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The 2004 Olympic Games in Athens and the sustainable development of the city of Maroussi

Outline

This paper attempts to identify the conditions under which a major “push effect” such as the 2004 Olympic Games in Athens may contribute to the sustainable development of an urban area: the municipality of Maroussi, which is the area of direct influence of the basic pole of the Olympic installations in Athens.

- We firstly describe demand and necessary interventions associated with the hosting of the Olympic Games.

- Then, we explain our methodological approach. We adopt a holistic approach of the sustainable urban development, which help us to avoid drawbacks of the use of indicators.

- We firstly examine the planning of Athens Metropolitan Region, and then we focus on the Olympic “impulse” impacts in Maroussi:

- Regional level activities, development and employment
- The transportation system
- The urban “congestion” and the increase of the built / open space ratio
- The urban structure change
- The possibilities of upgrading the physical and built environment - the network of green - culture – sport – recreation spaces.
- The urban governance

- We attempt a strategic impact assessment, focusing on the impacts of the “planning for the impulse” on the spatial planning system.

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1. Introduction

This paper attempts to identify the conditions under which a major “push effect” such as the 2004 Olympic Games in Athens may contribute to the sustainable development of an urban area. The urban area under consideration is the municipality of Maroussi, which is the area of direct influence of the basic pole of the Olympic installations in Athens.

The content of this paper is primarily based on the conclusions of a research programme conducted at NTUA under the title: "Prospect analysis for the city of Maroussi on the horizon of 2000+¹", within the framework of sustainability.

The research was carried out from 1999 to 2000 during which period major parameters dealing with the role of Maroussi in the organization of the Games that related with both demand factors (such as accommodation, circulation, etc) and supply factors (such as additional installations and regulations) had not yet been identified. Today (2002), we proceed with the evaluation of these parameters since they have been specified in more detail, thus going beyond the findings of the above- mentioned research.

2. Profile of the city of Maroussi

The municipality of Maroussi is located in the northeast region of the Athens Basin and at the present has a population of 80.000 residents². It initially constituted a suburban area that received great numbers of residents and business establishments during the last three decades. The population of Maroussi was increased by 161% during 1971-2001 - a rate of increase that was higher than the one recorded for the total population of the country and for the metropolitan area of Athens.

Today, it includes the second most important 'regional' centre of Athens, surpassing in terms of available office and retail surface area the centre of Piraeus which until now it was traditionally considered the second most important centre (see Map 1).

The regional centre of Maroussi is constantly growing, substantially increasing as a consequence its built-up area and even more so traffic circulation demand in the region.

The remaining area of Maroussi is designated for residential use. However, besides the existing Olympic installations (Stadium etc) there are vast areas of open space within the city limits whose land use has either been officially designated for cultural and sporting activities, green space and / or recreation (Syngrou Park) or they could be designated for such uses. At the same time, floor space ratios are rather low (1,0) relative to central areas of Athens.

