


PARCO NORD MILANO – ITALY

Section	 <p>CLEARINGHOUSE 中欧城市森林应对方案</p> <p><i>This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821242</i></p>
1	TITLE OF CASE STUDY AREA: Parco Nord Milano, MILAN, Italy
2	<p>INTRODUCTION</p> <p>Parco Nord Milano (PNM) is located on the eastern-northern outskirts of Milan in the Lombardy region of Italy, covering 790 ha in a highly urbanised context. In 1975, PNM was officially recognized as a regional park and incorporating seven municipalities. It consists of urban green infrastructure (UGI) and is significantly wooded (urban forest plantations [101 ha], species-rich grasslands [2.10 ha], wetlands [35 ha], river corridor [4 km], allotment gardens [n. 350], agricultural fields [120 ha] and other natural elements that were once industrial, agricultural or uncultivated lands. Site management focuses on nature-based approaches to attract public benefits and deliver ecosystems services. The consolidation of the Metropolitan City of Milan in 2015 led to the creation of a single metropolitan park uniting PNM and South Milan Agricultural Park. Parco Nord Milano is a Regional Public Law Entity and is part of the Protected Areas System of Lombardy.</p>
3	<p>KEY FACTS AND FIGURES OF THE CASE STUDY AREA</p> <p>Biogeographic region¹: Continental/Mediterranean Surface area: 790 ha Country: Italy Region/Province: Lombardy/Milan</p>

¹ <https://www.eea.europa.eu/data-and-maps/data/biogeographical-regions-europe-3>

4 LOCATION MAP(S)



Parco Nord Milano, Italy (courtesy of: R. Gini, 2017).

5 NAME OF MUNICIPALITY AND WEBSITE ADDRESS

Metropolitan City of Milan: <http://www.cittametropolitana.mi.it/portale>

6 LEAD ORGANISATIONS:

- Metropolitan City of Milan
- The Lombardy Region - Directorate General for Landscape, Urban Planning, and Soil Conservation

7 LOCAL CONTACT(S)

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8 PRINCIPLE UF-NBS (Urban Forests as Nature-Based Solutions) ACTION(S)

- Forest plantations
- Water retention basins (under development) to counteract frequent flooding

