

Society Interaction. Challenge & Opportunity for Periurban Natural Areas.



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European Association
Periurban Parks

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Foreword

Nikos Hardalias, president of SPAY Association for the Protection and Development of Hymettus

I would like to welcome you to the international conference that co-organize the Association for the Protection and Development of Hymettus and Fedenatur, in order to study **the interaction between peri-urban natural areas and society, as well as the challenges and opportunities** arising from this new reality.

Nowadays, there is an increasing demand from society to use the suburban natural areas -a phenomenon that can be observed not only in Greece, but all over Europe, especially in the Mediterranean countries. This new trend, however, occurs in a time when **natural resources are declining, as well as the funds for their protection.**

The managers of natural peri-urban parks have to find **the ideal balance between the emerging need for social usage of these natural areas and the need to protect them**, in order to achieve the sustainable development and the conservation of the biodiversity of these regions.

Furthermore, the reduction of funds makes the issue of volunteering of extreme importance –not to mention the role volunteerism can play in the maintenance of the peri-urban forests. In the same context, the participation of the citizens in the management of peri-urban green spaces is being considered.

In the **Greek case**, these questions are even more complicated, since **all the mountains are treated in the same way**, regardless of whether they are peri-urban or not. However, this uniform way of management is not the best solution, since it doesn't take into account the particularities of the mountains that are situated on the cities' limits.

For instance, around **Hymettus** live more than 1,000,000 residents. These people miss green open spaces in their cities and their way out to nature is the mountain. The same applies to other suburban forests of Attica, which constitute one of the few possibilities Athenians have to come in contact with nature. Thus, it becomes obvious that it is **necessary to find a balance between the demands of society and the need to conserve and protect the last forests** left in the Attica basin.

These specificities in the management of peri-urban natural areas led to the creation of Fedenatur.

During the 2nd Symposium on Natural Areas in metropolitan and suburban zones, which took place in Barcelona in 1995, it was considered necessary to establish a **network of exchanges between peri-urban areas across Europe**. This led to the creation of the European Federation of Metropolitan and Periurban Natural and Rural Areas (Fedenatur).

Today, the Federation numbers **34 forest parks**, representing metropolitan and suburban green areas from **6 European countries**: Spain, France, Belgium, Italy, Portugal and Greece. This is a **Southern European Mediterranean Network** between forest regions that face **similar problems with Hymettus**, such as fires, forest restoration, floods, environmental education, etc.

The Association for the Protection and Development of Hymettus (**SPAY**) is the **newest member** of Fedenatur, since it joined the Federation on **June 21st, 2012**.

For SPAY,

- the protection of the forest and its biodiversity,
- the promotion of volunteering and the active participation of citizens in the sector of forest protection are its primary goals.

These are domains, in which the objectives of Fedenatur can contribute decisively in order to achieve even better results.

- Cooperation for the protection of the environment,
 - exchange of expertise and experiences,
 - participation in technical seminars and European programs,
 - representation in the European Commission through the European Habitat Forum,
- are some of the means that Fedenatur and its members have at their disposal in order to achieve their goals.

We strongly believe that the presence of representatives of the biggest forest parks in Europe at this meeting today will help us to better understand the new data, so that we can proceed to the best course of action.

We also hope that this workshop will be the beginning of a **meaningful dialogue** that will lay the foundations and rules for a rational management of periurban forest ecosystems in Greece.

Forest protection is paramount, especially in a country where the woodland is declining every year. But, in order to achieve this goal, we are not to exclude the human presence from the periurban forests and natural areas. Access to these areas is an undeniable right of the citizens.

What we have to do is to encourage the proper use of these environmental treasures, making clear that **these areas belong to all of us and that it is each and everyone's duty to protect them.**

- This is the only way to ensure the protection of the environment.
- This is the only way to guarantee the sustainability of our cities.
- This is the only way to improve our life quality.

But above all, this is the only way to ensure our children's future.

INTERACTION with Society. Challenge and opportunity for PERIURBAN NATURAL AREAS

Society habits are changing either for fashion or for economic reasons. In the last years, for example, the practice of outdoor sports (running, mountain biking, nordic walking ...) has increased. Massive sporting events have proliferated (triathlon, cross country, marathons, night racing ...) and invade cities and their surrounding parks: the periurban parks. Managers of these spaces are constantly being faced with new challenges which have to be tackled. They have to make space protection compatible with massive social events. This also happens in a time when public resources (financial and personal) are decreasing year after year.

But not all changes in society pose challenges for managers; new opportunities, such as volunteering increase - either as individuals or as part of corporate social responsibility of an increasing number of companies - arise. In a time of scarce resources, such the current one, some managers see voluntary work as a solution to the shortage of staff. Volunteers may help in managing periurban areas in many fields: forest management (planting, wildlife monitoring, fire prevention, environmental disclosure, heritage conservation ...).

The seminar has dealt with two aspects. The first one: **How to cope with new demands for social use in periurban areas** by trying to answer questions like:

Should the holding of massive events be limited? Should they be adapted and developed? Should the organizers be charged? How should they be managed in order to be compatible with other uses and with the biodiversity protection?

Second one: **Importance of social collaboration in the management of periurban areas in order to ensure its future.** Is volunteering the solution? Which activities can be realized by volunteers and which cannot? How should this be managed? What about the unions?

Greek periurban forests: Their contribution to improving the quality in mega-cities

Thekla Tsitsoni, professor of the Aristotle University of Thessaloniki

The 20th century has been characterized as the century of urbanization. The rapid and, with no planning, development of cities, particularly in Greece, has rendered them non-friendly, if not dangerous, to their inhabitants.

Throughout the 19th century as also in the beginning of 20th century, cities function as a substitute or a perceptible copy of nature. If a city, as picture, is the development of the boundaries of an idea, then it can reconcile natural world with civilization. And this, despite the fact that civilizations lead and are followed by desserts, as Chateaubriand alleged.

The forests of romantics become the cities of symbolists and modernists. Only that, while nature is an intermittent world and therefore stable, civilization on the other hand, as an evolutionary process, is an agent of attrition and death.

These conclusions have been rendered critical by the chaotic development of cities. This burst in population generated an intense worry concerning viability and quality of life in urban centers. Noises, pollution originating from dust and suspended particles, and very high temperatures in summer time create inhuman living conditions, particularly in large urban centers. This fact leads to the need to re-plan the structured environment with an increase of the greenery areas.



The use of trees and the significance of their beneficial effects had been recognized by ancient civilizations, which used trees for aesthetic and other purposes, in the form of sacred parks or gardens in palaces and mansions.

The myth of Aesichon from Thessaly, who showed disrespect to Greek goddess Demetra by destroying her sacred park and was punished to eternal hunger, seems like to be the first ecological message in the history of humanity. The myth remains immutable and timeless, and constitutes a message of our ancient ancestors to us, modern Greeks, as also to the entire humanity due to our arrogance and lack of respect towards natural environment.

Periurban forests are forests that are geographically located in the vicinity of an urban centre, to which these are incorporated as a natural and operational continuation, by positively affecting the mental and physical condition of city inhabitants.

What is the condition of Greek periurban forests?

Periurban forests in our country demonstrate a severe degradation, while the forestry species which prevail, are those characterized as frugal. This way, today most of these are forests mainly consisting of *Pinus halepensis* or *Pinus brutia* trees, and have a tendency to disappear and be transformed into *kermes oak* beds, as already happened in many other instances.

Along with population increase, man did not content himself with his indirect affect to forests as hunter and food collector, but also begun to intervene in a direct way as destroyer and regulator thereof.

The greater pressure was suffered by forests which were located around inhabited areas. The greater the population, the greater the demands, and therefore pressure was increasingly augmenting.

The need for acquiring additional rural areas, expanding settlements, grazing animals, as also the continuously increasing demands in timber, led to the degradation of forests without any providence regarding the renewal and cultivation thereof. If we add fires to the above causes, then we have included all causes relating to the destruction of forests (land reclamations, overgrazing, predatory woodcutting, fires).

Most periurban forests that are located in the vicinity of the country's largest city centres belong to the Mediterranean ecosystems. Therefore, the greater problem that these forests are faced with is fires. A significant number of periurban forests constitute power-kegs so much due to their combustible materials as also due to amounts of garbage that are piled up in forests by the various human activities.

The extended fire in the periurban forest of Thessaloniki took place in 1997.

In researches performed by the Silviculture Laboratory, the course of regeneration and reforestations that were effected in the periurban forest of Thessaloniki was recorded. More than 8.000 stremmas (quarter of acres) had been reforested in a short period of time following the fire of July '97 up until March '98. 6 years after the fire, the forestation results are evident.

12 years after the fire outburst, a new research was conducted. The results showed that the survival percentage of planted species was very low, particularly in the southern areas where *Pinus brutia* prevailed once again in a percentage of 81%. In other words, despite the fact that many species had been planted in the area, only few of them managed to survive.

The intense human interventions, which took place right after the fire and prior to plantation works, had adverse effects to the restoration of pine forests.

The same luck of the forest-park of Thessaloniki had also the natural periurban forests in Attica. A dense forest consisting of *Pinus halepensis* trees was logged in the ancient times for the construction of the Athenian triremes. And what is left today, is plagued by repeated fires.

In the mountain of Hymettus only remnants of natural forests are found today. And the results of the great effort did not produce the expected conclusions in many cases.

The research that was performed by the Silviculture Laboratory in the area of Hymettus, in the area where *Pinus halepensis* trees exist, underlines a significant difference. *Pinus halepensis* trees are planted in Chalkidiki, Evia, Attica and Western Greece, while *Pinus brutia* trees are planted in Macedonia, the Islands of Eastern Aegean Sea as also in Eastern Greece. Therefore the plantation was a disaster. Since we do not let the forests of *Pinus halepensis* trees, which are typical for the area of Attica to be contemplated, hybridized with *Pinus brutia* trees. Because these trees are hybridized very easily and this way the entire landscape is transformed. However, this intervention actually took place in Hymettus.

Therefore the recovery of Hymettus ecosystems on the southern part that *Pinus halepensis* trees exist is feasible and can be achieved on one hand by protecting and formulating a proper structure for the existing forests, and on the other by planning and forming new forests always in compliance with the principles of reforestation and landscape architecture.

The ecosystems of *Pinus halepensis* or *Pinus brutia*, of evergreens (*Quercus ilex*) or broadleaved trees, as also of oak forests, which are found in this particular expansion zone, mostly suffer by fires and for this reason the same have been adapted to be easily regenerated following each fire incident, under the precondition that these are protected against land-grabbers and grazing phenomena. In the greater part of burnt areas, forests are expected to be restored in a natural way, the pine tree forests by seeds, and the broadleaved trees by sprouting techniques.

The repeated fires do not permit Mediterranean pines to ripen and produce pine kernels, therefore when the destruction is total and there are no sowing trees, the natural regeneration of the species is rendered impossible. Nevertheless, in cases of double-burnt areas the Silviculture Laboratory research showed that wherever mature pine trees have been left after the second fire, *Pinus halepensis* trees do not present any regeneration problems given that there are certain sowing trees left.

The fire at Penteli Mountain in 1995 and the regeneration evolution three years after the incident.



Which are the most suitable operations for the protection and exploitation thereof?

Our first concern following a fire incident is not the reforestation process, which most of the times, by the way it is performed, provokes greater damage than the one caused by the fire. We let nature complete the regeneration task and then we intervene in order either to complement this regeneration process or to enrich it with additional species.

This was evident by the researches conducted by the Laboratory in the periurban forest of Thessaloniki, where plantation works were not successful because these had not been done in the right way and in addition these took place following intense soil tillage, and therefore they brought about greater destruction instead of benefit.

Reforestation is a very delicate and expensive process and should be performed by specialists, always in compliance with specific principles. All reforestations should be performed under the responsibility and supervision of the Forest Department as also of the competent Reforestation Directorate or appropriate Forest Commissions.

The prompt recovery of burnt areas belonging to this zone, namely of evergreen-broadleaves, without any reasonable waiting period so as natural regeneration can be performed, is undertaken most of the times for the pure creation of favourable impressions, without giving any attention to the species to be planted.

The Hymettus reforestations included also the plantation of eucalyptus trees. Eucalyptus is not a Greek native species. It is a species characterized by quick growing and limited term of life. The inclusion of eucalyptus in the reforestation of a "natural" ecosystem is erroneous.

Various schools, institutions and associations participate in campaigns that aim at the sensitization of citizens in terms of environmental purposes and reforestation processes without having the appropriate planning. These processes may end up with failure or even have an adverse effect on forest ecosystems.

In the areas selected for reforestation purposes special reforestation studies should be performed, so as this kind of interventions are undertaken to the right direction from an ecological point of view. In other words, the appropriate selection of forestry species and the corresponding planting techniques should be definitely determined.

There is much talk lately, and in addition we receive many telephone calls at the University from people wishing to substitute pine trees with other broadleaves (oak trees, *arbutus* trees, *oleanders*, etc.), because they believe that these particular trees do not spread fire the way that pine trees do, that is by means of their pine kernels. But still, these trees can be burnt also. Pine trees, and especially *Pinus halepensis* and *Pinus brutia* are frugal species. All other species have greater demands, as in the case of broadleaves. Moreover pine trees are drought resistant. And what is more important, pine trees are interwoven with the Greek Mediterranean landscape.

The **periurban forest of Parnitha Mountain** had one additional problem in comparison to others, since it also comprises fir trees (*Abies cephalonica*), or fir tree ecosystems, which were burned in 2007. The species that exist in such altitudes have developed special survival mechanisms. Therefore, the recovery thereof is very difficult since such trees are not adapted to fires.

