

The Mediterranean Games of 2013, as a vaulting horse for Sustainable Development for the city of Volos

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1 ABSTRACT

Problem statement: International and national athletic events can affect sustainable development in the areas where they take place. The Mediterranean Games of 2013 will be held in the city of Volos, which is located in east-central Greece. According to the organising committee environmental concerns play the foremost role, both as an organizational priority and as the central operational principle for complete and perfectly organized Mediterranean Games. This research examined the perception of the local population on the expected contribution of the green Mediterranean Games of 2013 hosted in the city of Volos to the concept of sustainable development. **Approach:** By using empirical social research methods, sample data of 150 questionnaires were collected on the characteristics of residents and their opinion about the games and the infrastructure developments that take place in their city in order to support the games. Also, by using SWOT analysis the strong and weak points of the area were defined in order to compose the physiognomy of the study area. **Results:** The main perceived strengths of the city by its residents are its convenient location and the beautiful surrounding area. The main weaknesses are the atmospheric pollution and the traffic congestion. In total, 76% of the respondents believe that the Mediterranean Games will be a good promotional publicity for the local products resulting in the increase of their production. Also, 90% of the respondents believe that following the games the city of Volos will develop as a touristic destination and 51% of the respondents believe that the organisation of the Games of 2013 will be beneficial for the city. Furthermore, using the χ^2 statistical test it was found that the belief that the promotion of the local products will increase after the Games is positively related with the belief that the city will become a touristic destination after 2013 (p -value<0.05). **Conclusion:** The organization of green Mediterranean Games of 2013 is perceived by the local population to be beneficial for the city of Volos; it is expected to strengthen the sustainable development of the region and provide the spark for the transformation of Volos in a really viable city.

2 INTRODUCTION

It has been a long time since the foundations of regional Sustainable Development were established. The main characteristic of sustainable development is the promotion of perpetual life, and the main priority is the assurance of quality of life in all areas: environment, economy, culture, etc., for all people and forever. (Brundland Report). Today, Sustainable Development as an objective revolving around four pillars – sectors: a) Social sector, b) Environmental sector, c) Economic sector and d) Cultural sector. These sectors, affect and shape the conditions of sustainability of a region because their interactions determine the viability of Sustainable Development. (Mitoula R., 2006).

Subsequently, the Rio Summit in 1992 made a decision for collective action in the 21st century with the aim of sustainable development and the improvement of living conditions of people. This decision was published as the action plan for the 21st century-called ' Agenda 21 '. (Mitoula et al., 2008)

In the context of Local Agenda 21, among other things, the design of the future is based on the active participation of citizens and other authorities. Their participation in democratic processes of co-decision allows them to learn about the causes, nature and consequences of problems and solutions (Bourkas, 1998).

In many countries of the world, such as USA, Canada, Australia, England, Denmark, Germany, Norway, Sweden, etc., many municipalities have chosen this practice as the basic political tool for Sustainable Development. In Greece, this political tool has not yet been accomplished.

The present work examined the perception of the local population on the expected contribution of the Mediterranean Games of 2013 hosted in the city of Volos. Volos is located in the region of Thessalia in the prefecture of Magnesia, located at the center of Greece. It is a coastal city with the 5th largest population of all cities in Greece. The city of Volos has been a historical actor in the rural and industrial development of

Greece but is in the midst of economic, environmental etc. difficulties. Now the city has the unique opportunity not just to envision but also to ensure a prosperous future. due to development anticipated for the Mediterranean Games of 2013 which were awarded to the cities of Volos neighbouring Larisa. Sports and cultural activities in modern societies are a powerful stimulus and opportunity for their development.

The large infrastructure redevelopment projects are expected to transform the everyday life of citizens of the entire region of Thessaly, contributing to the sustainable development of the region. The objective of the host cities of Volos and Larisa is to change their image, to improve the everyday lives of their citizens, and to acquire such infrastructure that will ensure high rates of economic growth for the coming years.

Within this context, the positive attitude of citizens, is not only legitimate but also necessary. The positive attitude of citizens is officially required both in Local Agenda 21, which was signed by the majority of countries of the world and is the most representative text for the Sustainable Development of areas, and in the general policy and strategy of the EU for these issues

3 SWOT ANALYSIS: STRENGTHS, WEAKNESSES, THREATS AND OPPORTUNITIES

The physiognomy of Volos comprises many strengths and opportunities, as well as several weaknesses and threats. The correct application of all these elements will shape the best image for the city and the surrounding area and will herald a new beginning for a more sustainable future.

