PERIURBAN PARKS
Improving Environmental Conditions in Suburban Areas

TOOL KIT

This project is funded by the EU's European Regional Development fund through the INTERREG IVC programme.

CONTENT

1. DESCRIPTION OF PROJECT AND PARTNERS

1.1 INTERREG IVC Programme and PERIURBAN PARKS Project

Periurban Parks - *Improving Environmental Conditions in Suburban Areas* (Periurban Project) is funded by the INTERREG IVC Programme, implemented under the European Community's territorial cooperation objective and financed through the European Regional Development Fund (ERDF). INTERREG IVC provides funding for interregional cooperation and promotes exchange, transfer of knowledge and best practices across Europe[1].**The PERIURBAN Project uses interregional exchange of experiences to improve policies on management of natural periurban areas. It focuses specifically on policy and management solutions to mitigate pressures on biodiversity. Focus on the creation and management of parks in natural periurban areas, in line with European environment policy and redevelopment in periurban areas, can impact positively on the environment and on halting biodiversity loss.**

The project addresses the important and current subject of interconnections between natural, semi-natural and urban areas.

Facing intensifying urban sprawl and other contemporary pressures on the environment, the protection of periurban area becomes a important element of local and regional development polices. To this end, public authorities need to identify new and effective management measures in these areas that lie between the urban and rural ecosystems. Periurban parks, environmentally important transition spaces between the city and the countryside, are considered as an effective solution.

The project refers to topics such as ecosystem services and green infrastructures, which are currently being debated at EU and international level.

[1]The overall objective of the INTERREG IVC Programme is to improve the effectiveness of regional policies and instruments. The specific areas of support are innovation and the knowledge economy, environment and risk prevention.
By 2011, the 122 projects approved under 3 calls for proposals brought together 1,334 partners from all EU Member States, Norway and Switzerland. Projects identified 859 good practices on Innovation, research and technology development, entrepreneurship & SMEs and energy and sustainable transport and transferred 19 of them. Interregional exchange of experience led to the improvement of 24 local/regional/national policies concerning innovation and the knowledge economy and 8 policies on environment and risk prevention.

PERIURBAN brings together 14 partners from 11 EU countries. Partners all have experience in and competencies to manage periurban areas, but are at different stages in terms of developing periurban parks. While some have long promoted such parks, and currently face management and sustainability concerns, others plan for their implementation and build on different periurban management experiences. Thus, this group of partners representing regional authorities, local authorities, periurban parks and associations of parks, learn from each others' experiences in a continuous process of exchange.

The Periurban Project is an international voice emphasising the importance of periurban parks for sustainable development and quality of life in the European cities.

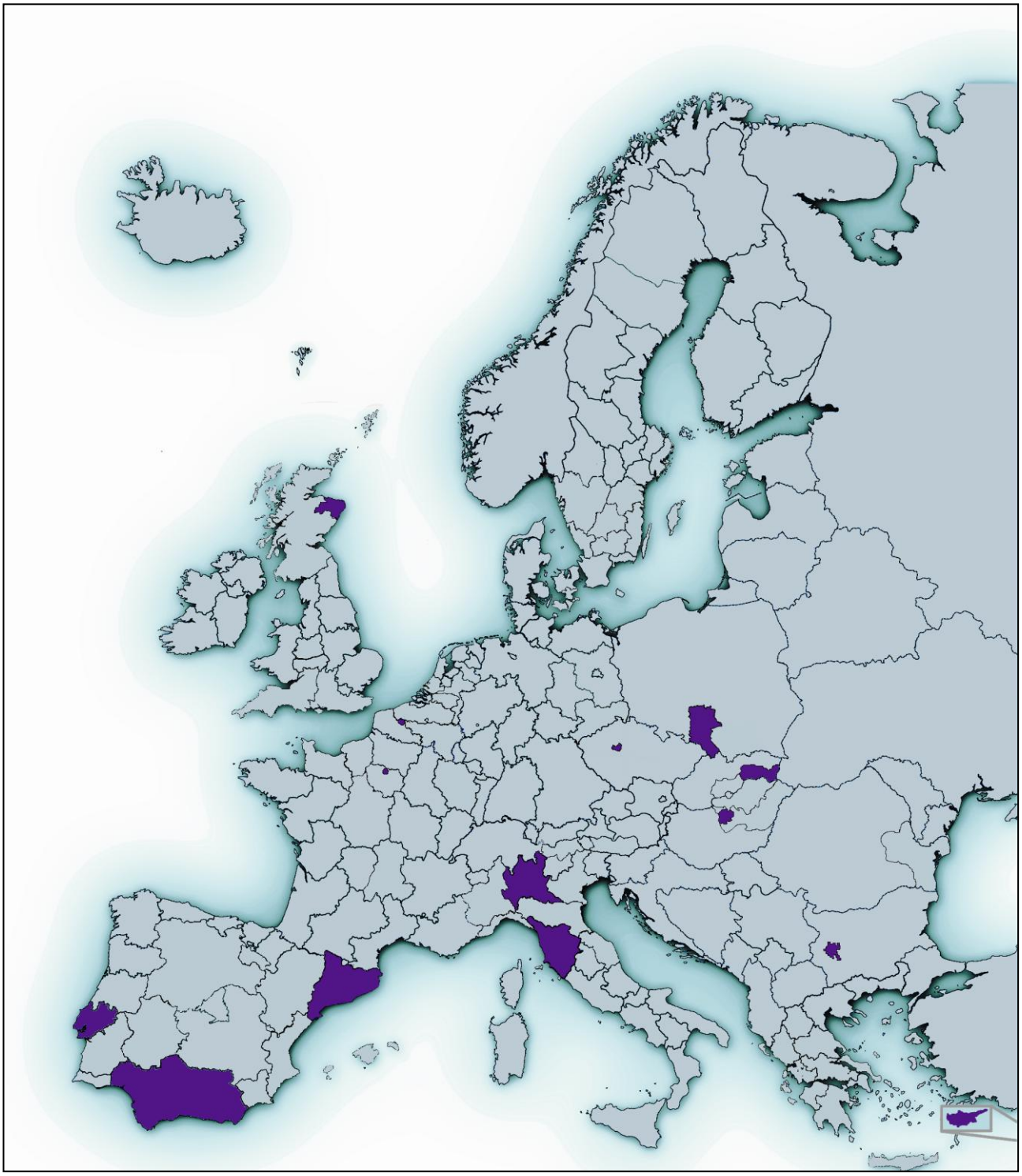

Figure 1: 14 partners involved in the Project

1.2 Periurban Project Partnership

Regione Toscana (IT) – Project Coordinator

Regione Toscana, DG Environmental Policies, has long experience in the development of parks across the regional territory. Recently, focus has turned to the creation of the Parco della Piana; through a process involving various local councils and making €3million euro are available for pilot actions. The creation of this park is as an opportunity to recover and reclaim an area of 7000 hectares, which is under urban pressure, and provide it with its own landscape and environmental identity.

FEDENATUR: European Federation of Natural & Rural Metropolitan & Periurban spaces (ES)

FEDENATUR is a European association gathering regional and local entities, which hold direct authority in the management of natural and rural spaces located in periurban and metropolitan areas. FEDENATUR was created in 1997, with the aim of promoting exchanges of expertise among its members on a variety of topics linked with the fact of proximity to urban areas. Today FEDENATUR brings together 28 members from 5 EU member states.

Common Profit Enterprise of Municipality of Zografou (EL) / Larnaca Development Agency (CY)

Common profit Enterprise of Development, which participated in the first 2 years of the project, is an enterprise under Municipality of Zografou. The enterprise manage European Projects and manage as well green spaces, considered to be a good practices in periurban management, and several green spaces with low maintenance, some of which are abandoned.

During the project, this partner was substituted with Larnaca District Development Agency is a body governed by public law founded in 2003. Among its responsibilities, the Agency is in charge of development planning in an area covering four local councils and of undertaking initiatives in the field of environmental preservation. In Larnaca new small but well-planned green parks throughout the entire city are developed every year, as part of an attempt to fight urban sprawl.

Aberdeen City Council (UK)

Aberdeen is in the North East of Scotland and is the 3rd largest city in Scotland. The City has varied landscape ranging from coastland to woodland, with a large number of green space areas

(parks, gardens, play areas, sports grounds, green corridors, semi-natural green space and civic space). The Council has demonstrable expertise in managing high quality green spaces and is currently reviewing city park and green space management policies.

Vitosha Nature Park (BU)

Vitosha Nature Park Directorate is a branch of the National Forest Agency and is in charge of implementing the management plan and of biodiversity conservation. The Park Directorate also deals with scientific research of the park's flora and fauna, supervision of forestry activities and land use, protection of natural and cultural assets, planning and control over tourist itineraries, dissemination of information and enhancement of the sustainable use of natural resources.

The City of Košice (SK)

The City of Košice, located in the eastern Slovakia, represents and promotes interests of the city inhabitants, and their claims to a high quality and safe environment, on the basis of the programme of economic and social development of the city. The project involves the departments of Strategic Development; Chief architect office, Housing and Environment; Management of City Greenery; and Municipal Forests Enterprise.

Regional Government of Lombardy (IT)

Thanks to a 1983 regional law, 4 Periurban Parks are now recognised among the 24 regional parks in Lombardy, 2 of which are involved in the project. Parco Nord Milano was set up in 1975 to re-naturalise the northern outskirts of Milan and offer leisure / environmental education services. Parco Sud Milano was set up in 1990 and covers more than 64.000 hectares. It is composed of agricultural lands such as cornfields, meadows, poplar cultivations, woods and wetlands.

Danube-Ipoly National Park Directorate (HU)

Danube-Ipoly National Park Directorate is a regional state organisation for nature conservation with an area of responsibility of around 880,000 hectares. The main tasks of the Directorate are to prepare nature designations, nature projects and management plans. The Directorate also works on environmental education, ecotourism, research of natural areas, operation of ranger service and area management of state owned lands.

Lille Metropolitan Natural Space Office (FR)

Lille Metropolitan Natural Space Office (ENLM) is a joint association of 40 cities (<500 000 inhabitants) and the Urban Community of Lille Metropole (LMCU), which manages green and blue infrastructure in Lille and the surrounding neighbourhood. The ENLM manages more than 1200 hectares spread across the territory of the Metropole Area and 120 hectares of water surfaces.

Regional Government of Andalusia, Regional Ministry for Environment (ES)

The Ministry of Environment for Andalusia is responsible for environmental management and for the Protected Natural Areas Network, an integrated system including periurban parks. Andalusia accounts for 209 protected natural areas, covering over 2.5 million hectares, including the Natura 2000 Network, covering over 29% of the region and 30% of protected areas in Spain.

Czech University of Life Sciences (CZ)

Czech University of Life Sciences plays an important role as a strategic partner for Regional and Local governments advising and supporting development of policies on environmental protection, including environmental protection in periurban areas. Within the project, the University collaborates with the Municipality of Troia, an area with huge potential for periurban parks.

General Council of Seine-Saint-Denis (FR)

Seine-Saint-Denis, located in the eastern suburb of Paris, covers 236 km² and 40 cities and is home to around 1,455,000 inhabitants (2005). Since its creation in 1964, the County Council has implemented an active strategy for green and natural areas, biodiversity and landscapes, allowing the surface area of green and natural areas to increase from 300 hectares in 1969 to 1782 today.

Lisbon Municipality (PT)

The Parque Florestal de Monsanto in the urban area of Lisbon has existed for 72 years, occupying around 1000 hectares. It is equipped with infrastructure for recreation, sports, environmental and cultural activities. When it was created, the park was almost totally treeless, having started planting in 1940. Today, the care taken in preserving the forest has allowed the National Forest Authority to classify various forest stands.

Metropolitan Association of Upper Silesia (PL)

The Metropolitan Association of Upper Silesia (GZM) is a self-government unit established in 2007, gathering 14 cities named Silesia Metropolis, with a population of nearly 2 million people.

Until the 1980s, its economic development was based on hard coal and ores excavation and processing. Despite this industrial past, nearly ¼ of the Silesia Metropolis is covered by green or open areas, 22% of which are state forests.

2. CONCEPT AND CHARACTERISTICS OF PERIURBAN PARKS

2.1 Definition and typology of the periurban park

Periurban spaces are transition spaces between the city and the countryside - located in the suburbs of urban areas or in spaces surrounded by urbanised areas with a high concentration of man-made constructions. Parks created in such areas have specific features and roles that distinguish them from other green/natural areas. These include:

- Distance from the urbanised area (the core part of the city);
- The density of open green spaces - natural and semi natural - as opposed to the level of urban arrangement and social function (settlement density, number of infrastructure, equipment for urban services and facilities for recreation, etc);
- The level of biodiversity (ecological value, the status of legal protection).

This is highlighted in figure 2, which presents a representation of this measurement:

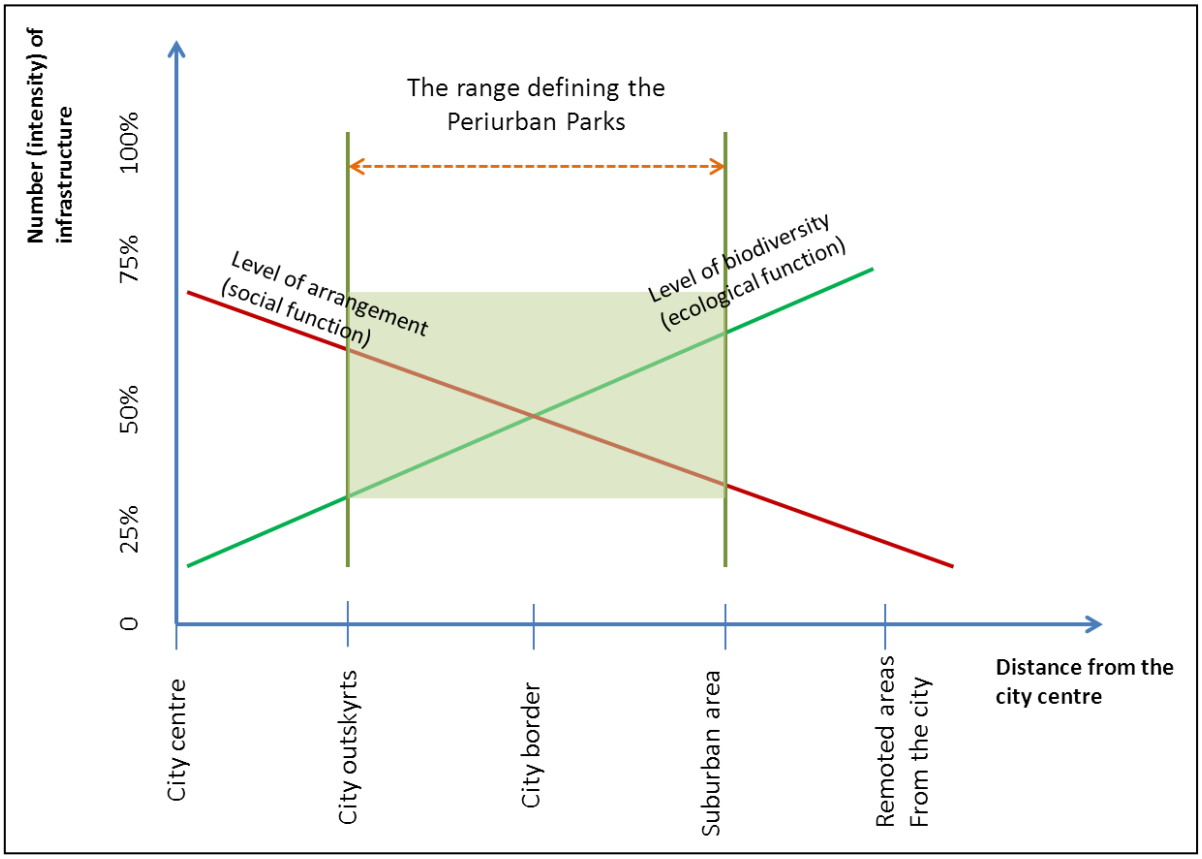

Figure 2. Characteristics of periurban parks

On the basis of the above analysis, a periurban park can be defined as: **Periurban parks are the areas of ecological, landscape and cultural interest located on the outskirts of or in close proximity to urban settlements, but inherently interwoven with the urban environment, where environmental protection, recreational, cultural, educational, economic and development related functions can coexist, with the support of public policies, plans and actions and with full citizen involvement.**

They are a key element of the green infrastructures system associated with urban areas and play a key role in the provision of ecosystem services

On the basis of the parks involved the Periurban Project, 4 typologies have been identified and will be referred to throughout the Common Methodology. It should be noted that these are conceptual structures, while in reality they often co-exist within the same park area.

A. Protected Nature Park
This type of park consists of areas with a high natural, biological and landscape or cultural related values. Generally these parks are characterised by a high level of plant and animal biodiversity. Regulations and restrictions for the use of this type of territory exist at European level (NATURA 2000), at national level and / or at regional and local level. Legislation on nature protection often provides direct rules and frameworks for activities. The prohibition of certain uses can have significant impact on the development process. Parks concerned: Andalusia, Danube-Ipoly National Park, Košice Forest Park, Vitosha Nature Park.
B. Semi-Natural Agro-Ecological Park
This type of park is composed of a mixture of natural and artificially created lands, which may include ecological areas, such as green corridors, or agricultural lands, such as crop fields, woods and wetlands. This type of park is not subject to particular European regulation (though it has been taken into consideration at EU level, particularly in the 2004 EESC commentary on Agriculture in Periurban Areas), but is subject to a range of legislations and policies at national and local level. Parks concerned: Parco Sud Milano, Parco della Piana Tuscany, Lille Metropole.
C. Green City Park
This type of park represents a green area located in very close proximity to or within the urban area, with a series of functions related to local use and addressed to local residents. Given that it can express various forms of environmental features and values, it is subject to a range of legislations and policies at national and local level (e.g. Forest Management Plans, Local Plans on Green Spaces, Urban Development Plans). Parks concerned: Monsanto Lisbon, Košice, Praha-Troja Nature Park, Zografou, Silesia Metropolis, Aberdeen Hazlehead Park
D. Re-naturalised Park
This type of park represents a landscape, which had previously been artificially denatured or

deteriorated to some extent, including ex-industrial areas, or dumping grounds, but has now been partly or fully recovered. The exact nature of the recovery varies, but will deliver new man-made landscape and archaeological elements, often building on the area's natural qualities.

Policies at local level may provide specific recommendations and regulations on the environment in this type of the park. This may include local policies or Master Plans for the reclamation of damaged or degenerated land.

Parks concerned: Seine-Saint-Denis, Lille Metropole, Silesia Metropolis, Parco Nord Milano, South Aberdeen Coastal Park

These typologies are illustrated in Figure 3, in order to illustrate the nature-culture and protection-development appraisal axes. The graphic illustrates:

- how these typologies are related to influences exerted on the periurban areas by the urban or natural domain (mainly related to the physical location of the park) and to the type of activities carried out in the park;
- how these typologies can assist in creating parks in response to specific territorial features and management aims.

