


## VANHANKAUPUNGINLAHTI, OLD TOWN BAY- FINLAND

<p>Section</p>	 <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>
<p>1</p>	<p><b>TITLE OF CASE STUDY AREA:</b> Vanhankaupunginlahti - Old Town Bay, Helsinki, Finland</p>
<p>2</p>	<p><b>INTRODUCTION</b></p> <p>The Old Town Bay (OTB) is located in the middle of the capital of Finland with good accessibility via public transport. The diversity of its flora and fauna makes it unique among urban nature destinations. It is Helsinki's largest nature reserve, designated 1959, covering an area of 338 hectares of which 316 ha belongs to NATURA 2000 network. It's bird wetlands and nature have been a notable hiking destination since the 19th century. A cross border project "NATTOURS - Sustainable urban nature routes using digital IT-solutions" (2016-2018) enabled to expand the nature reserve further in 2016 with the addition of the herb-rich common alder forest of Pornaistenniemi and the forests of Möylä. During the NATTOURS-project, a nature trail "The Lap of nature" designed especially for providing well-being benefits, was built. Along the trail there are ten short poems presented in information boards describing the surrounding nature and suggesting activities in order to provide possibility for a rejuvenating walk. The disabled and elderly people were taken into special consideration when designing the attractions. The trail is accessible for wheelchairs and other users with limited physical abilities. The trail is also widely used for environmental education. The Lap of nature –trail is part of a network of trails around the Old Town Bay and provides an accessible route all the way to the island of Lammassaari. Altogether, the clearway trail is 3,5 kilometers long. One of the goals of the NATTOURS-project was to bring nature also digitally to the people. For this a website 'citynature.eu' was built, which is a guide to the nature of Helsinki. After constructing the Pornaistenniemi, the visit flow has been rapidly increasing and the city of Helsinki has decided to improve the recreation area even further. For example, besides already existing small "hiding shelter" for bird watching, a large hiding shelter, where you can fit the whole school-class, has been designed and its construction begins at 2021. Besides the nature conservation areas, also pasture areas belonging to a research-farm of the University of Helsinki are located in the area. Moreover, Museum of Technology, a restaurant as well as other cultural sites are located at the area.</p>
<p>3</p>	<p><b>KEY FACTS AND FIGURES OF THE CASE STUDY AREA</b></p> <p><b>Biogeographic region<sup>1</sup>:</b> Boreal  <b>Surface area:</b> 338 ha  <b>Country:</b> Finland  <b>Region/Province:</b> Helsinki</p>