	<ul style="list-style-type: none"> • Ecological corridors and a series of interventions, e.g., planting tree rows to overcome barriers that prevent ecological connectivity • Annual implementation of new plants/trees • Social allotments 									
9	<p>OTHER PRINCIPLE NBS ACTION(S) – non-UF</p> <ul style="list-style-type: none"> • A soft mobility plan that introduced a bicycle path network to encourage bike riding/sharing to impact climate change adaptation as well as connectivity • Recreational and environmental educational activities (e.g., bowls on park grounds; workshops and organised tours of the park) 									
10	<p>LOCAL STAKEHOLDERS LIST ONLY</p> <ol style="list-style-type: none"> Governing authorities: The Lombardy Region - General Directorate for Landscape, Urban Planning and Soil Conservation; Metropolitan City of Milan Associations: E.g., farmers' associations, educational, cultural, and sports, local, NGOs; The Consult of Associations, Friends of Parco Nord Milano Association, Koinè Social Cooperative, Demetra social cooperative Onlus Citizens: (mostly volunteers) Park wardens (GEV), gardeners for allotment gardens, State police on horseback (not volunteer), citizens who are association members Municipalities: Municipalities of local interest (Bresso, Cinisello Balsamo, Cormano, Cusano Milanino, Milano, Sesto San Giovanni) Public/private institutions: Public institutions: Office of Urban Planning; City counsellors; Municipalities of local interest; University of Milan, University of Bari A. Moro; Private: 'Cariplo' Foundation Park planner and authorities: Planner: PNM Management Division; Authorities: Park Community (i.e., Metropolitan City of Milan and Municipalities' mayors) and Management Board; Public Relations Dept. "Vita del Parco" (engages associations, institutional bodies, visitors in its promotional and educational activities); Administrative Division; Park Development Division; Financial Division; GEV security Technicians for park maintenance/monitoring and to educate and support citizens: Management Division of infrastructures (technicians, administrative personnel, and workers); Environmental Education Centre 									
11	<p>UF-NBS FRAMEWORK</p> <table border="1"> <tr> <td>a.</td> <td>UF-NBS typology</td> <td><i>Parks and Gardens</i> (i.e., large urban public park, amenity green spaces, local areas for play [LUP], woodland play area, forest plantations, tree rows, hedges, species-rich meadows); Structures characterized by food and resources production (i.e., agricultural field, designated allotments, foraging area for wild berries and fruits and mushrooms); Natural and semi-natural water bodies and hydrographic networks (i.e., river corridor, lake banks, pond); Constructed water bodies and built structures for water management (i.e., upgraded canal system, water retention basins); Choice of plants (i.e., indigenous tree species, non-indigenous ornamental tree and plant species)</td> </tr> <tr> <td>b.</td> <td>Integration</td> <td>Water management system (e.g., water retention basin for preventing overflow of the Seveso river); Built-up structure (e.g., soccer field, footbridge, kiosks, theatre, playground farmhouse and farm); Transport infrastructure (e.g., seven parking lots, underground system and above-ground railway system connecting to the park are planned)</td> </tr> <tr> <td>c.</td> <td>Network/connectivity</td> <td>Connectivity is considered a fundamental prerequisite of forest management and planning. For PNM authorities, nature in the park is to be considered in a connected framework (not isolated) and as a strategy for addressing issues of connectivity/climate change. Connectivity is ensured by identifying transition zones</td> </tr> </table>	a.	UF-NBS typology	<i>Parks and Gardens</i> (i.e., large urban public park, amenity green spaces, local areas for play [LUP], woodland play area, forest plantations, tree rows, hedges, species-rich meadows); Structures characterized by food and resources production (i.e., agricultural field, designated allotments, foraging area for wild berries and fruits and mushrooms); Natural and semi-natural water bodies and hydrographic networks (i.e., river corridor, lake banks, pond); Constructed water bodies and built structures for water management (i.e., upgraded canal system, water retention basins); Choice of plants (i.e., indigenous tree species, non-indigenous ornamental tree and plant species)	b.	Integration	Water management system (e.g., water retention basin for preventing overflow of the Seveso river); Built-up structure (e.g., soccer field, footbridge, kiosks, theatre, playground farmhouse and farm); Transport infrastructure (e.g., seven parking lots, underground system and above-ground railway system connecting to the park are planned)	c.	Network/connectivity	Connectivity is considered a fundamental prerequisite of forest management and planning. For PNM authorities, nature in the park is to be considered in a connected framework (not isolated) and as a strategy for addressing issues of connectivity/climate change. Connectivity is ensured by identifying transition zones
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			between built-up urban and peri-urban areas. PNM is part of a green belt system to ensure continuity within the ecological network. Instruments that secure the ecological network and connectivity are: the Regional Ecological Network [RER], Provincial Ecological Network [REP]).
d.	Multifunctionality		Multiple functions of green spaces are combined (air water quality, biodiversity with the needs of the community (recreation, social activities, environmental education, areas for dogs)
e.	Multi-scale		The park's UGI is protected through the coordination of strategic (RER, REP) and nesting of plans at different levels: local, municipal and regional
f.	Strategic planning processes		The park's implementation strategy has been characterized by a strong participatory approach in terms of promotion and planning. Park authorities, associations, and bank institution are the main actors enabling the strategic approach (including raising citizen awareness). Park authorities and related stakeholders envision PNM planning as a continuous, long-term process supplemented by actions and means for implementation.
g.	Inter- and transdisciplinary		The project brings together, in a synergistic participatory process, a variety of actors and their knowledge from different disciplines, which include park planners and authorities, citizens, associations, administrative authorities, the agricultural sector, municipalities, and the Municipality of Milan, technicians who educate and support citizens/groups who help maintain the initiatives as well as undertake monitoring activities, and landscape architects who work with park authorities in planning and management.
h.	Social cohesion and biocultural diversity		Milan's citizens initially became aware of the need to transform abandoned land into biodiverse green spaces; at the same time, this initiative fostered social cohesion and biocultural diversity as the citizens come from various, even ethnic, backgrounds. Today, social cohesion occurs by sharing the park's services (e.g., popular events, workshops) and through their cultural know-how and practices within the park (e.g., managing allotment gardens, plant/tree planting, sports, picnicking).
i.	Governance arrangements	I. Project management structure.	Public consortium management structure: city/regional governance and park authorities. There is also a strong connection with community citizenship and NGOs.
		II. Local community engagement and the nature of their engagement.	Since its origin, PNM has been "work in progress" from both a planning and basic methodological perspective that take the form of day-to-day relationships with citizens, associations and volunteers. PNM has been built by men and women who believed in an idea, a vision, and have dedicated time and effort in implementing it, each from different points of view: technical, park supervision, environmental education, events, historical/cultural, etc. A significant role was played by citizens, neighbourhood residents around the park, visitors, associations, and volunteers (e.g., Voluntary Ecological Supervision).