Another research that was conducted by the Laboratory in cooperation with the Forest Research Institute of Athens, showed that after a fire incident, reforestation processes should be performed with the use of young plants of three or four years old, which however – caution – derive from the same neighboring area. In addition Parnitha is a national park also. Many mistakes were made during the reforestation of Parnitha. As for example, that due to lack of young plants from Parnitha nurseries, young plants from Vytina (Peloponnesus) had been used.

As you are all aware, Greek pine tree is the *Cephalonian* fir tree that is found in Aenos Mountain, and which begins to ascend to the North towards Central Greece and Thessaly, and hybridizes with the white fir tree that is found in Rodopi. So, if we are to head towards the North we are to meet only hybrids. Therefore, by the use of fir seeds which derive from other areas, we «contemplate» our national park, which however has been characterized as such in order to safeguard this particular species that exists in the specific area.

Is there a way to stop the outburst of fires?

The entire society should be involved in this issue if we want to prevent the repetition of the painful events that took place in 2007 and 2009 in the entire country.

Prevention measures should be taken by all competent bodies, while sensitization on the part of citizens is required.

Which is the role of voluntarism in the protection of periurban forests?

This role is very important, the most significant activity of which should be the supervision of forests throughout the dangerous summer period. However, all volunteers need the appropriate training by the Fire Department and Forest Commissions so as to be ready to cope with difficult situations, without exposing their physical integrity to danger.

Which is the contribution of Periurban forests to the improvement in the quality of life of large cities' inhabitants?

So, following all the above, which are the beneficial effects of periurban forests in the improvement of life of the inhabitants of large cities? After we have achieved the ecologic stability of periurban forests, these can offer to us all the benefits that are detailed below.

The role of forests in **climate improvement** is very significant. The temperature from the canopy cover to the ground surface can be decreased up to 16 degrees in the inner forest environment.

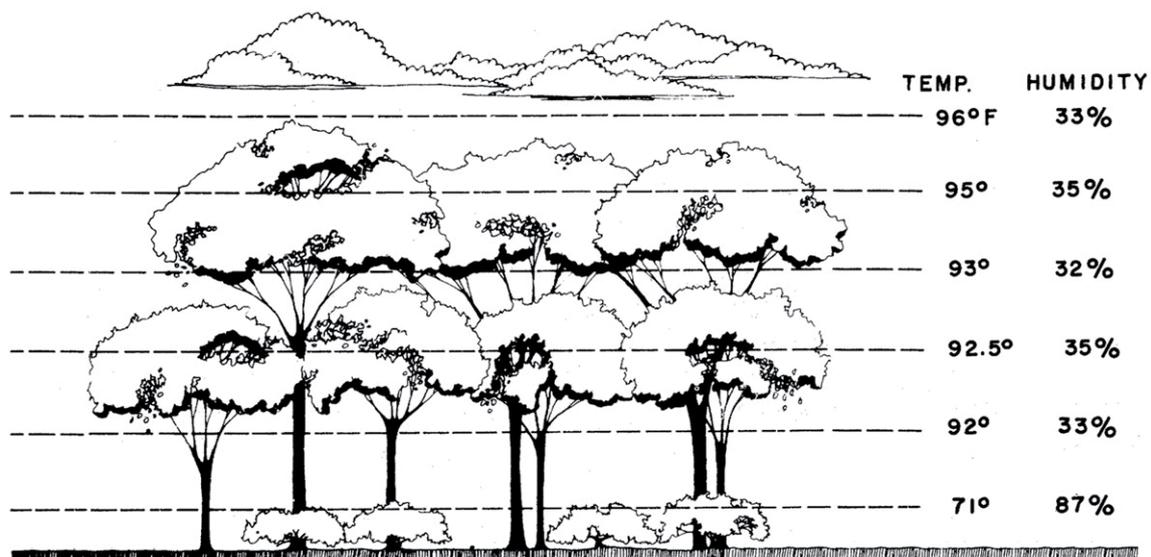


Figure 4.3 Temperature decreases and humidity increases downward through a forest canopy.

Furthermore, the cyclical heat waves which show up from time to time, the dog days as were called by the ancient Greeks, since these heat waves used to turn up after the appearance of Orion's hound, as also the furnace atmosphere may be significantly moderated by the existence of periurban forests. If Athens greenery areas were more extended, we would not mourn over the death of so many persons in 1987, as you may recall. Parnitha serves as the natural air-conditioning unit of Athens, or at least used to serve.

Forest is a **space exempted from polluting substances**. It presents a double foundation in what it concerns its behavior against aerosols. It functions either as a biological barrier if there are greenery zones against pollutants, or as a decontaminating agent. Because it retains and absorbs aerosols by physio-mechanical means, using tree leaves, or decontaminates air by biochemical means through the process of tree metabolism.

In a research conducted by the Forestry Laboratory, once again regarding the retention of heavy metals by tree leaves, it was found that the *Arizona cypress* tree retained the highest concentrations of copper, lead, chromium, cadmium and nickel. These trees are among those that were planted in the Thessaloniki reforestation.

Moreover, a forest of average productivity, that covers a surface of 10 stremmas, produces 4 tons of oxygen per year, the net production being 2.5 tons. The total yearly production of a forest in oxygen is ten times greater than any other terrestrial ecosystem.

Forests contribute to the **detraction of noise** by the absorption of sound waves by means of tree leaves and branches. This detracting depends of course on the forestry species, the height of trees as also on the structure of forests.

In another research that our Laboratory conducted in the framework of a postgraduate thesis, it was found that the existing forest located at the peripheral street of Thessaloniki, which mainly consists of *Pinus halepensis* trees decreases traffic noise by 6 decibel at a depth of 60 meters from the street. In other words, every 60 meters in depth to the heart of the forest, traffic noise is decreased by 6 decibels.

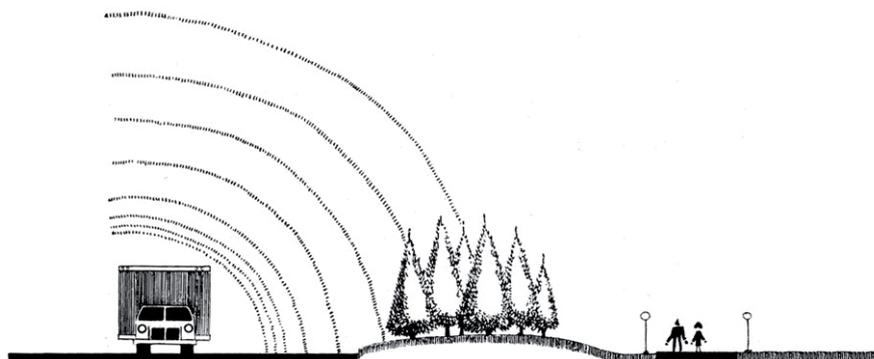


Figure 4.22 Properly placed, tree plantings can reduce vehicular noise in residential areas.

In addition, this periurban forest **moderates soil erosion** that is due to water draining, by retaining rain waters and also by restraining soil to the roots, and this way protects the city from fluids.

The most significant offer however provided by periurban forests is **forest recreation**. Their proximity to urban centres contributes to their characterization as recreational areas for city inhabitants.

You can see here the adventure park that you have in Athens, and the extent to which a forest can be transformed into a recreational area, always however under the proper management principles.

Which factors affect the demand for forest recreation?

- The number of population
- The occupation
- The social conditions
- The age
- The level of education.

It is known that in terms of recreation, young people are seeking action, while elders are looking for rest.

But which are the capabilities in what it concerns hosting of mass events in periurban forests, and which restrictions may be imposed so as not to deteriorate the ecosystem?

There should be an appropriate management planning not only in regard to the natural environment but also in regard to visitors. It is advisable to calculate the bearing capacity or the exploitation degree of the natural environment, in order to plan the respective activities.

Which factors affect the participation of people to various recreational activities?

- The economic factor
- The factor of transportations
- Time
- Advertisement.

The proper selection of forestry species, based mainly on the aesthetic as also on the ecological and functional characteristics thereof, is of great significance in the establishment of recreational forests.

Also the application of an uneven, non-linear joint. In most reforestations that have taken place up to date, trees were lined up exactly as soldiers, without paying much attention to proper mixing of species. As regards mixing, the mixing of conifers with broadleaved trees produces impressive results, with dissimilar shapes and structure and different colours on the crown of the various forestry species, throughout the year.



Unfortunately, in most forests that were planted in the vicinity of cities little care was given to elements of landscape. The result of this was the creation of monotonous forests of low aesthetic value.

For the integral organization of periurban forests, for recreational purposes, it is important to ensure suitable development as also effective maintenance and operation of forests, in compliance with the needs and perceptions of those who will use them.

Paths, bicycle tracks, locations to admire the view and organize outdoor picnic meals, as also infrastructures for resting, playing and sporting purposes should be created.

For the better protection of existing periurban forests, the establishment of new ones, as also for the exploitation thereof as recreational areas, a complete forestry research is required, which will aim at the determination of the most suitable and integral planning of forestry interventions.

The configuration of a forest landscape holds a prominent position among the priorities relating to forest treatment, with the aim being the creation of suitable clumps of trees serving also for recreational purposes, so that forest functions satisfy social needs to the maximum possible extent.

“L’Arche de la nature”, a peri-urban natural area dedicated to host visitors.

Isabelle Sévère, president of L’Arche de la nature , deputy mayor in charge of periurban spaces of Le Mans

With its 500.000 annual visitors, the “Arche de la Nature” is definitely a space dedicated to host visitors. The site is open for all users: from Sunday’s walkers to sport practitioners. It is always open and free. However, we impose a framework and have a management practice that reconciles the different uses of the site with preservation of biodiversity.

1. L’Arche de la Nature

L’Arche de la Nature is a natural area, located on the outskirts of the city of Le Mans. This area of 450 ha is owned by the Urban community of Le Mans (public entity). Its management and animation is governed by a team of forty people.

Surrounded by urbanized areas, it serves a population of about 250.000 inhabitants. It is a true 'green lung' for the city.

Arche de la Nature located at the South of a city with about 250.000 inhabitants



This natural area is in immediate connection with the city, being directly served by public transport (bus and tram) and is located 10 minutes from the heart of town. It is always open and free to the public (no barriers around the site, except around the "buildings").

For 15 years, this site has developed many activities to meet the expectations of users, around three themes: the grove (with a conservative farm and vegetable garden), water (with a "Water Museum "and river banks), forest (with 300 ha of forest area and “the forest museum”). Many trails crisscross the site (hiking, biking, thematic itineraries). Rental bikes and canoes services and two "refreshment" spaces enrich the proposed activities.

L’Arche de la Nature is a very popular site, with 500.000 visitors each year, of different profiles: sports, family, school, organizers of events (sporting and cultural).

A willingness to be open to the public with many activities

3 animation poles	grove	water	forest
Activities	<ul style="list-style-type: none"> · 40 km of signposted hiking trails · 20 km of mountain bike trails · the farm · the vegetable garden (2.000 m²) · 3 orientation trails · an Arboretum (2 ha) · a path (2.5 km) with "remarkable trees" · the Water Museum · a refreshment bar · service of bike rental · treetop trekking · sleigh rides · the Forest Museum (opening June 15, 2013) 		
Animations	<ul style="list-style-type: none"> · 10 festivals per year (70.000 persons) · 40 stays and outings · activities for schools (10.000 schoolchildren / an) 		

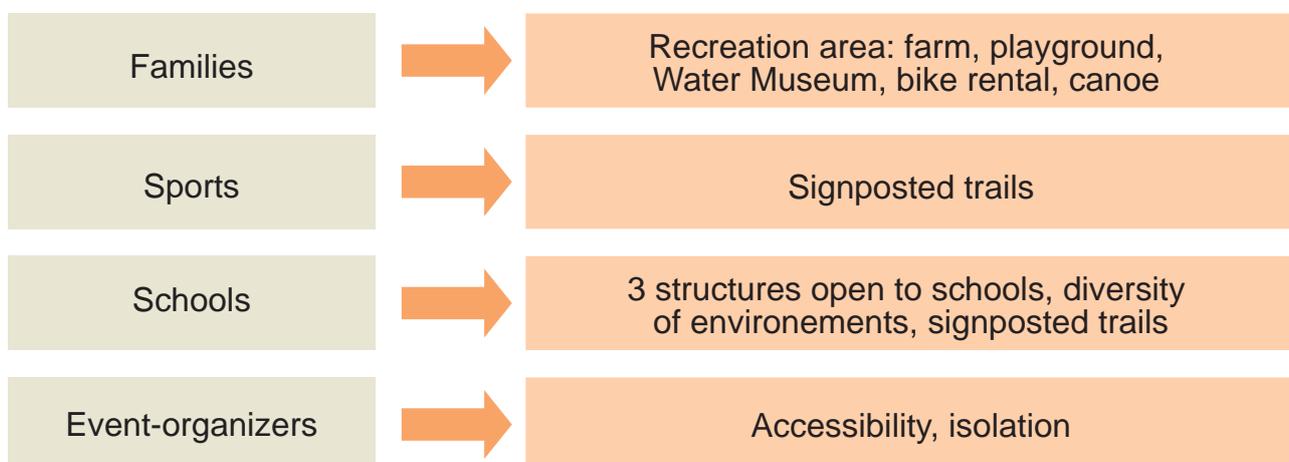
L'Arche de la Nature, from its inception, made the choice to be a space whose primary objective is to welcome people. The challenge is to put in place management systems that balance the different types of uses and the preservation of environmental quality spaces.