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



6	<b>LEAD ORGANISATIONS:</b> <ul style="list-style-type: none"> <li>City of Helsinki</li> </ul>													
7	<b>LOCAL CONTACT(S)</b> Kaisa Pajanen Team Leader Helsinki, Finland Tel: + 358 505932137													
8	<b>PRINCIPLE UF-NBS (Urban Forests as Nature-Based Solutions) ACTION(S)</b> <ul style="list-style-type: none"> <li>Conserving bird and wildlife habitat with implementation of mowing, grazing and removal of invasive species</li> <li>Improvement of the water quality in the river of Vantaa</li> </ul>													
9	<b>OTHER PRINCIPLE NBS ACTION(S) – non-UF</b> <ul style="list-style-type: none"> <li>Provision of recreation and well-being benefits for residents and tourists, environmental educational activities</li> <li>Creating a new common web portal, <a href="https://citynature.eu/en/">https://citynature.eu/en/</a> and mobile application for nature-based tourism and education in Helsinki</li> </ul>													
10	<b>LOCAL STAKEHOLDERS LIST ONLY</b> <ol style="list-style-type: none"> <li><b>Governing authorities:</b> The City of Helsinki and Government,</li> <li><b>Associations:</b> E.g., educational, farmers', cultural, and sports, Criminal Sanctions Agency NGOs. e.g. Tringa ry.</li> <li><b>Citizens:</b> local residents and prisoners</li> <li><b>Municipalities:</b> City of Helsinki and, Centre for Economic Development, Transport and the Environment</li> <li><b>Public/private institutions:</b> Public institutions: Urban Environment Division, The Helsinki City Executive Office, Office of Urban Planning, Public Works Departments City, University of Helsinki, Finnish Environment Institute, Metsähallitus Centre for Economic Development and Transport and the Environment</li> <li><b>Park planner and authorities:</b> Planner: the NATURA 2000 area: Before Enviro Oy, now Yrjölä Oy; NATTOURS constructions: Studio Puisto Architects. Coordinator: Helsinki Region Environmental Services Authority, together with working research-group of Viikki and separate management and planning group. Many stakeholders participate.</li> <li><b>Technicians for park maintenance/monitoring and to educate and support citizens:</b> Urban Environment Division, The Helsinki City Executive Office and Office of Urban Planning</li> </ol>													
11	<b>UF-NBS FRAMEWORK</b> <table border="1" data-bbox="209 1357 1485 2123"> <tr> <td data-bbox="209 1357 272 1845">a.</td> <td data-bbox="272 1357 555 1845"><b>UF-NBS typology</b></td> <td data-bbox="555 1357 1485 1845"> <ul style="list-style-type: none"> <li>Extensive reed beds</li> <li>Forested areas, forested nature reserves, riparian forests</li> <li>Green urban areas</li> <li>The rocky meadows</li> <li>Wetland play area</li> <li>Natural and semi-natural water bodies and hydrographic networks (i.e., river corridor)</li> <li>Constructed damp and built structures for water management</li> <li>Choice of plants (native plant species remain)</li> <li>Wooded riverbank green and wooded banks of ponds and lakes;</li> <li>Woodland glade or species-rich meadow influenced by adjacent trees,</li> <li>Farm for research activities</li> </ul> </td> </tr> <tr> <td data-bbox="209 1845 272 1957">b.</td> <td data-bbox="272 1845 555 1957"><b>Integration</b></td> <td data-bbox="555 1845 1485 1957"> <ul style="list-style-type: none"> <li>Built-up structure (e.g., footbridges, restaurant, playgrounds, birdwatching towers)</li> <li>Transport infrastructure (e.g., parking lots, bus-stops)</li> </ul> </td> </tr> <tr> <td data-bbox="209 1957 272 2069">c.</td> <td data-bbox="272 1957 555 2069"><b>Network/connectivity</b></td> <td data-bbox="555 1957 1485 2069">Connectivity is considered very important goal to achieve in OTB. The area of OTB is connected to two of the five so-called “green fingers” of Helsinki in order to ensure continuity within the ecological network.</td> </tr> <tr> <td data-bbox="209 2069 272 2123">d.</td> <td data-bbox="272 2069 555 2123"><b>Multifunctionality</b></td> <td data-bbox="555 2069 1485 2123">Multiple functions of green and blue spaces are combined for the conservation (biodiversity of animals and habitats), providing a water catchment area and for</td> </tr> </table>		a.	<b>UF-NBS typology</b>	<ul style="list-style-type: none"> <li>Extensive reed beds</li> <li>Forested areas, forested nature reserves, riparian forests</li> <li>Green urban areas</li> <li>The rocky meadows</li> <li>Wetland play area</li> <li>Natural and semi-natural water bodies and hydrographic networks (i.e., river corridor)</li> <li>Constructed damp and built structures for water management</li> <li>Choice of plants (native plant species remain)</li> <li>Wooded riverbank green and wooded banks of ponds and lakes;</li> <li>Woodland glade or species-rich meadow influenced by adjacent trees,</li> <li>Farm for research activities</li> </ul>	b.	<b>Integration</b>	<ul style="list-style-type: none"> <li>Built-up structure (e.g., footbridges, restaurant, playgrounds, birdwatching towers)</li> <li>Transport infrastructure (e.g., parking lots, bus-stops)</li> </ul>	c.	<b>Network/connectivity</b>	Connectivity is considered very important goal to achieve in OTB. The area of OTB is connected to two of the five so-called “green fingers” of Helsinki in order to ensure continuity within the ecological network.	d.	<b>Multifunctionality</b>	Multiple functions of green and blue spaces are combined for the conservation (biodiversity of animals and habitats), providing a water catchment area and for
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		the needs of the community (recreation, social activities, environmental education). Also, providing cultural heritage sites of national significance. Finally, the OTB works as preventing the harmful effects of climate change (Virkkala et al. 2014).	
e.	<b>Multi-scale</b>	The OTB is managed by the city of Helsinki. Part of the area is NATURA 2000 site. The city of Helsinki has provided the management plan for 2015-2024 to the bay. Also, citizens have participated in to the planning process for recreation services in the area.	
f.	<b>Strategic planning processes</b>	The strategic planning of OTB is led and implemented by the city authorities but with important part of the whole process being hearing and participatory of citizens. A cross border project “NATTOURS - Sustainable urban nature routes using new IT-solutions” (2016-2018) provided funding to expand the nature reserve further in 2016 with the addition of the herb-rich common alder forest of Pornaistenniemi and the forests of Möylä. Now the city has focused to raising also the awareness of citizen and prepared communication plan.	
g.	<b>Inter- and transdisciplinary</b>	The OTB 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, researchers, administrative authorities, the agricultural sector, teachers who educate and support children, citizens and groups who help to undertake monitoring activities, and landscape architects and architects who work with park authorities in planning and management new structures and routes and also prisoners who helped building new construction during the NATTOURS-project.	
h.	<b>Social cohesion and biocultural diversity</b>	The OTB has long history of providing livelihoods to citizens. It also has strong cultural history as the city of Helsinki was established at the mouth of the river Vantaanjoki in 1550 by Gustav I of Sweden. Already this fostered social cohesion as the citizens come from various backgrounds to the area. Two branches of Vantaanjoki draining into the sea provided fish and hydropower, while also serving as a convenient waterway to further inland. The OTB was noticed as bird wetland and suggested for conservation by Rolf Palmgren (1880–1944). The area was designated for nature reserve in 1959. Today, social cohesion occurs by sharing the park’s services (e.g., events, workshops, education) and through their cultural know-how and practices within the park (e.g., mowing events, bird nesting livestream, sports and picnicking).	
i.	<b>Governance arrangements</b>	I. Project management structure.	The management of OTB is led and implemented by the city of Helsinki, but the government owns also a part of the NATURA 2000 network area.
		II. Local community engagement and the nature of their engagement.	During the planning process, the city of Helsinki collects the opinions and views from the citizens and uses the knowledge when implementing management and new services and structures.
		III. City-scale and/or region-wide governance for the project and/or UF-NBS (city and regional stakeholders and character of their engagement)	The whole management of OTB is led and implemented by the city of Helsinki
		IV. National and international governance context (national and international stakeholders and character of their	Part of the OTB belongs to the NATURA 200 network and Ramsar Convention. The NATURA 200 area belongs to both, the city of Helsinki and to the government. The government has the final decisions how to implement the management actions in the area. This has caused some bureaucratic difficulties during the past years