		<p>III. City-scale and/or region-wide governance for the project and/or UF-NBS (city and regional stakeholders and character of their engagement)</p>	<p><u>City-scale governance</u>: The Metropolitan City of Milan, including its six municipalities of local interest. The Lombardy Region - General Directorate for Landscape, Urban Planning and Soil Conservation: in charge of managing the planning system of the city of Milan.</p> <p><u>Regional governance</u>: Metropolitan Milan is administered by ESRAF (Ente Regionale per i Servizi all'Agricoltura e alle Foreste) (Regional Authority for Agriculture and Forestry Services) in conjunction with the regional government of Lombardy and surrounding cities to ensure an integrated development process.</p> <p><u>City stakeholders</u>: Public institutions: Office of Urban Planning: engaged in strategic planning of the park, in particular encouraging collaboration so as not to lose credibility among citizens; City counsellors; Municipalities of local interest: their engagement is to ensure that the borders of their local parks are strengthened and their land transformed into green parks; Universities and NGOs: participate in "Laboratorio Boschi" ("Forest Workshop") to provide scientific, professional and cultural advice, making PNM what one of the most prominent parks in Italy. Private institution: 'Cariplo' Foundation. The bank contributes to promoting the cultural and historical aspects of PNM. For example, it co-financed the "Green Miracle" project in PNM through a network of partners to coordinate programming of events, the creation of creative and inclusive communication methods to reach new audiences with innovative monitoring tools. Citizens: volunteers for park security (wardens and police), association members, technicians and gardeners for green infrastructure implementation. Associations: constitute Bottom-Up participation joining forces with the park and local/regional authorities to assist in funding and setting up educational/cultural activities.</p> <p>Planner: Management Board; Authorities: Park Community (i.e., Metropolitan City of Milan and Municipalities' mayors) and Management Board (see section J-I); Public Relations Dept. "Vita del Parco" (Life of the Park): engages associations, institutional bodies, visitors in its promotional and educational activities; Administrative Division (see section J-I); Financial Division: among regular financial duties engages an auditor to exercise control over the economic and financial management of the park; GEV: environmental security guards (volunteers).</p>
		<p>IV. National and international governance context (national and international stakeholders and character of their engagement)</p>	<p>n/a</p>
		<p>V. Other (specify)</p>	<p>n/a</p>

j.	Institutional frameworks	I. Project staff responsibilities.	<p>The Management Board is appointed by the Park Community and is composed of the President and five other Councillors, one of whom is directly appointed by the Lombardy Region and one by the farmers' associations. The Board remains in office for five years and provides the guidelines for all the Park documents. The Management Board is responsible, in particular, for:</p> <ul style="list-style-type: none"> -the approval of the Entity's regulations; -the determination of the Entity's staffing; -the approval of implementation plans, projects and agreements proposed by the Director; -long-term expenditure commitments; -proposals to convene the Park Community -the preparation and presentation to the Park Community of the budget and related annexes, the final account of each financial year and the financial plans. <p>The Park Community is composed of the Mayors of the Municipalities involved and the Metropolitan Mayor. It is the body responsible for administrative-political control of the Entity's activity.</p> <p>The Council of Associations is the advisory body of the Park, which integrates and enriches the proposals of the corporate bodies. Its purpose is to increase the participation of citizens and their associations, the implementation of management and promotion policies of the park and, by extension of the concept, for the safeguard, development and preservation of the park itself, as well as widespread practices of environmental eco-sustainability and sociability.</p> <p>Other staff responsibilities are in the areas of: nature and environment, environmental education/schools, events/exhibits, infrastructure management, urban orchards, finance and consulting, project design, public relations, urban planning, park police and security guards.</p> <p>The Management Division of infrastructures provides technical assistance, maintenance and cleaning of the park's infrastructures (e.g. trails, bridges, recreation areas); the Environmental Education Centre educates and supports citizens for planting orchards, trees and plants and their care. It also offers educational tours of the park and programs events.</p>
		II. Project Management Committee (Y/N) if Y.	Y – the Management Board, composed of six directors
		III. Frameworks <u>above the project</u> that exert influence on the project and/or UF-NBS e.g. Municipality, National Forestry Department.	n/a
		IV. Private companies that work on behalf of/or are embedded within the project.	'Fondazione Cariplo' – a Foundation that helps social and civil organizations better serve their own community.