2. Limit areas by function

Depending on the types of identified users, we tried to allocate areas: activities available to families are focused on the farm, playgrounds, the Water's Museum. Athletes benefit from ad hoc marked trails. Schools have at their disposal three structures (the Water Museum, the Farm and the Forest Museum).

Activities are concentrated around the 3 "museums". The marked trails are mainly in the western part of the park. A quarter of the site (north-east), while remaining open to the public, does not offer activities: attendance is therefore clearly limited. This isolated area allows wildlife and walkers wishing to enjoy calm to find an area of peace.

Spaces devoted to meet the expectations of the public



3. To put in place maintenance systems adapted to the activities

The management decisions allow to concentrating activities on selected areas:

- a. The public is driven : we design the landscape to encourage visitors to go to certain places
 - Thematic courses are offered in suitable sites to guide the visitor in certain areas
 - Tracks are well maintained, and dense vegetation is maintained between the tracks to prevent public from walking there
 - Signals are placed to orient visitors and encourage them to use the existing grid
 - Recreational facilities (including furniture) are positioned outside of protected areas
- b. The site is especially maintained with a team dedicated to monitoring, and another team dedicated to site maintenance to ensure cleanliness so that people respect the site.
- c. To reduce unwanted activities on the site, activities leading public are developed: for example, to ward off sexual encounters taking place on the site, Mountain bikes activities, guidance and disc golf course were put in place. The Parking area usually used for sexual encounters was closed.

Drive people



Offer thematic trails to discover the environnement



Signposts to ensure visitors orientation



Maintained paths and dense vegetation between paths



Equipment positioned outside of protected areas

Ensure our presence and a good maintenance of the site



Provide oversight to ensure the tranquility of the site



Ensure the cleanliness of the site

Develop other activities to counteract the unwanted activities

Objective : push sexual encounters away from the site



Closure of one of the parking lots in 2005

Development of activities to attract people: Disc-Golf track, orientation trail, mountain bike

4. Imposing constraints on users

For structures wishing to use the site for their events, we impose different constraints. The first is the choice of the site: events causing many people are concentrated in the same area (Great Plains).

For the development of ongoing activities on the site, the Arche de la Nature has established partnerships allowing the application of charters (through occupancy agreements). This is the case for the two refreshments / snacks spaces, for which we require a list of products for sale (local products or fair trade), and application of a tariff policy to make the activity accessible. The same is true for the rental bike and canoe, where in addition to the policy rates available, we require carriers to ensure good accessibility (the third wheel for wheelchairs or electric boats for families). Finally, we can also mention that the installation of buildings should be well inserted into the landscape and that archers have to observe strictly the safety rules.

The site is available for free (without provision of equipment) for the majority of hosted activities. This is mainly associations; educational facilities ... Private facilities do not have free access and are discouraged. The use of this site is mainly for sports (cross organization of various competitions), environmental groups (thematic excursions, exhibitions, ..), cultural associations (concerts) and school (sports activities and outputs the discovery of the environment).

We impose constraints on the organizers, such as the prohibition of traffic, the choice of themes related to the image of the site, a system of signals adapted (no markings on trees or soil painting), integration of our logo on all media of communication or need to keep the site accessible to the public: the public usually present should still use it normally (not "privatization" of spaces).

To ensure compliance with these constraints, we have chosen to work with the project leaders in their approach.

Since we consider that the reception of these events helps to publicize our park, we tend to encourage them.

Develop partnerships and impose our charter (3 examples)

Refreshments / snacks



- Charter for products
- Appropriate pricing

Bike and canoes rental



- Appropriate pricing
- Disabled accessibility ("third wheel")
- Power boats for families

Archery



- Building type
- Safety

Some issues have not yet found a solution: the demand for barbecues (where we are studying the possibility of setting up a permanent structure), or the demand of a camping site (in this context, we encourage partners around for hosting development).

In addition, for those private structures that want to organise a private event, we refer them to partners in the vicinity of the site.

In conclusion, the Arche de la Nature has clearly made a choice to support the massive home public, free of charge, but on a focused and framed way.

Collserola Park: from sporadic use to saturation: seeking a balance among conservation, economic sustainability and social use

Marià Martí Viudes, managing Director of the Collserola Natural Park Consortium
Isabel Raventós, head of the Public Use Service of the Collserola Natural Park Consortium

Collserola Park is a well-preserved, 8.000-hectare natural area located in the heart of the Barcelona metropolitan area (3,2 million inhabitants). It has a managing body, the Collserola Natural Park Consortium constituted by the Barcelona Metropolitan Area (AMB), the Barcelona Provincial Council (Diputació de Barcelona - DIBA), the Catalonia Government (Generalitat of Catalonia) and the nine municipalities with parkland. It has 70 employees and a budget of 5.1 million Euros for the year 2013 - mainly contributions from AMB and DIBA.

The park protection stems from the Special Plan for the Organisation and Protection of the Natural Environmental of Collserola Park (PEPCo) , definitively approved on 1 October 1987. Concerning public use, the document describes and analyzes leisure activities taking place in the park at the time , and recognizes that it is not a traditionally analyzed issue. It mentions hiking, horse riding, motocross , hunting, picnics , walks , lunch excursions and the Tibidabo amusement park and makes some assessments and proposals. Finally it says that other ways to use the park based on public awareness should be considered - as there is still not much appreciation for environmental values.



The Special Plan (SP) reflects the tradition of park recreational use and proposes to rationalize and diversify it. It recognizes that – as any other human activity – it has a direct impact on ecological systems. It foresees an increased recreational use in the future and aims to promote interaction and social contact in the best equipped areas, by localizing the most suitable areas for ensuring compatibility between natural characteristics and social demands. Along with a better control and management of passive recreation, it reminds that the true creative aspect of the recreational management in natural areas is the promotion of educational and perceptual attitudes.

With the approval of the SP in 1987, urban rules complementing the Metropolitan General Plan (Pla Metropolità General – PMG) in 1976 were also approved . They slightly describe which leisure activities can take place within the different parts of the park.

Thus, the Special Plan divides the park into three zones according to their naturalness and use - natural (41,7%), semi-natural (48,7%) and agricultural (7%) - and proposes to concentrate the most part of the recreational activity in the semi-natural area. In order to do so, it designs within this semi-natural area, special treatment areas, which constitute the 18% of the park but that at a project level, they may affect the 10% of the park. These should be the most active parts of the park in terms of public use, and the type of use and treatment to be carried out is conditioned by the naturalness of the area.

The SP considers that environmental education - understood as a process of observation, interpretation and understanding of the environment and promoter of responsible attitudes towards it - is a key element in the activities to be carried out within the park. The SP considers that responsible attitudes towards the environment - among park users and citizens in general - should be promoted I.,.

In the First Additional Provision of the SP, it states that the managing body will approve the corresponding ordinances related to the user - which shall regulate the use, frequency and harvesting, not covered by the mentioned rules.

Since 1987, the park use has been gradually increasing and so, in 2000 the circumstances forced the approval of the Ordinances Articles of the Collserola Park. This paper aims to manage and deal with all activities, by using the existing legal references (laws, ordinances, decrees, etc.) , by referring to the disciplinary framework (if any) and by filling the uncovered gaps by the existing legislation. However, there was still the problem that without a disciplinary framework, these ordinances may not have practical application.

25 years after the adoption of the SP, there are many proposals that are still valid, but others had been to be substantially modified. So, many of the most important foreseen specific treatment areas have not been developed. There has not been budget to develop them, but also the use of the park has been moving from picnic and barbecue (BBQ areas) to leisure and contact with nature - which means a more diffuse use of the park and less concentrated in specific sites. So, there is fewer requests to prepare organized areas for welcoming crowds.

This perception and environmental awareness increase , has forced that a protected space by planning legislation is declared a Natural Park in 19 October 2010 - 23 years after its protection approval. This statement involves the drafting of a new Special Protection Plan, adapted to the current time and reality, but also with a greater burden of nature and ecosystems protection.



Lately, the culture of health and sports and that more and more people has more free time, it has lead to a sharp increase of the number of park visitors. On one side for fashion reasons and on the other for easiness in accessing nature from the city - due to the proximity and low cost in terms of time and money.

As mountain biking has become a practice with many followers, now runners have colonized the park. Everyone goes running around Collserola

The 80s initial approach to concentrate recreational activities on certain areas and release the rest of areas, is not valid anymore. Today the public wants to walk, to hike, to run all over the park. People want to get dispersed everywhere. And the traditional areas of concentration of people (honey pots) continue to be massive.

In this context we should wonder: May Periurban Parks respond to all needs of leisure that are being presented according to the trends and the socio-economic context?

Wide range of applications: traditional and new activities



First of all a network of itineraries where this users' flow can run should be designed. Secondly, it should be ensured that users use them in a disciplined way and do not enter into the crop fields, forests or rivers, - either on foot or event worst, on BBT- by opening new paths, destroying vegetation and eroding physical substrate. Thirdly, it is important to determine which practices can or cannot be realized within the park.

No respecting the designed itineraries is a dire situation because it has a very strong impact on biodiversity, thus by altering the quietness of the environment, some species disappear - such as birds of prey which are an excellent indicator of the environmental quality of the area.

Can the Reserve Natural Park areas be granted without frequency?

In the case of Collserola, its load capacity allows taking in charge those activities in a requested moment and specific space?

This can only be done by establishing a regulatory and disciplinary framework, agreed upon by all levels of government, and what is more difficult, by having the capacity for its implementation.

In this difficult context, innovative solutions to regulate the park public use shall be proposed. For example, target tracks to meet certain practices, and / or setting use times for these practices (lanes and / or cycling times?)

It should be remarked that, in public use management and regulation, different strategies - depending on whether we are talking about large collective events or about users practicing sports or other activities individually- will be applied. Impacts would be different and therefore, regulation shall also be different.

Now, after 25 years of managing public use in Collserola - in which in a first stage the priority was getting to know the park and its natural values as well as structuring spaces to accommodate visitors – in recent years, the priority has been to regulate the different activities in order to avoid SATURATION and HIPERFREQUENTATION.

Currently the Collserola Natural Park Consortium is devoting a significant part of its team and budget to the public use regulation.

While waiting the deployment of the documents that will enable the implementation of the new Natural Park Special Plan, Governing Use and Management Plan (PRUG) and others, the Technical Services have to look for tools that can respond to the social demand for leisure in Collserola. Park rules must be adapted to the social reality of the Barcelona metropolitan population.

When planning tracks and trails in the 80s, conflicts among users such as cyclists, runners, families with children, elderly people seeking quietness, etc... were not expected.

Given this reality, in order to conciliate the good ecological status of Collserola with its social use, but to avoid saturation, a series of measures to provide solutions are applied:

1. Authorizations

It has been a hard work to implement the authorisations, but it is currently in the public domain that you cannot carry out any activity collectively in the Natural Park without a technical - administrative authorization.

When an authorisation to perform an activity in the Park is requested, a deep debate on the kind of activity, the number of participants, the itinerary or other reception areas, etc. is set. It has been laborious but the Consortium arguments are accepted. The Pedalades (“bike rides”) celebrations or other activities cannot exceed 200 participants per event. Foot races, 500 per each test. During weekends, events are preferably authorized on Saturday in order to avoid Sunday saturations. And if significant impacts are previewed, a deposit in cash will be requested which will be returned when the event is over.

2. Channelling, filtering and adapting new initiatives

There is currently a boom of new initiatives of mass participation, an offer that aims to meet the demand. Some proposals have to be rejected and others adjusted by restricting the itineraries, by dividing groups (into 2 or 3 routes) or by placing the bulk of logistic space in urban areas outside the park. Unauthorising sprinting races with vehicles (BTT or similar). Unauthorising activities that could bring crowds and damage the environment.



3. Participatory projects with key stakeholders

An example has been the Collserola Bike Project, “Bike Best Practices in Collserola ”.

The approach of this participatory methodology has two reasons: on one side, the Consortium conviction as public administration, to establish a joint management in decision-making affecting citizens. On the other, the participatory element and the decision-making capacity are key factors in the subsequent assumption of regulatory contents or awareness as they are the result of suggestions made by stakeholders with the transparency of not having taken a prior decision.

So, it gathers all groups directly and indirectly involved in cycling use in Collserola, to create a space for dialogue and debate which jointly and after valuing all opinions and points of view, are defined as "sustainable" cycling itineraries around the park - and in a broader framework, distribution and organization of cycling use in the whole Collserola Park- , are defined .



4. Collaboration agreements

Lately, this is a good management tool for public use. The agreement allows the dialogue with the organizer or company to discuss everything the Consortium considers important to improve good practices in Collserola. Two objectives are achieved when signing agreements: first of all, the organisers commitment to involve participants in a good use of the park and secondly, to involve organizers in maintaining the Natural Park through a financial contribution.

5. Public use permanent table with municipal officers.

Public use management cannot be Collserola Natural Park Consortium's only responsibility - in addition, in a moment of lack of human and financial resources. With the aim of joining efforts and coordinating anything related to park public use, a technical table to raise proposals to governing bodies and take measures for a park good social use has been constituted. It implies staff from the administrations of the whole territory - a factor that aims to involve and corresponsibilise these administrations.

6. New Information and Communication Technologies (ICT)

By joining Social Networks and other online tools (Facebook, Twitter, YouTube , etc.) a volume of recipients unthinkable 20 years ago are being reached. But that is in both directions. On one side, a message on Good Practice appropriate at any moment can be issued and on the other side negative "clandestine" calls and, obviously, unauthorized - which were previously difficult to detect- are being detected.