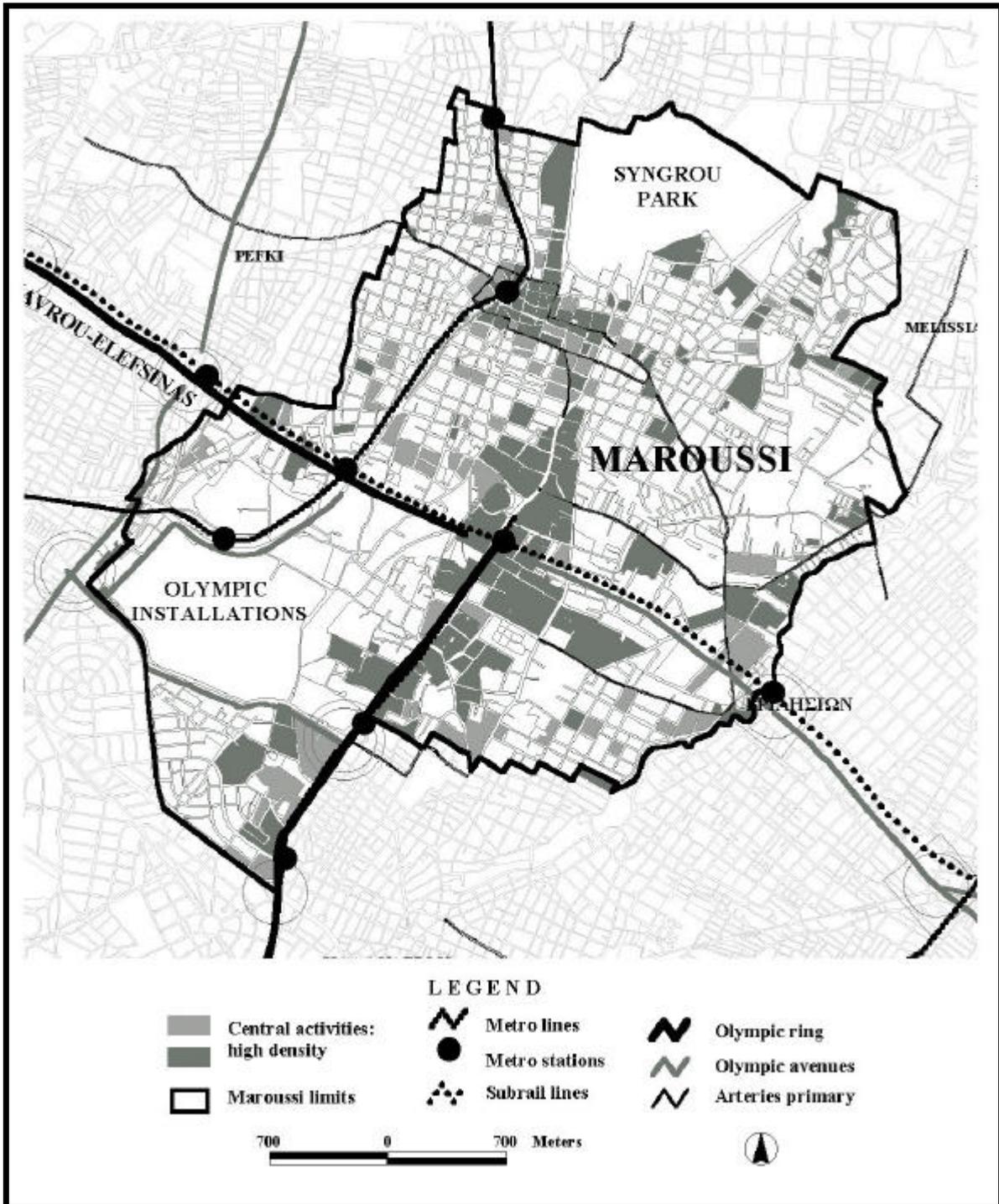
Overall, the city of Maroussi constitutes an intermediary suburban area that encounters problems related to major traffic congestion and rapidly increasing building densities with the tendency, independently of the hosting of the Olympic Games, to be converted into an "intensely urbanised area", even though it is of medium density (see following sections).

3. Demand and necessary interventions associated with the hosting of the Olympic Games

It is only natural that the demand for the provision of additional athletic installations, infrastructure, services and accommodation will be substantially increased due to the hosting of the Olympic Games. Suggestively, it is estimated that the overnight stays during the Olympic Games will be mounted to 2.000.000.

It has to be mentioned at this point that the major portion of the athletic installations (more than 70%) had been constructed before Greece submitted its candidacy for hosting the Olympic Games. The major problems regarding the provision of the required infrastructure were related to the:

- Improvement of the transportation network - it was deemed necessary to accelerate the construction of the networks for the subway, suburban train and the tram as well as the improvement of an extended ring road (Olympic ring-road) and other transport routes (see Map 1)
- Increase of accommodation facilities - in order to meet accommodation needs, a number of hotels have to be constructed in addition to the construction of the 'Olympic Village' which will accommodate the athletes (area of Menidi) and the "Media Villages" (one of them is situated in Maroussi), which will accommodate the estimated 10,000 journalists who will cover the Games
- Provision / improvement of infrastructure for telecommunications and the Press.
- Beautification and renewal of the city.