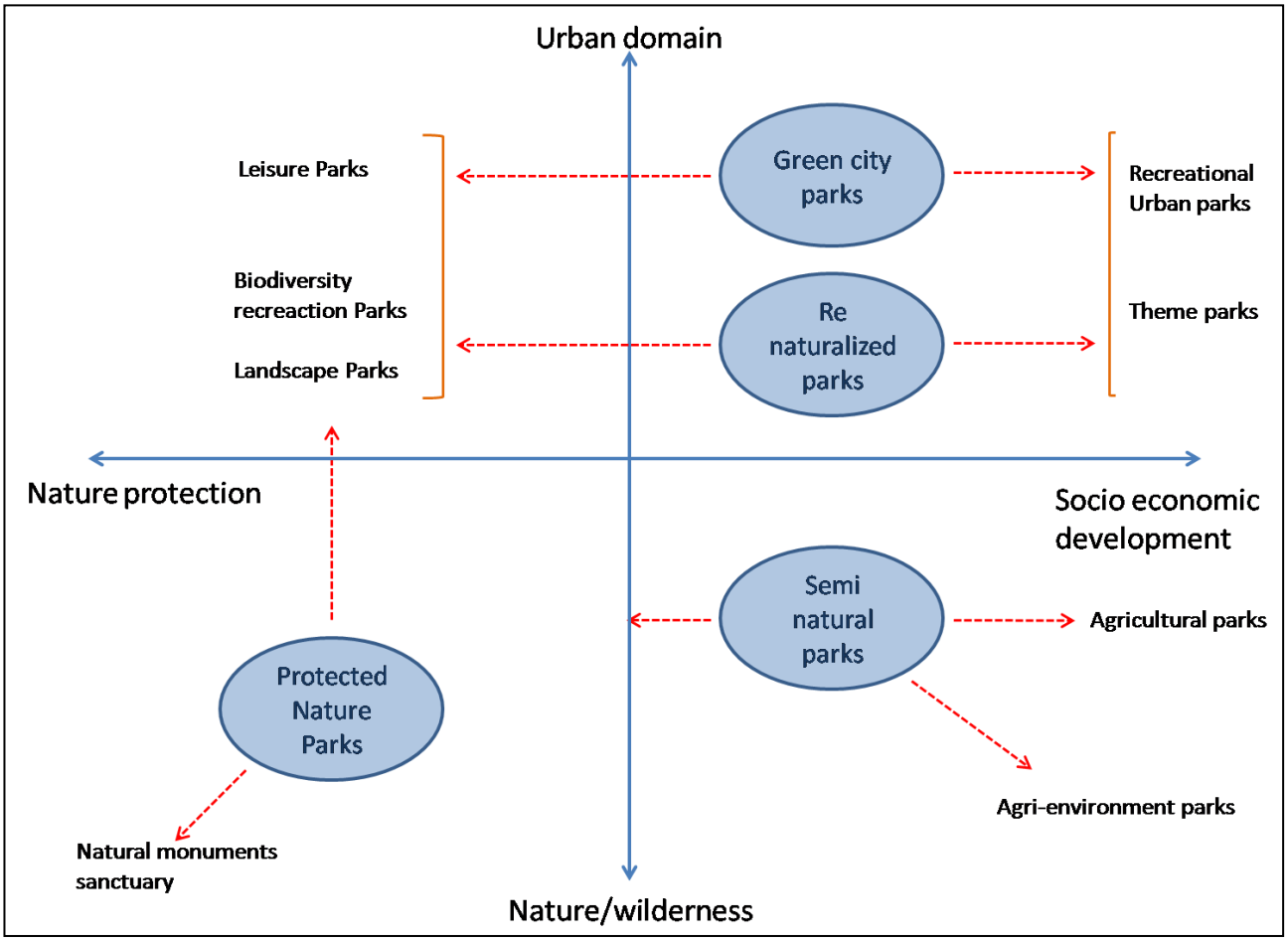

Figure. 3: Concept map of periurban park typologies according to the 4 identified typologies

2.2 Multi-functional role of the periurban park

Concerning the role of the periurban park, its added value results from the ability to address some or all of the following issues:

- **Environmental Protection and provision of Ecosystem Services**

The periurban park can improve local environmental conditions in many ways, for example by contributing to improving air quality (carbon sink function and mitigation of other GHG emissions), to preserving water resources, to preventing flooding risk (storm water run-off control; groundwater filtering) and to protecting or reintroducing plants, animal and soil biodiversity.

This role could be related to the provision of Ecosystem Services for inhabitants of surrounding urban areas. An ecosystem service can be defined as "…flow of materials, energy and information from natural capital stocks which combine with manufactured and human capital services to

produce human welfare"[2]. Moreover, the Millennium Ecosystem Assessment of U.N. (U.N. 2005), classifies ecosystem services into those:

1. Providing services (e.g. water , food, energy supply)

2. Regulating services (e.g. carbon sink, climate control, storm water drainage, filtering and decomposition processes);

3. Supporting services (e.g. biomass production, soil and humus production);

4. Cultural services (e.g. science services, educational activities, recreational spaces)[3].

Periurban parks can provide such services, both when the park is created to protect an important environmental or natural site and resources and when it is the result of recovery of areas previously allocated to different functions.

- **Creation of Environmental Green Infrastructure**

Closely related to the above function, the park may be considered as a vital part of a much larger territorial area for which it creates and reproduces environmental stability and sustainability for human settlement. This goes beyond the idea of a park as an island of nature conservation detached from the rest of the territory, proposing it as a part of a wider metropolitan or local green infrastructure.

Green infrastructure can be defined as:

"strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering a wide range of benefits and services. Green Infrastructure includes natural and semi-natural areas, features and green spaces in rural and urban, terrestrial, freshwater, coastal and marine areas."[4]

In this context, some key features of the park include:

- the park as the backbone of a system of ecological networks, enhancing and grouping elements that would otherwise be developed separately. This system may include slow-mobility

[2] Costanza R. /1992), Ecological economics, Columbia University Press, NY
[3] Millennium Ecosystem Assessment (MEA) (2005), Ecosystem and human well being: synthesis, Island Press, Washington
[4] http://ec.europa.eu/environment/nature/ecosystems/index_en.htm, June 2012

networks (e.g. cycle and walking paths, horse trails) or energy corridors. This concerns both areas that fall strictly within the perimeter of the park, but also territorial and urban policies concerning spaces located outside the park, close to or within the urban settlement.

- the park as an instrument to govern territorial expansion, especially concerning land take and urban sprawl containment. Considering that urban sprawl requires better and more rational land take control and a co-evolutive urban-rural relationship (EEA 2006), the park can be utilised in the planning of newer urban settlements, otherwise characterised by a lack of identity and high fragmentation. It can also contribute, on the basis of the eco-territorial structure and the characteristics of its open spaces, to restoring and maintaining the physical distinction between settlements and to defining rules for a more sustainable urban design.

- **Local Economic Development**

The periurban park can go beyond a predominantly protection or compensative role, towards one that defines and supports new models of local economic development. In this case, ecosystem functions are a prerequisite for a model that links park functions with local income generation. Examples include:

- new tourism and leisure networks and circuits, which generally relate to natural and cultural values present in the park. In this context, the majority of visitors may be local, but some areas may also attract visitors from further afield. Tourism encouraged by periurban parks is one of quality and sustainability, based on the region's assets and heritage (environment, culture, architecture, traditions, history, etc).

- environmental and rural development, including forestry and agri-environmental measures designed to regenerate and develop sustainable farming areas, can provide for sustainable income generation. These include the production of biomass for energy, to the sale of timber as a source of income for the park, and other sustainable forms of forestry products. It also covers local agricultural systems, based on an organic production and on short supply and distribution chains, which not only provide income to agricultural workers themselves, but also benefit the wider community through the promotion of healthy, local produce.

- **Quality of Life and Social Promotion**

The periurban park can impact the quality of life of inhabitants and promotion social inclusion. It offers a green, healthy space for residents of the area a welcome change from the rush and smog that often characterises these areas. Benefits to health from regular exercise and clean air can be highlighted, along with educational and cultural advantages depending on services offered. Moreover, the social economy has assumed growing importance in recent years by meeting social demands that are not covered by the traditional market economy. Parks provide education for schools and childcare, services for people with disabilities and disadvantaged groups and, opportunities for volunteerism and socialising, to name but a few.

3. OVERVIEW OF THE COMMON METHODOLOGY

3.1 Goal and structure of the Common Methodology

The Common Methodology is a support tool for public and private organisations involved in the creation and/or management of periurban parks.

Such a document is necessary due to: the relatively new nature of this concept, various typologies of parks; and the numerous obstacles and challenges related to periurban parks.

The document presents the key points related to obstacles and solutions in creating and managing periurban parks. For those requiring more detail, the appendix provides a core analysis of the following 7 thematic aspects, considered to be the most important in the creation and/or management of periurban parks:

- Policy and Regulatory;
- Management;
- Environmental;
- Social and Communication;
- Cultural;
- Funding and Economic;
- Infrastructure and Accessibility.

Each aspect constitutes a separate section and is structured in the same way, presenting:

- an overview of main issues,
- potential obstacles,
- suggested solutions and good practices.

The Common Methodology is elaborated on the basis of 13 analytical documents titled: Territorial Analysis – individually prepared by Project partners, according to a common template.

This document is supported by an interactive Guide (available on-line at www.periurban-parks.eu), which allows users to access targeted advice for their particular park.

3.2 Main provisions of the Common Methodology

The key points and main ideas resulting from the review of the 7 thematic aspects are given below, while full texts discussed in detail are included in the APPENDIX to this document.**1.**

POLICY AND REGULATORY ASPECTS

Legal acknowledgment of periurban parks is an important step towards simplifying the process of policy and regulatory development of these areas.

Even when the national and local structures do not currently allow for this legislation development, the bodies creating and managing periurban parks should keep this concept in mind and should continuously search for opportunities to influence policy development. They should take a pro-active role in demanding that the periurban park is recognised as a legal entity and requires its own specific legislation.

The regional level appears to be the most suitable level to begin this process.

It is essential to integrate policies and planning tools for periurban parks into mainstream planning practices and policies for local development.

These policies should go beyond the traditional urban-rural planning divide, which has been unable to stop the loss of green areas for development in urbanising Europe, and instead focus on this area as an interface. Strategic spatial planning in periurban areas can interconnect plan-making, decision-making and implementation, resulting in a more coherent and coordinated long-term spatial logic for land use, based on a more process-oriented, socially-inclusive, multi-level and multi-sector approach.

Land use planning is a basic tool of creation or protection of periurban parks

The ultimate aim must be to integrate periurban parks into strategic planning documents. In this case, the issues of natural areas and periurban parks are considered in a broader context of local socio-economic development and promotion of the territory.

Land use planning allocates ground for periurban parks through a number of techniques that include: zoning, regulating urban development and green structure planning (including urban forests). It also enables the creation or development of a wider ecological network, encompassing both green areas inside and outside the city (see also: environmental

aspects)

One means of planning the park is zoning, which divides the park into a recognised set of areas, each with specific characteristics and regulations. Zoning defines spatially the opportuities for the physical implementation of norms, regimes and recommendations. This instrument reflects the need for different solutions in different areas on the basis of objectives for protection, maintenance and development of periurban areas with high biological, aesthetic, ecological and cultural values.

Effective inter-institutional governance can be assured by the creation of voluntary management partnerships.

Such partnerships, grouping all necessary public and private stakeholders, perform a strategic role in setting out and implementing the goals and activities of the periurban park on the basis of relative policy and regulations. The institutional partnership can help to overcome institutional bottlenecks caused by lack of effective communication and coordination, and resultant slowing down of the decision making and management process.

The institutional partnership could be: a specific structure, including a public/private agency, a public structure in charge of inter-sector park policies or sector based agency.

See also references to the sections: Management Aspects and Environmental aspects

2. MANAGEMENT ASPECTS

An independent management structure is the most effective at coordinating and implementation issues related to the periurban park

An independent management structure would not only to be in charge of daily activities of park maintenance, but also of long term planning coordination and implementation. Such a structure:

- would ensure effective interaction between plans, policies, projects and action in the field of park's creation, maintenance and management;
- should also define inter-institutional agreements with all related stakeholders, specifying reciprocal duties, commitments and a system of land use;
- would focus on integrating the park into local development strategies and enhancing social awareness about the values and heritage of the park and its role as tool for sustainable local development.

A long term, jointly agreed management strategy is a pre-requisite for successful park management

A management strategy can take many forms, either building on existing tools (e.g. Environmental Management Plans) or being developed ad-hoc. In all cases, it must be integrated with a clear and shared analysis of the issues and functions of the park and the main goals and actions to pursue.

Moreover, the plan must be developed in coordination with all interested actors (public and private), to ensure that they are aware of the proposal being made and can influence them at the design stage. Though this takes time, it helps to avoid conflicts further down the line. Management strategies should include a system for monitoring and evaluating park management structures, in the context of continuous learning and improvement.

Insertion of the park into local (metropolitan or regional) planning documents is essential, as this is the only way to guarantee a comprehensive and general strategic vision for local

development and to communicate it to social actors.

Moreover, problem setting (the definition of a hierarchy of problems and goals) and decision making must be supported by a social inclusive and deliberative approach.

See also references to the section: Policy and Regulatory Aspects.

3. ENVIRONMENTAL ASPECTS

Periurban parks – because of their connection with the urbanised areas - determine living conditions of residents, performing both ecological and social (recreational, economic etc) roles

Periurban parks play a fundamental and innovative role as an instrument to promote environmental and eco-system stability in the territory. Thus parks' strategies and actions must be capable of recovering and maintaining environmental goods (e.g. water, air, soil) and ecological networks and resources (e.g. habitats, sites of natural interest) through active protection.

While planning, creating and managing periurban parks, there is a continuous need to balance the social expectations about these areas with environmental aspects. A hierarchical organisation of ecological, social and economic factors allows managers to prioritise and integrate actions and funding and to define rules for human activities and their presence in the parks, as well as to preserve natural habitats from damage caused by human pressure.

Environmental protection in periurban parks is often carried out by teams of voluntary workers. Their presence can allow park staff to plan the programmes of maintenance necessary for high quality green spaces and equipment.

The periurban park must be part of an wider ecological network

The periurban park's role in terms of environmental protection can only be successful if it is part of an ecological network crossing the city and its surrounding areas. Such a network consists of the geo-complexes (patches, stepping stones, buffer zones) and ecological corridors encompassing both protected areas and other territorial elements with natural and/or environmental value (e.g.: water networks, pathways, agricultural, planted or forested areas) and that often connect (or cross) other open spaces inside the urban area. The precondition of this system is its spatial continuity - assuring the flow of life, materials

and energy.

In a broader sense - the concept of a network of green (and blue) infrastructure is also developed. It is a means of reconnecting existing nature areas and improving the ecological quality of particular territory. It also helps to maintain healthy ecosystems which are the source of ecosystem services (provisioning, regulating, cultural, supporting). Development of green (and blue) infrastructure can be achieved through an integrated approach to land management and effective spatial planning at all levels.

Knowledge of the environmental conditions of the park and it surroundings is a prerequisite for park protection

In order to protect the environmental values of the park, its management structure must recognise a range of conditions of the park's territory and its surroundings. This knowledge can be gained thorough studies, analysis and / or stakeholder involvement. It can be supported by cartographic tools (e.g. ecological interests areas map, sports activities map, visitor numbers map), which can be superimposed to identify areas where ecological and social interests overlap. This can assist in resolving possible usage conflicts (e.g. creation of protected areas, location of infrastructure, information required by the public).

Such information should be gathered before the park is created and at regular intervals from then onwards. On the basis of this knowledge, managers can make decisions on: the environmental priorities and environmental restoration within the park itself, as well as setting various levels of nature protection.

Various ecological and land use features of the periurban park should be seen as an added value

Periurban Parks can encompass various levels of natural, environmental and landscape protection. They also perform multifunctional use, integrating social and ecological functions on the same area. This is an added value, not a limitation. However, it requires significant work in ensuring that activities are orientated towards overall sustainable use and improvement of the environmental and landscape resources (e.g. organic agriculture, hedges reconstruction, planting, breeding and protection of indigenous species,

volunteering).

See also references to the sections: Policy and Regulatory Aspects and the Management Systems .

4. SOCIAL AND COMMUNICATION ASPECTS

Involvement of stakeholders is a key part of park's creation and management

The periurban park is not only an instrument for conservation and protection of natural and cultural characteristics but is a tool for social and community development, involving local societies (groups or individual inhabitants) and raising social responsibility for the public space. This approach requires a high level of awareness and involvement of local actors and inhabitants in the process of park's creation and management. An active involvement of stakeholder groups can be achieved through establishment of consultative councils, user committees or similar structures.

Periurban park constitutes a new model of relationship between citizens and their surrounding environment.

The park strengthens the concept of public space open for social and recreational activities. However, stakeholders may use the park for different purposes- environmental, social, economic - which are not always compatible one with another. Rules, regulations and activities, must be designed in order to reflect and address this complicated reality. They must promote and maintain the park's natural assets and a widespread culture of appropriate and sustainable use.

Therefore, the park management structure should first take time to identify and analyse these needs (using a variety of methods – from surveys to planning events and open consultations) and then work with groups to define how to combine the different demands.

Level of public involvement in park activities can vary as should the means to involve them

Continuous information campaigns - using user friendly instruments - are an essential

element of all park management activities . However, this alone is insufficient to ensure active social/public involvement). Park management structures must encourage active participation of key stakeholders, in order to share decision making about park development. Activities range from social and leisure activities to volunteering and training and to participation in management committees. The park management must prepare the most suitable strategy for their specific context.

Monitoring of park visitors is essential, but should be taken further to gather wider feedback

Periodic monitoring of park visitors is important, in order to gain feedback on their levels of satisfaction and on their demands and concerns. This should be extended to encourage a wider consultation with the surrounding areas and to ensure a structured means of addressing the concerns raised with concrete actions.

It is worth noting that information does not only flow from the park to the users. More advanced information systems also collect feedback from users about park services.

See also references to the sections: Policy and Regulatory Aspects, Management Systems, Environmental Aspects, Infrastructure and Accessibility.

5. CULTURAL ASPECTS

Cultural heritage should be considered a key factor in the decision making process of park creation and development

Cultural heritage located in the park is an important factor to consider when creating the periurban parks of the future. It performs an educational role for next generation and could also be a factor attracting visitors and building the park's identity. Choosing to create new periurban parks in places that contain culturally and historically significant features will help to guarantee their preservation and protection and provide an opportunity to engage people in understanding and appreciating this heritage. .

Communication and involvement is key to preserving and promoting the cultural heritage of periurban parks

External communication is essential to arouse interest among inhabitants about the park's cultural heritage. In particular, public events, such as festivals, exhibitions and shows, are important to enhance the park's cultural, architectural, landscape and natural elements.

The role of training and of promoting cultural activities at various levels (schools, wider public, specialist courses, research) is fundamental, not just to raise awareness and responsible use of environmental and cultural resources, but also because such activities can be organised within cultural buildings in the park, thus supporting their restoration and reuse.

The scarcity of financial resources for park's creation and management should be addressed by an integrated programme of diverse activities

The scarcity of financial resources for the upkeep and development of cultural heritage calls for focused programmes to involve inhabitants, stakeholders and owners, in order to develop coordinated and integrated activities to manage interventions, earn income for the park and its workers and to maintain the vitality of the park itself.

Moreover, park management should ensure that the park is inserted into the local development context, in order to protect the area and also to open up new doors for innovative means of using and gaining income from the cultural heritage.

6. ECONOMIC ASPECTS

Periurban parks should highlight their unique ability to add social, environmental and economic value to the surrounding area

Periurban parks need greater financial independence as a precondition for growth, especially in the current situation of limited public funds. However, economic aspects are

strictly related to the role of the park in socio-economic local development. .

Periurban parks should use their unique added value as a selling point. A periurban park can be considered to be a competitiveness and attractiveness factor of the area. The park improves urban living conditions and influences aesthetic and landscape values, thus making the location more financially profitable. The value of periurban parks must be an equivalent to similar areas under transformation in the city into green areas. Such comparison shows that the cost of periurban park in comparison to the primary services of the city is not high.

Most periurban parks have the potential to generate income through a variety of public and private sources

In addition to local, regional, national and EU funding, periurban parks can generate income through a wide variety of sources, such as: partnerships, tourism, forestry and agriculture , provision of leisure services and of ecological services.

Some potential solutions of parks financing include:

1. **Strategic-level finance models requiring varying degrees of legislative support:**

a. public-private partnership (PPP) and Corporate Social Responsibility (CSR);

b. ecosystem services (services based in biodiversity);

c. CO_2 trade revenues share;

d. subsidies from EU (if the status of “periurban parks” is recognized in the EU legislation).

2. **Supplementary sources:** other – existing or potential - sources of self-financing and self maintenance of the park, usually depending on the local and place-specific situation:

a. establishment of self-governing company responsible for the park;

b. lease of land for various economic activities (agriculture, recreation or sports centres) when the land is public owned;

c. use of natural resources for commercial purposes, e.g.: timber production, hunting, straw, hay and herbs harvesting/sales, apiculture, forest fruit and mushrooms collecting,

food market and branding, leisure & sport (biking, horse riding, skiing, diving, nordic walking, climbing, competitions etc.)

d. energy production by the park (production of biomass, water mills, wind mills, green energy production and green certificates' market);

e. incomes and restorations coming from compensations (service barter – where applicable);

f. tax reliefs for industry in case of providing support (sponsoring) to the given periurban park (in local taxes or in eco-charges);

g. lotteries and other collections; fund raising campaign;

h. optional and controversial solution: charging for entry or additional, associated services (e.g. visiting cultural heritage objects, leisure activities, using sports facilities, events etc.); however, such tools induce a risk of public ostracism and requires strong attempt at social dialogue.