First of all, Volos is a city with great history. The aim of all local organisations is to demonstrate to visitors the best image in the region, in order to win the impressions of the visitors and make the city a popular touristic destination of Europe.

The big touristic attractions of Volos and the surrounding area are the local products, the Pilion Train and the historical monuments of the area. Also, Volos has a number of unique advantages which are not easily found in other Greek cities. The city is close to the sea and the mountain of Pelion where many stories from mythology took place. Also a new growing University and an important industrial zone offer the possibility for new jobs and hopes for prosperity.

On the other hand, the city of Volos faces many problems like any other modern cities, such as: traffic, air pollution, lack of parking spaces, lack of public spaces for pedestrians, lack of green areas and reduced aesthetics of buildings. In addition, there are unemployment, insecurity and financial difficulties.

Therefore, the residents wish to live in a more sustainable city with more opportunities for jobs, a clean environment, more green areas and less traffic. Residents believe that the infrastructure projects to be constructed for the Mediterranean Games can solve many of the above problems but at the same time to strengthen the local economy.

However, it is important for the city to organise Green Games since they aim to a Sustainable Development of a city. In this case all local organisations as well as all residents must be aware of various issues such as recycling, compost, reforestation, use of Renewable Energy Sources, etc.

General objectives for successful games of 2013:

The analysis of the internal environment of the city, taking advantage of the strengths and weaknesses and the assessment of external environment, show that there are large areas of intervention, major objectives to which the city should focus its efforts in order to achieve its development objectives. These objectives relate to the quality of life, education and research, the environment, social cohesion, tourism, industry and regional integration, culture and generally all those elements which it constitutes the broader term of Sustainable Development. Some of these objectives are:

- Strengthening the quality of life, infrastructure, environmental, aesthetic and the identity of the city.
- Enhance the quality of human resources and a strong scientific – research Development pole with center University of Volos.
- Social cohesion and protect endangered human resources.
- Development of tourism of the city and the possibilities of leisure with exploiting the opportunities offered by the history, mythology, culture, the University, conferences, sport and the natural environment of the wider region.

- Strengthening of industrial identity of the city and the development of activities with emphasis on knowledge, innovation, quality and extraversion utilization.
- Use of the potential economic integration at local and regional level and creating the emergence of city in main component of the third pole of development of the country (dipole Volos – Larisa).
- Natural resources protection.
- Protection and awareness of all to the environment.

4 PROJECTS IN THE AREA OF THE GAMES

On the occasion of future games, has scheduled a series of projects and infrastructure will be in the region, which are considered essential for a sound and successful organization of 2013. All this will be an important legacy for the city of Volos and Magnesia in general, is expected to play a decisive role in sports, tourism, social and investment development of the region. For this reason already local actors in the region in cooperation with the competent ministries, have started the race so that timely completion of projects.

Sports infrastructure projects proposed in Magnesia, in accordance with the assertion of the Mediterranean Games folder, are:

Main spaces:

- EAK (football): renovation phase, extend the stand (8.600-10,000) with a temporary metal skeleton, filling in spaces below fiscop, renovation phase, grass and lighting.
- Velestino (Football): General renovation, grass and light.
- Swimming pool EAK(Swimming): increase of 400 to 1,500 (metal), behind the new fiscop spaces of journalists, missions, offices, renovation of changing rooms.
- EAK (Archery): appropriate coating floor, fiscop 1,000 posts, lighting.
- Exhibition place (open-air), shaping outdoors space, 600 seats, offices under the fiscop (new project).
- Exhibition place (boxing-fencing), 1,000 locations. General renovation, changing rooms – heating, air conditioning.
- Karla (Rowing-canoeing seakayak), full study (new project).
- Exhibition place (Bicycling), structures in rural areas.
- Nies (Golf), private project (new project).
- Closed swimming pool New Ionia (Gymnastics) convert pool in floor.
- EAK – Closed (judo-karate), increase in number of seats 1,000, air conditioning and lighting.
- NOV (Sailing) study total (new project).
- EAK Shooting range (shooting), full reconstruction – study.
- Karla - Rizomylos (Shooting) integration of an existing, increase places in 1,000.
- Adamopoulos (Ping-Pong), general renovation, lighting, air conditioning.
- New Ionias closed hall (Volleyball), increase places in 1,000, general renovation.
- Alikes Beach (Beach Volley) full study (new project).