Map 1. Maroussi: main city functions, transportation system for the Olympic Games

Source: Angelidis et al 2001

A substantial portion of this demand concerns the city of Maroussi and consequently the "push" of the Olympic Games is expected to have a major impact upon it.

To start with, there will be increased circulation demand in the Maroussi area for the duration of the Games. At the same time there will be an increase in the demand for accommodating spectators and other participants.

Regarding the supply side:

- Within the overall framework of improving the Athens transportation system the following projects are scheduled to be implemented in Maroussi: the construction of an additional subway station, a major portion and several stations of the suburban train, the improvement of some major roadways and the accelerated construction of new transport routes, such as the Stavros-Elefsina freeway, etc (see Map 1).
- As it has already been mentioned, the largest portion of the Olympic installations located in Maroussi was already built. Any additional work involved the construction of small extensions and the improvement of few small athletic fields.
- Furthermore, some buildings of major importance for the operation of the Games (such as the Press Centre and the TV-Radio Centre) have been permitted in addition to a number of hotels, with an estimated capacity of 2.000 beds.
- The construction of a "Media Village" (for the accommodation of journalists – see Map 2) constitutes another major project that will be developed in Maroussi. This project will be located adjacent to the main Olympic installations even though this facility did not have to be situated on this particular location.

After the completion of the Games, the entire site of the "Media Village" will be designated for residential uses and "town centre" that permit the development of office and retail activities. The Municipality purchased the property and all proposed development on it would be undertaken by the private sector. The Municipality is expected to gain substantial cash inflow from the development of this project, estimated to reach more than 88.000 euros, which will be used to acquire some large pieces of open space within the municipal boundaries.

However, in order to safeguard the profitability of this intervention, the existing floor space ratios were increased and as a direct consequence the traffic congestion of the area will substantially be increased.

- Finally, it has to be mentioned that major interventions are being planned regarding the aesthetic improvement of the existing Olympic stadium and the greater area of the main athletic facilities as well as that of some major transport routes and open spaces located within Maroussi.