Economic activities should not compromise the internal mission or park's role, particularly in terms of environmental protection

Periurban park management structures have the complicated task of ensuring that the need to generate income does not compromise the park's essential role and character. Periurban parks should not be turned into just economic enterprises but remain socially and environmently oriented. It is worth remembering that the periurban park performs important functions that cannot be easily financially quantified, such as the fundamental ecological aspect and ecosystem services and a number of other social and health benefits, influencing human psycho-physical conditions both in the individual and population scale. Therefore, fund raising should be supported both by Cost Benefit Analysis and Multi-criteria Analysis, before decisions on a certain source are made.

7. INFRASTRUCTURE AND ACCESSIBILITY ASPECTS

Periurban parks must participate in the design phase for urban infrastructure, in order to ensure maximum benefit and minimum disruption to the park

The existence and purpose of the park must be taken into consideration during the planning and design of urban infrastructure, in particular in terms of the transport network. Indeed, such infrastructure can either cause huge amounts of damage to some characteristics of periurban parks or, on the contrary, can help to support their enhancement and use through a suitable system of inter-modal exchange.

Periurban parks must be part of an integrated infrastructure network, within and around the park area

Periurban parks require continuity, particularly in terms of cycle and pedestrian paths, between the urban and rural areas surrounding the park and the park itself. In addition to facilitating accessibility, this also encourages awareness and use of the park by the population and greater surveillance of the park itself.

It is clear that there must be an appropriate distribution of equipment in order to provide for organised management of the resources the periurban parks offer. Park management structures must be aware of the equipment required, according to the functions identified for different areas of the park (e.g. car parks, toilet facilities, picnic areas).

Periurban parks should make the most of existing park characteristics in order to reduce costs of infrastructure and add unique value

Park management structures can make use of existing infrastructure, including the reinstatement and integration of existing access networks (e.g. disused tracks and bridges). Moreover, cultural heritage fallen into disuse can be renovated and used as an information point, a leisure / recreation venue or another park facility.

Not only does this reduce costs of building new facilities, it also builds on the park's unique heritage and can encourage the presence of volunteers and not for profit associations that

can be involved in the care and upkeep of park infrastructure.

The concept of universal accessibility should be at the basis of infrastructure development within the periurban park

In term accessibility, there is a distinction between the concept of *connectivity* to parks (accessing them from the cities) and the concept of *universal accessibility* of all services and facilities in parks (it involves overcoming physical and sensory disabilities as well as cognitive problems to allow full accessibility for various groups, such as elderly people, families with young children and people with physical, mental or sensory impairments).

A multi-dimensional approach to design of the internal mobility network must be used to ensure that:

- it meets the needs of all users, in particular those with physical or mental disabilities (high levels of accessibility are essential for citizens to appreciate the natural and cultural values that periurban parks offer)
- thematic routes are developed to enhance the parks resources and to ensure that these are not damaged.

4. CONCLUSIONS

Periurban parks should be an innovative and strategic instrument to address the continuous, and generally badly regulated, growth of urban settlements. This urban sprawl places increasing pressure on the green, natural and agricultural areas surrounding our cities; areas of high environmental, social and potentially economic value.

Indeed, periurban parks provide one, integrated solution to the three main objectives for public administrations managing the outskirts of urban areas, it is:

- **to protect environmental values and biodiversity;**
- **to maintain a healthy environment for citizens, in terms of well being and preventing environmental risks;**
- **to promote forms of social and economic development, which are intrinsically linked to the urban environment and to the unique characteristics of the territory.**

These interconnected needs can only be fulfilled by periurban parks if their creation and management go beyond a sector based vision that limits the policies and instruments traditionally used to create and manage parks. Instead, the approach should be integrated, socially inclusive, multi-sector and based on institutional collaboration that can involve all the levels of government needed to address the various obstacles that are sure to arise.

The information presented in this document has aimed to highlight the multi-dimensional nature of periurban parks and identify the best solutions - based on the analysis of different partners' experiences - which could be useful for technicians and policy makers involved in the parks' maintenance and management.

In particular, the following indications have emerged from this analysis and should be highlighted as overall recommendations for the creation and management of periurban parks:

- **the need to design and develop a shared project with local residents, institutions and stakeholders**. The majority of periurban parks are not regulated by a specific legislation, which defines characteristics, management roles and responsibilities. Instead, they tend to be managed by a range of instruments connected to town planning and a range of sector policies. For this

reason, periurban parks, more than other protected areas, require both strong social legitimisation and the activation of institutional collaboration mechanisms, backed up by participative and collaborative processes.

- **the need for an independent management structure formed, without heavy political and bureaucratic burdens**. This structure should be

- capable of coordinating different sectors of the various levels of public administrative;

- interacting effectively with stakeholders and with the public;

- moving quickly and efficiently when presented with funding opportunities;

- coordinating and integrating all the different initiatives and actions that affect the park territory into one coherent project.

- **the need to interpret natural and environmental areas differently, recognising not only their exceptional natural beauty or diversity that can be important.** Instead, added value comes from a wider network of areas, spreading across the territory and containing sites with different values and characteristics, which represents a unique green/blue infrastructure in which the park role is of key importance. Accepting this infrastructure as a key territorial element has subsequent influence on the principles and rules that govern both urban development and the active protection of environmental values.

- **the need to reconstruct new alliances between nature and culture; between citizens and environment.** Through periurban parks, nature comes to play a key role not only in creating a sustainable urban environment, but also in developing a new sense of civic responsibility, focused on a sustainable and informed use of resources and of periurban territories in general. In this new form of citizenship, the periurban park represents a public space, in which residents are called on to respect their environment and their fellow users. This strengthens public solidarity, a sense of belonging to the local territory and a sense of local identity.

- **the importance, from an economic point of view, to go beyond the view of the park as a totally subsidised faciility which can only survive thanks to public funding.** Instead, it is fundamental to integrate public funding with forms of self-financing, which can derive from:

- Economic and productive activities undertaken by private actors and based on a suitable use of the park's natural resources (e.g. organic and nature based agriculture, food miles, forestry, controlled hunting, fishing, etc);

- Services of social, educational or recreational character;

- Payment for ecosystem services that the park, through good management of the territory and its natural resources, provides to the local area and to the city in general.

All these recommendations mean that the periurban park should not be considered as a cost but rather as an added value for the territory, being capable of utilising local environmental resources in a sustainable manner and of providing important ecosystem services to the city and its inhabitants. In this way, the park can become a factor of attractiveness and excellence for the neighbouring areas, in a perspective of their endogenous local development.

APPENDIX

Glossary

Agro-environment/agro-ecological: This concept refers to the role performed by agriculture in preserving and fostering biodiversity, ecological functionalities and landscape values often recovering traditional farming cultivation methods and especially adopting nature based farming practices (e.g. organic or bio dynamic agriculture, multi productive cultivations, low impact cultivations techniques, etc.).

Biodiversity: Biodiversity embraces the variety of genes, species and ecosystems that constitute life on Earth. We are currently witnessing a steady loss of biodiversity, with profound consequences for the natural world and for human well-being. The main causes are changes in natural habitats. These are due to intensive agricultural production systems, construction, quarrying, overexploitation of forests, oceans, rivers, lakes and soils, alien species invasions, pollution and — increasingly — global climate change. Humankind is itself a part of biodiversity, and our existence would be impossible without it. Quality of life, economic competitiveness, employment and security all rely on this natural capital. Biodiversity is crucial to 'ecosystem services' (see below) (…). It is essential for maintaining the long-term viability of agriculture and fisheries, and is the basis of many industrial processes and the production of new medicines[5].

Brownfield: A site previously affected by mainly productive/industrial human activities that generated pollution and loss of environmental and natural values and that sometimes constitutes a threat for human health. Usually placed in urban and periurban areas these sites are of strategic interest in process of urban regeneration

Consultative council: Formally established and recognised group of citizens o stakeholders qualified by public authorities to express advice on matters and decisions of public interest.

Ecosystem: An ecosystem encompass a set of abiotic and biotic components (such as microorganism, plants, animals and human populations) interacting among them that form complexes identifiable with an their own structure, functioning and evolution in the time. In the environment system we recognise more or less complex systems composed by ecosystem unities (Erba V., Agostini S., Di Marino M., 2010:61).

[5] In <http://www.eea.europa.eu/themes/biodiversity/intro>, (07/12)

Ecosystem Service: An ecosystem service can be defined as "…flow of materials, energy and information from natural capital stocks which combine with manufactured and human capital services to produce human welfare" (Costanza, 1992). Moreover, the Millennium Ecosystem Assessment of U.N. (U.N. 2005), classifies ecosystem services into those:

1. Providing services (e.g. water , food, energy supply)
2. Regulating services (e.g. carbon sink, climate control, storm water drainage, filtering and decomposition processes);
3. Supporting services (e.g. biomass production, soil and humus production);
4. Cultural services (e.g. science services, educational activities, recreational spaces).

Periurban parks can provide such services, both when the park is created to protect an important environmental or natural site and resources and when it is the result of recovery of areas previously allocated to different functions.

Ecological Network: The concept of ecological network grows during the 80th of the last century in the context of the "landscape ecology" approach –aimed to integrate nature protection with land use planning- that conceive landscape as result of a complex networked structure in which animal, energy and material flows take place accordingly with a system of patches, buffer zones, stepping stones and corridors connecting them (Forman, Godron 1986). The role of the ecological network is mainly related to its capacity to allow for biodiversity protection and enhancement. Starting from this general conception various different interpretation of the concept were developed by researcher and practictioners depending especially on the importance given to the ecological network in order to interact with human presence, activities and socio economic development with a multi-purpose role and in a design prospect as well (Mc Harg 1989, Malcevschi, 2010)

Environment restoration: The recovery of original environmental values and ecological functions performed by natural elements and previously damaged by anthropogenic actions (e.g. ecosystems functioning, single areas of natural interest, brown field pollution reduction, etc)

Financing/funding of the park: Financing/funding activities of the periurban parks encompass a range of economic management models especially related to the consideration of the park as an active subject in delivering public services, "public goods" and economic activities for the visitors

and for the local society. In such a prospect the park could be appreciated either as a tool for environment and cultural values protection and as a local development agent too. Starting form this point of view we can summarise some main activities that the park can perform in order to achieve financial viability:

- *New services delivering / charges for existing services:* The implementation of the new services can be used as a tool to overcome budget difficulties. Charging might be introduced for entry to facilities (e.g. cultural heritage buildings) or additional, associated services (e.g. leisure activities, using sports facilities, events etc). In addition to cultural and recreations facilities, parks could begin charging for environmental services (see above);
- *Cooperation and partnership:* Cooperation with various stakeholders (public agencies, farmers, companies, donators, Public/private partnership, etc.) operating or related to the park is a key means of reducing costs and of accessing potential new sources of income. This approach in park managing leaves local direction to the public body but allows private people to include criteria of business, creativity and attention to the 'credit balance' of management can be a realistic solution to the problems of limited resources and dependence on public funding.
- *Creation of park income generation business:* The periurban park as huge potential for the creation of income generation activities in cooperation with local entrepreneurs and stakeholders. This could include the lease of land for various economic activities (agriculture, recreation or sports centres) when the land is public owned. It could also concerns the use of natural resources for commercial or similar purposes, such as: forestry, including raw wood production, shaving, cork; plant, seedlings and flower production, apiculture; energy production; local food production through sustainable agriculture; CO2 emission trading schemes.
- *Active fund raising:* Active fund raising encompass use of various external financing sources, such as EU funding programs, international funds, regional and local funding programs, etc. is an important tool for park financing, especially in the case o mainly natural areas and public owned parks

Infrastructure and accessibility of the parks: Considering Protected Natural Areas in general, and periurban parks in particular, the concept of infrastructure should encompass equipment which is

made available to the public accessing these areas, allowing them to enjoy the wide variety of natural and cultural resources they offer.

Analysis of the periurban parks in question led to a categorisation of equipment types, as follows:

- Leisure Equipment: Equipment that provide the basic means for enjoying nature and park areas (e.g. observation points, playgrounds, recreational areas, etc).
- Linear Equipment inside the parks (paths, trails and viewpoints): These are used to bring citizens closer to nature. This will allow for a recreational, sports, interpretive and/or educational approach.
- Infrastructure (e.g. car park, public transport access, water supply, sewage systems, etc): these cover the basic needs for citizens. They are essential and without them the minimum conditions for the enjoyment of natural areas aren't met.
- Reception Equipment: These are the most expensive in terms of investment and maintenance but also the most versatile concerning the types of services they can provide.
- Functional Signposting: minimal practical information in order to allow visitors visit the park.
- Interpretation Signposting: They indicate the functionality and purpose of equipment. They can be either informative, educational and so on.

Minor Ecological network: Parts of countryside with mainly natural features such as little woods, hedges, little ponds or streams, riparian vegetation, or not cultivated land that are inside farmlands and that, sometimes, are part of the cultivation asset itself (e.g. nature based, traditional or organic agriculture). They not only develop a fundamental role in the maintenance and reproduction of the biodiversity but also in the maintenance of the quality and difference of the landscape.

GHG Emissions: The process, mainly produced by anthropogenic activities, of emission of greenhouse gases. "A greenhouse gas (sometimes abbreviated GHG) is a gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the

fundamental cause of the greenhouse effect. The primary greenhouse gases in the Earth's atmosphere are water vapour, carbon dioxide, methane, nitrous oxide, and ozone"[6].

Green Belt: The concept of "green belt" raised in the first half of the XIXth century in the context of the Great Britain physical planning system. The aim and function attributed to the green as planning tool was to contain the urban expansion and dimension in the countryside and to contribute to the enhancement of urban environment quality and an offer of green areas for the citizen recreation and leisure activity. During the year and recently as well the concept was quite questioned especially in relation to its power to really hamper urban expansion without relevant "side effect" such as: growing of commuting due to the "frog leaps" way of residential developments, poor quality of the green areas with many abandoned spaces, uncertain economic role of farming activities encompassed by the green belt (Hall et al.1973, Hague, Jenkins 2005).

Green and Blue Infrastructure: Green infrastructure can be defined as:

"strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering a wide range of benefits and services. Green Infrastructure includes natural and semi-natural areas, features and green spaces in rural and urban, terrestrial, freshwater, coastal and marine areas."[7] Blue infrastructure could be fully considered as part of this environment structure considering the connectivity and ecological role played by river basins, streams and secondary channels riparian bands as well.

In such a meaning the concept of green (and blue) infrastructure is very close to the multi-purpose ecological network concept (see above).

Land Take: The process of natural, semi natural, forest and agricultural land consumption due to the expansion of human activities mainly related to urban and productive functions, services and infrastructures. In the western world during the last decades the process of land take was often paired with a diffusive mode of expansion of artificial surfaces and settlements, named urban sprawl, characterised by low density and fragmented built areas.

[6] http://en.wikipedia.org/wiki/Greenhouse_gas (07/12)
[7] http://ec.europa.eu/environment/nature/ecosystems/index_en.htm, June 2012

Land Use Planning: Land-use planning is the term used for a branch of public policy encompassing various disciplines which seek to order and regulate land use in an efficient and ethical way, thus preventing land use conflicts. Governments use land-use planning to manage the development of land within their jurisdictions. In doing so, the governmental unit can plan for the needs of the community while safeguarding natural resources. To this end, it is the systematic assessment of land and water potential, alternatives for land use, and economic and social conditions in order to select and adopt the best land-use options (Young A et Al., 1993).

Master plan: Born in the USA between the 40's and 50t's in the field of the corporate management, the concept of Master Plan has been acquired within the urban planning, particularly in the field of the scholastic (the campuses) services. In the transfer toward a different circle, the concept of Master Plan has initially lost the value of document resulted by a complex trial, and has been understood as a tool in itself, a graphic scheme of a forecast of building development or land use, often few flexible and dynamic. In Europe as well, the terms maintains this twofold meanings either of process oriented tools and of binding functional land use control. In the field and sector plans definition and management it is mainly applied in the first sense as in the urban planning domain sometimes these two approach merge.

Multifunctional (multi productive) agriculture: "The multi-functionality of agriculture can be defined as the joint production of commodities and non commodities by the agricultural sector. Finding the right balance between the produced goods is a matter not only of agricultural policy, but also of changes at farm and territorial level" (Durand G., Van Huylembroeck G, 2005;1).

Multi-sector approach/multilevel governance: Usually opposed to a mono-sector oriented approach, this approach claims for the necessity to integrate many policies fields and more administrative entity of different competence and territorial level that naturally interact in the reality of the territory governance and functioning. That in order to achieve a better effectiveness in the policies implementation and results (e.g. town planning/infrastructure/ environment; rural development/landscape and spatial planning, etc)

Natura 2000 network/Sites of community interest (EU Directives): In May 1992 EU governments adopted legislation designed to protect the most seriously threatened habitats and species across Europe. The Habitats Directive 42/93 complements the 1979 Birds Directive 79/409. At the heart

of both Directives is the creation of a network of sites called Natura 2000. The Directive is built around two pillars: the ecological network Nature 2000, constituted by sites aimed to the maintenance of habitats and species respectively listed in the Annexes IV and V. The directive protects over 1.000 animals and plant species and over 200 so called "habitat types" (e.g. special types of forests, meadows, wetlands, etc.), which are of European importance. The Directive establishes norms for the management of the sites Nature 2000 and the evaluation of incidence (art 6), the financing (art 8), the monitoring and the elaboration of national reports on the implementation of the dispositions of the Directive (articles 11 and 17), and the release of possible dispensations (art. 16). It recognises the importance of the elements of the landscape that perform a role of ecological connection for wild flora and fauna (art. 10).

Periurban Area: At the outset this term was used to define the areas surrounding, in a limited distance, the more dense part of the cities that, although not characterised by clear urban or rural features, were concerned by development of urban function and services and with a low level of settlement density interwoven with wide parcels of open, natural, and semi-natural spaces. Afterwards –starting from this “negative” and sometime “metric” definition (neither urban neither rural placed an a certain distance from the city centre) more and many recent approach and researches try to propose and investigate the peculiar nature and features of these areas as a “third space” (Vanier, 2003), of opportunity for the sustainable development of the settlements and aimed to achieve the best of synergies between urban and rural domain, between nature an culture (Espon-EDORA, 2010, PLUREL 2011).

Process/decision oriented approach: In public policies domain this approach expresses the goals on behalf of public administration bodies to design, especially via participation and social inclusive/deliberative practices, an effective and steady decision making process preventing possible conflicts and decisional bottlenecks. This kind of approach is mainly appreciated in strategic planning practices and it stresses in a lesser way the contents of the decision in respect to the fluidity of the decisional process.

Sector planning: The activity of design, decision making and implementation process referred to an unique sector of public policies activities (e.g. infrastructure, economic development, environment, education, etc) carried on by an administrative body.

Social farming: Social farming is a whole of experiences of people with different forms of disadvantages or distress involved in agricultural activities, in order to give their life and their abilities a meaning.
Thanks to social farming, social and work inclusion, educational, working, therapeutic and rehabilitating services are promoted. The paths of social farming develop through social services or the recruitment, in already existing farms, of disadvantaged individuals or disadvantaged workers, or the creation of new agricultural structures employing disadvantaged or distressed people. Social farming represents the form of solidarity and values of mutual aid of the rural areas. The combination of productive dimension and the relational dimension with plants and animals, as well as the familiar and communitarian one, gives agriculture a social function. The new element, today, is that these activities are undertaken in full awareness in structures that use agricultural productive processes and operate through relational networks: social farms. The characteristic of a social farm is the combination of social service and the agricultural activity[8]

Stakeholder: A subject, or a societal group, that for the kind of activity and the role performed in the society is directly affected by public policies and that, for this reason, calls for, and is needed to take part in decision making process.

Public Private Partnership: "Agreement between government and the private sector regarding the provision of public services or infrastructure. Purportedly a means of bringing together social priorities with the managerial skills of the private sector, relieving government of the burden of large capital expenditure, and transferring the risk of cost overruns to the private sector. Rather than completely transferring public assets to the private sector, as with privatisation, government and business work together to provide services"[9].

Public space: The concept of space public as not controlled spatial domain characterised by the free co-presence and relationship "between and among strangers and between and among categorally know"(Lofland, 1999: 51) social subjects and groups, finds in the open periurban spaces, and therefore also within the periurban parks areas, a new form of expression, formerly related exclusively to the urban space. Here the concept of space public expands him but also shows sometimes itself as space of conflicts among subjects, practices and different activities.

[8]< http://www.segretariatosociale.rai.it/INGLESE/codici/Social_farming/farmingE.html> (07/12)
[9]Oxford dictionary of Politics, < http://www.answers.com/topic/public-private-partnership> (07/12)

Such a conflict situations must be anticipates and managed through preventive inclusive, dialogue and even bargaining practices of governance promoted and leaded by the public authorities (Delbaere 2010).