		V. Trade representative organisations that are involved in the project	n/a
		VI. Regulatory frameworks that the project operates within (i.e. bylaws, municipal laws, national laws, licences and leases, partnership agreements etc)	<p>In 1975, the Lombardy Region designated PNM as a Regional Park, with Regional Law 78 of 06/11/1975, placing it among the regional protected areas also in the legislative framework (Regional Law 86 of 30/11/1983). Regional law 12 of 4/8/2012 governed the transformation of management consortia of regional parks into public law entities pursuant to Regional Law 86 of 30/11/1983: the PNM Consortium was transformed into Parco Nord Milano.</p> <p>On 10 December 2015, Regional Law 100/2015 was approved, uniting Balossa Park with PNM. This reinforced the protection constraints of Balossa Park, stressing the ecological importance of the area and preventing potential soil consumption.</p> <p>Governance instruments:</p> <ul style="list-style-type: none"> - Regional Ecological Network, the primary regional planning instrument - Regional Landscape Plan - Provincial Ecological Network - Provincial Territorial Coordination Plan - Municipal Ecological Network - Territorial Governance Plan - Regional Operative Program (2007-2013) policy - Forest Management Plan - Instruments to protect and enhance urban green spaces: Regional Laws 31/2008 and 12/2005
		VII. Other (specify)	n/a
k.	Economic frameworks	I. Community fundraising	Institutions, NGOs, initiatives provide constant funding.
		II. Project delivered services and monies raised by project	n/a
		III. City, regional general funds	Regular funding from the Municipality, plus a consortium of local and regional bodies funded by the Lombardy Region through a regional law.
		IV. Special funds e.g. National Lottery, Challenge funds	n/a
		V. National government funds	n/a
		VI. Private sector investment	'Fondazione Cariplo' – a Foundation that helps social and civil organizations better serve their own community.
		VII. International funds e.g. European Union structural funds, LIFE + etc.	n/a
		VIII. Other (specify)	n/a



I.	Sino/European comparative relevance		In European terms PNM is a large project and relatively long established. However, in comparison with Chinese cities Milan is small. It is a good example of a multi-functional approach and warrants comparison with Chinese examples. PNM also exemplifies how residual green spaces left over from urban expansion can be used to provide defined green belts that avoid settlements growing together.
m.	UF-NBS valorisation		The promotion and dissemination of respectful and environmentally conscious behaviours with a view to sustainability. Urban parks are green spaces that can contribute to the maintenance of animal and plant biodiversity in a highly anthropized environment such as the city. Green spaces, like PNM, play a fundamental role as they improve air quality, absorb carbon dioxide and consequently contribute to breaking down the greenhouse gases responsible for climate change and also to counteract the "heat island" effect in cities through shading and the transpiration of plants, mitigating the temperature of the surrounding environment and improving human health and wellbeing.
n.	Procurement of UF-NBS		A joint effort among citizens, NGOs, and planning and government authorities which is ongoing. The Consortium Parco Nord of Milan (CPNM) was entrusted with the task of building a park by removing industrial debris and planting forest trees. Governance tools to promote and sustain development of the park are employed; these are the Regional Ecological Network and Regional Agency for Agricultural and Forestry Services (ERSAF) of the Lombardy Region.
p.	Ecosystem services (list the three most important services being provided in no more than 50 words)		1) the provision of recreation and educational facilities for local residents and visitors; 2) the health and wellbeing benefits gained through the use of the recreation facilities; and 3) the landscape benefit of creating a functional green boundary between built-up areas which acts as a wooded regional park
q.	Renaturing		Reforestation and environmental redevelopment of areas that were once industrial (with removal of industrial debris) or uncultivated lands
1 2	LESSONS AND TRANSFERABILITY		
	PNM demonstrates increased citizen participation in UF-NBS planning and that awareness of connectivity and climate change adaptation is needed. Citizens using PNM realize that connected UGI improves quality of life and should be implemented to address issues of connectivity/climate change. PNM is a good example of UF-NBS planning that can be applied to other city-regions. Important factors are a Bottom-Up approach, synergy of multi-scale stakeholders, streamlined political, scientific and planning instruments for setting norms and guidelines in cooperation with stakeholders, a knowledge base of connectivity/climate change adaptation, and awareness. A network of institutions, NGOs and initiatives providing constant funding is warranted.		
1 3	REFERENCES (Harvard style)		
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