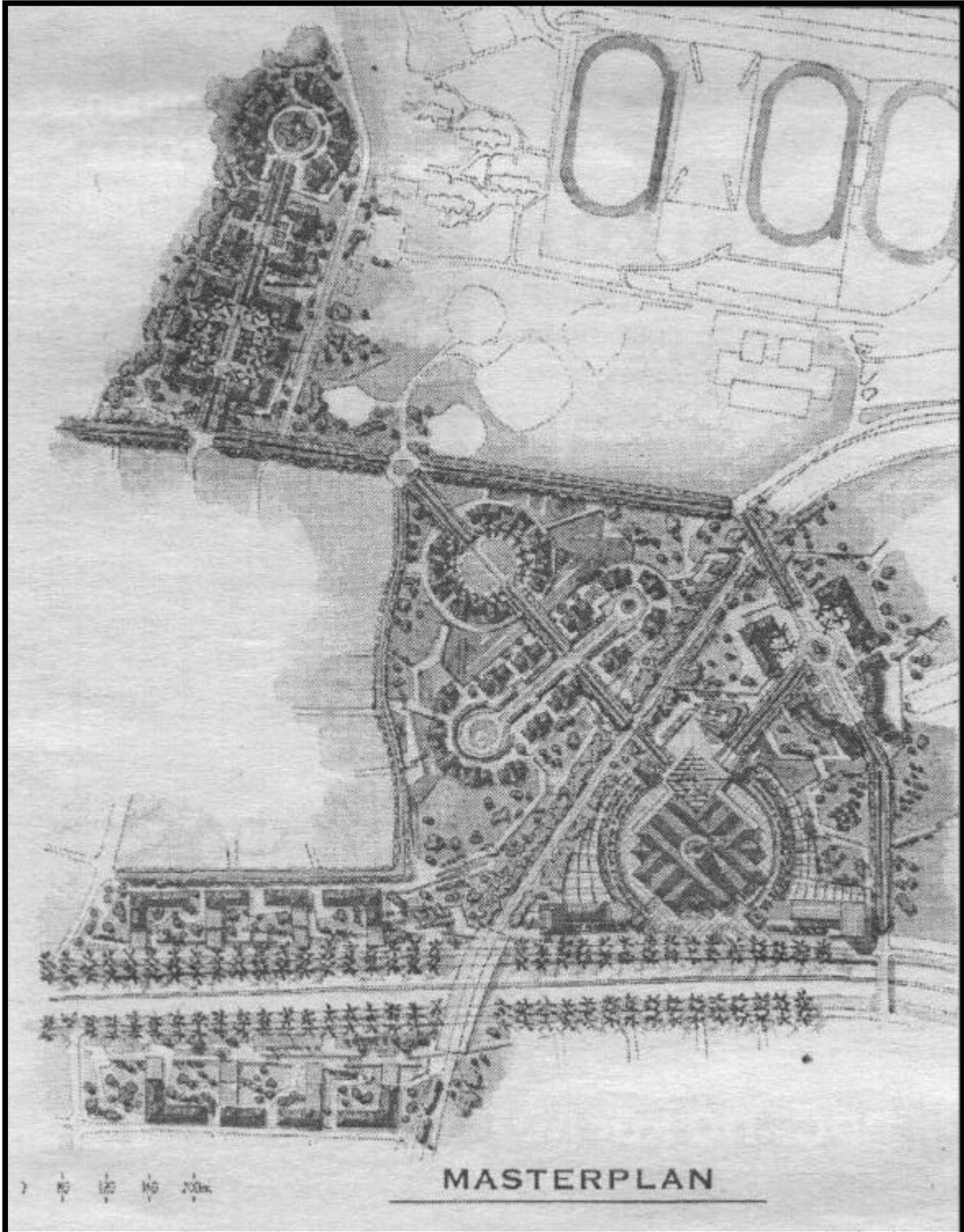
The type of impacts that the Olympic "push" will have on Maroussi and in particular the necessity of constructing the "Media Village" under the specific development regulations constitute the main questions that frame the issue of the utility of the Olympic Games in promoting the sustainable development of Maroussi.

Most of the reported valuations take the position that the effects of the Olympic push will overall be positive for the city of Maroussi. However, some others estimate that the Olympic push will lead to the environmental degradation of Maroussi due to the substantial increase of regional activities located in the area, which will result in increased development densities and traffic congestion.

In our opinion, these estimations are reductionist as long as they are not integrated within a framework of principles / guidelines which is related to the concept of sustainable urban development and suited to the particular circumstances and desirable planning framework for the sustainability of the city of Athens which constitutes the greater functional area for Maroussi.

4. Sustainability and urban development: the necessity for a holistic approach, the drawbacks of indicators

Before we proceed with the evaluation of the impacts of the Olympic push on Maroussi, we will elaborate on the approach and the corresponding indicators that we used for the purpose of this paper.



Map 2. Maroussi Media Village: Master Plan (project)

Source: Journal "Amaryssia" 30.10.2000

If we concentrate on the European policy context, we will all agree with the following statement made at the "Sustainable Urban Development in the European Union: A Framework for Action" (E.E., 1998): "Despite their multiformity, both large and small cities in Europe face the same challenge: to increase their economic prosperity and competitiveness

and to reduce unemployment and social exclusion, while simultaneously they have to protect and improve their urban space ...».