Strategic Spatial Planning: "Strategic spatial planning is a transformative and integrative, (preferably) public-sector-led (Kunzmann, 2000) socio-spatial …process through which a vision, coherent actions, and means for implementation are produced that shape and frame what a place is and what it might become." (Albrechts, 2006: 1491).

"Strategic (spatial) planning is not a single concept, procedure or tool. It is a set of concepts, procedures and tools that must be tailored to whatever situation is at hand if desirable outcomes are to be achieved. Strategic plan making is as much about the process, institutional design and mobilisation as about development of substantial theories. This broad area is reflected in the place and the role of planners in strategic spatial planning. The role of planners could be handled with reference to different sets of criteria. In 'Changing roles and position of planners', Urban Studies (vol. 28, 1, 1991) three main roles for planners are defined: political role, the technical expertise and the managerial role. Another distinction could be made through an emphasis on the content or the process."(Albrechts, 2001; 1)[10]

Syndacate mixte: The syndicate mixte is a public institution (article L721-1 of the Code des Collectivités territoriales) which gives to communities the capacity to join among them or with the other public institutions. Mostly, this structure gathers municipalities, inter-council associations, departments and regions which give themselves large–scale missions as: the management of natural spaces, the exploitation and functioning of networks, the waste management , tourist development.[11] The Syndacate mixte is so similar to the other forms of municipal grouping, but does not share necessarily the administrative nature and can cover the nature of industrial and commercial public institution if several conditions are concurrently performed (industrial or commercial object, origin of the resources, the operating procedures getting closer to the private enterprise)[12]. For that reason, the role of syndacate mixte in promoting actions and projects with

[10] http://www.esprid.org/keyphrases%5C16.pdf
[11] < http://smbva.fr/definition-syndicat-mixte.html> (07/12)
[12] <http://www.dgcl.interieur.gouv.fr/sections/les_collectivites_te/intercommunalite/presentation_general/les_syndicats_mixtes6966/view> (07/12)

private stakeholders in order to manage and achieve the public interest goods stated in a public and accountable debate is worth noting.

Urban allotment: Subdivision of urban open green spaces in residential areas made available for individual, non-commercial gardening. Such plots are formed by subdividing a piece of land into a few or up to several hundreds of land parcels that are assigned to individuals or families. In allotment gardens, the parcels are cultivated individually, contrary to other community garden types where the entire area is tended collectively by a group of people.

Urban Sprawl: Urban sprawl is commonly used to describe physically expanding urban areas. The European Environment Agency (EEA) has described sprawl as the physical pattern of low-density expansion of large urban areas, under market conditions, mainly into the surrounding agricultural areas. Sprawl is the leading edge of urban growth and implies little planning control of land subdivision. Development is patchy, scattered and strung out, with a tendency for discontinuity. It leap-frogs over areas, leaving agricultural enclaves. Sprawling cities are the opposite of compact cities — full of empty spaces that indicate the inefficiencies in development and highlight the consequences of uncontrolled growth. (EEA 2006: 6).

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Thematic Sections

1. POLICY AND REGULATORY ASPECTS

1.1 Foreword

The level and type of recognition afforded to the park by national and local policy and regulation affects both its general character and its collocation into one or more of the typologies identified above.

It is important to note that, among all examined cases only 2 (Andalusia and Lombardy) recognise periurban parks as a planning tool governed by specific, regional legislation. The Region of Tuscany intends to allocate the Periurban Agricultural Park as a regional project of local interest in the Regional Development Plan, but this is still at early stages. Therefore, in many cases no specific governing law exists for the periurban park itself.

1.2 Main issues

- *Primary importance of regulation on environmental protection*

  Given the important environmental characteristics of periurban parks, many are governed by EU, national or regional regulations concerning environmental conservation and protection. Therefore, many parks that contain Sites of Community interest defined according to the 79/409 or 92/43 Directives (Habitat-Natura 2000 Directives), refer to EU protection disciplines endorsed at national and/or regional level[13].

  Natura 2000 sites are either encompassed as a part of the park (e.g. Seine-Saint-Denis, Danube-Ipoly National Park, Parco della Piana Tuscany, Praha-Troja Nature Park, Košice) or coincide with the whole park area (e.g. Vitosha Nature Park).

  More generally, the majority of periurban parks considered are covered, wholly or in large part, by national and regional disciplines on natural and protected areas and the protection of

[13] In May 1992 EU governments adopted legislation designed to protect the most seriously threatened habitats and species across Europe. This Habitats Directive complements the 1979 Birds Directive. At the heart of both Directives is the creation of a network of sites called Natura 2000. For more information: http://www.natura.org/about.html

biodiversity and cultural and historical values[14] (e.g. Andalusia, Vitosha Nature Park and Zografou, City of Košice).

All parks are covered by specific environmental and multi-sector regulations that refer to historical, scenic or natural values or economic activities, such as tourism, agriculture, forestry etc. Among these it is worth highlighting those that concern the protection and use of forest areas (e.g. Vitosha Nature Park, Košice Forest, Monsanto Lisbon,).

- *Use of integrated physical and strategic planning aspects*

  Land use planning allocates ground for periurban parks, through a number of techniques that include zoning, regulating urban development and green structure planning (including urban forests). These can be integrated into urban development planning or defined as separate documents.

  Only 3 partner cases (Parco Sud Milano, Vitosha Nature Park, Seine-Saint-Denis) subject the park to a specific planning tool (Master Plan, framework or territorial plans for green spaces) and only in Tuscany the periurban park is recognised as a specific planning and guidance tool in the context of the regional territorial plan.

  For other cases, the issue of physical planning of the park is mainly addressed in the context of various instruments of regional (e.g. Andalusia) inter-municipal or metropolitan (e.g. Seine-Saint-Denis, Danube-Ipoly National Park, Zografou, Košice) and/or local planning (e.g., Monsanto Lisbon, Aberdeen, Praha-Troja Nature Park, Silesia Metropolis)[15].

  It is worth remembering, as with environmental regulatory issues, that physical sector planning can be of interest to the parks, especially concerning water management (e.g. Vitosha Nature Park), infrastructure or stability and ecological connection (e.g. Košice, Lille Metropole) and energy, waste, community agriculture and paths for open space use (e.g. Aberdeen).

[14] The main laws influencing periurban parks are summarised as follows: Protected Areas Law/Nature Conservation Act (Danube-Ipoly NP, Vitosha, Košice, Andalusia); Forestry Law/Forest Act (Andalusia, Prague); Water Directive (Vitosha); Act on protection of the agricultural land fund (Prague); The Climate Change Act (Aberdeen); Act of the spatial and planning land use (Silesia); Regional Planning Acts; Management Plan Act (Danube-Ipoly NP, Vitosha).

15 The relative plans are as follows: Regional Spatial Plan (Tuscany); Spatial Development Plan (Vitosha, Milano south park, Seine-Saint-Denis); Regional Managing Master Plan (Lombardia); Economic and social development programme of Region (Košice); Region Land use Plan (Košice, Seine- St. Denis); Strategic Plan (Athens); Municipal Development plan /Local Development plan (Aberdeen, for each city of Silesia Metropolis); Forest management Plan (Silesia); Core paths plan (Aberdeen).

The ultimate aim must be to integrate periurban parks into strategic planning documents. In this case, the issues of natural areas and periurban parks are considered in a broader context of local socio-economic development and promotion of the territory (e.g. Zografou, Danube-Ipoly National Park, Silesia Metropolis, Košice, Aberdeen). In general, there is much to be done here and planning tools remain insufficiently integrated with landscape protection and enhancement plans and policies for rural development in periurban areas.

- *Policy and governance issues*

  The effective implementation of policies and measures for the promotion and development of periurban parks requires a multi-sector approach and, very often, multi-level governance to address these areas and consequent policies.. Thus, significant coordination efforts are required among the various stakeholders and authorities concerned.

  All cases examined showed the complexity of such coordination. In some situations, with varied outcomes, policy integration has been attempted in the context of formal coordination of development policies due to the presence of a planning tool (e.g. Parco Sud Milano) or of an agency for park management (e.g. Vitosha Nature Park).

  In other cases, integration and coordination of policies is placed in the context of a supra-municipal administrative body and strategic framework for management of open spaces or protected areas and areas of agricultural and environmental value (e.g. Seine-Saint-Denis, Lille Metropole).

The following table provides an overview of the policy and regulatory situation of each of the periurban parks considered in this methodology.

1.3 Overview of Parks' characteristics

Locality	Seine-Saint-Denis	Andalusia	Lille	Lisbon	Košice	Silesia Metropolis	Hungary	Aberdeen	Sofia	Lombardy	Prague	Athens	Tuscany
Policy/regulatory regime tools													
Natura 2000	x				x		x	x	x	X (P. south)			x
Other specific EU law													
National or regional laws on protected and natural areas		x		x	X		x	x	x	x			
Specific law on periurban parks		x								x			
Regional or super-local planning documents and actions	x	x	x							x			x
Council Plan Structure Plan / Zoning regulation / Existing Zoning / function Ordinance				x				x	x	x	x	x	x
Framing Strategic planning documents			x									x	
Forest Management Plan				x	x	X			x	x			
Landscape/Ecological protected elements				x				x		x			

Master Plan	x			x	x	City level	x	x	x	x		x	x
Ecological Network Territorial System of Ecological Stability				x	X	x		x		x			
Other sector plans and actions								x					
Strategic Development documents	x			x	x		X	x	x	x		x	x
Regime change applied in process of park creation				**x**	x			**x**					**x**
Law improvement possibility (low / high / ongoing)					x				**low**	X (on going)			ONGOING – Regional Territorial Plan
Legal status change possibility following CM recommendations (low / high / ongoing)									low	X (on going)			ONGOING – Change to Regional Territorial Plan
Institutional powers and attributions													
Institutional level - management under Ministry of Environment / or similar		x			x				x	x		x	x
Delegated responsibilities to County/ Local Council of Protected Areas		x		x	x					x			

1.4 Obstacles

A number of obstacles in the field of policy and regulatory aspects for periurban parks derive from their multilevel and multi-sector requirements. The main obstacles identified include: lack of a widespread legal acknowledgment of periurban parks; planning difficulties; governance issues related to public/private or multi-level interest.

- *Lack of legal acknowledgment*

  The majority of EU states and regions do not recognise periurban parks as an individual legal entity, unlike other natural areas and green infrastructures. This hinders the development of cross-sector and integrated policies and results in a tendency to frame the park as the subject of environmental policy, in which its relevance to other policy issues is only analysed at the end of the process (e.g. Vitosha Nature Park).

  Moreover, the failure to insert the park into general planning documents often leads to constant bargaining and conflict in order to protect the area from conflicting development projects, especially in a cross-council dimension (e.g. Seine-Saint-Denis Valbon Park, Lille Metropole, Danube-Ipoly National Park,).

- *Lack of Comprehensive and Integrated Planning*

  Periurban parks are negatively affected by the fact that the urban-rural interface often lacks comprehensive planning. Traditionally urban and rural /countryside planning are considered as two separate fields and mandates, which means that comprehensive planning is lacking where they meet and where important parts of urban forest, green areas and farmland are situated. Besides, even when urban and rural areas are considered as a whole in the context of planning tools at local level, the urban dimension and interests tend to prevail over rural ones.

  Furthermore, conflicts over urban forests (and their use), farmland protection, and wetlands recovery practices have intensified (e.g. Parco Sud Milano, Parco della Piana Tuscany, Seine-Saint-Denis).

- *Difficulties in Multi Level / Multi Sector Governance*

Nowadays no institution acts in an isolated manner from others or from civil society. Indeed, the concept of institutional interaction and multi-level governance emerges from the recognition that their effectiveness does not only depend on their own performance, but also on interaction with others. Nevertheless, inter-institutional interaction has limits in terms of territorial physical factors and of political responsibilities and social spheres of influence.

Periurban parks are directly affected by this situation. Policy development in areas such as environmental regulation and urban policies, involve a series of actors and interest groups often with divergent interests. Moreover, coordination difficulties may derive from insufficient clarity in division of responsibilities among institutions.

1.5 Good Practices

Among the various experiences analysed, varying from vast national/regional parks to local systems or single green city zones, the following good practices represent potential solutions to the above mentioned obstacles.

- *The periurban park as a recognised tool in regional laws*

  In 2 regional cases (Andalusia and Lombardy) the periurban park is acknowledged as a specific planning and policy tool to deal with matters related to areas on the external urban belt, which cannot be addressed only by existing policies on environmental protection and urban planning. This is an important step forward, towards regional laws that, in theory, could allow for more stable policies of protection and development of periurban parks.

  Such laws were experimented initially in north European countries, such as the UK and Germany. They identify parks as areas of strategic importance for the ecological balance of metropolitan areas and for environmental protection and landscape recovery of periurban areas. While environmental protection is generally the main priority, legislation can also concern accessibility, recreation and leisure activities and economic development (e.g. agricultural and production activities);

- *Integration of planning and policies in a single coordination structure*

The complicated, multi-actor context of the periurban park can lead to the creation of ad hoc institutional structures grouping local entities, involved in matters relating to the periurban area. This type of structure is well suited to a park that covers a range of different functions and which boasts a range of different environmental characteristics.

The exact structure may vary. In some cases planning powers are devolved of to a non-mandatory administrative body (e.g. Lille Metropole); in others the role is attributed to an ordinary institutional body (e.g. Andalusia, Lombardy, Seine-Saint-Denis). Despite having some complications in practice, this helps coordinate policies and planning themes that concern protection and development of periurban areas.

- *Zoning of the park*

  Zoning divides the park into a recognised set of areas, each with specific characteristics and regulations. Zoning creates spatial concretisation of norms, regimes and recommendations and allows for implementation of varied activities. This instrument reflects the need for different solutions in different areas on the basis of objectives for protection, maintenance and development of periurban areas with high biological, aesthetic, ecological and cultural values. These can be designed according to local and international norms, such as the Protected Areas Act and IUCN principles of categorisation (e.g. Vitosha Nature Park).

- *Mechanisms for effective coordination between policies/planning aims and park development*

  All policy structures must include effective mechanisms for their implementation, specifying issues related to management and to internal regulation of park uses and activities. This can be guaranteed by agreements between the Ministry of Environment and the respective Local Government (e.g. Andalusia). Agreements are not a guarantee of effective implementation, but this formula can help with content and operating procedures.

  In some cases, partners have allocated a specific structure, including a public/private agency (e.g. Lille Metropole), a public structure in charge of inter-sector park policies (e.g. Lombardy) or sector based agency (e.g. Vitosha Nature Park, Košice, Monsanto Lisbon, Silesia Metropolis).

Frameworks for implementing policies can also develop in the context of policies stemming from specific environmental and urban strategies, such as Agenda 21, renewable energy and CO2 emissions reduction, urban regeneration, etc. (e.g. Aberdeen).

2. MANAGEMENT SYSTEMS

2.1Foreword

This section considers issues related to the various forms of management systems that can be applied to periurban parks, including the impact of the park system in terms of territorial governance and socio-institutional relations. See also section: Policy and Regulatory Aspect.

2.2 Main Issues

- *Park management systems*

  The management system of a periurban park depends primarily on its legal status. The predominant system seems to be entirely public, sometimes combining different sectors within a mainly public owned park area (e.g. Vitosha Nature Park, Košice, Monsanto Lisbon.). This is due to a traditional means of managing open spaces, which has long been allocated to the local council or equivalent.

  However, in cases when the park area covers a number of local council areas and/or many private properties and actors, public/private partnerships or collaborations can be created for park management (e.g. Aberdeen, Andalusia “La Corchuela”, Lille Metropolitan Natural Space). Depending on the status of the park, the management system either allows direct intervention from park staff or indirect intervention through service providers, partners or associations.

  In terms of technical management, the most common form seems to be in-house, but there are cases where management in outsourced. This is generally for publicity operations, during which the park calls upon the services of associations and/or companies or works in partnership with other entities.

- *The park management structure should be a proactive presence in territorial governance*

  The management of periurban parks calls for continuous coordination among the institutional bodies involved in park management and the relative stakeholders or shareholders. Park management structures must have a specific and active role in decision making about territorial planning and development.

To this end, the insertion of the park into local (metropolitan or regional) planning documents is essential. This is the only way to guarantee a comprehensive and general strategic vision for local development and to communicate it to social actors. Moreover, problem setting (the definition of a hierarchy of problems and goals) and decision making must be supported by a social inclusive and deliberative approach.

The following table provides an overview of the management systems of each of the periurban parks considered in this methodology.

2.3 Overview of Park's characteristics

Park	Georges Valbon Park,	Protected Area Network,	Metropolitan Natural Spaces	Monsanto Periurban Park	Periurban Forest Park	Silesia Metropolis Periurban Park	Danube-Ipoly National Park	Periurban Park System	VITOSHA Natural Periurban Park	Regione Lombardia Protected Areas Systems	Praha-Troja Nature Park	Zografou Periurban Park	Metropolitan Agricultural Park
Locality	Seine-Saint-Denis	Andalusia	Lille	Lisbon	Kosiće	Silesia Metropolis	Hungary	Aberdeen	Sofia	Lombardy	Prague	Athens	Tuscany
1. A shared strategic vision for park creation and development													
2. Management structure: -Public body (PB) -Public/private Agency (PPA) -not present (NP)	PB	NP	PPA	PB	PB	PB	PB	PPA	PB	PB	NP	PB	NP
3. Technical management: -In House (H) -Outsourcing (O)	H	H	H/O	H	H	H	H	H/O	H	H/O	H/O	H	H/O

2.4 Obstacles

Among the management related obstacles identified by the parks analysed, the most widely noted are as follows:

- *Lack of coordination between different departments and stakeholders*

  Even in the limited cases in which the park management authority is clearly identified and possesses extensive decision-making authority, coordination between different departments and stakeholders is not always easy. In some cases, park management is covered by different sectors of the same public administration, making it difficult to pursue effective policies and measures to develop the park in relation to the surrounding area (e.g. Košice). Furthermore, effective management requires an adequate level of governance and cooperation from stakeholders and social actors that, while adding value to the system, also adds complications and potential delays in decision making (e.g. Parco della Piana Tuscany).

- *Conflicting priorities and pressures*

  The pressure exerted by urban settlements surrounding the park (e.g. Monsanto Lisbon, Zografou, Praha-Troja Nature Park, Vitosha Nature Park), especially in agricultural and environmental areas between the urban and rural contexts (e.g. Seine-Saint-Denis, Parco della Piana Tuscany), is a constant threat to periurban parks as the economic potential of real estate is usually given priority over environmental concerns. The urban economy, focused on settlements and urban infrastructure growth, is often considered a pre-condition for economic development.

  To this end, land development pressure represents a threat for periurban parks. Certain sites are difficult to preserve if urban development is not properly controlled. Furthermore, natural areas surrounding parks are sought after by property developers, preventing the creation of biological continuity between the parks and their surrounding areas (e.g. Košice).

- *Difficulty in defining and implementing management structures that balance park functions*

  It is difficult to find a balance between the influx of visitors (desirable and necessary for park survival and to ensure benefits to local residents) and the protection of fragile areas (*see also*

section: 3.4 Social and Communication Aspects). Managing periurban parks means looking for the right balance between environmental conservation and social use. However, management structures often tend to be too focused either on the recreational role or on the protective role, without managing to find a balance between the two.

- *Lack of recognition as park as an independent entity*

  The failure of local institutions, organisations and stakeholders to recognise parks as independent entities causes management difficulties, limiting the ability of periurban parks to assert themselves as strong entities capable of putting forward proposals or calling for changes at regional level.

  For young structures, this lack of brand awareness can sometimes leads to problems of management and collaboration with external partners. This is particularly true when difficult decisions need to be made, (e.g. to address the conflicting pressures mentioned above; to expand the park; to receive and manage funding).

- *Lack of long term strategies*

  The lack of a long-term management strategy is an obstacle to the proper operation of a park. If the management structure is purely public, it is often linked to a political mandate of around 4 to 5 years. In this case, the management is generally more interested in short term objectives and does not take the time to invest in a long term strategy that may not prove fruitful until after the political term is completed (e.g. Monsanto Lisbon, Andalusia, Zografou).

2.5 Good practices

Despite the common obstacles experienced by a number of periurban parks, various solutions adopted have resolved or limited the negative impact and can be reported as good practices.

- *Creation of specific programmes and park management structures*

  Periurban parks benefit from programmes that are strictly connected to integrated economic development plans in the area where the park is located. This increases coordination and awareness of the role and specific identity of the park (e.g. Aberdeen, Parco Sud Milano).