7. Studies and assessment

In order to quantify the capacity of visitors, recounts are conducted in the Consortium facilities. A small network (automatic) of 8 devices, to count walkers and bikers is also available.

8. Challenge for the future

It is very important to update the data periodically with perception and frequency load capacity studies to anticipate conflicts difficult to resolve.

Conclusions

An itinerary network, facilities and areas in which to accommodate the use and frequency shall be designed. But also a regulatory and disciplinary framework, agreed upon by all the authorities, that can be applied. A monitoring body to ensure the compliance of all regulations is also needed.

Dialogue and collaboration with civil society shall be promoted - especially with key stakeholders, involving all levels of government to get synergies and corresponsibilities.

It is essential to inform, educate and promote responsible attitudes to users and citizens in general towards the environment, nature, biodiversity, by using all means available, especially networks.

In a so under pressure and so fragile natural spaces, if with the leisure activities we regulate, we do not get a higher level of awareness, education and involvement in the protection, respect for nature, love of the natural heritage , etc. ., it is clear that we will not succeed in our main objective which is to preserve ecosystems and environmental services that provide and improve our quality of life.

The visit of Pope Benedict XVI, how to host a massive event in a Periurban Park

Riccardo Gini, director of the Parco Nord Milano

Parco Nord Milano 2-3 June 2012

The Seventh World Meeting of Families events took place in various locations in the city of Milan. The Parco Nord Milano – Bresso Airport hosted the “Feast of Testimonies” celebrations on Saturday, June 2 (300.000 people), and Holy Mass on Sunday, June 3 (1.000.000 people), both in the presence of the Holy Father.



The reasons of the choice

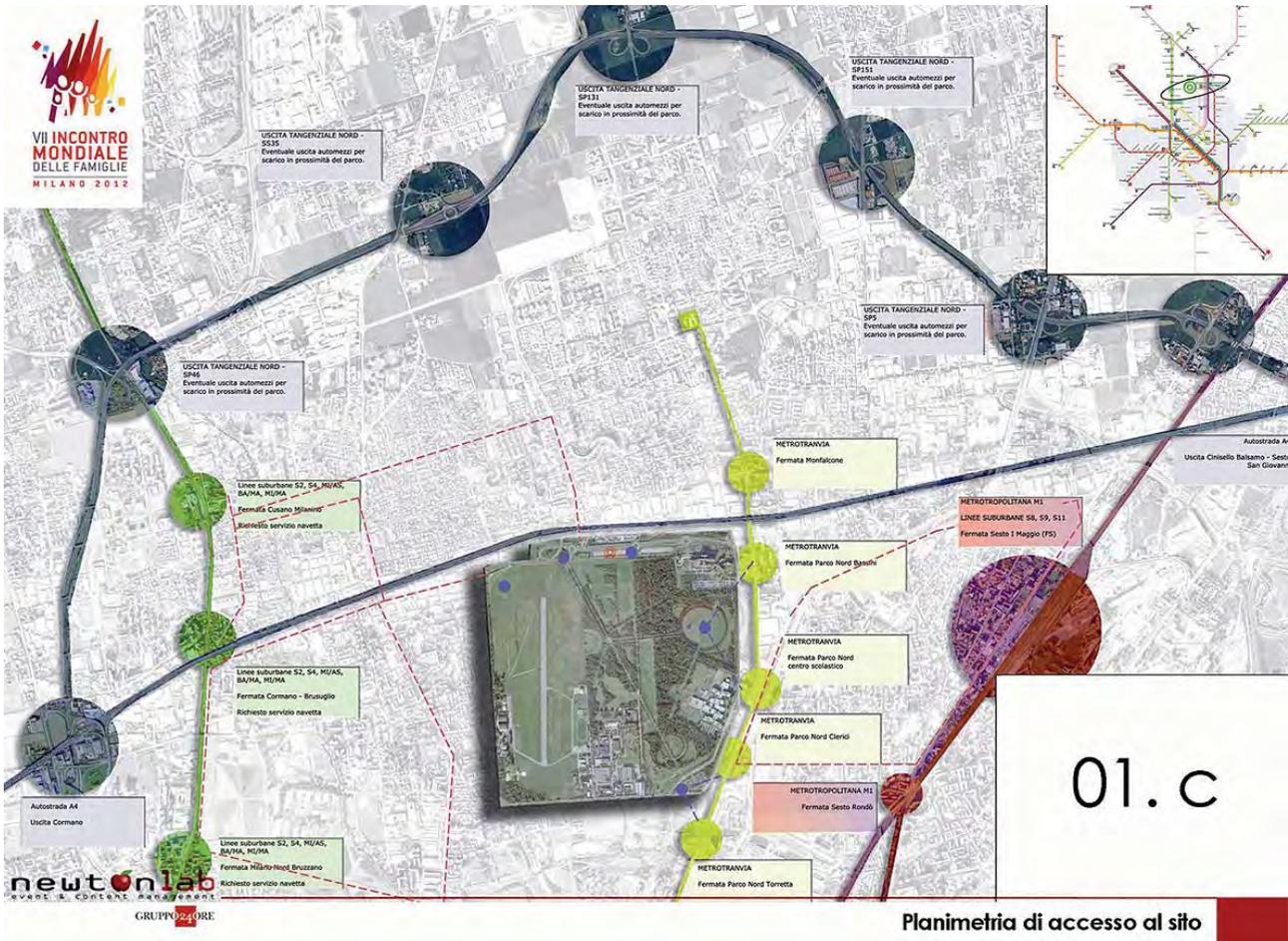
The Bresso Airport is a civil airport for tourist flights. It has an overall surface area of 790.000 m². As an active airport, it is structurally suitable for hosting a significant number of pilgrims and would not require any particular alterations that could damage the environment. Nevertheless the site is surrounded by the Parco Nord Milano, a regional park built for 30 years with 1.200.000 m² of urban forests and wild nature.

From the point of view of security, as an airport it has all the requisites for guaranteeing security and the necessary measures for carrying out security checks. There is a helicopter emergency medical service in situ and several hospitals located in the vicinity. The location is served by public transport and is easily accessible by motorway.

The Parco Nord Milano itself appears as a “green belt” around the airport, which would act as a protecting belt of the site that will host the Pope.

Furthermore, in order to ensure an effective flow of the pilgrims, a study was undertaken to increase public transports and the urban network to satisfy the requirements for the two days of the Pope’s presence. That is

to say that all the pilgrims would have walked from 3 to 4,5 kilometres to reach the site, through the park; and they would have cross it twice (on Saturday night and on Sunday at dawn).



The risks nobody wanted to see

While everybody was scared about the presence of such an important person as a hypothetical target for terrorism attack or was worried about such a great amount of people gathering together in the same place, no one paid attention to the risks that the whole event could cause to the park's ecosystems.

During the planning and the organization of the event, we always underlined the possible nuisances the event could cause on natural places.

- Tents during the night (rubbish, getting drunk, noise throughout the night)
- Lack of toilets (droppings),
- Long walk under sun shine (fainting, dehydration)
- Soil compaction and destruction of young seedlings
- Vandalism on the forests (fires, cutting firewood)

In one sentence: the "Great Feast for the families" risked to become unsustainable for the park.

The difficulty was to convince all the actors that the park was not an empty land or a fair planned to host such great amount of people like usually happens in this sort of happenings, but a weak natural site constructed year by year, where nature and human beings have to live in balance. At this occasion, humans were too many!

Strategy of defence

At once, all the 40 workers of the park started to work at that event from the point of view of environmental disasters prevention.

We followed from the beginning all the work tables called up from Prefecture, because we realize that in any subject the decisions to work out problems could have had a negative impact on environment: transports and pilgrims flows; energy and water supplies; safety and security; volunteers to face up all the situations; welcome services and cultural facilities.

After that, we planned our own PLAN OF DEFENCE

- Change (where possible) the plan of the site (i.e.: 17 gates to be opened but only 9 to get in – the other only in case of emergency exits). Doing so we tried to let different well-ordered flows of people instead of waves and tides of people coming and going everywhere
- Fence the most significant naturalistic areas and woodlands so as to prevent people to get in, to camp, to stay
- Forbid to use paths and the ways within the park to non matter who but pedestrians
- Gather at least 500 Volunteer Guards all over the region, from other parks and municipalities who strictly had to look after the safety of the park, They took turns for 72 hours nonstop, living in tents put up in our Office and Visitor Centre
- Foresee a nonstop cleaning service of the park for 48 hours



Strategy of welcome

After working hard to save the park from negative effects, in the last month we tried to imagine how to turn the event from a challenge to an opportunity for the park itself.

We realized this event would be unique– so extraordinary that we couldn't miss it. Little by little confidence and proud overrun fear and timidity.

One million of people would walk through our park, would taste it, would experiment a feeling of joy by walking across our park: we had to let them know what the place they were getting through was, its history, its meanings. They were looking for the Pope, they would meet the Creation as a whole.

So we managed at the end to put in place a WELCOME AND COMMUNICATION PLAN - to be particularly carried ou along the 5 walkways the pilgrims were supposed to follow

- The Water Houses: free fresh water supply both plain and sparkling
- The Welcome Huts from 4 am to 22 pm where all the workers of the park were involved to hand in the free gadget we produce: an empty bottle, the map of the park, a short guide of the "10 reasons why to visit our park", a fidelity ticket to visit other park in Lombardy
- Rest point with food and beverage after 2 km of walkway

- The ad campaign “The Park is...” to show not only naturalistic values but also social, historical and landscape values
- A short 4 minutes film on the park’s history that was shown several times during the event, while waiting
- A special edition of a book about hope and joy for life: a young and faithful woman suffering from cancer who lived in Bresso and used to look out her window and see how the park was growing
- A set of activities to be held on Sunday afternoon when families after the Mass were supposed to spend some hours in the park: naturalistic guided tour, dance performances, families laboratories



What remains?

The memory of living an extraordinary event is perhaps the most important gift that everyone in our team feels to have.

The Feast has been complete, fruitful, joyful, professional and human.

One million pilgrims come softly in our park thanks to all of us, thanks to all the communities who host this important event, thanks to the Police and all the Guards who worked hard, thanks to the 5.500 volunteers who managed to guarantee the safety of all the pilgrims and of the environment as well.

Some other important legacies: After the venue of the Pope, 13 ha of land that used to be owned by the Airport turned into green – in our property. And the fences have been re-constructed along the new border!

In these 13 ha, new woodland has been planted (The Wood of Families), thanks to the sponsorship of the Foundation.

The name and the images of Parco Nord Milano spread out all over Italy: more curiosity and awareness of our role. Even from a local point of view, everybody in the city now know what the Park is and what it means.

As for communication, we now have two different films and hundreds of photos on the park and on the event.

Even if one million people passed, after some hours the Park looked as it used to be before.



Holding massive cultural and sporting events on a N2000 site: the GRAND PARC MIRIBEL JONAGE

Gilbert Luc Devinaz, president of SEGAPAL - Grand Parc Miribel Jonage
Didier Martinet, director of SEGAPAL - Grand Parc Miribel Jonage

The Grand Parc Miribel Jonage was created in 1968. This park, located at the east of Lyon, is a Periurban park of 2200 ha which spreads over 11 municipalities. The SYMALIM - a mixed union- is the owner of the park.

The SEGAPAL - a Local Public Company- is the management company that operates, maintains and enhances the park.

In 2012, the SEGAPAL changed statutes: it went from a semi-public company to a local public company with 100% public shareholding, while remaining a private company. It has 17 shareholders instead of the 7 it had previously. It is recognized as the technical tool of the Rhone Upstream and it operates on a much wider scope than the Grand Parc Miribel Jonage.

70 permanent employees (30 in high season) are responsible for managing the site. Their different professions can reconcile all uses including public hosting in a natural area.

The main uses of the Grand Parc Miribel Jonage are:

- Restore flood storage fields upstream of Lyon.
- Maintaining resource of drinking water
- Develop outdoor recreation
- Preserve and enhance the natural heritage.

The Grand Parc Miribel Jonage is a busy Periurban Park located 10 km from the center of Lyon. It welcomes four million visitors with peak attendance at 50.000 per day during the summer.

The uses are varied: use of four supervised beaches in summer season, sporting events, bike paths or nature trails.

The Grand Parc Miribel Jonage is a site that also houses a remarkable biodiversity. Since 2003, the entire Grand Park is qualified Natura 2000 site "Lawns, alluvial and aquatic environments" and this site is managed since 2009 according to a statement of objectives

The Grand Parc Miribel Jonage has high stakes in terms of biodiversity:

- Many rare habitats (from before the development of the Rhône) are present on the site
- 12 rare and / or endangered species of Community interest can be observed
- The conservation status of biodiversity is particularly delicate because of the development of certain human activities.

The Natura 2000 objectives to be achieved by 2015 are of several kinds:

- Improvement of the conservation status of endangered species and rare habitats
- Restoration of the river system
- The implementation of 34 forms of actions is proposed to achieve these goals by 2015
- Reconciling biodiversity and human activities

This last point is important because 50 events per year are held at the Grand Parc Miribel Jonage. They take the form of concerts, sporting or cultural events, entertainment...

The Grand Parc Miribel Jonage mobilizes itself to reconcile these two issues: the protection of nature and human activities.

Site management by SEGAPAL allows a sustainable management having in mind that the Grand Parc Miribel Jonage is governed by 29 different texts.