Training centers: Niki Volou, Closed Portarias, Closed Almyrou, Closed Agrias, Closed Karagats, 1st, 2nd και 3rd Gymnasium of New Ionias.

Facilities support games: Mediterranean village new study – construction, Panthessaliko (Press Centre) light construction on outdoor areas.

Other projects:

With regard to the most important of the projects in relation to infrastructure:

- New Agchialos (Airport): complete passenger station. Link to National Road input and format. Connection with railway line of Volos – Almyros (Industrial area).
- Road projects: full reconstruction department Velestino – Volos. Lighting – islets – settings improvements. Complete reconstruction of the old national road Volos – Larisa (Island, lighting, etc.). Full reconstruction route to Rizomylos (shooting) and Kanalia. Improve national network within the city (Iasonos Road, etc).
- Road out of Volos: To complete two branches: to Agria and to Soros.
- Railway (New project): Railway Volou - Larisas with electrification (Complete, 2012, budget 65 mil. €), Setting line from Krafsidona to METKA. Override New Ionias. Modernize of the line Volos – Paleofarsalo. Velestino – Almyros. Pelion train.
- Tram (Volos – New Ionia) (New project) The ecological character, the credibility of Tram as a mean of transport and the multiple benefits provided by the network in areas where developed, have raised concern of many local communities, who want a mean of transport like the tram to satisfy the needs of their urban mobility. Specifically, the municipal authorities of Patras, Ioannina, and Volos decided to adopt the system of Tram, on-demand local civil society and relevant actors. The TRAM s.a., in cooperation with the OSE, has undertaken “Feasibility Study for the servicing of the city of Patras Tram”, taking into account economic, technical and environmental criteria. After Easter of 2010 is expected to be published the tender for the selection of the company will take over the economical and technical and sustainability study about the Tram in urban Band of Volos."

In relation to the projects of the city:

Transport:

- Iolkos Road. Regional parking and underground parking square University (NOV – Slaughthouses – Courts, Freedom square, square Riga Ferraio, University square)
- Central control system for lanterns
- Link Egnatias Road through the roundabout of Kalochori - the roundabout of Nikaia
- Completion and operation of the passenger station in port

Rehabilitation:

- Coastline and beaches
- Regeneration Southwest area of Volos – Entrance of Volos
- Rehabilitation-sided building hosts roads of the city
- University square format
- Upgrading shopping centre area
- Pedestrian walkways-biking-Green

Culture:

- Renovation of the municipal theatre (open and closed)
- Shaping enclosed spaces of custom house (space for exhibitions and theatre)
- Emergence of archaeological sites (theatre, palaces, Archaeological Park etc)

Infrastructure:

- Just infrastructure – new hotels (private initiative)
- Renovation Exhibition Centre (examination for sports Mediterranean Games in other enclosed space)
- Ensuring adequate quality and quantity of water (replacement water desalination)

5 THE RESEARCH

On the basis of the above the commitment of Mediterranean Games 2013 is an opportunity and the correct handling and actions can lead to Sustainable Development both the city and the nearby areas. In all, the open debate with the citizens is essential to achieve the maximum the whole effort. In this context, we decided to explore the views of citizens and their disposal, to draw some extremely valuable conclusions that can be taken into account by the official bodies and researchers dealing with relative subjects.

To carry out the research, shared and collected 150 questionnaires to the equivalent number of Volos' citizens randomly selected with 100% response rate. The questionnaire included a total of 27 closed questions. The questionnaires were filled out with the constraint that the people who were completed the age of 18 years. The investigation was carried out in time intervals between 12/8/2008 to 14/8/2008 and 14/9/2008 to 16/9/2008. Keen was questionnaires to be filled mainly from local residents, to have some personality after will list views inhabitants of the region, they knew better than any other city. Each questionnaire have been supplemented anonymously, while the average time to complete the ranged between 8 to 10 minutes.

The questions were kind, in order to provide the best possible data for further processing and research, but at the same time be the starting point to complete the research. The questionnaire form have 27 numbered questions, of which the first seven related demographic content items such as gender, age, marital status, etc. The remaining twenty questions we would say that fall into two groups of questions, of which the first concerns questions which illustrate the point of view of citizens around the Mediterranean Games and large projects scheduled, while the second group relates to questions which are the attitudes of Volos for the existing situation in the city today.

For the investigation of the relationship that might exist between beliefs (questionnaires) given to citizens of Volos, Chi-square independence tests has been conducted at 5% significance level. It is noted that the audit independence and the processing of data of the questionnaires, made with the help of Excel and statistics packages SPSS 14 for Windows.