In some cases specific organisations, agencies or partnerships (usually public) have been created with the task of drawing up plans and operations and of undertaking operational management and monitoring park development (e.g. Vitosha Nature Park, Lille Metropole, Seine-Saint-Denis, Andalusia "Porzuna"). This mode of governance, designed in accordance with institutional, social and cultural characteristics, seems to be particularly effective for establishment and maintenance of the park and the recognition as a legitimate management entity gives greater credibility to park management.

- *Joint Involvement of institutional stakeholders and social actors*

  Management must ensure proper coordination between various government departments and public and private actors. Good practices see a management structure that promotes the participation of different departments and local councils (e.g. Parco Sud Milano, Lille Metropole, Parco della Piana Tuscany for the starting phase), alongside a bottom-up approach guaranteeing involvement of local residents.

  This can be achieved through the creation of temporary or permanent preservation structure and periodical public audits (e.g. Lille Metropole) or through shared management (e.g. Aberdeen). Another opportunity could stem from the creation of a public/private management agency, working in collaboration with public authorities, which could involve private stakeholders and citizens in park development according to the park's strategic aims.

- *Planning for future development: environmental management plans*

  While a specific management strategy for the park does not always exist, parks can make use of other local or regional plans. Environmental management plans are particularly important. Nowadays most local and regional councils have such a plan and park management structures can act on these in order to shape and deliver future park development. The management plan serves as a permanent guideline that can be updated regularly and integrated with proactive engagement of park management structures (e.g. Vitosha Nature Park, Lille Metropole, Regional Government of Lombardy).

- *Monitoring and follow up*

Monitoring and follow up are essential features of park management systems. Environmental and territorial monitoring systems, ideally integrated into a regional plan for protected areas, allow park managers to acquire and process data that can form the basis for decision making and influence the park management structure (e.g. Regional Government of Lombardy).

3. ENVIRONMENTAL ASPECTS

3.1 Foreword

Environmental aspects are among the main considerations when planning, creating and managing a periurban park. Given the characteristics of such parks, born from their close proximity to human settlements, they play a fundamental and innovative role as an instrument to promote environmental and eco-system stability in the territory.

Thus, periurban parks' strategies and actions in this field must be capable of recovering and maintaining environmental resources and eco-systemic structures (e.g. ecological networks or minor ecological networks[16]) through active protection.

3.2 Main Issues

Among the parks studied, 7 are located in the Mediterranean climate zone, 1 in the oceanic and 5 in the continental zone. These areas present different climate conditions, including seasonal variations, which result in a huge variety of environmental conditions that impact the way a periurban park is created and managed.

Considering the four typologies of park identified above, natural values can vary significantly. Looking just at the question of natural or artificial creation, a number of issues arise for those interested in creating or managing a periurban park.

Re-naturalised parks were sometimes former agricultural, industrial areas or, more generally, brownfield sites. For example, many parts of the Parco Nord Milano were, until the end of World War II, industrial areas that have now been reconstructed as grasslands, woods and wetlands, representing a habitat for local species of birds at the edge of a metropolitan area.

Natural parks, on the other hand, generally protect areas of existing natural value, which include rare species, geological rarities etc. This means they are more biologically diverse. Many are

[16] Parts of countryside with mainly natural features such as little woods, hedges, little ponds or streams, riparian vegetation, or not cultivated land that are inside farmlands and that, sometimes, are part of the cultivation asset itself (e.g. nature based, traditional or organic agriculture). They not only develop a fundamental role in the maintenance and reproduction of the biodiversity but also in the maintenance of the quality and difference of the landscape.

divided into strictly protected parts where no visitors can enter and more accessible areas. Some contain large natural forests (e.g. Vitosha Nature Park, Košice, Monsanto Lisbon, "Monte La Sierra" Andalusia) and others have protected grasslands or wetlands (e.g. Danube-Ipoly National Park, Tuscany Parco della Piana).

Moreover, some parks have both artificial (reconstructed areas for recreational use) and natural parts (created for biodiversity protection), thus combining the above characteristics.

Three main types of land use in the parks studied potentially conflict with biodiversity protection:

- Agricultural activity, often based around intensive production methods, located in areas bordering the habitat of protected species causes serious conflict. Traditional, sustainable agricultural methods need to be adopted to address this balance (e.g. Parco Sud Milano) and to obtain general improvement of ecological and landscape conditions (e.g. ground water recovery and protection, soil fertility recovery, storm water runoff containment, maintenance and reconstruction of trees and shrubs hedges, biodiversity enhancement, etc). A special conflict is caused by the abandonment of agricultural areas. Many former agricultural areas are left and are then subsequently inhabited by invasive plant species, which compete with native species –maintained in the past by farming in such a way to integrate cultivation and biodiversity- and often displace them.
- Forestry and protection can be complementary. Indeed, forests represent an important source of plant and animal biodiversity. However, the use of the forest is not always in line with biodiversity protection. For example, wood harvesting and logging is often permitted for income generation, but without regulation it can cause damage. Moreover, intensive forestation programmes sometimes compete with the biodiversity of the land and with the opportunity to manage organic farming in such a way to foster biodiversity, landscape enhancement and to deliver food for the town . Cooperation between park management and forestry commission is essential to strike a balance.
- Recreational use generates conflict as people access protected areas destroying rare plant species and disturbing animals. The impact of recreational activity can range from noise

pollution (e.g. groups of trekkers, cyclists or school groups) and to soil erosion (e.g. from motor sports), depending on the type of activity.

The table below provides an overview of environmental characteristics of the periurban parks analysed, highlighting the coexistence, in the same park of different environmental features related to more than one park typology.

3.3 Overview of Parks' characteristics

Legend (see also par. 1.2.3.), A. Protected Nature Park (natural); B. Semi Natural (agricultural) Park; C. Green City Park (urban); D. Re-naturalised (artificial)

Park	Georges Valbon Park	Protected Area Network,	Metropolitan Natural Spaces	Monsanto Periurban Park	Periurban Forest Park	Silesia Metropolis Periurban Park	Danube-Ipoly National Park - Buda Hills Landscape Protection Area	Periurban Park System	VITOSHA Natural Periurban Park	Regione Lombardia Protected Areas Systems	Praha-Troja Nature Park	Zografou Periurban Park	Metropolitan Agricultural Park - Parco dell Piana
Locality	Seine-Saint-Denis	Andalusia	LILLE	Lisbon	Kosiće	Silesia Metropolis	Hungary	Aberdeen	Sofia	Lombardy	Prague	Athens	Tuscany
category *	C+D	A+C	B+C+D	C	A	A+C	A	C+D	A	B+C	A+B+C	C+A	B+C+D
main character	The park is an artificial environment; It has various habitats and urban areas (roads, playgrounds). The park is a part of Natura 2000.	Network of 21 Periurban Parks. They represent 14.48% of total protected areas in Andalusia. They are the first stage for recreation and public use in green areas.	A mixed area with forests, grasslands, wetlands, rivers and artificial parks. 100 hectares area is going to be a Regional Natural Reserve;	Hilly, deciduous and coniferous forested area;	Mountainous, deciduous and coniferous forest area; Some parts of the project area are protected and Natura 2000 sites	mainly flat forest area (98%) and 5 recreational centres (2%), about 230 hectares of the project area is protected	Mountainous and hilly area, mainly forests (90%), partly rocky grasslands, steppes and some agricultural use, the whole area is protected and Natura 2000 sites	1.Hazlehead Park: wooded / grassland; 2.South Aberdeen Coastal Park: coast, agricultural, grassland, woodland	Mainly (80%) mountainous forest area and high plain grasslands, wetlands (river basins, waterfalls, marshes), the whole project is protected and Natura 2000 sites	2 parks: 1.Parco Nord Milano - city park; 2.Parco Agricolo Sud Milano - agricultural area, Some parts are protected and Natura 2000 sites	Periurban forest on hilly area, river basin, zoo + botanical garden, garden of Troja palace, vineyard, Some parts of the project areas are protected	Natural mountainous region and city parks	Flat land, partly wetland, agricultural and re-naturalised area and built heritage
extent (ha)	415	approx. 6 000	1 200	1 000	approx. 4 500	approx. 8 000	10 500	Hazlehead: 180, South Aberdeen: 1200	27 000	P.Nord: 600 P.Sud: 47 000	578	280, fragmented	7 000, fragmented
Park area inhabitants	approx. 180 000	average/park: 66 600	1 100 000	2 500 000	233 000	500 000	2 500 000	209 000	1 500 000	approx. 3M		80 000	900 000

Vegetation	It is composed of various habitat types:- forests: 36 %- lawns: 22 %- meadows: 20%-wetlands (ponds, lakes): 5 %	In most Parks there are forest areas - reforested with pine trees. Plant communities with Mediterranean forest species. 3 Parks are located on the coastline. Some have internal systems of riparian forests.	30 % woodland, 20 meadows, 13% agricultural lands, 15 % Wetland (ponds lakes …) : s	There are several forest stands of great ecological interest; Nowadays natural woods introduced with Querqus spp.	Mainly deciduous + coniferous forest habitats. Relict calcareous pine and larch forests, Pannonian thermophilous oak forests , Dealpine grasslands vegetation, oak-hornbeam forests of linden, beech and fir flowery forests, Tilio-Acerion forests, grassland vegetation	Mainly deciduous forest habitats, with European species, Approx. 300 vascular plants species are known in the park, several protected ones of them,; Fragments of natural and semi-natural habitats;	Rich and diverse, with many endemic and relict species, appr.160 protected of them; many different habitats, the highest biodiversity places are the forest-, steppe- and rocky grassland associations developed on mostly dolomite and limestone;	Hazlehead: Coniferous and deciduous woodland, upland and lowland heath, cut grass, flowerbeds – azalea gardens, rose gardens, rhododendron, heather bed; South Aberdeen: lowland heath, coastal heath littoral and supralittoral rock, standing open water, deciduous and coniferous woodland, river	Extremely rich and diverse. 1489 species of vascular plants, 61 habitats most valuable are the forest type habitats, steppe and grass, caves and peat complexes.	Parco Nord Milano: planted deciduous forest and little wetlands; Parco Agricolo Sud Milano: mainly agricultural, partly wetland vegetation	deciduous oak forest, steppe-forest, steppe and rock vegetation	Mediterranean pine forest and scrubs, dry rocky grasslands	mainly agricultural, partly wetland vegetation, grasslands
fauna	-	The fauna associated with the natural areas is the one belonging to the Mediterranean forest, featuring a large presence of insects, amphibians, reptiles, birds, rodents and mammals.	.250 species of birds , 6 amphibians, 16 odonata, 4 bat species, 8 hetecera, 16 ladybugs species, 28 Rhopalocèra species	Dry forest species of insects, rodents, birds and big mammals.	Rich fauna belongs to the forests and grasslands. Wide range of forest insect species, amphibians, reptiles, and bird species. Large population of forest wildlife: deer, roe deer wild boars and Predator mammals;	Mainly species of deciduous forests, insects: amphibians and reptiles, many bird species. Numerous population of the wildlife: 450 fallow deer, 80 deer, 400 roe-deer, 200 boars.	Rich fauna in forests and grasslands. Invertebrates: approx. 30 endemic species of Carpathian-basin. Vertebrates: 9 species of amphibians, 11 of reptiles, 180 of birds. Many rodents; Some mammals and predators:	Fox, roe deer, several native heathers, wild flowers, palmate newts, views of dolphin, porpoise, humpback and minke whale. birds such as redwing, fieldfares, swallows, guillemot, gulls, razorbill	Invertebrates: 148 endemic species, 300 rare and 85 species of relict. Vertebrates: 10 species of amphibians, 12 species of reptiles, 236 species of birds. Big mammals / predators.	Parco Nord Milano: some kind of insect - rodents and many bird species of forest, amphibians and reptiles; Parco Agricolo Sud Milano: wide range of water birds, amphibians	wide range of thermophil insect species, rodents, forest and steppe birdlife	insects of dry habitats, rodents, dry forest birdlife	insects of grasslands, rodents, water birds, amphibians, reptiles
interesting	Several	Rare plant	--Triturus	-	Rare plant	Rare	Unique endemic	Short-eared	Endemic	Parco Nord:	Petasites		

data on biodiversity	couples of Little Bittern nest in the lakes of the park.	species: Daphne gnidium, Cistus abiudus, Lavandula stoechas, Animal species: Chameleon, Crane, Great bustard, imperial eagle, Black vulture, White headed duck;	cristatus, Falco peligrinus, falco subutea, Egretta garzetta, Dendrocopos minor, Oriolus oriolus. 500 vegetal species		species: Lady's Slipper, Pasque flower, golden head lily, Pulsatilla Slovak; Rear animals: Black stork, Honey buzzard, Ural owl, Eagle owl, Golden eagle, Kingfisher, White-backed woodpecker,	mountain perennial plant at Sanctuary Ochojec Nature Reserve; A piece of marshy forest with a part of unique moor of natural origin at the ecological area of Płone Marsh	plants: dolomite flax, Hungarian seseli, Stephen King' Pink. Rare animals: Damon blue, whip-snake, European Snake-eyed skink.	owl, merlin, Osprey (Europena protected specied), Bullfinch, Scots Pine, Red Squirrel, EurasianTree Sparrow, Red Backed Shrike (UK priority species), Wych Elm and Heath Spotted Orchid (locally important),	plants: mountain lily, Pine, Transilvania n campanula, Luzula deflexa. Animals: mountain lizard, salamander, goshawk, black stork, eagle owl, eagle, bear.	Bufo viridis, Hyla arborea, Lacerta viridis, Stryx aluco, Ficedula hypoleuca; Parco Sud: Egretta grazetta, Ardea cinerea, Cuculus canorus, Dendrocopus major;	albus, Pulsatilla vulgaris (grandis), Erysimum crepidifolium		
Main values	697 species are represented in the park, among the 2547 which Seine-Saint-Denis counts. Wetlands are the richest in term of biodiversity.	Approx. 6 000 hectares green area, preserving natural assets and ensuring recreational areas and open air spare time activities for urban inhabitants.	Large green and blue (rivers and canals) surfaces next to Lille Metropole.	Huge forested area near to Lisbon, many tree species are kept;	Huge natural forest areas, diverse habitats, rich wildlife. Large forests next to the city of Kosice.	Huge forest area partly within and next to Silesia Metropolis; Flora and fauna of forests; Recreational areas, spare time activities,;	Huge natural areas mostly in one block, diverse habitats, rich wildlife. Large forests next to the capital.	Open green areas and ecosystem services in and around a big city, recreational areas, access to nature and diverse habitats with important species.	Huge natural areas in one block, diverse habitats, rich wildlife. Large forests next to the capital.	Parco Nord Milano: wildlife of forest and small wetland; Parco Agricolo Sud Milano: special agriculture, rich natural ecosystem	The flora, fauna and geology of several natural monuments and nature reserve		Re-naturalised wetlands with its flora and fauna, agricultural sites, local products
Aims of protection	Main objectives the reception of the public for leisure, the improvement of biodiversity, and the heightening public awareness of	Protection / conservation of ecosystems, geological or biological elements or other natural components; Maintaining recreational area for	Preserving the flora and fauna of the park, mainly in the protected areas; Maintaining recreational area for inhabitants, serving ecological	Preserving forests grown up since 1934, and creating habitats. Reintroduc e elements of flora or fauna; Ensure	Preserving the flora and fauna of the park, mainly in the protected areas; Maintaining recreational area for inhabitants, serving ecological education and ecotourism.	Preserving the flora and fauna of the park, mainly in the protected areas; Maintaining recreational area for inhabitants, serving ecological	Preserving the biodiversity, ecosystems and habitats of the protected area, control forestry and agricultural activity, serving ecological education and ecotourism,	Preserving biodiversity, ecosystem and maintaining recreational area for inhabitants. renewing degraded natural sites e.g. coastlines, moors,	Preserving biodiversity, ecosystems and habitats of the protected area, control forestry and agricultural activity, serving ecological	Parco Nord Milano: reforestation works; creating forest habitats for wildlife; Parco Agricolo Sud Milano: support and preserve agricultural	Preserving the flora and fauna of the Nature park's habitats, maintaining recreational area for inhabitants, preserving vineyards of Troja	Preserving the flora and fauna of Hymeletus mountain, creating recreation area for inhabitants, ensure fresh air to	Renewing and preserving wetland habitats, creating green corridor between mountain and flatland, strength local farmers, preserve built

	environment.	inhabitants, serving ecological education and ecotourism.	education and ecotourism.	nesting places for birds and ecological corridor;		education and ecotourism.		modified waterways and ex-landfill site.	education and ecotourism,	activity and landscape, preserve natural ecosystem.		the city	heritage, creating recreation area for inhabitants

3.4 Obstacles

Among the obstacles identified by the periurban parks studied in terms of environmental and rural aspects, the following are the most widely noted:

- *Urban Sprawl*

  Given the continued urbanisation across Europe, there is an ever decreasing possibility to create new protected areas. Indeed, it is a continuous challenge to maintain the status of protected or green areas, as more and more industrial centres and residential or retail developments are built around cities. Priority is generally given to construction, as this generates more money than areas dedicated to recreation or to biodiversity protection. In this context, the question is not the enlargement of protected areas but indeed how to stop them from shrinking (e.g. Parco Sud Milano, Seine-Saint-Denis, Parco della Piana Tuscany).

- *Overuse of natural areas and resources*

  Natural areas are often overused, either for agricultural or recreational purposes. This is a particular problem in protected grasslands and forests, as it destroys the habitat of protected species. Lack of management of agricultural activities can lead to shrinking of or damage to protected areas and to the loss of environmental capabilities and resources (e.g. soil loss of fertility and desertification, groundwater pollution, loss of biodiversity, etc) .

- *Existence of environmental threats*

  Environmental threats to the periurban parks vary according to the particular local conditions like: climate, geology, water supplies, social behaviours, land use, etc. Examples include:

- Mediterranean areas have the specific problem of forest fires (e.g. Monsanto Lisbon, Andalusia). This is a threat to the flora and fauna and to the landscape. Fires are hard to stop and it is difficult to renew the area afterwards.

- abandoned rural and former agricultural areas, as quoted above, are particularly at risk from the invasive plant species, which spread to protected areas (e.g. Troja-Praha, Danube-Ipoly

NP). Invasive species are not particular problems for periurban areas, but can be present (e.g. Vitosha Nature Park, Danube-Ipoly National Park).

- there are problems related to side effects of mining, which destroy plants and cause land subsidence and flooding (e.g. Silesia Metropolis)
- there are problems with illegal hunting of certain animals, including protected species (e.g. Parco della Piana Tuscany).

A common environmental threat plaguing periurban parks is waste dumping. In abandoned rural areas destined to be part of parks, problems are caused by illegal waste dumping, which caused pollution and destroys the landscape. Even common waste can contain highly toxic chemicals, putting species and soil at risk, and the visual impact of such waste also contributes to landscape degradation (e.g. Košice).

3.5 Good Practices

Periurban parks can use a number of different actions to address these obstacles and retain their role as important areas for the protection of biodiversity and conservation of environmental heritage through. The following are examples of good practices developed in the parks analysed.

- *Know your environmental characteristics*

Before initiating actions to promote environmental protection within the periurban park and / or adjacent areas, it is essential to undertake in-depth analysis of the areas, including studies on the state of preservation of certain species and habitats. These can incorporate existing methods such as Natura 2000 management plans. Studies can bring to light specific characteristics of the parks and its connections with its surrounding.

Studies can be enhanced by cartographic tools (e.g. ecological interests areas map, sports activities map, visitor numbers map), which can be superimposed to identify areas where ecological and social stakes overlap (e.g. Regional government of Lombardy, Seine-Saint-Denis). This provides answers to possible usage conflicts (e.g. creation of protected areas, location of infrastructure, information required by the public). A hierarchical organisation of

ecological, social and economic stakes allows managers to prioritise and integrate actions and funding and, accordingly, to define fitting rules for human activities and presence in the parks.

- *Creation of protected areas*

  Parks with biodiversity of significant importance have created protected areas to preserve natural habitats from damage caused by human pressure. The statutes of protected areas are variable - ranging from local protection to EU regulations, such as Natura 2000-. Within protected areas there is strict regulation of potentially harmful activities, in particular sports.

  Complications related to creating new protected areas can be resolved by adapting the level of protection: a strict protection and area closure is not always indispensable. For example, the forest protection through national law guarantees the stability and continuity of the woodland existence and ensures their ecological, economic and social role (e.g. Silesia Metropolis).