The first attempts that were made in order to evaluate the problems cities faced within the viewpoint of sustainability during the late '80s and early '90s pointed out the aggravation of problems that were related to increased levels of air, soil and water pollution, and the management of waste, energy use and water resources. Special attention was given to the interrelationship that existed between those problems and the inefficiencies of the land use planning system (inadequate state intervention, etc) as well as the functioning of the transportation systems (domination of private cars). At the same time, the adopted approaches of that period emphasized the promotion of social cohesion and the protection of historic city centres (see: Commission of the EC, 1990).

Innovative practices, a number of which were supported by the EU, were adopted during the '90s to deal with those problems. The debate regarding the solution to these problems within the framework of sustainability continued at the international level as well through the adoption of principles / guidelines which were enriched / specialized by the use of case studies (Local Agenda 21, Habitat Agenda, etc).

The evaluation of these efforts as well as of the developments that took place in cities during the '90s, lead to a change in the theorizing of urban problems within the framework of sustainability. Relevant references include the "European Spatial Development Perspective (1999) and "Sustainable Urban Development in the European Union: A Framework for Action" (1998)³. More specifically, these documents point out:

- The role of cities (especially their centres) as focal points and driving forces of a type of development that promotes polycentrism at the regional and national levels and fights unemployment
 - The necessity of a unified approach to solve problems associated with unemployment, social cohesion and quality of life including issues that deal with the estrangement of citizens from the decision making process
 - A renewed interest on cultural issues and *the need to protect our cultural heritage as a resource*, which is as valuable as the natural environment and other physical resources
- The meaning of a "cultural resource" was expanded to include, beyond the value of a single or set of monuments, *the importance of the city itself, the urban way of life, the sociality that can be developed in cities, the "urbanity" as a critical element of sustainability*. That is, an element that we must preserve and promote.
- An increased need for the use of an Integrated approach to urban problems through the development of projects that confront in a simultaneous and unified way issues related to economic development, social cohesion, etc. along with land use, transportation and service delivery issues
 - The need to adopt a *strategic approach to planning*, that is the integration of all policies and development projects into a concerted, long range, cohesive perspective
 - Environmental policy attributes great importance to the *environmental impact assessment of individual works and development projects*. However, greater emphasis is given to the adoption of *strategic environmental assessment*, for more complex spatial projects, along with the use of appropriate indicators / criteria for sustainability. These indicators concern various aspects of the urban environment which were already mentioned: the physical environment (physical space: green space, landscape, etc), pollution levels, energy use, water resources, quality of the built environment (type and pattern of development, etc), housing, transportation, etc.
 - Finally, issues of *urban governance* become of great importance. At one level, these issues address the necessity of coordination among all relevant agencies at different levels of government as well as the formation of partnerships especially between the private and public sectors. At the same time, these issues address the need to readjust existing

arrangements of planning and implementing public projects in order to improve their effectiveness and public participation practices.

At this point we would like to stress two issues:

First issue: As it has already been mentioned, we can distinguish between two different approaches to sustainability each of which concentrates on different issues. In a schematic way these are⁴:

The first, oldest and 'narrower' approach which emphasizes, in various degrees, issues related to the 'physical environment': levels of pollution for water, air and soil, energy use, transportation issues - mainly from the standpoint of air pollution - etc.

The second set involves a more holistic approach that integrates concepts dealing with the role of cities in promoting a balanced and sustainable development of their wider functional area, and with issues of social cohesion, quality of life, etc. We believe that the second approach has an advantage over the first one, since a number of the problems that have been strictly defined as environmental, such as pollution levels and energy use, are very closely related to the overall function of the city and its economic, social and political dimensions.

Second issue: There have been many attempts, especially during the last decade towards the development of urban sustainability indicators. A substantial number of indicators was developed and various tables / databases were formulated showing the values of those indicators for different cities (see: European Foundation for the Improvement of Living and Working Conditions, 2001). However, in our opinion, the comparison of indicator values has little utility because of the complexity of the urban phenomenon. For example, an indicator that measures the association that exists between non built / open space areas and the total surface area of an urban zone takes on a different meaning for a central section of a large city than for a suburban area or even more so for a small city where there is an easy access for its residents to the surrounding open space.