All applications to host an event are processed transversely by all services. The application is first recorded by management who then distributes it to all services (planning, monitoring, events, nature) and each service studies the constraints and forms an opinion.

Opinions are then forwarded to the person responsible for Natura 2000, which summarizes the constraints and formulate the conditions for hosting the event and sends a notice to the management mission. A daily exchange within our various services operates (monitoring, planning, N2000, leisure). Numerous meetings between the various actors are organized (Steering Committee meetings, working groups ...). Various awareness campaigns are conducted (targeting the press, communication posters, stands ...)

The park has also approved **A CHARTER NATURA 2000 ON LEISURE ACTIVITIES:**

The development of this Charter Natura 2000 is an action proposed by the Document of objectives of the park. The SEGAPAL drafted this Charter after several meetings between stakeholders from leisure activities and environmentalists. This document has been approved by the State services. Since 2012, the Charter is transmitted by SEGAPAL to any applicant of sporting or cultural event.

The Charter is a list of commitments aimed to avoid any impact on the natural heritage during the event. The implementation of these commitments must be approved by the organizers who sign this Charter. The location of the event is validated with the responsible for Natura 2000. In case an organizer refuses to sign the Charter, he will be subject to the legislation on impact assessments Natura 2000 (he has to write a document that is analysed by the State services).

This approach leads to an exchange between the responsible for Natura 2000 and the event organizers. This joint work helps to understand the vision of both parties and to inform each other.

The aim of the Natura 2000 charter is twofold:

- Preservation of biodiversity without prohibiting the practice of leisure activities
- Organisation of leisure events without affecting the remarkable biodiversity.

The charter presents the values of the natural area and hence the event organizer becomes aware of the quality of the site that will host the event.

The organizer has **Obligations**. Compliance with these obligations is subject to control, in the event of infringement, the adherence to the Charter may be suspended.

The organizer receives **Recommendations**. Recommendations not subject to control. They are intended to raise awareness of the applicant to conservation issues, encouraging him sustainable practices

For all events the organizer must:

Involve the park structure in the organization of an event in order to take into account the issues of the Natura 2000 site.

Stay on areas and facilities provided for these activities.

When organizing an event, participants must commit to follow the signs of the course.

Observe management equipment and environment protection (barriers, fences, signs ...), their presence contributing to maintain or promote the good ecological status of the site.

Define and materialize parking areas and routes of the public outside the habitats of Community interest.

Establish a temporary and mobile signage (banners,..) .

Ensure the removal of equipment and signage as well as the cleaning and restoration of places, once the event is over.

Do not distribute flyers to prevent their dispersal in natural environments.

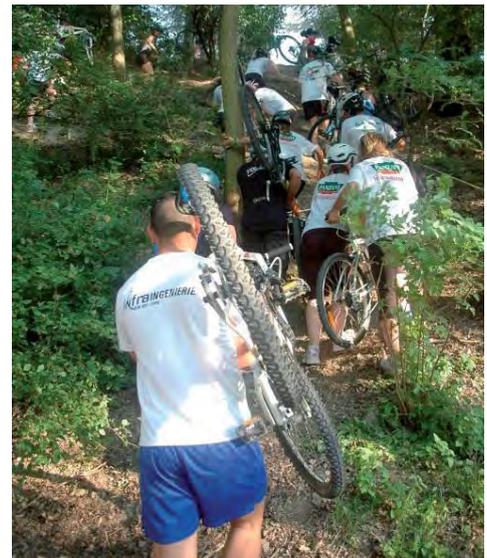
For hiking or mountain bike races

Stay on existing paths. Many habitats of Community interest are indeed sensitive to trampling, such as dry grass, hay meadows and wetlands and aquatic environments.

Crossing streams only by crossing facilities provided for this purpose

Install the assembly points such as refueling outside the Habitats of community interest.

Bypass Beaver burrows / huts (distance > 30 m). Beavers are sensitive to disturbance.



For water events (canoe, rowing ...)

Use the existing points of embarkation and disembarkation.

Install walkways and points of combinations, such as buoys or beacons, outside areas of high " environmental sensitivity " (distance > 5 m) , that is to say, spawning areas, seagrass beds of Community interest or reeds

Follow the water lines dedicated to the practice of water sports.

Bypass Beaver burrows / huts (distance > 30 m). Beavers are sensitive to disturbance.

For equestrian events:

Stay on existing paths. Many habitats of Community interest are indeed sensitive to trampling, such as dry grass, hayfields and wetlands and aquatic environments

Define areas enclosed to avoid trampling and further degradation of habitat areas of community interest.

Ensure the removal of horses manure once the event is over.

For musical events and business seminars:

When setting up the event equipment (tent, stage, podium , generator ...), respect the distance to habitats of Community interest , defined with the responsible of N2000 and to Beaver burrows / huts (distance > 100 m). This distance is to reduce the nuisance caused by the presence of a large and sound public.

Keep landscape elements (trees, waterholes, rock pile , etc.) when the development of equipment dedicated to the cultural event. These have indeed an important ecological role in many species.

Set the reception areas outside the habitats of community interest.



An example with Woodstower festival

This music festival welcomes between 15 and 20.000 people. Every year the facility is subject to our services that formulate constraints. It is proposed internal consultation meetings and a synthesis under the control of the responsible of Natura 2000.

In the end, a signed document is written in the form of commitment to charter Natura 2000 on activities . Specific constraints to the festival are:

- it should position itself as an eco festival
- it should consider the fragility of the site.

Thus Woodstower festival:

- practice rubbish sorting
- its food stalls are based on short circuit and advise on nutrition
- practice low prices to accommodate all public
- encourage transport in soft mode (bicycle convoy organized in nearby)
- uses recycled materials for decoration and signage
- seeks to reduce paper documents
- uses recyclable cups...

Hence the SEGAPAL manage to reconcile the hosting of events with protection of an outstanding natural site such as the Grand Parc Miribel Jonage.



Local Government and natural periurban areas in Greece

Costis Papadopoulos, Vice Chairman of the Union for the Protection & Development of Hymettus (SPAY), Municipal Councilor of Helioupolis.

Scientific advisor – collaborator: Vasiliki Dimitriou, Forester-Environmentalist

Introduction

It is generally known that Greece possesses a rich environmental reserve with better atmospheric quality than most European countries, despite individual problems. Located at the crossroads between three continents, with diverse geomorphology and great climatological span, it has a distinctive biodiversity with particular vegetative and animal organisms, many of which do not exist anywhere else in the world.

However it lags in other areas, as a result of not incorporating their environmental dimension: On planning the financial policy, with the consequence of showing less progress when compared with other countries.

The great social and financial changes of the recent years start make their impact upon environmental quality noticeable in many areas. For example, the problem of flooding at Mesogeia due to creeks and the management of rainwater flow.

Greece, as an EU member state, is obligated to apply the Union's environmental policy and harmonize its Law with the Secondary Legislation, valid and formed each time within the Community. Thus, it is no exaggeration for one to say that dealing with environmental problems ought to be in harmony with community policy and legislation. Harmonization does not occur automatically. Usually great delay is noted and it is performed erratically, unwillingly or sometimes imposed by the European Court.

In Greece, a country mountainous to a great extent, with rich cultural and natural heritage, limited cultivable land, rich coastline and a multitude of islands, space is pursued for many uses.

A correct and fair utilization, driven by the protection of the environment, requires a careful and active handling by public entities. Only thus can controversies and conflicts be avoided. Land use must be agreed upon. Productive zones are to be defined and some particularly sensitive areas are to be protected.

Unfortunately, however, such a framework does not exist in our country yet. The country possesses **no integrated cadaster**, which forms the main infrastructure for environmental planning. It does also possess **no national and regional spatial planning**.

The wayward housing and city-planning policy of any running Government favors the reckless waste of space and an arbitrary housing expansion.

Land use planning, the enactment of order in space is regarded as an obstacle against land speculation and is avoided by whatever rulers under various pretexts, due to the known political cost. In this way the land is condemned to lose serious comparative advantages, loss of productivity and radical degradation of the natural environment, with the consequence of environmental damage which we all know and live with on a daily basis.

Local vs Central government

In general in Greece, and in particular within the environmental sector, the **principle of subsidiarity is not applied**, as constitutionally enacted as a basic operating principle of the European Union. There it is stated: In the fields not subject to its exclusive competence, the Community acts according to the principle of subsidiarity, only if and to the extent where targets of the action provided for are impossible to adequately accomplish by the member-states and it is consequently given, due to the dimensions or the results of the action provided for, that they be accomplished better on a community level.

Here lies the biggest problem both in applying environmental policy, as well as in the role carried out by Local Administration on this field, which is remarkably weak and many times coercively non-participating.

The issues of environmental policy, strategy, planning and application are largely unknown to Local Government. They might exist as a general skepticism but they remain out of its scope, competence and obligations.

The most complete competence is the handling of urban waste by the Local Authorities. The secondary Local Administration exercises only certain competencies regarding environmental terms, most of which are of participating or consulting nature.

There is sufficiency of law for the environment. **What is missing is mostly cooperation with the Central Government in forming an environmental policy, the lack of enforcement mechanisms and resources for applying the measures.** Before all, concentration of decisions with the Central Administration has created numerous problems, resulting in the growing degradation of the environment.

Practically, concerning the environment, Local Administration cannot carry out the Local Administration, as defined by its own name.

Many times have we heard voices of individual Parliamentarians from Central Authority accusing the Local Administration for corruption and intertwining interests in relation to the environment and the periurban areas. The Central Administration considers it can itself protect the environment more effectively across the entire land and consequently at the particular areas than the self-governed local society.

And it believes so not only because Local Authorities are deprived of the means required for planning and enforcement, but because it claims that influence of private interests is easier and more common within the tight limits of Local Government.

Did it ever wonder how the country managed to concentrate itself in two cities and particularly in Athens?

Have they, by any means, thought who created the phenomenon and the national spatial planning, especially with the latest one by Mr. Souflias, reducing the number of Regions and establishing Athens and Salonika as Metropolitan Municipalities? Meaning additional development for Athens and Salonika.

Or the continuing environmental degradation via unauthorized construction, caused by the unregulated development of motorways and other big projects?

Or do we forget that most Mayors who served at the Hellenic Parliament, Mayors of Athens, and it had to be one man unrelated to the Parliament to pull down unregulated structures on free and common places?

However, this could be half the truth and/or an excuse. Reality has to do with distributing roles and competencies between the Local Authorities and the State Administration and the problems brought from this and it is the subject of conflict for many years. Down deep it might conceal an issue of democracy for our country or power games, as they are usually called.

Urban greenery

Within the urban fabric of atmospheric pollution and the endless concrete picture, we can speak of the existence of urban stress. In this way, the contemporary, the urban green becomes a necessity of psychic health and, at the same time, ecological, environmental survival.

It is a fact that whatever natural environment is found within the cities, it exists because urban societies need it. They ought indeed to preserve it and handle it as nature within the city, in the framework of the general urban management.

However, we do not define greenery of any kind as urban greenery. It is the flora that attracts a rich fauna, capable of comparison with the natural landscape of the countryside. In essence, urban greenery can only cover large space uniformly and not in the form of fragmented and interrupted parks, in order to establish a natural armor against changes of meteorological phenomena.

In an urban space, surrounded by forests, there is a movement of cool and humid air, which cleans the urban space from atmospheric pollution. It must be pointed out that the existence of greenery in any form is beneficent both to the microclimate, as well as the atmospheric self-cleansing.

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transformed into concrete and asphalt surfaces, with minimum or none greenery. And where it exists, it is simply lawn and small bushes. After all, tree planting is not based on forest and agriculturist assessments, regarding the choice of trees and their place within the urban space.

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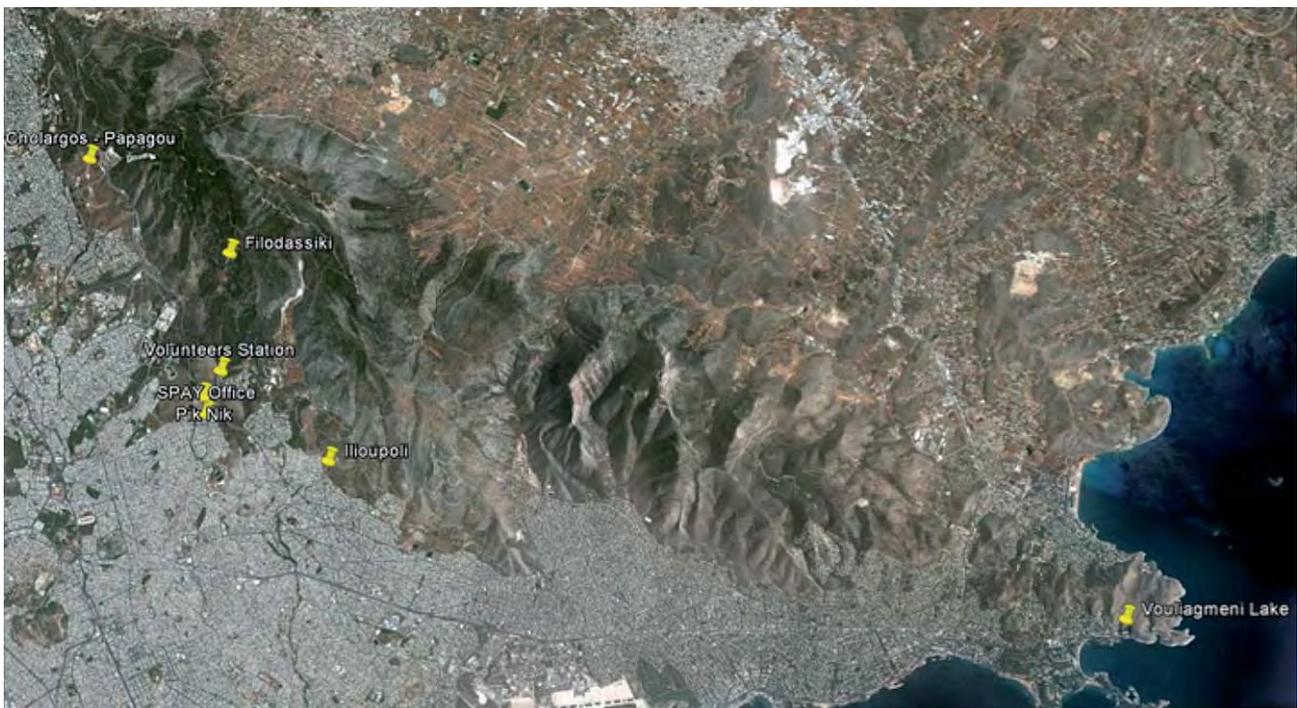
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volunteer organizations and the formation of institutional framework principles for the volunteer teams. **Finally, the formation of a consultation and collaboration framework between Local Authorities and the Central Administration.**

The Union for the Protection & Development of Hymettus Mountain (SPAY)

At this point I find it purposeful to refer tersely to the activities, operation and creative intervention of SPAY, the Union I am honored to serve for as the Vice Chairman.

