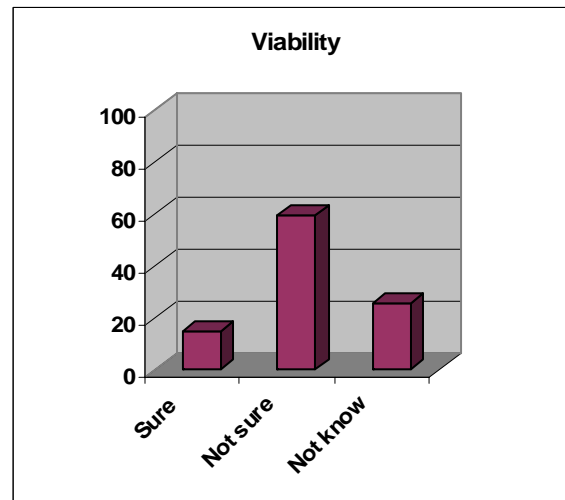
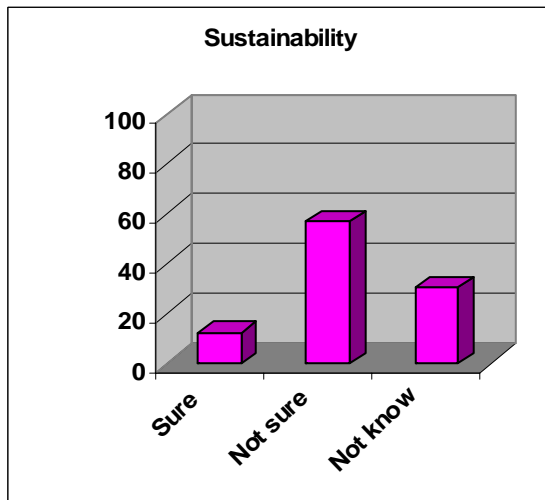
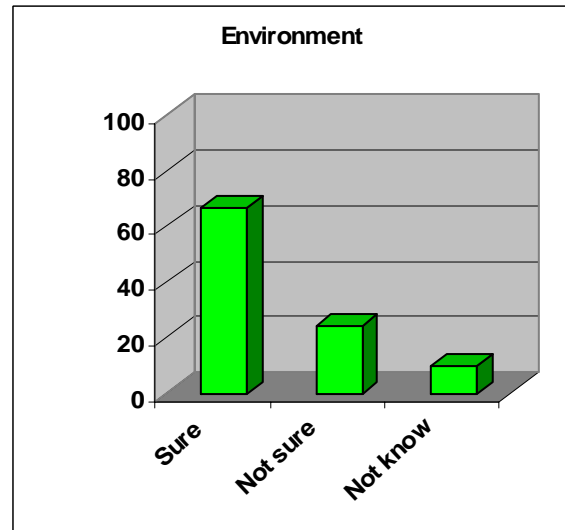
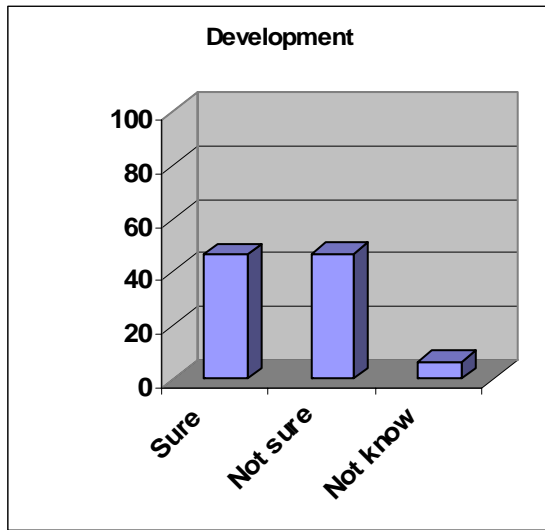
QUESTION 3. How often do you use the following terms ?



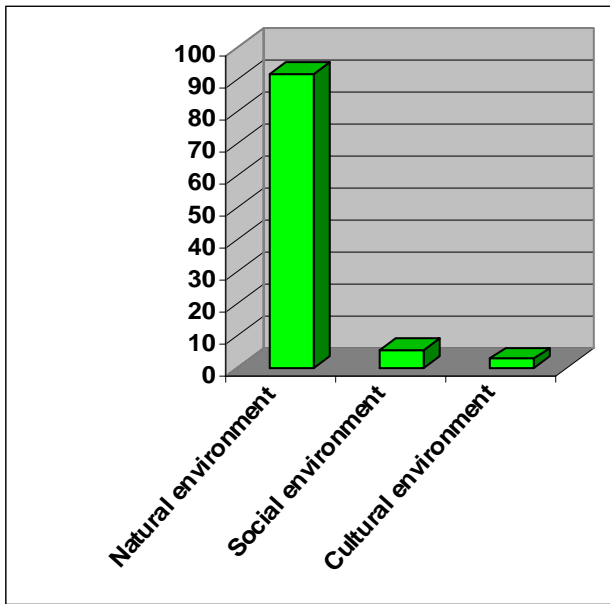
QUESTION 4. Where do you use the terms (%)?