5. The planning of Athens Metropolitan Region, Maroussi and the Olympic "impulse":

Proper objectives, weak mechanisms of planning implementation.

As we have already supported, the strategic spatial planning of Maroussi is very closely related to the spatial planning of the Athens Metropolitan Region (AMR – identifies with the prefecture of Attica).

Firstly, it is related to the international and national role of the Greek Capital, provided that a very important pole of services has already been shaped in Maroussi.

The AMR Development Program 2000-2006 (2001) aims at the exploitation of the possibilities of Athens as a powerful administrative and economic centre of the country, with growing European role.

According to the Program, the big projects which are implemented in the AÌR, "as well as the Olympic Games 2004, can strengthen the networking of AMR with the other metropolitan regions of its wider area of influence so that it is changed into a development pole of European level - node of national and transeuropean networks and cultural metropolis in widest Balkan, Mediterranean and European area".

"However, the important problems that constitute an obstacle to the development process should be faced. These problems mainly concern the critical deterioration of the physical and built environment, that, in combination with the lacks of infrastructures and public utility services create major problems of quality of life, deindustrialisation and social inequality".

As it is stressed more specifically: «the consolidation of the international role of the capital requires from the authority of Attica Region additional interventions for the long-term

exploitation of projects related to the Olympic Games and their integration in the urban functioning.

As high priority objectives are considered:

- The upgrade of the historical and cultural physiognomy of the city,
- The exploitation of the Olympic Games 2004,
- Attracting international activities, with accent in the regional headquarters, for the Eastern Mediterranean, Balkans and the Black Sea countries.
- The exploitation of the new transportation infrastructures for the improvement of the Region's role as an international transport node.
- The re-functioning of AMR as an important tourist destination during all seasons.

An important part of the infrastructure projects that was finally included in the AMR Development Program 2000 – 2006 (and which are financed by the 3rd Community Support Framework) serve the operation of Olympic Games 2004.

Particular importance is attributed to the special Program “for the urban and aesthetic upgrade of Athens” in view of the Olympic Games 2004, which aims at the upgrade of the city image, through the improvement of the public urban space.

We should stress here that the achievement of these objectives is by no means easy in the case of AMR.

As it has been repeatedly ascertained by specific researches, the mechanisms of spatial planning implementation in Greece and more specifically in AMR, present important deficiencies.

The proposed (by the Plans) measures and actions are applied fragmentarily, cooperation between bodies involved in the planning implementation is weak and the projects realised are not included properly in a spatial development strategy.

We will come back in this subject below.

6. The Olympic impulse impacts in Maroussi

We can now proceed in the evaluation of more specific impacts of the impulse from the Olympic Games in Maroussi.

We will proceed in three steps.

We will firstly examine the impacts in the considered area per thematic fields and then we will evaluate them from the viewpoint of sustainability. Afterwards, we will attempt an, even concise, strategic impact assessment.

Finally, we will focus on the existing planning mechanisms and the way of integration of Olympic impulse planning in them.

We point out that the evaluation concerns primarily the after the Games functioning of the city, because the duration of the impulse (in this respect: Olympic Games) is small and concerns one year only.

Still: it's about an in advance evaluation, since the Athens Olympic Games will be realized in two years.

So neither the final form of interventions, nor their impacts are completely known.

Regional level activities, development and employment

The first important group of changes concern the after the Games functioning of the Media Village (as an Urban Centre) and the buildings that were created for the Olympic Games, which will entertain, after the Games, service activities. Here are included hotels that will be constructed for the Games period.

It concerns activities of regional level mainly.