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Its role involves research, study, prevention, coordination, suppression and training.

Hymettus is now one of the five mountains surrounding the Athens basin and there is a great number of inhabitants around it. It is located on the east side and it rises between the Athens basin and Messogia, directed from the north southwards, with an area exceeding 80.000 stremmata and with its highest peak, Evzon, reaching 1.026 meters.

Its benefits are numerous. First of all it enriches the atmosphere with oxygen. It depollutes. It weakens the concentration of polluted air. It reduces wind speed. It reduces noise. It reduces tension. It softens extreme weather phenomena and temperatures. And it impacts air humidity.

Despite this, of course, it has also suffered a lot: Grabbing of its lands, unregulated building, fire, reclamations for extending farmland, overgrazing and grazing upon burnt land and certainly acid rain which we all know.

To view the flora status today, we can say it resulted after numerous and long-term reforestation efforts performed. The sole part of Hymettus, which today bears its natural vegetation, is the north, northeastern part, that is at Agia Paraskevi and Glyka Nera, which always had tree vegetation and a portion of Aleppo pine, in contrast to the eastern part. Furthermore, about 600 approximately plant species and subspecies can be

found, a figure quite high in proportion to the area of the mountain. Out of these 54 are endemic, while 59 are protected by the Greek legislation, by international conventions or are listed in catalogs of endangered species. Some of them you see on the page over here, the pine, the cypress, the Judas tree. We also have 44 kinds of wild orchid on the mountain.



Mount Hymettus and Attica in the background

At the pine forests, existing in the Hymettus area and at the high development scrubs, the fauna is represented by a large variety of birds and mammals. Several of these species are rare or endangered on a European level, which is why they are protected by Community Guidelines and European Conventions.

In all about 100 species of birds have been recorded, which use the area either as permanent inhabitants, or as seasonal visitors in the course of their migration.

In addition, we have also recorded mammals on Hymettus. The fox, the badger, are known to us here in Greece.

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Local Government and natural periurban areas in Greece

Costis Papadopoulos, vice Chairman of the Union for the Protection & Development of Hymettus (SPAY), Municipal Councilor of Helioupolis.

Scientific advisor – collaborator: Vasiliki Dimitriou, forester-environmentalist

Introduction

It is generally known that Greece possesses a rich environmental reserve with better atmospheric quality than most European countries, despite individual problems. Located at the crossroads between three continents, with diverse geomorphology and great climatological span, it has a distinctive biodiversity with particular vegetative and animal organisms, many of which do not exist anywhere else in the world.

However it lags in other areas, as a result of not incorporating their environmental dimension: On planning the financial policy, with the consequence of showing less progress when compared with other countries.

The great social and financial changes of the recent years start make their impact upon environmental quality noticeable in many areas. For example, the problem of flooding at Mesogeia due to creeks and the management of rainwater flow.

Greece, as an EU member state, is obligated to apply the Union's environmental policy and harmonize its Law with the Secondary Legislation, valid and formed each time within the Community. Thus, it is no exaggeration for one to say that dealing with environmental problems ought to be in harmony with community policy and legislation. Harmonization does not occur automatically. Usually great delay is noted and it is performed erratically, unwillingly or sometimes imposed by the European Court.

In Greece, a country mountainous to a great extent, with rich cultural and natural heritage, limited cultivable land, rich coastline and a multitude of islands, space is pursued for many uses.

A correct and fair utilization, driven by the protection of the environment, requires a careful and active handling by public entities. Only thus can controversies and conflicts be avoided. Land use must be agreed upon. Productive zones are to be defined and some particularly sensitive areas are to be protected.

Unfortunately, however, such a framework does not exist in our country yet. The country possesses **no integrated cadastre**, which forms the main infrastructure for environmental planning. It does also possess **no national and regional spatial planning**.

The wayward housing and city-planning policy of any running Government favors the reckless waste of space and an arbitrary housing expansion.

Land use planning, the enactment of order in space is regarded as an obstacle against land speculation and is avoided by whatever rulers under various pretexts, due to the known political cost. In this way the land is condemned to lose serious comparative advantages, loss of productivity and radical degradation of the natural environment, with the consequence of environmental damage which we all know and live with on a daily basis.

Local vs Central government

In general in Greece, and in particular within the environmental sector, the **principle of subsidiarity is not applied**, as constitutionally enacted as a basic operating principle of the European Union. There it is stated: In the fields not subject to its exclusive competence, the Community acts according to the principle of subsidiarity, only if and to the extent where targets of the action provided for are impossible to adequately accomplish by the member-states and it is consequently given, due to the dimensions or the results of the action provided for, that they be accomplished better on a community level.

Here lies the biggest problem both in applying environmental policy, as well as in the role carried out by Local Administration on this field, which is remarkably weak and many times coercively non-participating.

The issues of environmental policy, strategy, planning and application are largely unknown to Local Government. They might exist as a general skepticism but they remain out of its scope, competence and obligations.

The most complete competence is the handling of urban waste by the Local Authorities. The secondary Local Administration exercises only certain competencies regarding environmental terms, most of which are of participating or consulting nature.

There is sufficiency of law for the environment. **What is missing is mostly cooperation with the Central Government in forming an environmental policy, the lack of enforcement mechanisms and resources for applying the measures.** Before all, concentration of decisions with the Central Administration has created numerous problems, resulting in the growing degradation of the environment.

Practically, concerning the environment, Local Administration cannot carry out the Local Administration, as defined by its own name.

Many times have we heard voices of individual Parliamentarians from Central Authority accusing the Local Administration for corruption and intertwining interests in relation to the environment and the periurban areas. The Central Administration considers it can itself protect the environment more effectively across the entire land and consequently at the particular areas than the self-governed local society.

And it believes so not only because Local Authorities are deprived of the means required for planning and enforcement, but because it claims that influence of private interests is easier and more common within the tight limits of Local Government.

Did it ever wonder how the country managed to concentrate itself in two cities and particularly in Athens?

Have they, by any means, thought who created the phenomenon and the national spatial planning, especially with the latest one by Mr. Souflias, reducing the number of Regions and establishing Athens and Salonika as Metropolitan Municipalities? Meaning additional development for Athens and Salonika.

Or the continuing environmental degradation via unauthorized construction, caused by the unregulated development of motorways and other big projects?

Or do we forget that most Mayors who served at the Hellenic Parliament, Mayors of Athens, and it had to be one man unrelated to the Parliament to pull down unregulated structures on free and common places?

However, this could be half the truth and/or an excuse. Reality has to do with distributing roles and competencies between the Local Authorities and the State Administration and the problems brought from this and it is the subject of conflict for many years. Down deep it might conceal an issue of democracy for our country or power games, as they are usually called.

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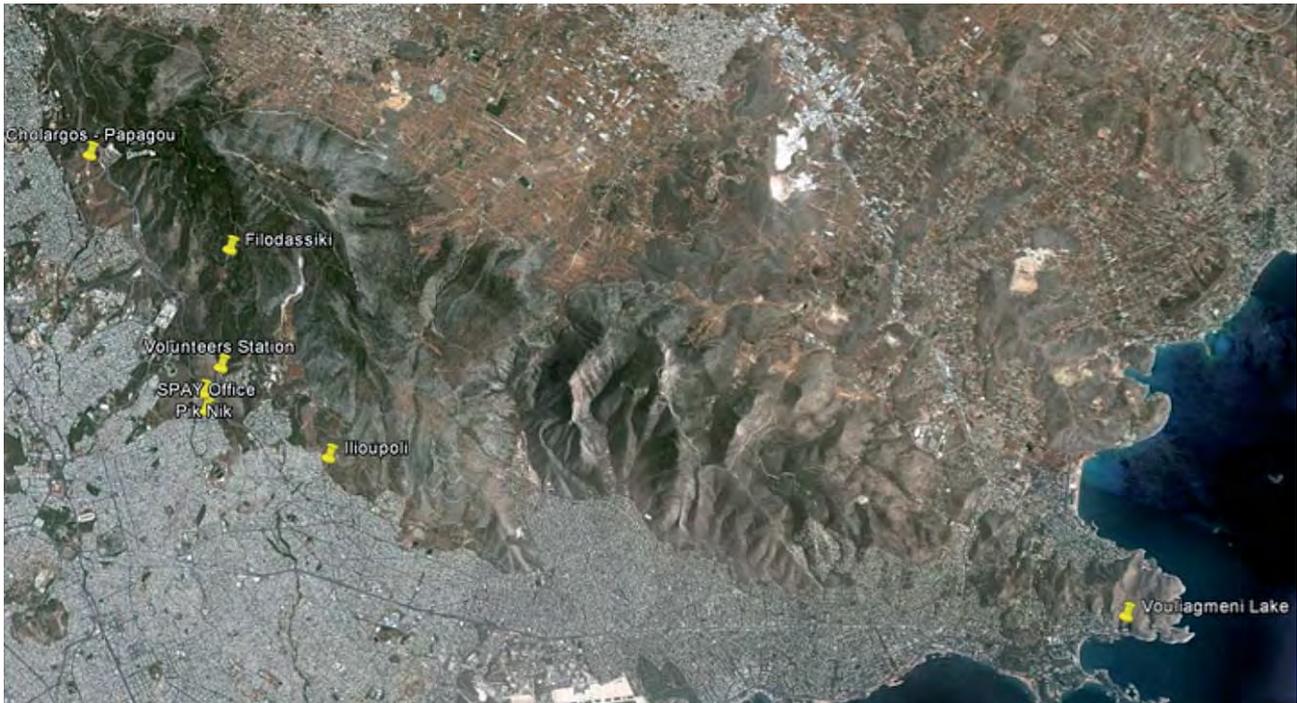
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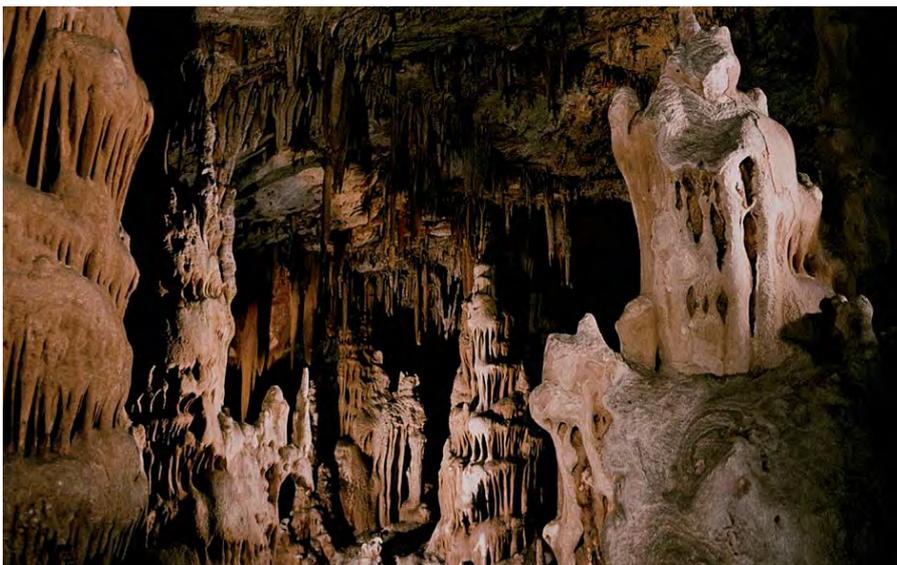
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Green Fund: Contribution to preserving and improving metropolitan urban and periurban natural areas in Greece

Konstantinos Serraos, former president of the Green Fund

The 'Green Fund' was established by the Greek government in 2010 with the aim of promoting nature conservation and investments related to climate change.

The Green Fund has a reserve of about 2 billion euro, originating from several sources and is obligated to provide it for the purposes it has been collected for. In a certain way, this is a novelty of the last years, since no such provision existed in the past.

The mandate is to provide this money for activities in favor of the **environment**. And of course, when saying environment, we mean both the **natural and the housing** one, which constitute two systems inseparably connected to one another and interacting.

What sets a limitation is that in 2012 the law defined annual expenses at 5% of reserves, that is 100 million, if reserves are 2 billion; and in 2013 this rate was reduced to 2,5%.