  The level of protection can vary according to ecological conditions and local context. For example, in sectors with strong ecological importance within a small area, public access can be totally forbidden by fences (e.g. Sas Hill Nature Trail, in the Danube-Ipoly National Park). In areas where urbanisation is forbidden and the park is protected by nature conservation and landscape regulations, public awareness - raising programmes can be developed in partnership with other local stakeholders in order to reconcile public expectations and biodiversity (e.g. Praha-Troja Nature Park, Tuscany Parco della PIana).

- *Environmental restoration within parks and restoration of overused natural areas*

  A continuous drive to promote environmental restoration within periurban parks can include the planting of local species, including reforestation (e.g. Monsanto Lisbon, Aberdeen, Tuscany Parco della Piana, Silesia Metropolis) or plant reintroduction through the creation of botanical gardens (e.g. Zografou) or restoration of habitats and animal species, including re-introduction of local species made extinct as a result of the human activity (e.g. Vitosha Nature Park). Specific projects promote restoration of plantations, such as hedges and woodland, reintroduction of species of grasses and flowers in agricultural fields or maintenance of

traditional nature based harvesting methods (e.g. Parco Sud Milano, Lille Metropolitan Natural Space).

Biodiversity restoration (natural succession) can occur on the brownfield sites or areas previously affected by intensive human activity such as: post-industrial sites, quarries and mining areas (e.g. Seine St. Denis, Parco Nord Milano, Silesia Metropolis or, in cases outside the Periurban Partnership, Parc Miribel Jonage in Lyon[17] or BULGARKA Nature Park in Bulgaria). Affected areas can be converted to woods, meadows or artificial waterways or vegetation can be planted to prevent erosion.

In all cases, partnerships with other actors is essential, be these foresters, agricultural workers or recreational associations (e.g. Silesia Metropolis, Tuscany Parco della Piana), as is public awareness on activities and on the specific species (e.g. Danube-Ipoly National Park).

Restoration also requires monitoring, for example on the health and durability of species that may be weak or suffer from external pressure from visitors (e.g. Parco Nord Milano).

- *Ecological connections between parks*

Conservation of biodiversity is bound to the movement of species and genetic admixtures within the same species. In urban, periurban or rural areas, breaks of connections that prevent exchanges are numerous (e.g. roads, intensive farming areas, housing). Creating a green infrastructure between periurban parks can protect biodiversity and landscape.

Ecological connections can be created through green belts, or other elements of a wider ecological network, either through pro-active initiatives, such as reforestation (e.g. Monsanto Lisbon, Silesia Metropolis) or policy developments for the creation of an ecological of protected areas within local planning documents (e.g. Silesia Metropolis, Regional governments of Lombardy and Andalusia). Contemporarily the idea of “green and blue infrastructure” is widespread.

Zoning in rural areas, in which the park plan identifies specific areas in order to protect and improve the ecological functions in the park and the surrounding area, can also be important

[17] See: http://www.grand-parc.fr/

for the reproduction and movement of species (e.g. Vitosha Nature Park, Seine-Saint-Denis, Lille Metropole, Parco della Piana Tuscany).

Restoration and renaturalization of streams and rivers also constitute key elements of ecological connection. Projects include work with agricultural actors to reduce intensive farming and hydraulic pressure and work on ground-water and aquatic ecosystems (e.g. Danube-Ipoly National park).

- *Volunteering*

  Environmental protection in periurban parks is often provided by teams of voluntary workers that are committed to maintaining green spaces. Their presence on a structured basis can allow park staff to plan numerous operations of maintenance and to maintain high quality green spaces and equipment (e.g. Lombardy Parco Nord Milano, Aberdeen, Vitosha NP, Tuscany Parco della Piana protected wetlands). Specific activities see mobilisation of volunteers to fight invasive species, such as removal of damaging trees and shrubs (e.g. Danube-Ipoly National Park) or experimental programmes of animal and plant species reintroduction (e.g. Vitosha Nature Park).

4. SOCIAL AND COMMUNICATION ASPECTS

4.1 Foreword

This section deals with social and communication aspects related to the creation and management of periurban parks. In particular, the focus lies on the citizen and stakeholder information and involvement programmes used to guarantee a bottom up approach to park development.

4.2 Main issues

An innovative character of periurban parks means that they go beyond the concept of the park as a mere instrument for conservation and protection of natural and cultural characteristics. Instead, the parks represent/set a balance between human presence and environmental values, constituting a new model of relationship between citizens and their surrounding environment. This is new approach requires a new mentality as well as high level of awareness and involvement of local actors and inhabitants in that process of park's creation and management. . Periurban parks should not be considered as passive elements, governed by the authorities. They should belong to the entire community and represent a tool for effective local development and active citizenship. From this point of view social involvement of citizens, associations and stakeholders in design, decision-making and management processes and structure is pivotal.

In this context, it is important to establish the various activities, structures and levels of social and communication and participation initiatives that can be promoted by the park. and that can can be summarized in:

- *Information provision*

  The provision of information is the first step during both the creation and management phases of the park. All parks analysed actively provide information for citizens and users. Despite an increasing reliance on ICT, traditional instruments such as printed information materials (e.g. newsletters, leaflets) and television are still widely used.

It is worth noting that information does not only flow from the park to the users. More advanced information systems also collect feedback from users about park services.(active communication)

- *Visitor services*

  Visitor services not only facilitate use of the park and make it more pleasant, they also increase user interaction with park management and knowledge and awareness of the value of the park and of its strategic objectives. Furthermore, they strengthen the profile of the park as public space open for social and recreational activities.

  Services can vary according to diverse cultural and demographic characteristics and can include an educational dimension, which is closely related to environmental care, health care and social inclusion.

- *Participation*

  The participation of residents and stakeholders in the creation and management of the park helps to obtain effective interaction between decision makers and users: it promotes public understanding and sharing of the objectives of the park and supports their implementation.

  This goes beyond the mere provision of information, which is a necessary precondition, and involves engaging users actively, discussing different points of view, creating spaces to listen, sharing knowledge and developing projects..

  Participation needs to involve particular techniques and tools[18] tailored to the different situations and contexts. This is in order to obtain an effective process of knowledge production and sharing between the agents and to assist the project's definition and the decision-making process as well. This requires a significant organisational effort on behalf of park management structures and substantial commitment from users and citizens. (e.g. Tuscany Parco della Piana creation process).

- *Partnerships and social involvement*

[18] For an effective description of the main participative methods in practice see:
Slocum N. et. Al. (2005), Participatory methods toolkit. A practicioner's manual, United nations University http://archive.unu.edu/hq/library/Collection/PDF_files/CRIS/PMT.pdf> (06/12)

The highest communication phase concerns real involvement of local non-profit-associations, enterprises and citizens. This can range from the management of services and of specific areas of the park (e.g. Parco della Piana in Tuscany, Seine-Saint-Denis), to the development and regulation of agricultural and forestry activities (e.g. Lille Metropole, Vitosha Nature Park, Silesia Metropolis) to voluntary activities of supervision and care of the park and of its structures (e.g. Parco Sud and Parco Nord Milano, Aberdeen, Andalusia).

The table below provides an overview of social and communication related initiatives in the periurban parks studied.

4.3 Overview of Parks' characteristics

Park	Georges Valbon Park,	Protected Area Network,	Metropolitan Natural Spaces	Monsanto Periurban Park	Periurban Forest Park	Silesia Metropolis Periurban Park	Danube-Ipoly National Park	Periurban Park System	VITOSHA Natural Periurban Park	Regione Lombardia Protected Areas Systems	Praha-Troja Nature Park	Zografou Periurban Park	Metropolitan Agricultural Park
Locality	Seine-Saint-Denis	Andalusia	LILLE	Lisbon	Kosiće	Silesia Metropolis	Hungary	Aberdeen	Sofia	Lombardy	Prague	Athens	Tuscany
Information provision and dissemination	X	X	X	X	X	X	X	X	X	X	X	X	X
Social services for park users	X	X	X	X	X	X	X	X	X	X		X	X
Participation	X		X		X	X			X	X			X
Partnership promotion and social involvement	X	X	X		X	X	X		X	X			X

4.4 Obstacles

In the context of ensuring that one or more of the above described levels of communication are achieved, a number of obstacles were identified during the analysis of the periurban parks.

- *Conflicting use of parks*

  Some areas within periurban parks are over-used (e.g. high tourist pressure), while others are barely utilised for sport, recreation, tourism or other educational activities. In general, the use of these spaces varies significantly, including both passive and active leisure uses (e.g. grandparents with children and people walking their dogs; people walking and using bikes; elderly people cultivating allotments and young people playing sports; families having picnics). In the case of agricultural activities, social use of spaces often conflicts with those cultivating and working on the land.

  Given this variety, is not easy to achieve agreement among local stakeholders (private land owners, users, local inhabitants, firms, etc.) on issues regarding use, management and maintenance of the park area.

  To a great extent this problem is related to the lack of a clear message on the park's functions and insufficient awareness among park land owners on the environmental, social and economic opportunities that periurban areas can provide.

- *Lack of public awareness and anti-social behaviour*

  Periurban parks suffer from a weak pro-environmental culture among some park visitors (e.g. those practicing sports). From a social point of view, it is easier to use the park for sport and leisure activities that require wide, open spaces, rather than a place with semi-natural spaces that connect the city and country. The uncoordinated development of recreational facilities, intended solely to attract large number of visitors risks destroying the landscape and natural value of periurban parks (*See section: 3.7 Infrastructure and Accessibility*).

The presence of freely accessible spaces and equipment can make the park an attractive place for informal or structured groups of visitors. However, these groups are often guilty of inappropriate use, such as damage and vandalism, improper and intimidating behaviour.

Another problem comes from the illegal closure of public pathways through private interventions, both for residential use of buildings and for dumping areas, which damage the environment and the landscape. Some parks have more extreme phenomenon, such as sites with illegal small buildings occupied by homeless people.

- *Conflict between humans and wildlife*

Conflict between human use of the park and the presence and protection of wildlife causes a continuous and complex range of problems. There are numerous such examples. One of them refers to the proliferation of large sports events and the increasing number of participants represents a risk in terms of management and wildlife protection (e.g. the destruction of kilometres of pathways because of a race with 3000 participants in Lille Metropole).

Another example is a presence of certain species, that can be disturbing to visitors, like bats in the case of Danube-Ipoly National Park. Living in the fissures of buildings, they produce guano that not only causes an unpleasant odour but is also damages the house itself. As bats usually have parasites, some of which can be transmitted to humans, they also cause public health problems.

4.5 Good Practices

A number of potential solutions have been applied in the periurban parks studied.

- *Promotion of the Park and dissemination of information*

Spreading information, about the opportunities offered by the park and the best way to use and protect the area, requires a whole spectrum of tools, such as: web-sites, printed information materials, incl. periodical newsletters, brochures, leaflets, announcements in local media, public events, fairs, exhibitions, direct communication (face-to-face, over phone and e-mails). It is worth mentioning the implementation of “open door days”, where the public can

get a closer insight of the work performed by the park authorities (e.g. Praha-Troja Nature Park, Seine-Saint-Denis, Vitosha Nature Park).

Periurban parks should also make use of more innovative tools, such as “Park points”, where information is provided, material is distributed and park initiatives are promoted. These information points can be created within existing structures (e.g. leisure facilities), in order to limit costs and to integrate information into areas where there are a high number of users, who would benefit from better information (e.g. Parco Sud Milano).

- *Educational activities*

  Periurban parks provide the opportunity for educational and awareness raising activities. Educational activities can be applied as a tool for communicating with citizens, to encourage and promote sustained user participation in park life.

  Some parks provide these free of charge; others offer low cost animation and guided tours, or a combination of both. The form depends on the specifics of the target groups approached: young children, students, general public, families, disabled people, people with special interest in flora/fauna/habitats, etc. Such services can be promoted in different ways: issuing a periodical calendar of events or announcements on the parks web-sites, distribution of information material, etc (e.g. Seine-Saint-Denis, Silesia Metropolis, Vitosha Nature Park, Andalusia, Praha-Troja Nature Park, Monsanto Lisbon, Lombardy, Parco della Piana Tuscany).

- *Active Involvement through park activities*

  Periurban parks can choose a number of initiatives promoting an active involvement of the public in park activities. Some of the most common examples are as follows

  Volunteering initiatives (*see section: 3.3 Environmental Issues*) are widespread in periurban parks and include cleaning of areas, tree planting, renovation of small items of visitor infrastructure, even monitoring of plants and animals (e.g. Danube-Ipoly National Park, Praha-Troja Nature Park, Seine-Saint-Denis, Parco della Piana Tuscany). Sometimes volunteering activities are even part of larger corporate social responsibility programmes (e.g. Vitosha Nature Park). Some parks (e.g. Parco Nord Milano, Aberdeen) have organised bodies of

volunteer Ecological wardens, who dedicate their free time to environmental protection, provision of information and monitoring.

Active involvement of disadvantaged groups is also promoted, with a focus on diversely able people. Almost all parks provide opportunities (adapted facilities, alleys, paths, special infrastructure, educational trails, etc) for disabled people to be able to visit and enjoy the nature and outdoor activities (e.g. Andalusia, Vitosha Nature Park, Seine-Saint-Denis, Silesia Metropolis, Lombardy, Lille Metropole, Danube-Ipoly National Park, Košice).

Other actions include management of urban allotments, which allow small areas of the park to be cultivated (with a ban for placing any objects). This is a means of social interaction that has survived despite periods of urban and metropolitan sprawl (e.g. Parco Nord Milano). Thanks to work carried out by citizens (often elderly people) in this areas, *inappropriate uses can be controlled.*

- *Active Involvement through feedback and management structures*

Feedback from users is mainly collected by surveys, public opinion polls, questionnaires, interviews, public meetings and hearings. Telephone interviews with park users, in particular with excursionists, are also used to understand and address their needs (e.g. Lille Metropole). It is important to perform such activities regularly, to be sure that expectations and feedback are up-to-date (e.g. Silesia Metropolis, Praha-Troja Nature Park, Seine-Saint-Denis, Andalusia, Vitosha Nature Park, Lille Metropole, Danube-Ipoly National Park).

Going one step further than feedback, active involvement of stakeholder groups can be achieved through establishment of consultative councils, user committees or similar structures. Such structures usually include representatives from user organisations, landowners, communities, local associations, NGOs, research and educational institutions (e.g. Seine-Saint-Denis, Vitosha Nature Park, Parco Sud Milano). Dialogue structures can propose solutions of existing problems or develop joint projects/initiatives. Stakeholders can also be involved through specific planning events (particularly useful in the phase of park creation and

design), such as a participatory forum with residents and stakeholders and design laboratories with associations, experts and technicians (e.g. Parco della Piana Tuscany).

- *Monitoring activities (see section: Management Systems*)

  In order to improve service quality and ensure balanced use of the park area, it is essential to monitor visitors on a continuous basis. Within the case studies, only a few have undertaken structured monitoring that shows user typology, numbers of visitors, periods of use and most used park areas (e.g. Lille Metropole, Parco Nord Milano, Aberdeen). In other cases (e.g. Vitosha Nature Park, Parco della Piana Tuscany) monitoring is only undertaken on specific areas of the park, such as protected areas or specific tourist itineraries.

The following table shows the monitoring activities in some of the case studies.

Park name and location	Visitor monitoring systems	Modalities	Frequency	Data typology
Metropolitan Natural Spaces, LILLE	Partial	2 typologies: Parks with entrance fees: visitor numbers easily quantified; visitors asked to provide information on where they come from; Several free parks have automatic counters.	Statistical analysis and subsequent report produced every 4 years. Includes quantitative data divided by year and park typology (entrance fee / free).	Parks with entrance fee: contact details of users
Periurban Forest Park, KOŠICE	NO			
Silesia Metropolis Periurban Park,	NO			
Periurban Park System, ABERDEEN	YES	Automatic counters are place along some tracks	Every 6 months	
VITOSHA Natural Periurban Park, SOFIA	Partial	The park is large (around 27000 hectares) and has many entrances. Sociologic investigations and surveys are undertaken periodically.	Every 2-3 years depending on financial availability	Data only collected on certain areas / itineraries. They concern demographic characteristic: age group, social status, etc
Praha-Troja Nature Park, PRAGUE	NO			
Parco agricolo della Piana,	Partial	Currently visitor monitoring is developed only in the	Regular data collection undertaken on the	Number of visitors classified by user

TUSCANY		WWF protected area of Focognano	basis of entrance tickets, classified according to visitor typology.	typology: adults, children (school), photographers, volunteers.

5. CULTURAL ASPECTS

5.1 Foreword

Periurban parks, given their close proximity to and interaction with human settlement, bring to life important aspects of the cultural and territorial identity of a place or a community. Through natural, environmental and man-made elements, they can tell the story of the area's most important historical moments and of the long co-evolution between man and environment.

Therefore, the periurban park can represent not just the value of a single, often exceptional, piece of cultural heritage, but also a more complex relationship between nature and culture. It can also provide indications on how to sustain, enrich and protect this important, unique heritage.

This section provides an overview of issues related to the cultural role performed by periurban parks and the typologies of cultural heritage found in the parks analysed, before detailing related obstacles and some good practices that can be adopted to address them.

5.2 Main Issues

Cultural heritage is a fundamental feature of most periurban parks. They provide evidence of past ways of life and work. Evidence of our ancestors' adaptability and resourcefulness are also often present, for example some parks still have buildings that underwent a temporary change of use during World War II, thus providing physical evidence of a dramatic historical period. Parks' demonstration of days gone by can also serve as a reminder: not to take nature for granted (e.g. old water management structures erected during chronic water shortages). In some parks can be found such cultural values as:

- archaeological artefacts dating back to prehistoric times, documenting the way our ancestors lived during significant historical periods, through to the present day;
- important architectural objects and buildings (e.g. villas, castles, forts, walls);
- monuments of the past industries (e.g. agriculture, mining, forestry, construction and military uses).

- a place where people can remember those whose lives were lost during war, through monuments and sculptures;
- religious symbols or objects, like chapels, abbeys, etc..

Another common cultural theme is recreation. In many cases parks document social history, showing times when leisure was a luxury reserved only for the aristocracy. Many parks and gardens were created by aristocrats as places for enjoyment or philanthropy and have been preserved for public use. Enjoyment, study and celebration of nature were often initial reasons for their development, and in many places skills in horticulture, landscaping and forestry are still celebrated today as elements of our cultural heritage in themselves.

Periurban parks are used as places of contemplation, stimulation and inspiration. This is clearly not a new phenomenon, with some great stories of present day parks containing “the tree under which Manzoni composed "il 5 maggio", ode for Napoleon's death” and “a giant beech tree that witnessed a performance of Norma’s aria by Mrs. Schodel, a celebrated diva of the early 1900s”or the channel alongside which Lorenzo dè Medici attended, with his court, the deer race on the Cascine di Tavola farm built during the Renaissance from a project by Leonardo. Such stories are an interpreter’s dream, ideal opportunities to engage people to help protect these places and create new ones for artists, musicians, cultural development and celebration.

Legal protection of cultural heritage is important, with many cultural features listed in national, regional and local registers. However there is also an appreciation that an equally important mechanism for protecting these spaces is through people enjoying, understanding and appreciating periurban parks, so they are aware of what could be lost, can learn from our history and use it to teach future generations. Many parks cite a good level of understanding of cultural heritage and park history, often indicated by preserved buildings, gardens or other structures. Some parks are regular venues for major events and activities that attract visitors, which can be informal and fun forms of education for all ages. Most areas produce publications such as books and leaflets to promote the parks and people’s understanding of their cultural significance, which in turn helps to increase the value that people place on them.

Before treating the obstacles and good practices related to the enhancement of the cultural role of the periurban park, the following table illustrates the main cultural features and aspects present in the periurban partnership analysed.