Question 1: From which you were informed that the Volos in cooperation with Larisa undertook the Organization of the Mediterranean Games 2013?

The majority of respondents, rate of 95%, were natives Volos and the surrounding areas in this, and only a 5% were visitors, residents of Athens, for reason had found time in Volos. The citizens seem to prefer to update their local type of each format, after significant percentage 81% responded that updated for games of 2013 from a local newspaper or local channel, which shows that this sample does not use instruments such as the Internet to update it for the local situation.

60 people, 40% said they were informed of the acceptance by the city of Volos of the Mediterranean Games 2013, from a local newspaper, and 2 more replied that the learned from local Channel 41%, 13 said they learned this from the Athenian Press, 9%, just 5 of 3%, while 10 people from another source, (relatives, friends), 7%.

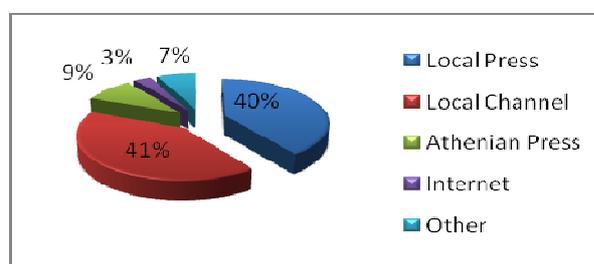


Fig. 1: Percentages of way of briefing

Question 2: In your opinion in Volos life after the Olympic Games of 2004 getting better, deteriorate or remained the same?

Volos was Olympic city the period of the Olympic Games of 2004. With the aim of this capacity, we raised the question, which called for the respect of citizens about how life has changed or not in Volos after the Olympic Games of 2004. The majority of responses gathered in that life remained the same after 2004, 38%, while equally significant proportion that life rather getting better, 32%.

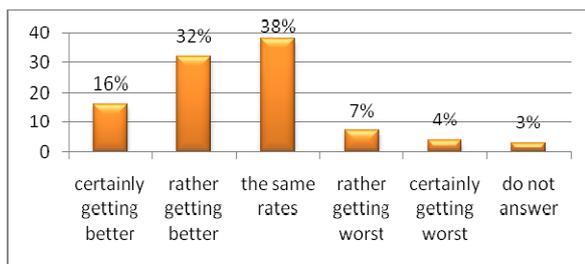


Fig. 2: Percentages about life after the 2004

From the statistical control X2 has observed that those who argued that life in Volos after 2004 continued to deteriorate maintain their beliefs and life after 2013 at a rate of 75%. Similarly, those who argued that after the 2004 life getting better, say that the same will happen after 2013 at a rate of 86,3%. The group of people who responded that the life remained the same in 2004, responds with the same elevated rates (54,1%) and life after 2013. There is therefore believe that depending on how residents evolved life after 2004, created and expectations for life after 2013, which must be taken seriously by all officials involved in the organization of the games, so that after 2013 to have perhaps more positive views from greater proportion, in comparison with the views for the summer of 2004.

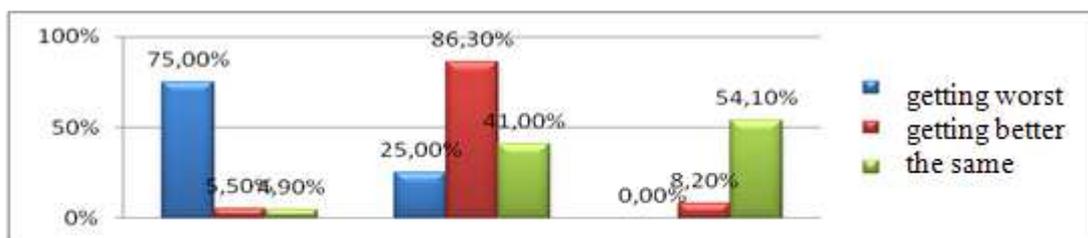


Fig. 3: Cross-correlation life after the 2004 with life in Volos after 2013

Question 3: Do you think that the Mediterranean Games will make known and to promote local products on markets abroad after 2013?

A very important element for Volos and the wider region of Magnesia, are the local traditional products, such as: Chipuro, Zagoras Apples, Sweets, etc. Promoting and exporting is a point that concerns society, economy, and culture of the region. Following the above, given the opportunity using the questionnaire be asked citizens to produce their own respect how will contribute the Mediterranean Games in 2013, the promotion of local products on markets abroad. A total of 115 people (76%), replied positively that they believe that the Mediterranean Games will be the best advertising of local products, resulting in the increase of their producers.