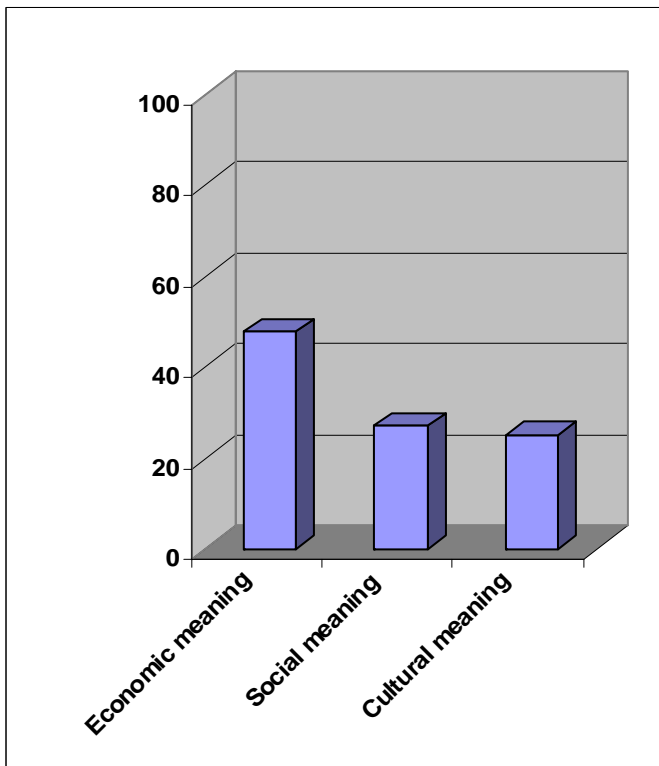
QUESTION 5. Are you sure that you know the meaning of the terms? (%)



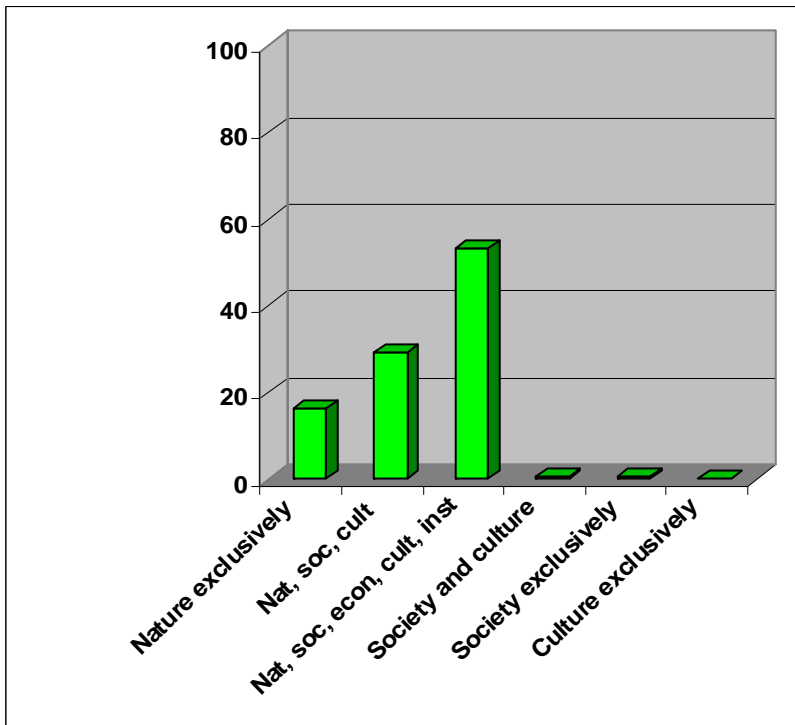
QUESTION 6: Words related to environment (%)