So, consequently, the real picture is that we have a Fund with a reserve of 2 billion euro, out of which though only 50 million may be spent annually for all activities, all sectors, all over the country. And this is an issue or in any cases a subject to be discussed.

So wanting to talk about the Green Fund and connect it mainly to the activities it can finance for the forests and particularly for the periurban forests, I would like to tell you **that Greek cities asphyxiate**. This is a finding I can make as an architect and city planner. **They asphyxiate due to very dense construction, suffocating population density, traffic-originating problems, pollution problems and the inexistent up to perhaps very limited free space.**

The image of such cities is also reflected on city aesthetics which reflects the conflict between urban and periurban natural environment as well. There is, then, an **apparent conflict between the housing environment and the periurban space**, because obviously the housing environment wants to further conquer periurban space. And **Hymettus forms a typical example** of such a periurban space. If one takes a look at aerial photos from the 40's, 50's and afterwards, it will become clear how, year after year, Hymettus is taken by housing development. So, consequently, periurban space and the periurban forests suffer damages.

Another example is . I shall not refer to fires or several other methods followed for changing uses and the establishment of another status. However, this is a real problem, which periurban space and periurban forests have been subjected to in Attica and elsewhere, too. And this is a reality.

Today, then, the Green Fund attempts to finance activities in favor of the environment, being a financing tool supervised by the Environment Ministry and having enough money, at a level sufficient to allow financing of activities.

What is the Green Fund?

It is a management and valorization of the so called green resources, which could be classified into four big categories:

The first category is the Environmental Balance Fund, which is a **Fund collecting fines paid by citizens for unregulated constructions they have made**. There have been two general arrangements the last years in our country for the settlement of unregulated constructions. And from these two arrangements the Green Fund has received 1,5 billion euro. So 1,5 billion out of the two originates from this source.

The second Fund is the Special Fund for the Application of Regulatory and City Plans, the ETERPS, backed by a variety of resources from several sources.

There is the Blue Fund, which is a third wallet, having to do mainly with maritime pollution, dealing with maritime pollution.

And there is the fourth wallet, namely the **Special Forest Agency**. It is **money originating from the woods, from all sorts of fees or revenues of other kinds, whose purpose is to be spent on forest protection and improvement**; this includes the periurban forests, which are subjected to the greatest pressure.

The aim of the Green Fund then is:

- To boost development through environmental protection.
- To promote and restore the environment.
- To face climate change, which constitutes a very general and broad problem.
- To obviously support the national environmental policy and
- To serve, above all, the public and social interest.

What new does the Green Fund bring in relations to the previous status?

A first issue, important target, is the effective monitoring of resource collection. There is a multitude of resources along various laws and regulations and one important job is that this money be collected.

The second and also extremely big bet is now the targeted valorization of these resources. The aim or mandate of the Green Fund is to spend the money received, not anywhere, but for the purpose it was has been collected for. Each resource has a full name, we might say.

In this framework, the one attempted these last two years, transparent and fair procedures were to be established in such a way that this money prove useful as much as possible, bring a result for the citizens, who at the end of the day are the Fund's financiers.

In this way, consequently, financing programs were designed for actions in favor of the environment, management rules with evaluation criteria were enacted, management, monitoring and application control processes. Evaluation and transparency rules were enacted for financing. Publicity rules were enacted, so that activities financed by the Fund, be broadly publicized and known to public opinion. Monitoring and application control procedures for the programs were enacted. What happens with money given to entities to implement projects? Are the projects implemented? Are they implemented well? And finally, the purpose and valorization of modern financing tools was laid down.

The financial program is structured in different programs, with priority axes, measures and actions.

Programs

1. Urban revitalization
2. Ensuring free space in the cities
3. Completion of city planning design.
4. Protection of marine environment.
5. Forest protection and improvement

The support of protected area management entities, which are 28, is not inactive. It is active, but simply extremely problematic and mainly without resources. They have now been included in NSRF though. But even there too many difficulties exist and the Green Fund assists them for whatever they cannot finance with European resources.

Environmental research, innovation and selective actions along with international cooperation, with the notion that it can be a leader for new financing, more to-date, more to contemporary edge and modern needs.

And finally, we have remaining programs and transitional programs.

These programs can be seen for 2012 with amount distributions. Program budget at a total of about 70.000.000 euro. Out of this 70% was given. We had an amount of 10.000.000 euro for the forests.

1st program: Urban revitalization

The scope of this program regarding city restructuring, features metropolitan centers, urban centers and the remaining towns and settlements. It is a structure following the National Spatial Plan, depending on city

significance and population size. The topical field of interventions can be found here. I have noted in red points which could have some particular relation, some particular point of contact with periurban forests.

So, the **first priority axis contains integrated urban interventions, which can obviously concern periurban space.**

On the second priority axis we have the support for **sustainable mobility**, which can obviously run **through periurban space** and this would be good to have.

On the **third axis**, concerning the natural environment, we have the **handling of natural elements within the urban fabric and actions for facing pollution and improving urban microclimate. Periurban space is obviously very important for the formation of urban microclimate.**

And finally, we have interventions to smaller borderline or island areas, where specialized point-level interventions might exist for periurban space.

In the end, there is an axis concerning **unregulated and illegal issues**. Here, too, we talk of **demolishing unregulated structures within the urban and periurban space**, as well as disposing waste of unknown origin.

All these are issues concerning periurban space, periurban forests, financeable via the Green Fund.

During 2012 a broad spectrum of activities has been financed which all concern the restructuring of urban fabric, with emphasis on the presence of greenery within such as:

- Pedestrian conversion from Athens.
- Bicycle installation at the Municipality of Egialia.
- Children's play areas in Salonika.

More or less all Municipalities in the country submitted at least one proposal. This year 850 proposals were submitted in all for the specific program, with an aggregate budget of 200.000.000 euro.

Of course, it is here ironic that the Fund, with the limitation of resources in effect over the last years, has only 8.000.000 for the specific program. So, consequently, you understand that the proportion is 1 to 25. So, on the one hand the Green Fund extends its influence upon Municipalities, let us call it this way, it convinces Municipalities it can fairly and effectively finance projects of interest to them, but on the other hand its resources are limited due to political decisions. And this is quite a contradiction.

2nd Program: acquisition and configuration of free space in cities

A second program was the acquisition and configuration of free space in cities. It is the principle activity, which has to absorb a big part of the money. Because, as we said, money collected from fines due to unregulated buildings, are targeted to, must be given according to legislation for ensuring the environmental balance.

The notion, then, dictating that excess structures within the urban fabric can be counterbalanced with nothing but securing more free common space.

Common space acquired in 2012 can be seen here. There total budget comes to about 30 million euro. And I have to tell you that in our country this is not self-implied at all, because Court action involved this space for decades. Municipalities could not afford to pay the money. Owners resorted to Court action and this situation perpetuated.

Aim of the Green Fund was this space, fulfilling requirements, to be paid off and expropriations to commence, meaning that it become common space.

The one you are then seeing, being a job implemented over several months only in 2012, is space which eventually became common and can from now on be valorized as free greenery space within the densely structured urban fabric.

3rd Program: Completion of city planning

Completion of city planning is another big issue, also relating to the periurban space and the periurban forests a lot, because obviously city planning is what could consolidate the status of not only the entity of periurban free space but of uses as well. And this is extremely important. Unfortunately though, city planning in our country will need many years before it is completed. And one of the problems leading to this fact is insufficient financing.

The Green Fund, then, is here to pay, to settle pending bills for these studies, so that they are completed and these plans finally be institutionalized and therefore develop their actions and their binding capacity against private ventures, but also against other planning levels.

4th Program: marine environment

I shall not tell much about the marine environment. It is, however, an extremely interesting subject, particularly for our country, which is surrounded by the sea everywhere with a very large coastline length. Here, too, emphasis is given to prevention and handling of marine pollution.

5th Program: Forests

Forests, then, are one main subject of interest to us. Budget for 2012 was 10 million. Budget for included projects was 8 million and payments were not even 6 million.

This is a problem. And it is a problem for those saying that resources are not enough or that the Green Fund does not pay the money it is supposed to pay. This is not right. It is wrong. I would say it is simply one missing effectiveness of Public Administration, the money existing, and they exist not in a book-keeping way, they are available as physical money, it must be possible to absorb it, it is implied over some rules and some timing. Because program financing is of annual duration. They will have to be completed until December 31.

Despite all this, the Green Fund, gave in 2011 almost ¼ of its expenses for the forests, being sensitive that forests are an important parameter and must be financed. In 2012 it gave almost 14%, not 5 but instead 14. And in 2013 almost 8,5%, having though always in the back of our mind that the limit upon aggregate expenses is 2,5%.

So, therefore, there is a sensitivity at the Green Fund, there has been during the last years, in favor of the forests and keeping always in mind that forests represent critical space, way too important, not only for the natural environment as such, but also for the housing environment.

Various projects that were financed regard **fire protection projects**. They regard illegal logging prevention projects, soil restoration and protection, forest nursery cultivation, development of game management, protection of wild fauna and biotopes, improvement of forest ecological and social value. And there is also an item for research programs concerning forest space at sectors selected and proposed by the Special Forest Secretariat.

The financing program for forests is managed by the Special Forest Secretariat with regard to the scientific-technical content; it is a special Agency, under the umbrella of the Environment Ministry, with exactly that subject and is essentially a state node of all Forest Ranger Agencies in the country, which exceed 100. Another point of interest and relating to periurban forests to some extent, are the **protected area management entities**, which were 28. As you know, they merged into little more than 10, I think. The Green Fund financed the management entities with a three-year program and one million euro per year. It is therefore a small amount, about 40-50 thousand for each management entity, whose purpose is not to finance all of their expenses of course, since they have been included in NSRF and their financing is made by European resources, but to help them stand on their feet, solve imminent problems and mold the requirements allowing them to receive European money. Because there are limits there, as well.

Prasinotamio.gr

The Green Fund has an internet page, called *Prasinotamio.gr*, unfortunately only in Greek. We didn't have time to translate it. It is where everything is posted, Ministerial Decisions, financing, projects included, publicity actions and whatever else regards the Green Fund; this page essentially concerns the main publicity action,

namely the main gate for informing the public opinion about what the Green Fund does, since one of the most important mandates of the Fund is transparency. Namely publicizing economic and technical data towards any interested party, relating to project financing.

Antonis Tritsis Park

I cannot - finishing, one phrase more – I cannot keep out of my mind, watching these nice presentations by our foreign guests about the various parks, one very important location, an important metropolitan park in Attica, the Tritsis park, which you referred to. I think that Tritsis park has been a member of Fedenatur. I don't know if it still is.

I was happy, if you may, to follow this mostly interesting and rich space, with regard to its environmental and ecological characteristics, within the densely constructed fabric of Attica, we are talking about an area of 1.200 stremmata, through the management of this park and the effort to let this entity stand on its feet and enable it to develop activities and all this that our guests elucidated and which seems so self-implied, but in some cases require that much of an effort.

And after this, I had the miserable fate, if you may, to witness this park slowly fall apart, first, due to the unfortunate political decision to merge the entity with two totally irrelevant entities, «ELAIONAS» and «K IFISSOS», something that broke up its administrative structures. I am saying this with full knowledge of reality. And second, a political inaction followed, while conditions for managing the park should have been created, instead this led it, let me tell just one characteristic, for about the last 5 to 6 months power was unavailable. Because the park did not pay the electricity bill and the power company (DEH) disconnected it.

Unfortunately this is the situation; hearing all those interesting presentations with all these activities that seem so self-implied, makes one wonder why in many cases it is so difficult in our country to apply things for which international experience and know-how exist; and still, somehow politically it is so very difficult.

Involving users in the management of Periurban parks: an impetuous need.

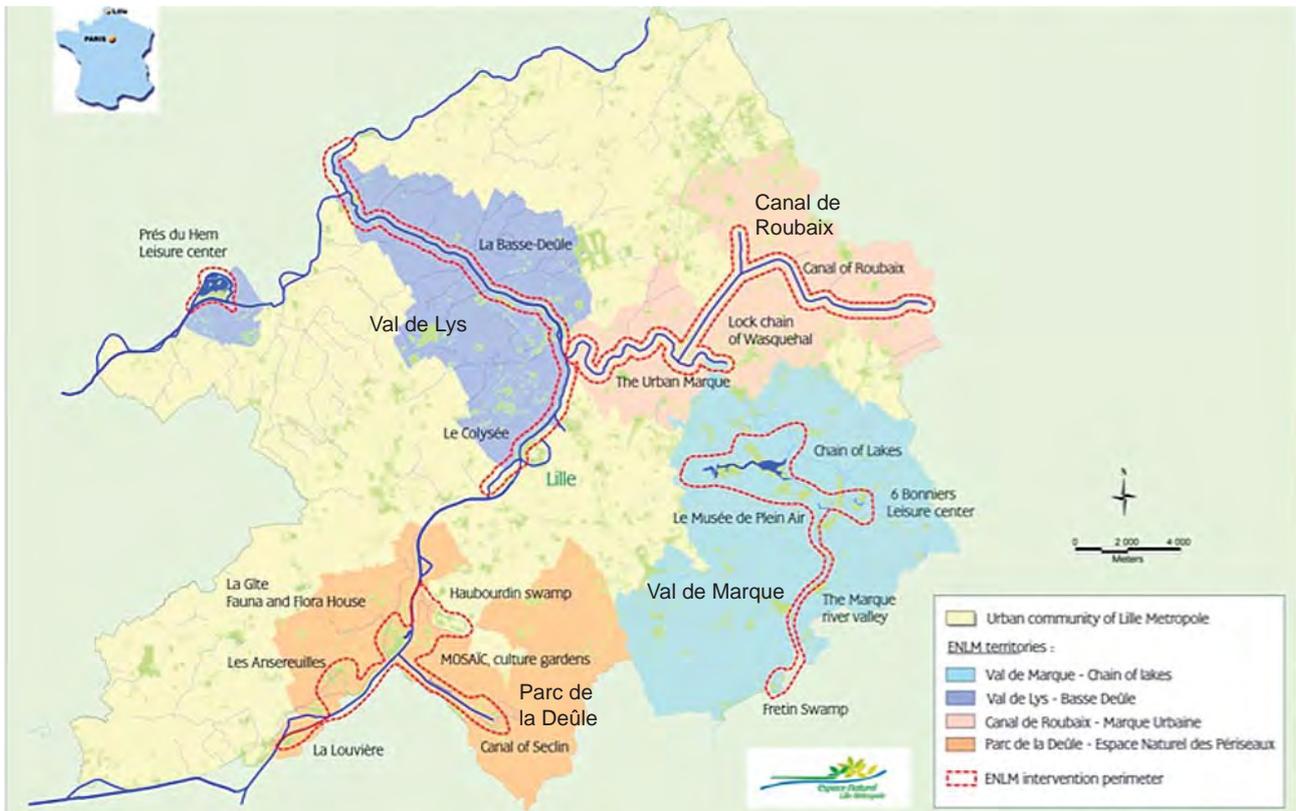
Pierre Dhenin, managing director Espace Naturel Lille Métropole

Combining nature conservation and public use is not an easy task. This is nevertheless the very nature of a peri-urban park manager's work.