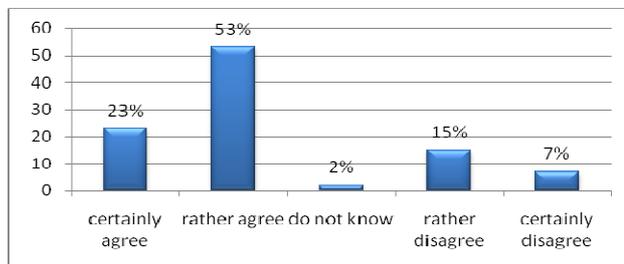


Fig. 4: Percentages about promotion of local products

Question 4: Volos and the wider region will be after 2013 tourist destination and for people outside the borders of Greece?

Certainly such a perspective will have many positive consequences especially for the economy of the region, but also for society, because it will help several professions to evolve and to open new horizons for business. Nevertheless, needs attention after beyond the best for the economy, there is the question of environmental protection. Thus, both the attendance of a multitude of tourists, and the development of local production and

exports, should not be developed at the expense of the natural environment. Therefore, there is no time is necessary to make the proper preparation and to create conditions which will contribute to effective sustainable development of the region.

The relevant question it appears that 90% of respondents believe that Volos will be developed tourist after 2013, which seems and through analogue research of Public Issue where corresponding query the percentage that responded positively reached the 54%, (Public Issue, 2008).

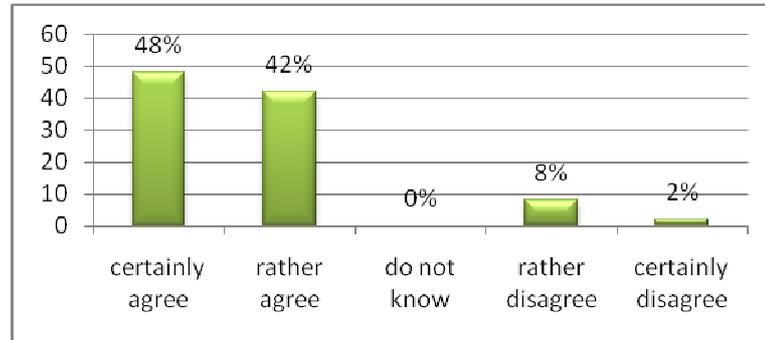


Fig. 5: Percentages of Volos as a touristic destination

This hypothesis was the promotion of local products abroad, is associated with the increase of foreign tourists in the region. From the statistical test X2, observed that the overwhelming majority (97.4% of those who believe that local products will be supported after 2013, agrees that Volos will be a tourist destination after 2013, smaller percentage (65,7%) of those who believe that although will be the Volos tourist destination, local products will not be promoted. the promotion of local products and the recognition of Volos as a tourist destination after 2013, are two variables by a relationship of dependency between them.

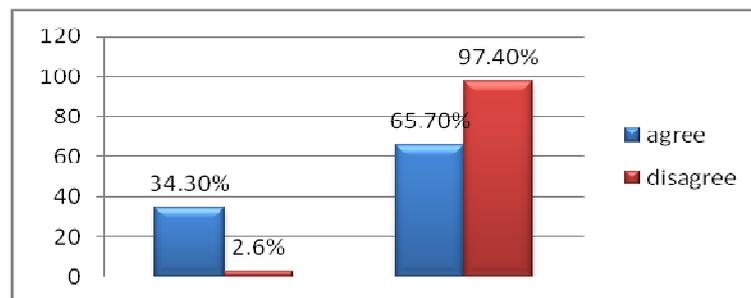


Fig. 6: Cross-correlation of local products with whether Volos tourist destination after 2013

Question 5: Usually what mean of transport you use for your everyday movements?

The fact that 35% of people using cars for transportation, urgently need construction tram line in Volos, which if carried out will reduce much problems such as air pollution and traffic, caused mainly by using cars, according to our investigation, total reaches 55%. Unfortunately, however, an even greater problem for Greek city appears within this research is unemployment, with 43%, after 64 people claimed that this is the biggest problem facing the city in recent years.

53 people (35%) use cars for their daily movements, 30 people (20%) use urban also 30 people (20%) moved with machine, 4 people with taxi (3%), 9 people on a bike (6%), while 24 people moved pedestrians (16%).