		engagement)	(Vanhankaupunginlahden...2016).  A cross border project "NATTOURS - Sustainable urban nature routes using new IT-solutions" (2016-2018) enabled to expand the nature reserve further in 2016 with the addition of the herb-rich common alder forest of Pornaistenniemi and the forests of Möylä. Pornaistenniemi and construction of Old Town Bay was funded by Central Baltic 2014-2020 Programme, of which the budget for Finland was: 667.325 EUR.
		V. Other (specify)	Criminal Sanctions Agency arranged participatory work by prisoners to build new constructions during the NATTOURS-project.
j.	Institutional frameworks	I. Project staff responsibilities.	The goal of the work is to maintain green areas for recreational use in such ways that they are pleasant and safe as well as retaining their landscape and natural values.  The main goal of nature conservation area in the city is to maintain biodiversity.
		II. Project Management Committee (Y/N) if Y.	The management of OTB is led and implemented by the city of Helsinki, but the government owns also a part of the NATURA 2000 network area.
		III. Frameworks <u>above the project</u> that exert influence on the project and/or UF-NBS e.g. Municipality, National Forestry Department.	The planning of the green areas is guided by the green area programme of Helsinki, which is an alignment concerning the development and maintenance of the green areas composed by the residents, civil servants and decision-makers.  Nature maintenance is steered by policies approved by the City Board. Nature maintenance plans are made in connection of area plans prepared by the Urban Space and Landscape planning services. Residents can join the planning process, and other feedback on nature maintenance can be submitted to the Urban Environment Division's Customer Service.  The Urban Environment Division's Environment services prepares proposals for the protection of nature reserves as well as maintenance and usage plans that are ratified by the Uusimaa Centre for Economic Development, Transport and the Environment.
		IV. Private companies that work on behalf of/or are embedded within the project.	Temperance Society Koitto ry (Raittiusyhdistys Koitto ry) is governing the island of Lammassaari located inside the Vanhankaupunginlahti. They have small summer cabins that are owned by the citizens of Helsinki.
		V. Trade representative organisations that are involved in the project	n/c