In the case of Lille Métropole, the pressure of 1.100.000 inhabitants living on 85.000 ha makes for an even more delicate operation. In view of finding a solution to this issue, Lille Métropole's "green belt" strategy first defined a set of themes for the area (water in the Vallée de la Lys, nature renewed in the Parc de la Deûle, traditional and rural architecture in the Val de Marque etc...), by making ecology an absolute priority on these territories and by creating "attraction points" (themed gardens, sports and recreation parks, information centre, etc...) to avoid walkers dispersing too much and thus consolidating site protection.

However, the pressure of human activity is difficult to check. Espace Naturel Lille Métropole (ENLM or Lille Métropole Natural Area) now manages 1.300 ha and is subject to pressure such that, in a few years, a few hundred thousand users have increased to an estimated 1.700 000 in 2009, and to nearly 3 million last summer. Rapid growth indeed... Some sites have seen user numbers rise from 20.000 to 100.000 in a few short years and this pressure now increases an estimated 10% per year.

Intervention perimeter of "Espace Naturel Lille Métropole"



The Lille Métropole territory has been divided up into 4 sectors: Val de Marque, Val de Lys, Canal de Roubaix, Parc de la Deûle

In an attempt to avoid this pressure becoming destructive, the ENLM has organised information meetings and debates to explain, listen as well as exchange. People only respect what they have been involved in creating themselves. The Lille Métropole territory has been divided up into 4 sectors, each of which has been allocated a territorial committee bringing together 3 elected representatives per town and a user advisory body bringing together all organisations using the nature area, from hunters to joggers and farmers. These committees and bodies meet every 6 months. Local advisory bodies all meet once a year to discuss a common theme, from limiting invasive species or conciliating outdoor sports and... nature conservation.

This **joint production** approach is essential.

The ENLM must also convince natural area users of what they have to gain from taking part in the creation and use of parks. An active policy with farmers has thus been led for over ten years. These neighbours had to regard the arrival of these parks with favour and there was only one solution to do so: benefit by them. That is why the ENLM has thought up innovative measures with the help of the professional chamber of agriculture.



**Consultative exchange
is a important part of our strategy**



The first landscape integration programme to be set up ensured that farms merged better into the landscape and even took part in the greening of sites, encouraging the replanting of hedges, large trees, vegetation in walls and erecting fences made from untreated wood, etc. To this day, approximately sixty farms have taken part in this very simple, partnership-based programme. Volunteer farmers must first take part in a training session that can last 5 days divided up over a number of months. Professionals from the agricultural sector as well as landscape architects take part in this training. At the end of this course, farmers are given a plan and a quote. He or she can then decide to go further and implement this plan, for which three deliveries with plants or fencing equipment, worth 2.000 €, are made. Sixty or so farms have to this day taken advantage of this programme.

The second programme involves the creation of farm networks. There again, the concept is simple but based on criteria established by the chamber of agriculture. It focusses on promoting farms that offer quality services to the general public: direct sales, accommodation, educational farms, inns, etc.

A joint commission receives applications from farmers, pays them a visit and, depending on the labels already awarded, decides or not to include the farms in one of the 3 farm networks set up in the metropolis' urban parks. The farmer will then benefit from signs and network promotion in booklets aimed at walkers. Some farmers have noticed an increase of 20 to 25% in their turnover by joining the networks.

In 2004, year in which Lille Métropole was European city of culture, some of these farmers even took part in a vast 50-hectare Land Art operation in the Parc de la Deûle. Moreover, rural festivities are organised on the sites every year.

Alongside the professionals, user associations have also been asked to take part. In 2009, new measures were taken and associations were able to take part in calls for projects to offer educational activities on the sites in question and be paid to do so. The same applies to site maintenance for which 22% of the budget is entrusted to the social and associative sector. 50.000 € are distributed every year for leisure activities alone. Finally, we also have research partners (5 fundamental research programmes in progress) and are signing various agreements for one-off site provision, another opportunity to define the limits of use and conservation. In total, more than 200 very different associations signed agreements with us in 2012.

2009: In park 65% of exhibition and activities was realized with the collaboration of associations



International consultation and exchanges are at the heart of this partnership-based programme. Located a very close to the borders with Belgium, England, the Netherlands and Germany, Lille Métropole could only encourage knowledge-sharing and, whether with volunteer farmers or associations, Espace Naturel Lille Métropole has organised fruitful exchanges on a regular basis. Thus amassing common knowledge, setting up programmes together then becomes even easier.

Espace Naturel Lille Métropole also carries out regular surveys to pinpoint walker expectations, adapt trails and leisure activities on offer as well as increase walker satisfaction rates.

These different methods of participative management can also be seen in paying theme parks such as the Jardin MOSAIC or the Outdoor museum managed by the ENLM. When designing new gardens or facilities in particular, workgroups combining specialists and users are systematically created, and also include volunteer members from user advisory bodies.

This close collaboration was even successful in creating two new fauna and flora interpretation centres, designed after trips to the Netherlands and England with volunteer members of the local committees concerned.

Co-management can become a reality if everyone agrees to listen to others and hear what they have to say. This process does take time and requires technicians humble enough to accept the ideas of non-experts... which often show a lot of common sense. The benefits, in any event, are significant since every facility or management operation actively discussed is so much easier to manage in the long term.

The role of Forest Protection Voluntarism in periurban areas

Stavros Salagiannis, president of the Greek Federation of Fire Protection Volunteers

The importance of voluntarism at local level

- **What would be the economic consequences of a purely professional model?**
Just imagine the cost of staff, premises and training thereof, if we only had professional firemen or forest-firemen.
- **Imminence – Perception – Reporting.**
The role of locals and local authorities in terms of responding to a fire is very **critical** upon the outburst of the fire. A fire or forest fire can be extinguished with a bucket of water in the first minute. In the first five minutes it can be extinguished by a fire-fighting vehicle. And after 20 minutes it can only be extinguished by fire-fighting airplanes or choppers.
- **The direct knowledge of the territory.**
Volunteers are aware even of the last path in the area. They are aware of the local weather conditions. They know how to approach and run away from a mountain.
- **The significant assistance it provides to Governmental Authorities.**
In addition to the above, this is the most important element of voluntarism.

The Existing Forest Protection Force in Greece Comparisons with models from other countries

Country	Permanent Personnel	Fire Department Volunteers	Seasonal Personnel/ Other	General Secretariat for Civil Protection Volunteers/ Other	Total	Population
Greece	9.000 (0,08%)	2.000 (0,02%)	5.500 (0,05%)	130.000	146.500 ?	10.939.605 (1,34% or 0,16%)
France	35.172 (0,05%)	195.417 (0,30%)	9.283 (0,01%)	34.797 (0,05%)	274.669	64.473.140 (0,43 %)
Germany	27.600 (0,03%)	1.300.000 (1,58%)	291.000 (0,35%)	400.000 (0,49%)	2.018.600	82.220.000 (2,46%)
Australia (NSW)	6.500 (0,09%)	6.000/CFU (0,09%)	N/A	70.000 (1,02%)	82.500	6.890.000 (1,20%)

In this table we see certain matters which are rather important. For example, in Greece the number of volunteers along with seasonal staff reaches 146.500. In France, the equivalent number is 274.000, out of which the volunteers that come under the General Secretariat for Civil Protection are approximately 34.000 – 35.000. In Germany, the equivalent number is 400.000. In Australia, 70.000 and in the United States of America volunteers reach a percentage of 72%.

In Greece, the General Secretariat asserts that it has 130.000 volunteers. However this is not true. The trained volunteers which hold certificates by the Fire Department and the General Secretariat are not more than 20.000. Therefore, this number exists only in papers. As a consequence, we have been left far behind in comparison to Europe. Greece currently suffers from an economic stagnation, and the only way to provide assistance to our territories, parks and forests, is through voluntarism.



The president of SPA, Nikos Hardalias, the president of the Greek Federation of Fire Protection Volunteers, Stavros Salagiannis, and volunteers

Schemes of voluntarism in Greece.

These are either Autonomous groups lacking legal status, or Legal Persons governed by Public Law, or mixed groups.

The role of volunteers in Greece for the current fire conservancy period which has already started on the 1st of May and will last until the 31st of October is:

Imminence of action in situ

- Raking works in cooperation with the competent Forest Authorities and Local Authorities.
- Surveillance, patrols, staffing of fire guardhouses located at the mountains.
- Prompt reporting to competent bodies.
- Recording of water intake sources, forest roads and other particular features.

Inhibition and intervention

- First attack of the fire using motorized means or ground forces.
- Provision of assistance to competent Authorities, the Fire Department, the Forest Authority and the National Instant Aid Centre.
- Guidance of forces towards the fire zone.
- Water intake points.

Imagine a fireman from Messolongi who comes to Attica to assist in the extinguishing of a catastrophic fire that broke out in the mount of Hymettus. He has no idea of where he is. This is exactly when volunteers play an active role and provide assistance.

Surveillance and reporting – Course and evolution of fire

The most important element being requested by the Fire Department in case of fire is prompt reporting of the fire progress so as to decide what forces to immobilize and to avoid useless mobilization of forces, which could be used for another incident.

Restoration and surveillance

Another sector in which voluntarism provides assistance is watchfulness regarding the restoration, surveillance and guarding of the zone located between the burnt and non-burnt lands, so as to prevent any potential renewed outbreaks of fire.

A significant problem being faced by the various provincial cities is when the disposable fire-fighting forces are very few in comparison to Attica. In such cases these forces are inadequate for the supervision of a fire. As consequence, there are many renewed outbreaks of fire, with the known disasters that we are all familiar with.

The role of Local Authorities in the protection of forests.

This is a difficult issue. Law 3013/2002 obligates Local Authorities as of the following:

- 1) To establish a Civil Protection Office, that has not yet been materialized by several Municipalities,
- 2) To plan their response to emergency incidents which fall under the framework of civil protection (forest fires, floods, snowfalls).

While we still are in the fire conservancy season there are Municipalities in Hymettus which have not yet organized a Coordinating Local Body (STO).

- 3) Recording and disposal or pertinent equipment, human capital, vehicles, groups of volunteers for the performance of undertakings relating to civil protection.

Imagine that even today the representatives of the Fire Department who participate in the Coordinating Local Bodies (STO) are complaining because the water wagons operated by the Municipalities are not compatible with the fire fighting vehicles.

Based on provisions of paragraph 3, Article 25, Local Authorities can exploit funds for issues relating to civil protection:

- Cleaning of periurban forests
- Cleaning, control of landfills
- Reinforcement of volunteer activities at Municipality level
- Equipment matters (tank trucks, generators, radio transceivers, and whatsoever needed).
Operating expenses – Overtime work of non-permanent personnel and fuels.

At this moment all Municipalities of the entire Greek territory have received the funds that correspond to this summer's needs. Unfortunately however, we haven't seen any improvements yet. We hope that these will begin soon.

Preconditions necessary for the involvement in forest protection and forest fire-fighting subjects:

- Adequate preparation and planning. All groups of volunteers that belong to our Federation perform their training procedures and maintain their equipment throughout the winter, so as to be ready in summer. However this does not happen also in the various governmental institutions.
- Cooperation of all involved parties and citizens that have common goals.

The greater problems that we, forest protection / forest fire-fighting volunteers in Greece, are faced with, are:

- The lack of insurance coverage, personal insurance coverage and civil liability coverage.
- Certification and training. Yes to certification and training. No to simple certificates. Because up to date we only receive certificates.
- Lack of common language and non-application of the legislation in force for cooperation relating issues.

In what it concerns voluntarism in Greece, the situation is far behind to what actually happens in other European Countries. We hope that this issue will be eliminated soon.

By means of our efforts, persuasion, and personal involvement, we shall protect the natural wealth that was inherited to us. We are obligated to deliver, if not more, then at least the same wealth that we found, to next generations.