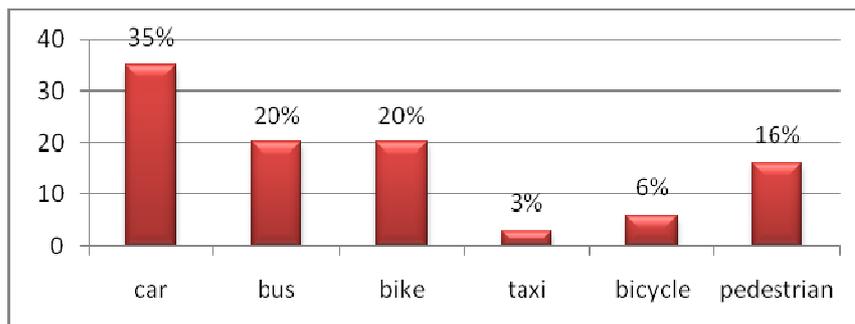


Fig. 7: Percentages of using public transport

Question 6: What is the most important problem facing the city of Volos?

For 38 people (25%), traffic is the most important problem for the city of Volos, 64 people (43%) unemployment 45 people (30%), air pollution, while only 3 people (2%) did not answer.

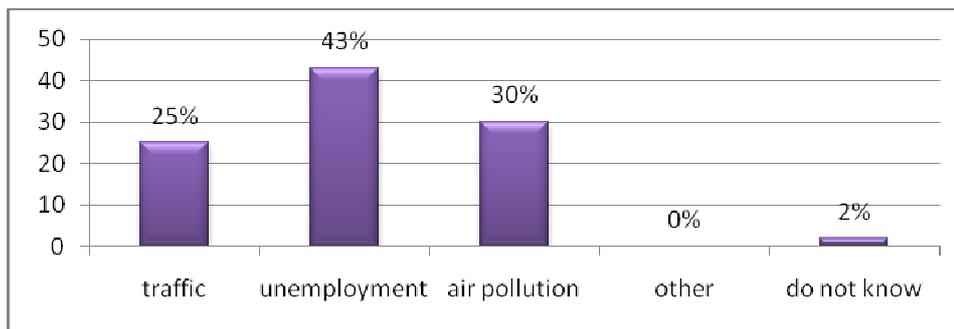


Fig. 8: Percentages of today's most serious problem in Volos

Question 7: Will you used for your transport a bicycle in the city center, if there were correctly formatted cycle tracks and special parking?

Although indicate that people who use bike are just 6% of respondents, we see that the same people supported the use of bicycle, under adequate and safe conditions, at a rate of 73%, which means a great deal about the situation prevailing today in the streets of Volos, who if configured properly and provide security and basic infrastructure, it seems that will be the first choice for Volos residents travel.

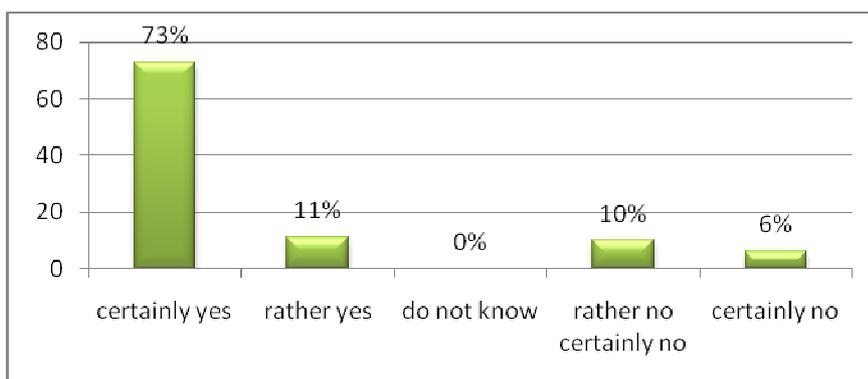


Fig. 9: Percentages of bicycle as a means of travel

Question 8: Will participate as volunteers for the Mediterranean Games in 2013?

With regard to the important subject of volunteers, both for the period of the games of 2013, and setting up a group of volunteers for the city after the games, the results may not be expected, after a total of 70% of people replied negatively in if would volunteer, and only 29% had a positive attitude. In the next question, however, the same people replied positively (60%), and create a group of volunteers after 2013 from local government, while 31% was in this negative.