		VI. Regulatory frameworks that the project operates within (i.e. bylaws, municipal laws, national laws, licences and leases, partnership agreements etc)	Nature conservation in Helsinki is based on the Nature Conservation Act (1996).
		VII. Other (specify)	n/a
k.	<b>Economic frameworks</b>	I. Community fundraising	n/c
		II. Project delivered services and monies raised by project	See section VII.
		III. City, regional general funds	City of Helsinki provides the funding for the planning and management. The money for the management comes from the budgets of different agencies and “competes” with other funding needs in Helsinki.
		IV. Special funds e.g. National Lottery, Challenge funds	n/c
		V. National government funds	Government of Finland owns part of the NATURA 2000 network area. EU provides the Community funding for Natura 2000 sites which is based on the provisions of Article 8 of the Habitats Directive.
		VI. Private sector investment	n/c
		VII. International funds e.g. European Union structural funds, LIFE + etc.	A cross border project “NATTOURS - Sustainable urban nature routes using new IT-solutions” (2016-2018) enabled to expand the nature reserve further in 2016 with the addition of the herb-rich common alder forest of Pornaistenniemi and the forests of Möylä. Pornaistenniemi and construction of Old Town Bay was funded by Central Baltic 2014-2020 Programme, of which the budget for Finland was: 667.325 EUR.
		VIII. Other (specify)	n/a
i.	<b>Sino/European comparative relevance</b>		In European terms OTB is a large project and relatively long established. However, in comparison with Chinese cities Helsinki is small. It is a good example of a multi-functional approach and could be compared to Chinese examples with management of large water catchment areas and as preventing measure for harmful effects of climate change.
m.	<b>UF-NBS valorisation</b>		The OTB is great example of creating value from knowledge by making knowledge suitable and/or available for societal use and translating that knowledge into competitive products, services, processes. The biodiversity of the area is widely studied and the results are used for teaching the citizens the meaning of the wetlands and importance of different biodiversity. The area offers various

				<p>services including opportunities for nature activities such as bird watching, and a trail focusing thematically on health and well-being from nature. The area is also actively used for environmental education. Because the trail has accessible routes for wheelchair users, and the disabled and elderly people were taken into special consideration when designing the attractions, it also increases equality for all citizens to learn and enjoy the nature.</p>
	n.	Procurement of UF-NBS		<p>The objectives of the NATTOURS-project were to improve public recognition of natural tourist attractions in Helsinki and Tallinn and to develop joint tourist attractions and products for sustainable nature tourism between the cities. In order to support the city partners with this aim, several methods were utilized to gain a better understanding of the ecosystem services in these cities and several specific sites, and to get to know more about the visitors, their expectations and how their experience at the sites can be maximized. The city of Helsinki is now preparing the communication plan for the Pornaistenniemi to get the place even more into the awareness for residents and tourists.</p>
	p.	Ecosystem services (list the three most important services being provided in no more than 50 words)		<p>1) Improved the wetland and forest coverage and urban greenspace connectivity and therefore secured important biodiversity; 2) the provision of recreation and educational facilities for local residents and visitors and 3) the health and wellbeing benefits gained through the use of the accessible trail built for well-being and recreation facilities.</p>
	q.	Renaturing		<p>The open coastal meadows diminished during the 1932–1992 more than 80% (Mikkola-Roos ja Oesch 1998). Therefore, the mowing was started again and the coastal meadow has been restored.</p>
12	<p><b>LESSONS AND TRANSFERABILITY</b></p> <p>OTB demonstrates increased citizen participation in UF-NBS. It has been important to focus on planning the routes and other constructions first, in order to transform the area accessible for all, also to disabled, elderly and children. In the planning process, the connectivity of green areas has been taken into consideration. According to monitoring of visitor flows before and after the NATTOURS-project and its implementation, the number of visitors and activities increased remarkably in the area. Therefore, the City of Helsinki has decided to improve the nature area even further. With the increase of visitor numbers, the project has managed to improve citizens' environmental awareness. The large green area, located close to the city centre, is now easier accessible than before and provides important well-being and health benefits for larger number of residents. The OTB works also as adaptation measure in climate change. The study results show, that by providing the nature conserve areas, we are able to mitigate harmful effects of climate change. Through OTB, citizens understand better the role and importance of urban wetlands and forests for ecosystem services.</p> <p>OTB is a good example of citizen participation in Helsinki, where the work has strong coordination from the city but where the planning has been conducted and implemented together with local residents. Many stakeholders and researchers have been and are still engaged to this work.</p>			
13	<p><b>REFERENCES (Harvard style)</b></p> <p>Lanki, T., Siponen, T., Ojala, A., Korpela, K., Pennanen, A., Tiittanen, P., Tsunetsugu, Y., Kagawa, T., Tyrväinen, L. 2017. Acute effects of visits to urban green environments on cardiovascular physiology: a field experiment. <i>Environmental Research</i> 159: 176-185 <a href="http://dx.doi.org/doi:10.1016/j.envres.2017.07.039">http://dx.doi.org/doi:10.1016/j.envres.2017.07.039</a></p>			

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