Undeniably, these additional installations –as well as the very important improvement of Maroussi accessibility- will strengthen the regional, national and even international roles of the Maroussi service activities centre, extending its attractiveness to important enterprises. The corresponding objective of the AMR Development Program 2000-2006 will be achieved. Certainly, the development of local activities will also be strengthened and the offered posts will be increased. The functioning of the local labour market will be improved.

The transportation system

The second group of changes concerns the transportation system. We will examine it from the viewpoint of sustainable urban mobility.

As we have seen, some installations supporting the Olympic Games will be used, after the Games, as offices, commercial shops or hotels.

Other service and commercial activities will be installed here due to the region's improvement.

It should be taken into consideration that these activities attract a very important circulation traffic (number of movements) per m² of surface (comparatively to the residence areas) (Aravantinos et al, 1998). Moreover, the parking surfaces required will be increased considerably.

On the other hand:

- The Olympic impulse accelerated considerably the creation of a very important freeway, which crosses Maroussi (Stavros-Elefsina) and the improvement of another (Kifissias), as well as some primary roads.
- Also -what interests us more from the scope of sustainability-, the "impulse" accelerated the creation of underground / suburban railway lines / stations that serve Maroussi directly (see above).
- Also, it has accelerated the extension of the local bus-lines network.

The urban "congestion" and the increase of the built / open space ratio

From a closely quantitative view, buildings of regional level activities (but also residence) that are related, directly or indirectly, to the Olympic "impulse", will increase considerably the traffic circulation in the study area, as well as the needs in parking surfaces and other infrastructures.

However, as we have seen above, the Olympic impulse increased considerably the offer of such "heavy" infrastructures (subway / suburban train lines, freeways).

On the other hand, there is not efficient planning of the secondary road network (from the main axes and the underground and suburban railway stations to the neighbourhoods of Maroussi) and the parking areas as well as the confrontation of urban space segregation due to the creation of freeways.

The expected condensation of activities will obviously worsen the current ratio of built / free (open) spaces, the proportion of free spaces per resident (and worker) etc

Consequently, the narrow quantitative indicators of sustainability that are related to the proportion of free spaces etc will be influenced negatively.

On the other hand, while the movements to, from or even through the region, will be increased considerably, the percentage of the moved that use the public means of transport is probable to increase. Here is a question in which the prices that the simple indicators of sustainability receive do not help us a lot.

Or, in other words, we need to include these indications in a global evaluation.

The urban structure change

In order to approach the partial changes in the post-Olympic Maroussi correctly, we should take into consideration that the transformation of the global character of the region will be accelerated, from "intermediary suburban area" in "intensely urbanised area" (less urbanised of course comparatively to more central zones of Athens), where the regional level activities will even more dominate.

The possibilities of upgrading the physical and built environment.

The network of green - culture – sport – recreation spaces.

Another group of changes with great interest concerns the spaces of green - culture -sport - recreation.

The improvement of these (usually public) spaces, constitutes the peak of the aesthetic upgrade of the region, the improvement of the physical and built environment and the quality of life in the direction of sustainability, but also the improvement of attractiveness of Maroussi (as, more widely, Athens) for investors and as centre with important regional, national and international role.

The example of Barcelona showed, once more, how much the parameters mentioned above of a competitive, cohesive and sustainable development are related closely to each other.

As we pointed out, open spaces of Maroussi will be limited – because of the creation of new installations, but also the pressures for further building extension.

On the other hand, we will have an important improvement of the green – culture – sports - recreation spaces, in two ways.

- a. Firstly: with projects of improvement of these spaces, which will be executed with the occasion of Olympic Games.
- b. With the sum that the Municipality will collect from the Media Village operation, it will buy some private free spaces and will attribute them into spaces of green, recreation etc.

The urban governance

One fourth, least "material", but no less important, impact, concerns the improvement of experience and possibilities of intervention of the Municipality in local development and its collaboration with the metropolitan authorities, as well as the improvement of the public / private sectors partnership.