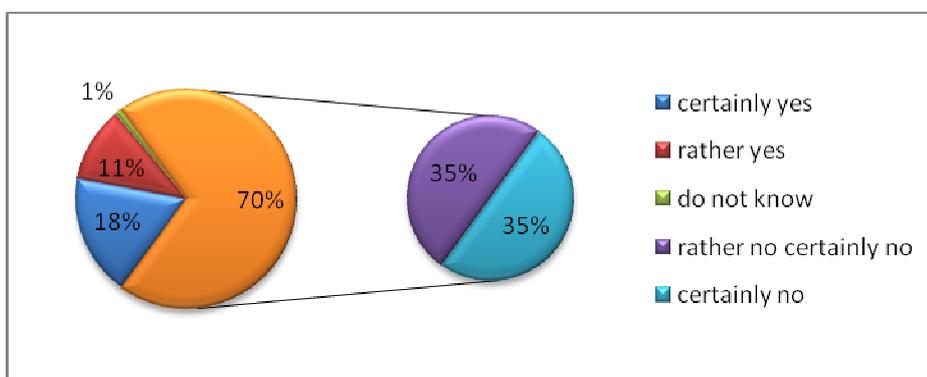


Fig. 10: Percentages of Volunteers for 2013

Question 9: Do you agree or disagree on a proposal of Local Authorities for assembly group of volunteers after the end of the Mediterranean Games?

33% of respondents replied that certainly agrees with this view, the 27% think agrees, the 9% expressed a view, 19% rather disagrees, while 12% certainly disagrees.

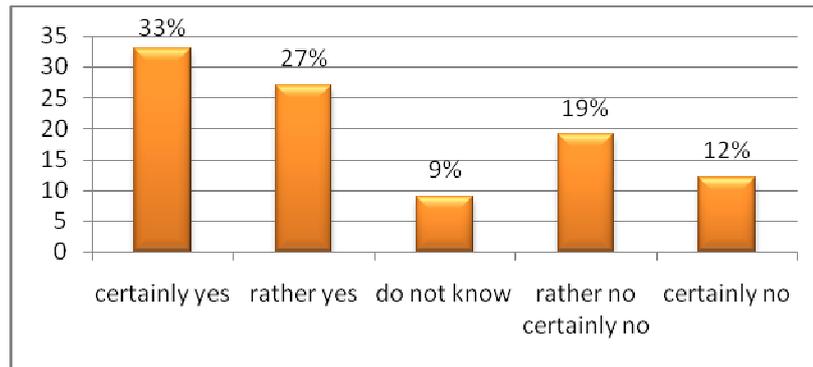


Fig. 11: Percentages of the Group of volunteers for the city after 2013

Question 10: Some of the solutions proposed in the context of the first green Mediterranean Games is the following. In your opinion what is the best solution?

Volos does not have the minimum to demonstrate the Green identity, certainly cannot nor for reforestation, nor for green roofs, rehabilitation or create parks. Nevertheless, we asked citizens for what they believe that is what will give a green solution to Volos and the majority replied the reforestation in 43% as the perfect solution, while important 33%, sees the creation of parks the ideal solution.

The trees was answered by 65 people (43%), as the best solution for green games, 23 people (15%), argued that a better solution is the green roofs, 10 people (7%), the rehabilitation rooms, 50 people (33%), replied the creation of parks, while only two people gave an alternative response.

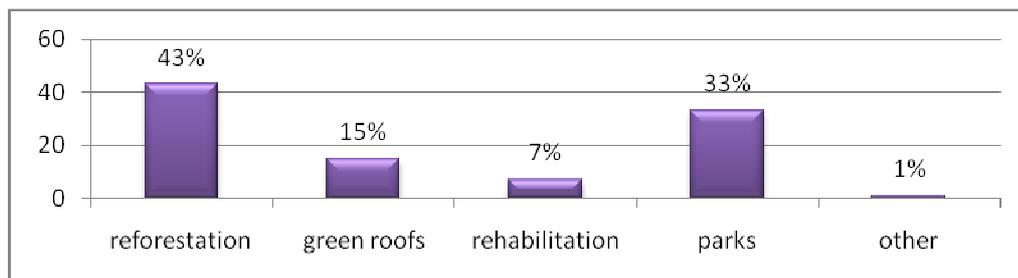


Fig. 12: Percentages of solutions for Green Olympics

Question 11: Do you believe that the organization of the Mediterranean Games of 2013 will be ultimately beneficial, or injurious to the city of Volos?