5.3 Overview of Parks' characteristics

Cultural aspects/Park and locality		Silesia Metropolis Periurban Park	Danube Ipoly National Park Directorate	Vitosha Nature Park Directorate	Regione Lombardia Protected Areas Systems - South	Regione Lombardia Protected Areas Systems - Nord	Metropolitan Agricultural Park	Monsanto Periurban Park	Periurban Forest Park	Praha-Troja Nature Park	Lille Natural Space
		Silesia Metropolis	Hungary	Sofia	Lombardia	Lombardia	Tuscany	Lisbon	Košice	Prague	Lille
General info.	Short description of main cultural backgrounds in park.	More recreational function than cultural one (there are no special facilities for cultural events). Only few places related to the historical events.	Primarily natural heritage (protected areas) and with no possibility (financial and time) to manage the cultural heritage.	Number of cultural and archaeological objects with national, local and international importance.	Primarily agricultural heritage.	Primarily historical heritage: Villa Torretta, Villa Manzoni, Breda Small Theatre, Monument Dedicated to the Deportee, Former Control Tower of Breda Airport and Breda Bunker	Primarily historical (archaeological sites) and natural cultural (protected areas) heritage.	Mix of natural values, historical heritage and a strong programme of activities	Natural space, variety of biotopes, preserved natural treasure	Residential areas with natural heritage (protected areas), historical monuments. Zoological and Botanical garden.	Outdoor museum, thematic garden, historical heritage, organisation of cultural events (80 events each year)
	importance of cultural background from attendance point of view	low	low	middle	high	high	high	high	middle	middle	High
Culture	Cultural events organised *more rarely/often* in the park.	rarely	rarely	rarely	often	often	rarely	often	rarely	often	often
	There *are* adequate facilities for holding cultural events.	no	no	no	no	no	yes	yes	no	no	yes
	Cultural events are organised mostly by *park authorities/private sector that rent the*	no/yes	yes/no	no/yes	yes/no	yes/no	yes/-	-/yes	yes/no	yes/no	yes/yes

	site										
	financial income from cultural events	-	yes	-	no	-		no	no	no	no
	Main cultural events taking place	The great kids picnic of Katowice City, Midsummer night events, OFF Festival, Mediawave Festival, May picnic, End of Summer.		Village fair, Day of the Church St. Petka, Fair.	Educational workshops. Classical music concerts. Thematic Seminars. Summer School for restoration monument. Training Schools for Agriculture.	Microlab, FB, Festa Parco, Eventi sportivi (Alpin Cup), Spettacoli Teatro, Visite ai bunker Breda.	Eco-science festival. Festa delle oasi, Campi Bisenzio – day of events. Cena etrusca – dinner and debate . – spring bicycle ride.	Music Festival, Delta Tejo; Festival de Cinema de Ambiente - Extensão de Lisboa do Cine_Eco	Children's Railway - "Katka" steam locomotive which runs during a summer season	Haltýř – Well Opening, Free Fest Troja, Troja cake, The Troja Day, Open air cinema, Troja Orienteering, European Heritage Days, Troja Vintage	Les plages du bout du monde Art festival - entre lac La fête de s momes Mosaic
Education	Cultural background is *the main/only rare aim* of educational excursions.	no	no	rare	main	rare	main	-	rare	rare	rare
	Educational excursions focused on cultural monuments are organised *often/only rarely* in the park.	no	no	rarely	often	rarely	rarely	often	often	rarely	rarely
	educational excursions are held mostly by educational institutions	-	no	no	yes	no		yes	yes	yes	no
History	Historical monuments (castle, ruins, old industrial objects etc.) are present in the park.	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

	historical monuments represents core objective of visits.	no	no	no	no	yes			no	no	yes
	Historical objects are daily opened and accessible.	yes	no	not all of them	no	no		yes	yes	no	yes
	entrance to historical objects is free of charge.	-	yes	not all of them	yes	yes	yes	yes	yes	no	Not all of them
	Historical objects have been rebuilt and are used for cultural events as concerts, festivals etc.	-	no	no	yes	yes	yes		no	-	yes
Natural	Natural monuments represent only cultural aspect	no	yes	no	no	no		no	yes	no	no
	cultural background represented also by agricultural heritage.	no	no	no	yes/no	no	yes	no	no	yes	yes
Financial	financial support for cultural objects	public	no	sometimes public/rarely private	public/ administration/ private	public/ administration/ private	public	public/administration/private	public	public/sometimes private	70 % public , 20 % private, 10% fee entrance income
	cultural objects are not financially supported; they fall into ruin and lose the attractiveness.	no	yes	yes, with some exception	partly	no			yes	no	no
Media	Sufficient information about cultural objects is	no	no	no	no	no	no	no	yes	yes	yes
	Public gains information *via brochure / website /informative boards.*	website/boards	no	brochure/website/boards	brochure/website	website	brochure/website	brochure/website/boards	no	brochure/website/boards	brochure/website/boards
	Public gains information only via	no	no	no	no	no		no	yes	no	no

	boards in park.										
	Book describing cultural background in park exists.	no	no	yes	yes	yes		yes	no	yes	Yes for 1 specific project
Main problems	Accessibility to cultural monuments not sufficient or poorly marked.	yes	yes	yes, with some exception	yes	yes	yes	no	no	no	no
	Owner of cultural objects	public sector	park administration	public sector	public/ private/ administration	public/ private/ administration	public	administration (low budget)	public sector	public sector	Public sector
	Owner does not administrate cultural object.	no	yes	yes/no	no	no			no	-	no
	Ownership discourages maintenance of object and it falls into ruin.	no	yes	yes	yes/no	yes/no	yes		yes	no	no

5.4 Obstacles

A number of obstacles prevent the preservation and promotion of cultural heritage within the periurban park. The main issues are identified as follows:

- *Human Impact*

  Protection from human impact, such as vandalism and fire-raising is a concern for the management of periurban parks and needs to be considered when creating new spaces (e.g. Seine-Saint-Denis). Anti-social behaviour (*see also section: Social and Communication issues*) is difficult to deal with, as law enforcement alone is not usually adequate or financially viable. In addition to preventing this behaviour, park management structures are also faced with the need to repair structures and render them more resistant to potential damage.

- *Lack of Maintenance*

  A major threat to our cultural heritage is lack of maintenance, which can reduce its value and significance (e.g. Košice, Vitosha Nature Park, Silesia Metropolis). It is important to avoid a downward spiral where cultural assets appear uncared-for, which can further breed anti-social behaviour, such as vandalism and crime and in turn discourage legitimate and law-abiding people from visiting. This problem is often exacerbated by ownership issues, where control of land to enable its restoration or development as a periurban park often relies on the public sector taking charge, which can be restrictive in terms of legal processes and costs.

- *Difficulties of finding a balance between attracting people and protecting cultural values*

  The weighing up of, and sometimes conflict between, economic, social and environmental issues is a recurring theme in terms of protecting existing periurban parks and prioritising and resourcing the creation of new ones (e.g. Aberdeen).

  There is a balance between attracting people to the parks, in order to increase their use and enjoyment, while protecting their cultural and natural features. Economic pressures, such as the need to generate income and attract tourists (e.g. through sporting and musical events) can bring advantages but can also cause damage to cultural heritage (e.g. Lille Metropole).

There are reasons for and against placing a monetary 'value' on social and environmental aspects in order to ensure sustainable development, and a fair weighing up with economic arguments (*see section: Economic Aspects*).

- *Lack of awareness about the value of local cultural heritage*

  Although in some parks extensive studies and research projects have been undertaken on cultural heritage, thus increasing awareness and protection, this is not always the case (e.g. Monsanto Lisbon, Tuscany Parco della PIana). Some parks suffer from lack of detailed knowledge and understanding of cultural features, making it difficult to protect the cultural heritage and to encourage people to value them as items of significance.

5.5 Good practices

- *Education and training* (*see also section: 3.4 Social and Communication*)

  The value of cultural heritage can be increased through thematic exhibitions, events and festivals (e.g., Lombardy Parco Nord Milano, Troja-Praha, Lille, Kosice). Training and education are also important activities; they range from initiatives with school children (e.g. Monsanto Lisbon) to training in traditional skills such as: construction, building repair and horticulture, which encourage people to value their heritage and care for it, thus helping to restore historic buildings within parks (e.g. Vitosha Nature Park).

- *Regeneration of cultural heritage*

  There are some good examples of regeneration, bringing culturally significant features back into use, helping to protect and preserve them, for example historic industrial structures being turned into theatres, galleries, hotels, restaurants and ice cream parlours (e.g. Parco Nord Milano, Praha-Troja Nature Park, and Danube Ipoly National Park). These modern-day uses can generate income and encourage public interest in these features, while fostering a sense of belonging to the place and a shared social awareness about the common history.

- *Communication* (*see also section: 3.4 Social and Communication Aspects*)

A diverse programme of communication -through guides, specialised maps (e.g. Košice, Vitosha Nature Park), technical seminars (e.g. Parco della Piana Tuscany), restoration activities and other such activities- can be a successful way to cover many levels and areas of interest and support learning, which again, attracts people and encourages them to understand and value the heritage assets. The expansion of communication modes is an area to be explored further, such as social networking and mobile or internet based communications.

- *Widening scope of participation and funding*

  With continual pressures on budgets for maintaining parks, and their cultural heritage, some encourage communities to take more responsibility for managing local parks (e.g. Aberdeen). This offers benefits in terms of strengthening communities, skills development, employability and social inclusion. Community groups can also access funding sources not always available to local government. (*see section: Economic Aspects*)

  Urban expansion is a threat to periurban parks, but can also be an opportunity. By promoting the role of cultural assets and their ability to provide a sense of place and distinctiveness, the park can be inserted as a key element of the new periurban landscape. Park management structures need to cooperate with the development industry in this direction.

6. ECONOMIC ASPECTS

6.1 Foreword

This section concerns economic aspects related to periurban parks, with a focus on identifying funding models that can be adopted by certain typologies of parks. Within this framework, the park is considered not only as an institution to be financed by external subjects, but also as an active subject able to self finance its own initiatives .

6.2 Main Issues

As shown previously, periurban parks differ in terms of functions, economic activities and provision of services. Legislative and organisational regulations influence availability and management of funding and the possibility to engage external funding and partnerships.

Periurban parks are generally managed and financed by government, regional/provincial bodies, municipal/metropolitan or resident level agencies or independent bodies. Due to their dominant ecological and social functions, periurban parks generally are not (and are unlikely to become) fully self-financing entities. Instead, they require an external support or subsidies. There is a general awareness that parks must not limit themselves to a passive function of green structures, but must develop new and alternative activities and services to ensure further development of the park in the medium to long term.

The average self-financing capacity of all analysed parks is ca. 20%. In details this means that:

- most parks have the potential to introduce additional services that might become a self-financing foothold, still based almost entirely on public resources;
- the majority of the parks have a current level of self-financing of 1.5%;
- 5 out of 13 parks self-finance between 10% and 17.5%;
- 4 parks have a self-finance level of at least of 30%, and one manages to self-finance 70%.

The current situation shows that most partners' sources of self-financing are:

- *sponsorship*: 50% of parks think this opportunity has already been developed; others are planning to start it up or foresee its development in the next financial period;
- *environmental education*: already a basic resource among up to 60% of respondents, but has not been developed or scheduled in 25% of the sample;
- *partnerships*: 20 - 35% of respondents foresee the creation of partnership with other bodies, such as NGO, foundations or specialised agencies in the near future;
- tourist services and events: only 25% of respondents currently have such services, but almost all declare they might offer additional services in catering, tourism, culture, leisure and sports.

The main questions to be answered regarding the economic model of periurban parks are:

1. What is periurban park and where are its boundaries? How is it legally recognised?
2. What structure is responsible for the park and what are its funding sources?
3. What is the structure of costs and expenses in managing the park?
4. What is the scale of additional activity and services? Can they be commercialised?
5. How is Public Private Partnership (PPP) perceived by local stakeholders?
6. What scale of economic activity will not harm the park's ecological structure and balance?
7. Are there any activities that can be outsourced and would this be accepted?
8. How much can local users pay for services (e.g. leisure, educational, environmental)?
9. Are there reliable entities with whom to develop partnerships for services or maintenance?
10. How can such a partner be chosen and when is it appropriate to start negotiations?

The following table provides an overview of these issues among the periurban parks analysed.

6.3 Overview of Parks' characteristics

Name of Periurban site	Georges Valbon Park	Protected Area Network	Metropolitan Natural Spaces	Monsanto Periurban Park	Periurban Forest Park	Silesia Metropolis Periurban Park	Danube-Ipoly National Park	Periurban Park System	VITOSHA Natural Periurban Park	Regione Lombardia Protected Areas Systems	Praha-Troja Nature Park	Zografou Periurban Park	Metropolitan Agricultural Park
Localization	**SEINE St.DENIS**	**Andalusia**	**LILLE**	**Lisbon**	**Kosiće**	**Silesia Metropolis**	**Hungary**	**Aberdeen**	**Sofia**	**Lombardia**	**Praha**	**Athens**	**Florence, Tuscany**
Level of management (decision making) and further financing: 1.State 2.Region 3.Metropolis 4.Municipality 5.Other entities	4	2, 4	3, 4,	4	4, 5	1, 4	1	4	1, 4	2, 3, 4	4	1, 4	2,4
Main sources of financing	municipal budget – subsidies	charging fees	transfers from municipalities and Lille Metropolis	municipal budget – subsidies	municipal budget and self-financing	state and municipal budgets	state budget – subsidies	municipal budget – subsidies	state funding and Sofia municipal budget subsidies; other activities – earnings	municipal, regional and province (borough) budgets – subsidies	municipal budget - subsidies	state subsidies	regional budget – subsidies
Additional financing sources / self-financing activities	catering stalls (very few)	catering stalls	cooperation with other entities (e.g.: industry, public or private companies) for funding different projects; taxes from restaurants; Entrance fees	forestry management taxes from restaurants; apiculture; use of sports facilities	incomes from own business; compensation for limitations in proper forest management in protected areas; possible grants and state aid levels from the Ministry of Agriculture; to develop recreational activities	taxation and incomes from services run in the recreational centres (mainly by virtue of lease)	UE funding; visitors' centres; occasional incomes from the presentations given in schools	no data available	forestry management; harvesting of: hay, medical plants and herbs; honey production; external financing from: park administration; NGOs; EU funds; private donors; CSR; additional activities, e.g. advertising in park, museums	revenues of the owners or other economic entities operating in parks	revenues from economic projects (incomes from private businesses and ecological agriculture); EU funding, (grants); Partnership Foundation	subsidies from local authorities, local companies	agriculture local market revenues

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Localization	**SEINE St.DENIS**	**Andalusia**	**LILLE**	**Lisbon**	**Kosiće**	**Silesia Metropolis**	**Hungary**	**Aberdeen**	**Sofia**	**Lombardia**	**Praha**	**Athens**	**Florence, Tuscany**
Other activities led in a park (social, cultural) that may attract visitors and be an ad to commercial services **(activities important in Periurban Parks - generating costs but not necessarily incomes)**	no	educational, recreational activities done by travel agencies or municipalities, etc.	Farmer Market	educational; sport; access for disabled persons	big attention paid to recreation, sport, leisure activities	sport and recreational facilities (in the forest area and within 5 recreation centres)	-	-	recreational area for Sofia and Pernik – for daily and weekend recreation – both in summer and winter time (sky resort)	activities for the valorisation of the cultural, environmental, landscape and rural heritage of the areas	grant proceeding: - quality of environment, landscape, - life in public places, civic society - tourism and promotion of city district - cultural and social events - sport, physical education, leisure time - education - social area - infrastructure - transport and public facilities	Goudi Sculpture Museum Flower exhibitions	plan to create multi-thematic network based on archaeological and historical heritage places and goods; environmental, landscape and biodiversity values, fostered and exploited through educational, recreational, touristic and retailing activities
Offer of additional services that may become an economic foothold (leisure & sport, tourism, catering etc)	-	only sport facilities - in progress (others – under development)	bike lanes, pedestrian (too few for local conditions) Sailing school	as above	as above	indirectly – as above	educational, touristic infrastructur e (bike, horse, walks)		museum, leisure, recreation, educational	overall entertainments and businesses led by PPP	leisure (e.g.: bike, walking, cultural, social events: exhibitions, art activities, crafts' workshops, thematic meetings, sport events); Zoo, botanic garden; vineyard		as above

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Localization	**SEINE St.DENIS**	**Andalusia**	**LILLE**	**Lisbon**	**Kosiće**	**Silesia Metropolis**	**Hungary**	**Aberdeen**	**Sofia**	**Lombardia**	**Praha**	**Athens**	**Florence, Tuscany**
PPP	No (see weaknesses)	No Good prospects	No (companies are invited to sponsor particular initiatives)	No (companies are invited to sponsor particular initiatives)	Good local conditions to develop it	No	-	-	Yes (the first step towards PPP has already been made)	Yes	-	No	-
Directions	development of other activities towards self-financing park economy	development of other activities towards self-financing park economy; the need to improve the services for citizens	development of other activities and co-operation with companies and industrial sector on financing	the use of biomass; development of PPP initiatives	modernizing and update of services' standard good local conditions to develop PPP	cooperation with the state administration on development leisure infrastructure; cooperation with hunting organisations maintaining biodiversity and further protection of the most valuable parts	development of the economic enterprises with other partners also with PPP use	-	there is a permission to collect the fees from vehicles (but it has not been implemented yet); more engagement into PPP or economic enterprises; sponsoring	In South Park: formal trade-off between economic activities or urban development and payments for environmental regeneration or prior ecologic compensation; creating the brand food. In North Park: enterprises in carbon sequestration are desired.	the track of Troja Park development is a good practise and example how to manage it in a sustainable way – there is a balance between commercial, social, environmental and spatial issues.	suggested: sponsoring as a way to finance a part of park's costs; development of entrepreneur activities referring to: -agriculture, -reception, -sport, -leisure	As above in the field of whole activity; In the field of economy – creating unique self-financing and self-reliance agricultural and multidimensional park
Weaknesses and threats	shortage of economic activities that help to self-finance the park; pressure of urbanisation – green areas perceived as an obstacle for urban growth (Grand Paris	lack of activities by local businesses to properly exploit the potential uses of periurban parks; too big stress laid on recreation; low services level = low	lack of periurban and metropolitan green areas protection – a whole in a legal system; high costs of management; the metropolis pressure – costs of urbanisation; devastations of	no budget of its own; the (limited) revenues obtained by park "came back" to the municipal treasury (not as resource for self-financing); low potential	lack of municipal funds for construction and maintenance; unavailability of state aid; poor communication to public – private enterprises; lack of acceptance to introduce entrance charge	no budget of its own (expenses are covered from budget of particular municipality) limited financial sources of the Katowice Forest District for investments no subsidies for private tenants	urbanization pressure from Budapest Metropolis; overuse of green areas; abandoning agricultural sites - invasive plant species' extrusion;	limitations in municipal budget – limitations of infrastructural and maintenance expenses;	taxes collected for use of water resources going to the state budget – not park needs; inadequate financial resources to create / mange park according to the specific plan and timetable; unstable financial	intensive farming causing the threat for environmental quality and biodiversity; weakness of agricultural activities that have to be readdressed toward new multifunctional	insufficient resources – lack of funds; difficulties to foster public-private partnerships; touristic activities enhancement and the urban growth pressure	lack of park strategy management funding problems from the public side, due to unclear and overlapping competences between state and municipalities	agriculture pressure onto the environment and ecosystem

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Localization	**SEINE St.DENIS**	**Andalusia**	**LILLE**	**Lisbon**	**Kosiće**	**Silesia Metropolis**	**Hungary**	**Aberdeen**	**Sofia**	**Lombardia**	**Praha**	**Athens**	**Florence, Tuscany**
	Project)	acceptance for existing charging fees; regulatory lack – no public body responsible for periurban areas	arts projects	for setting up economic activities (as a result of legislation and Master Plan)	to the park; increasing costs of vandalism, park equipment repair and disposal of illegal waste dumps	encouraging them to investments in park (private entities cover their financial burdens themselves)	animals vs. human environment		situation of external sources; lack of a system generating the incomes from payments for ecosystem services	and quality oriented assets	represent serious threats to environmental and agricultural values protection and reproduction		
Opportunities and strengths **Good practice**	to allow the penetration of the park ("green lung") into the city and to improve park's surrounding' quality and to prevent from the urban expansion pursued by Grand Paris Project; funding from public bodies; Introducing profitable services	users' loyalty; big potential for further economic developments and significant prospects which are not yet covered	well-organized management structure leading to financial stability of maintenance; on-going works to determine indicators for measuring impact of the parks' creation; the use of "good quality of the natural areas" as promotional asset	to develop PPP initiatives (due to its total lack) Growing role of sponsorship; infrastructural projects that will bind parks with the city and improve the access to them;	good chance to receive financial support from 1 owner; to employ socially vulnerable groups (in maintenance and cleaning); space to develop new business activities focusing on recreation sport and leisure; businesses through sponsorship in public-utility activities; grant funding due to partnership of administrator and NGOs	good municipal experience in management of recreational services; periodic tenancies giving indirect revenues f incentives (preferential conditions) for entrepreneurs who want to make leisure facilities and investments; demand for sport /recreation services	negotiations with the stakeholders of the area implementation of communication plan to improve public interest of nature preservation	cooperation within ACSEF (Aberdeen City and Shire Economic Future) and implementation of PPP	increasing financial support provided by companies, private businesses, individuals, etc.; development and application of payment for ecosystem services; development of a system for fund raising from individuals; development and improvement of initiatives and knowledge based facilities	PPP's mutual benefits; formal trade-off between economic activities or urban development and payments for environmental regeneration or prior ecologic compensation; creation of the "Park Brand of quality" for food and other soil market; selling carbon sequestration credits	balanced park's development; cooperation with the partnership foundation further development of PPP	good practise in various management projects contribution of the European and public funding in development projects	analysis of costs and economic foresight, searching for sponsors and other forms of indirect funding; development of entrepreneurial activities with particular reference to: -agriculture (short food supply chains) -reception, -sport and leisure

6.4 Obstacles

Generally, the economic obstacles related to the creation and management of periurban parks can be summarised as follows:

- *Insufficient financial resources*

  The lack of financial resources is common to periurban parks all over Europe. This deficit causes dependence on public money. However, public aid is generally insufficient to cover the scale of the costs of park management. Indeed, some parks have recently seen funds for management of green areas cut (e.g. Seine-Saint-Denis). This does not only concern infrastructure and service provision, but also staff costs. Indeed, some parks state that the main factor limiting development of self-financing forms is lack of internal human resources.