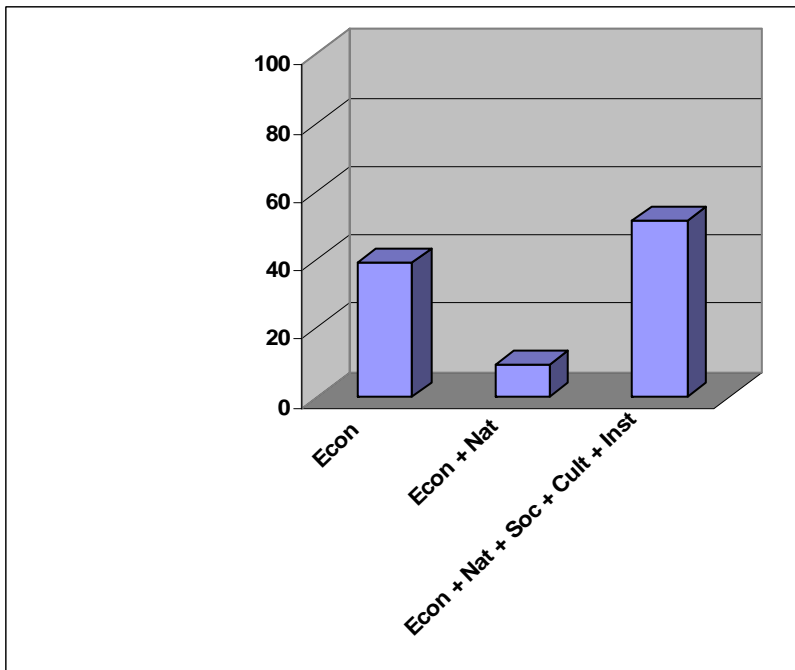
QUESTION 6: Words related to development (%)



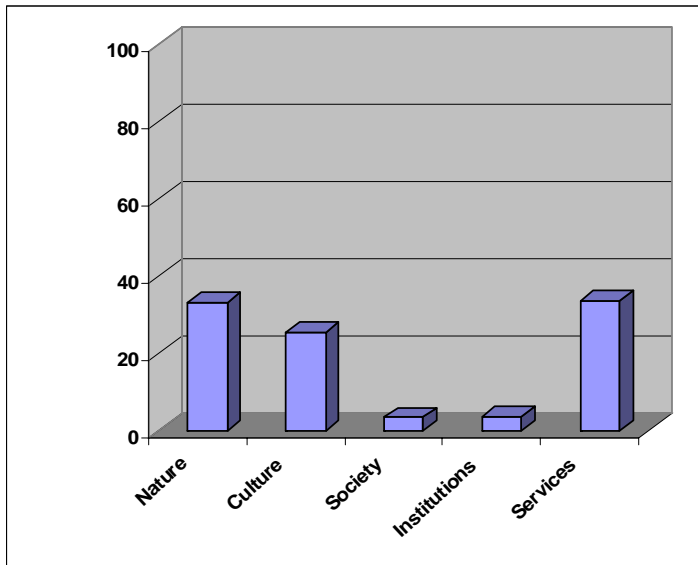
QUESTION 7: Do you connect environment with



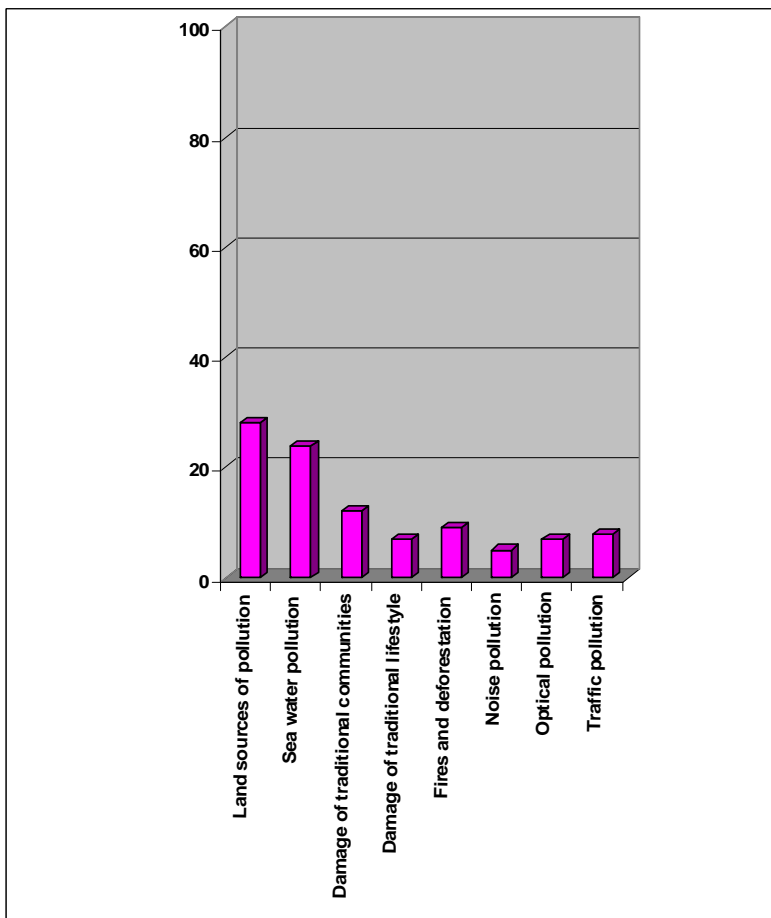
QUESTION 7: Do you connect development with:



QUESTION 8: The island's attractions



QUESTION 9: The main problems of the island



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