The last question we would say that is the most important for the whole survey, as any conclusions and opinions raised other questions, the question will prove, 150 respondents, what will be the outcome of so great for the city of Volos. The question was if the organization of 2013 will be ultimately beneficial or negative for the city of Volos. A total of 87% of respondents supported the idea that the Mediterranean Games of 2013, will be a benefit to the city, while the opposite view had just 12%, while found and a person who has not expressed an opinion.

The pie in the following diagram we see that 51% of respondents replied that the organization of 2013 will certainly be beneficial to the town of Volos, 36% answered rather useful, just 1% had no opinion, 8% claimed that the organization is likely to be injurious to the city, and finally the 4% supported the view that the Organization will certainly be injurious to Volos.

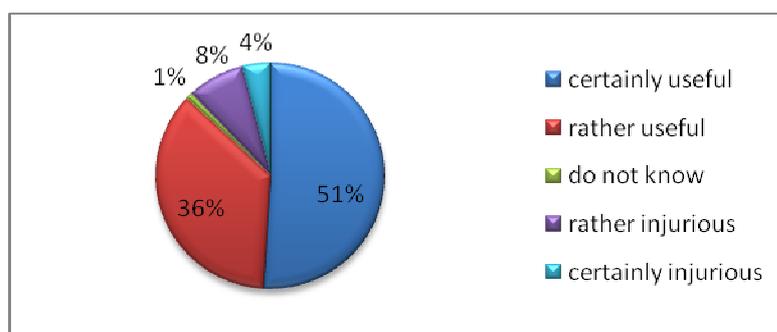


Fig. 13: Percentages of forecast citizens for the organization of 2013

6 CONCLUSIONS

The Mediterranean Games of 2013 will be hosted in the city of Volos. Various infrastructure projects are expected to contribute to the improvement of the quality of life of the local population in addition to facilitating the games. The present study reveals that the local population is not interested in big and expensive events, as much as the improvement of life and the establishment of sustainable living. The major concerns of the population are air pollution and traffic congestion.

Generally, the perception of the people is that the organization of the games will be successful, no matter what difficulties and obstacles will be encountered. However, the results of the study show that people realize the need for rapid progress towards Sustainable Development which takes into account economic, environmental and social needs. On the other hand, according to Local Agenda 21, Sustainable Development poses major challenges in the structures of governance, when moving from a "authoritarian governance" template to a "participatory governance" template, where decisions are taken with the active participation and consent of the local citizens. Under this light, it is of particular importance that the people of Volos are positive towards the organization of the Mediterranean Games and quite optimistic about the positive effects of the games on their city.

7 PROROSALS

Use of the games for the city. Redefine the objectives that are consistent with those of Sustainable Development, in order to speak really green Mediterranean Games, who will follow the principles of sustainability and will pave the way for development through the four key sectors of society, the environment, economy and culture.

Local operators should use both the sporting event and the positive attitude of the inhabitants to rebuild and redesigned the regional development of the wider region, making a new vision for the future, the identity and profile.

Particularly important was the creation of a digital guide includes maps with historical monuments, sports facilities, a list of hotels in the region, ways to move, etc. At the same time, with the help of an application (e.g. Google Earth, each user will have the capability to search for real-time historical monuments, archaeological sites, sports facilities and roads, train and bus stations first aid, etc. It is also necessary to create the presentation some installations or monuments with 3D imaging technology, and will be on line show some points via webcam.

Create historical ways κατά το πρότυπο of Barcelona, but και της Αθήνας (with the opportunity of Olympic Games 2004), όπου ο επισκέπτης θα μπορεί με εύκολο τρόπο να επισκεφτεί και να γνωρίσει τα σημαντικότερα μνημεία, πολιτιστικά γεγονότα κ.ά. της πόλης. Create historical paths in the model of Barcelona, and Athens (on the occasion of the Olympic Games) where the visitor will be able to be visited and to learn the most important monuments, cultural events, etc. of the city.

Good work would be to create a composting unit in Magnesia, which will be necessary for the management of urban waste, livestock and rural area, others and all waste resulting from the thousands of visitors who visit the region. The opportunity for financing by the EU should be used at the moment.

With regard to the natural environment of Volos, should be:

- Increased free spaces and green in Volos.

- Attend the existing green places of Volos.
- Enable citizens and partnerships for the green in Volos.
- Maintain clean the Volos and neighborhood.
- Formatted environmental awareness for how to manage wastes.
- Reduce air pollution and noise.
- Upgraded the aesthetics of the city and its areas
- Strengthen urban mobility and the financial resources
- To deal with traffic problems in the city, taking advantage of the granted European funding. (Alfoz, 1995).

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