In a more general framework of "deficient" planning, the local authority intervened powerfully, even with individual losses, in order to take advantage of the Olympic impulse, to profit economically and more generally.

The strategic impact assessment

We have assessed in the above, both positive and negative expected impacts in Maroussi from the Olympic "impulse".

Can we estimate in advance if the global, final balance is positive or negative?

In our opinion, we need to pose the question differently: As we saw, with the Olympic Games "impulse", some sustainability indicators (built / open space ratio, circulation traffic / city area ratio etc) change negatively.

As we pointed out, we will approach the limits of "carrying capacity" of the area as an "intermediary suburban area" of Athens.

However, even without the "impulse" of Olympic Games, Maroussi tended to change into an "intensely urbanised region" with strengthened regional level activities.

The Olympic impulse will simply accelerate this development, will not cause it.

In other words, without the impulse, we would have an "urban densification" of Maroussi, without having of the positive impacts of the "impulse": acquisition of some free spaces by the local authority, improvement of green – culture – sports – recreation spaces (existing + new) etc.

Consequently, with regard to the closely quantitative indicators of sustainability, the Olympic impulse will probably have a lightly positive influence in Maroussi.

However, should be added here the positive impacts in regional development and labour market, impacts that are underestimated by some approaches of urban sustainability.

Moreover, we should point the fact that a big part of the area's residents, despite some reserves, face positively the "urban densification" of Maroussi. Householders of plots, the prices of which will increase considerably, support actively this type of development.

7. Spatial planning system and planning for the "impulse"

We will end with the more important question, which regards to the sustainable spatial (urban and regional) planning functioning under conditions of "impulse». The exploitation of the Olympic impulse for the upgrade of Maroussi (and also, more generally, of Athens), has faced a deficient framework of local but also metropolitan planning, with a lot of insufficiencies, from the scope of sustainability - despite improvements that have occurred during the last two decades.

This weakness explains the fact that some provisions of the "Olympic projects planning" needed to be revised many times.

It also explains, that, despite the good intentions, the planning of exploitation of the impulse was not connected, as much as it should, to the strategic planning of Maroussi and, more generally, Athens.

This is an important teaching from this case study.

The planning of exploitation of the "impulse" revived, improved the spatial planning implementation mechanisms, incorporated however in certain degree their pre-existing deficiencies.

More specifically: the exploitation of the "impulse" for accelerating economic development of the considered zone was rather easy. Its use to improve the quality of life of the citizens proved relatively difficult.

8. The "impulse" as a challenge for the planning

As we have seen, certain of the impacts of the Olympic impulse in Maroussi, will be possibly appreciated more precisely only afterwards the conduct of the Games in 2004.

As, e.g. the intensity of attraction of new investments, the changes in land uses or the "compensatory" interventions that will be realised by the Municipality of Maroussi.

The interested authorities and institutions need to study much more carefully (than they have up to now) the impacts of the "impulse".

As we attempted to prove, the global effect of the Olympic impulse in Maroussi can become more positive, as better as we relate the impulse to a strategy of sustainable development of Maroussi' and, more generally, Athens. Time for this still exists!

As we have already mentioned, the planning of the "impulse", in this particular case, has not only added some projects to the existing Spatial Development Plan, but also put to the test the whole spatial planning system. It was a big challenge for this last. To the extend it has been restructured and improved it could face the "impulse" successfully.

The need to consider the impulse as a powerful challenge for the planning, constitutes, as we believe, a conclusion of general importance.

Let us close with an optimistic statement.

Olympic Games 2004 will have some more positive impacts than those set out above, because it's a social and "urban" event that will strengthen the sociability and the solidarity of peoples, but will also make known the identity of Maroussi and Athens all over the world.

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Notes

¹ Suggestively, on the horizon of 2010

² According to the 2001 population census, the population of Maroussi was 70.800 people. However, in reality the area's population was larger

³ See also: EC 1996, EC 2001

⁴ Obviously, these approaches can be classified in different ways