- *Multifunctional character and scale of park functions*

  The character and scale of the potential functions of the periurban park create problems in terms of levels and allocation of funding. In planning, faced with the need to prioritise, there is a tendency to value the ecological functions of parks leaving the social and educational potential in the background, and the cultural and economic ones even further behind.

  One significant example is that of new tourist products / attractions, particularly eco-tourism. The development of eco-tourism could be a key means of protecting environmental areas, while developing the park in economic and social terms. However, due to ineffective use of existing tourist resources and the lack of awareness of the natural, cultural and historical heritage means this opportunity has been missed by many parks.

- *Low level of financial independence*

  Many periurban park management structures do not have a significant level of financial autonomy. In some cases, where the management structure is public but independent from the local authority, they do not have their own budgets but instead funds are allocated directly from the local council itself (e.g. Monsanto Lisbon). The department often has to cover the costs of various parks, so even the calculation of budgetary necessities becomes complicated.

Moreover, depending on the management structure of the park, it may be necessary to share income with the superior authorities (regional, central – national) through taxation and other indirect methods, thus decreasing motivation to access new sources (e.g. Vitosha Nature Park).

- *Lack of supportive policy environment*

  The task of accessing and maintaining sufficient funding is hindered by unstable local, regional or national policies and by a necessity to negotiate park development with appropriate authorities. This means that long term funding strategies are often passed over in favour of short term election gain (e.g. Zografou). It also presents a number of legal barriers in terms of introducing new funding sources or partnerships (e.g. Vitosha Nature Park).

  Moreover, it is difficult to provide a coherent economic framework without stipulating a clear role for each actor involved. In many cases, there is no clear regulation on who has the power to operate in a specific area or undertake a specific task (e.g. Praha-Troja Nature Park).

6.5 Good Practices

Despite the above mentioned obstacles, certain actions and experiences may be perceived as good practices. These experiences are summarised below.

- *Charges for existing or new services*

  To overcome budget difficulties, different charges can be introduced, e.g.:

- for entry to cultural or recreational facilities or additional, associated services (e.g. leisure activities, using sports facilities, events etc.);.
- for ecosystem services (e.g. water resources, hydrogeological risk prevention and civil defence, prevention of floods and landslides and soil protection);.

  For example, certain periurban parks contribute to regulating the water quality, water flow, reducing soil erosion thanks to water runoff control, self-purification of the waters, pests and diseases and protection against calamities (e.g. Vitosha Nature Park). In collaboration with local and national authorities, if could be possible to quantify the economic value of such

services. These could then be reimbursed by public authorities or introduced as part of an environmental tax.

Introduction of charges may be controversial and unpopular among the public, thus requiring concentrated efforts in public debate to explain the role and importance of periurban parks and to inform public opinion of the reasons for introducing charges and additional services.

- *Cooperation and partnerships*

  Cooperation with stakeholders (public agencies, farmers, companies, donators etc.) operating or related to the park is a key means of reducing costs and of accessing potential new sources of income (e.g. Lille Metropole, Parco della Piana Tuscany).

  Cooperation can be the start of a gradual introduction of public-private partnerships to provide commercial and public services in the park. In this way, local direction is left to the public body, but private actors are included to offer credit balance. Having a private partner in a partnership can also be a good business move, as it offers a different economic perspective.

  The advantage of PPP model lies in the fact that it is universal (i.e. potentially applicable to all EU countries); the public sector retains direction of the work and objectives, while delegating project implementation to an external partner.

  The relationship with private bodies may not be limited to financing costs or investment in new services; it may take the form of the delegation of tasks and responsibilities through the creation of special corporate forms with mixed capital (Special Purpose Vehicles). Examples range from partnerships with farmers (e.g. Parco Sud Milano) to corporate sponsorship of events (e.g. Parco Nord Milano), to reconstruction of alleys, information signs, bridges, benches and other visitor infrastructure (e.g. Vitosha Nature Park).

- *Creation of park income generation activities*

  The periurban park has huge potential for income generation activities in cooperation with local entrepreneurs and stakeholders. This could included the lease of land for various activities (agriculture, recreation or sports centres) when the land is publicly owned (e.g. some areas of the Parco della Piana Tuscany, Lille Metropolitan Nature Space: Parc de La Deule; the

out of partnership Miribel Jonage Park in Lyon). It could concern the use of natural resources for commercial purposes such as: forestry, including timber production, woodchips, cork (e.g. Monsanto Lisbon); plant, seedlings and flower production, apiculture (e.g. Praha-Troja); energy production (e.g. Aberdeen); local food production through sustainable agriculture (e.g. Parco Sud Milano).

- Another example is that of trading CO2 emissions (e.g. Parco Nord Milano). This is not only a means of self financing, but also an ecologically sound activity. It is applicable in all types of periurban parks, though national regulations differ and introducing CO2 trade incomes into park maintenance require much legislative and administrative work. The obvious advantage of such solution is the high level of stability, given its sound economic basis[19]*Active fund raising*

  Fundraising and use of external financing sources, such as EU funding programmes, international funds or CSR is an important tool for park financing, especially in the case of natural areas and public owned parks. For example about 70% of financing for Vitosha NP comes through EU Programmes, CSR and other donors. The remaining 30% is from the state.

  The table below provides an overview of some potential income generation activities.

Own sources	**Business incomes**	**Public support**	**Other**
Land lease for various activities (development, agriculture, recreation or sports centres);	Charging fees (for entry or additional, associating services museums, leisure activities, sports facilities, events etc.);	Subsides from national/regional/ local authorities (general or for special purpose);	• Events (cultural, social, educational); • Collections and fund raising campaigns; • NGO projects;
• Service barter (compensations); • Green energy production (green certificates' market); • CO2 emissions trade share; • Environment	Income and revenues from own entities: • food & catering services (food market, own food branding, restaurants, bars); • tourism • leisure & sports (biking, horse riding, skiing, diving, walking, climbing.); • forest fruit and mushroom collecting; • forestry (including raw wood production, shaving, cork etc.);	• EU funding and projects; • Other bodies' subsidies and transfers subsidising the workplaces by local / regional work agencies;	Gambling and lotteries; Foundations;

[19] Note that the equity and sustainability principles behind this trading scheme is sometimes questioned, as it allows developed countries to maintain high levels of emissions thank to the mitigation effects of forestation developed in other places, sometimes eroding fertile farmlands.

services (where applicable due to legislation and local conditions); • Environment education;	• agriculture – food market; • straw, hay and herbs; • flowers and trees' seedlings; • apiculture; • hunting; • Zoo, botanical gardens;		
• Local taxation; • Tax relieves;	• Partnerships with companies (PPP); • Sponsoring of events; • Development activity (residential activity); • Production of biomass; • Own greenery production.		

7. INFRASTRUCTURE AND ACCESSIBILITY

7.1 Foreword

Quality infrastructure and high levels of accessibility are essential for citizens to appreciate the natural and cultural values that periurban parks offer.

When talking about infrastructure there is an assumption of referring to public services, transport, and information highways. However, when considering natural areas in general and periurban parks in particular, the concept of infrastructure should be widened to include the installations and equipment necessary to allow visitors to fully enjoy the activities intended for the area.

Analysis of the periurban parks in question led to a categorisation of this infrastructure as follows:

- Leisure infrastructure (recreational or sports), that provides the basic equipment for the various activities or sports;
- Linear infrastructure (paths, trails and viewpoints), used to bring citizens closer to nature;
- Transport and utilities infrastructure (car parks, public transport, water supply), covering basic visitor needs for citizens and ensuring the minimum conditions for the enjoyment of natural areas;
- Visitor/interpretation centres, which are expensive in terms of investment and maintenance but versatile concerning the types of services they can provide;
- Functional signposting, providing directional and other basic practical information;

Interpretive information. Explaning what is important in the park.

7.2 Main issues

Despite the wide diversity of periurban parks, a number of common elements can be found in terms of basic equipment and accessibility issues.

It is clear that there must be an appropriate distribution of equipment in order to provide for organised management of the resources the periurban parks offer. Park management structures

must be aware of the equipment required, according to the functions identified for different areas of the park (e.g. car parks, toilet facilities, picnic areas).

In addition to nature trails (footpaths, trekking, cycle and horse paths), another common element in periurban parks is the maps found at the main entrances or access points. These are part of the signage and interpretive infrastructure.

Signage and interpretation is essential to provide for the recreational and educational use of periurban parks. It helps ensure that they are used in an orderly manner and helps the understanding of visitors. The European Charter for Sustainable Tourism in protected areas makes reference to the importance of signage systems as an efficient tool for managing visitor flows, together with proper localisation of equipment and organisation of itineraries. When planning content and location of signs in a natural area, which is open to the public, signs must consider the profile of visitors and the message to be transmitted: information, warning, educational or interpretive, etc.

When it comes to the term accessibility, there is a distinction between the concept of *connectivity* to parks, accessing them from the cities, and the term of *universal accessibility* of all services and facilities in parks. This concept involves overcoming physical and sensory disabilities as well as cognitive problems to allow full accessibility for various groups, such as elderly people, families with young children and people with physical, mental or sensory impairments.

When considering how the general public reaches their periurban park, the general means of access is private vehicles. For this reason one major infrastructure requirement is that of car parks. To this end, it is necessary to define common functional and technical criteria for the design and construction of such facilities; one in which accessibility and sustainability are taken into account in construction and use.

Accessibility must be a constant criterion, not only when concerning installations but also in other aspects of the periurban parks. It must also be present in any activity or service related to environmental education, sports, dissemination, etc.

The table below provides an overview of the infrastructure in the periurban parks under analysis.

7.3 Overview of Parks' characteristics

Categories	Equipment	Protected Area Network, Andalusia	Parco Agricolo Sud Lombardy	Parco Nord Lombardy	Monsanto Periurban Park Lisbon	Periurban Park System Aberdeen	Praha-Troja Nature Park Prague	Silesia Metropolis Periurban Park Silesia Metropolis	VITOSHA Natural Periurban Park Sofia	Periurban Forest Park Kosiće	Metropolitan Agricultural Park Tuscany	Metropolitan Natural Spaces Lille
Leisure Equipment	Tables	X	X	X	X	X	X	X	X	X	X	X
	Benches	X	X	X	X	X	X	X	X	X	X	X
	Barbecues	X			X	X		X	X	X		
	Children's play area	X		X	X	X	X	X	X	X	X	X
	Sports pitches or courts	X		X	X	X	X	X		X	X	
	Dog-friendly area	X		X		X		X		X	X	
	Controlled camping area	X			X			X	X			X
	Restaurant	X	X		X		X	X	X	X		X
	Kiosk-bar	X		X	X		X	X	X	X	X	X
Linear Equipment (paths, trails and viewpoints)	Bicycle lanes	X	X	X	X	X	X	X	X	X	X	X
	Hiking trails	X	X	X	X	X	X		X	X	X	
	Botanical route	X	X		X		X	X	X	X		
	Others trails (cultural, geological, etc.)		X	X	X	X	X	X	X	X	X	X
	Scenic viewpoint	X	X	X	X	X	X		X	X		X
Infrastructure	Parking areas	X		X	X	X	X	X	X		X	X
	Water fountains	X		X	X	X			X	X	X	
	Toilets	X		X	X	X			X		X	X
	Litter bins	X		X	X	X	X	X	X	X	X	X

	Waste containers	X	X		X	X	X		X	X	X	X
Reception Equipment	Information Point	X	X	X	X	X	X		X			X
	Visitors Centre	X			X				X			X
	Eco-museums		X	X	X				X			X
	Nature Study Centre	X	X	X	X	X					X	
	Botanical garden			X			X		X			X
	Training / Employment Workshop	X		X	X						X	X
Functional Signposting	Entrance Sign	X	X	X	X	X	X	X	X	X		X
	Start Point Sign	X			X	X	X			X		
	Marker lights on Path	X						X	X			X
	End of Itinerary Sign	X			X		X					
Interpretation Signposting	General Map of the park	X	X	X	X	X	X		X	X		X
	Complimentary Landscape Sign	X			X				X	X		
	Identification and recommendations Signs	X		X	X	X	X		X	X		X
	Location Sign	X	X	X	X	X	X		X	X		X

The information of the previous chart can be summarised as follows.

Categories	Equipment	TOTAL	%
Leisure Equipment	Barbecues	12	92%
	Benches	11	85%
	Children's play area	7	54%
	Controlled camping area	10	77%
	Dog-friendly area	8	62%
	Kiosk-bar	6	46%
	Restaurant	4	31%
	Sports pitches or courts	9	69%
	Tables	10	77%
Linear Equipment (paths, trails and viewpoints)	Bicycle lanes	11	85%
	Botanical route	10	77%
	Hiking trails	7	54%
	Others trails (cultural, geological, etc.)	11	85%
	Scenic viewpoint	9	69%
Infrastructures	Litter bins	10	77%
	Parking areas	8	62%
	Toilets	8	62%
	Waste containers	11	85%
	Water fountains	10	77%
Reception Equipment	Botanical garden	9	69%
	Eco-museums	5	38%

	Information Point	5	38%
	Nature Study Centre	7	54%
	Training / Employment Workshop	4	31%
	Visitors Centre	4	31%
Functional Signposting	End of Itinerary Sign	11	85%
	Entrance Sign	6	46%
	Marker lights on Path	4	31%
	Start Point Sign	4	31%
Interpretation Signposting	Complimentary Landscape Sign	9	69%
	General Map of the park	5	38%
	Identification and recommendations Signs	9	69%
	Location Sign	10	77%

7.4 Obstacles

The creation and maintenance of infrastructure and the guarantee of accessibility can be hindered by the following obstacles:

- *Accessibility problems related to spatial planning*

  Generally, in spatial planning, green areas are a result or consequence of terrain left over after urbanisation works are carried out and they are very rarely considered to be a priority. When periurban parks are created, green areas are generally designated in parts of the territory that have not yet been urbanised, are lacking basic transportation infrastructures or are isolated by urban development. This results in obvious accessibility problems, both in terms of build up of private transport and lack of public transport provision (e.g. Parco Nord and Sud Milano, Parco della Piana Tuscany). Moreover, accessibility is not fully satisfactory as pedestrian and cycling networks, which connect neighbouring areas, are not fully developed or functional.

- *Construction conflicts*

  Periurban parks often share boundaries with residential areas and this poses another type of problem with the owners of private properties. When carrying out any type of construction works for park infrastructure and equipment, especially construction of roads and paths networks, this can cause conflict between infrastructure and property ownership. Sometimes, in order to interconnect different urban areas, conflicts arise from the need to go through the park territory, which would cause grave impact on its values and resources (e.g. Seine-Saint-Denis).

- *Balancing infrastructure development with nature conservation*

  All managers are faced with a common challenge: achieving a balanced management of the area while providing the actual services the area can offer to the public. They must be able to protect the ecological values of these areas and avoid disturbance to natural resources caused by uncontrolled visitor flow and at the same time manage to have the adequate and necessary equipment and infrastructure (e.g. Lille Metropole).

- *Maintenance of equipment*

Equipment, facilities and furniture available to users are often deteriorated or in a state of poor repair and maintenance.

One of the aspects found lacking in these parks is the insufficient number of public toilets available in public areas. Another is signposting, which is often outdated, deteriorated, insufficient or even non-existent. These signs are necessary to define routes through the parks, in order to manage the flow of visitors. In general, there is a lack of signs identifying cycling and pedestrian paths, indicating directions to visitor centres or recreational areas and information boards describing the park, introducing visitor or recreational centres, or detailing any valuable historical or cultural attractions. There is also no consistent signposting system for the design of signs or the type of information they should contain.

In general, management of Periurban Parks is supported by public funds. Unfortunately, funding is generally insufficient to cover maintenance of infrastructure and equipment (*see also section: 3.6 Economic Aspects*).

- *Lack of provisions for people with diverse abilities*

  Despite the efforts carried out nowadays to ensure equal access to all visitors to public facilities in general, periurban parks seem to be poorly prepared and do not meet the necessary adjustments for people with special needs. None of the periurban parks considered have specific measures in place or planned for the maintenance and management of these areas and there is a general lack of financing for the improvements they require.

7.5 Good Practices

Although a number of obstacles stand out, there are also some good practices carried out within the periurban parks analysed, as follows.

- *Providing basic transportation infrastructure to access the park*

  Periurban parks are often hard to access from the city, due to the fact that they generally lack the basic transportation infrastructures or are surrounded by roads.

In some cases this has been addressed by slow mobility networks that make the periurban park more accessible. Efforts are being made to ensure that different means of access are available for the visitors coming from the surrounding areas: on foot, by bike, by car, by bus, by chairlift, etc (e.g. Silesia Metropolis). In cases where an extension of the park area is planned, a focus is placed on ensuring connectivity with the surrounding areas, e.g. creation of pedestrian or cycling access (e.g. Seine-Saint-Denis, Lille Metropole, Parco della Piana Tuscany, Aberdeen) or pedestrian bridges over roads and motorways (e.g. Regional Government of Lombardy).

In other cases, the local council has invested in making the park more accessible to pedestrians and cyclists at the expense of car traffic (e.g. Monsanto Lisbon). This requires the rehabilitation of numerous sections of tracks that exist within the park in order to create a link to the town centre for pedestrians and cyclists, creating a form of Green Corridor. Other cases show plans to connect periurban parks through traditional routes that have fallen into disuse, such as natural paths traditionally used for cattle herding (e.g. Andalusia).

- *Providing infrastructure within the park*

One option to improve accessibility within the park is the creation of a specific trail network, linking infrastructures with specific themes: natural and historical heritage, leisure and recreational purposes, sport and health uses, etc. This can take visitors on a thematic route across the periurban parks with a system of information boards that contain details of the whole territory. Along these routes visitors can also find lookout points to view landmarks. Almost every park has developed such a solution in the internal mobility network inside the park, sometimes thanks to the aid of European funding and programmes (e.g. Danube Ipoly NP, Vitosha NP) for the maintenance, equipment and restoration of tourist trails.

Other important element to encourage visitor accessibility within the park is visitor centres. In many cases these centres constitute not only an information point, but also a fundamental tool to help raise awareness and promote natural values and cultural values, such as old farmhouses and windmills present in these parks (e.g. Vitosha Natural Park).

Funding for infrastructure comes from private and public resources and from EU funding (e.g. Danube Ipoly National Park, which used INTERREG funds to renovate a visitor centre).

- *Innovative means of addressing construction conflicts*

  In addition to working with policy makers and town planners, park management structures can cooperate with economic actors in order to find innovative means of addressing construction conflicts. Where it proves impossible to block construction, agreements could be made to limit the impact. For example, the use of ecological compensation mechanisms can be adopted (e.g. Parco Sud Milano). This means that for every action of urbanisation on open spaces in areas adjacent to the park or in the facilities inside the park, where there may be limited new construction, developers are obliged to provide some form of ecological compensation, such as tree planting.

- *Promoting accessibility for people with diverse abilities*

  Some periurban parks, particularly those located in mountainous or forestry areas face serious problems when it comes to adapting equipment for people with mobility problems or special needs. However, it is possible to develop integral action plans for people with handicaps, which include a specific section on natural areas (e.g. Andalusia). Such plans should not only adapt facilities in line with legal requirements, but also adapt information resources to the specific needs that this public might require.

  Some periurban parks have specially designed paths for disabled people, which also include materials and interpretative elements for the blind (e.g. Vitosha Nature Park, Parco della Piana Tuscany). Such is the importance of this type of action that partners are already carrying out studies for determining green walks, a network of pathways in their park which will allow them to make their park a more pleasant setting (e.g. Zografou).