



NATURVATION
cities - nature - innovation



SNAPSHOT @ SOFIA: CITY FOREST



KEY POINTS

- A change in the city starts with a change in the way of thinking
- Ecological and social urban development as well as their sustainability depends strongly on the experienced sense of belonging
- NBS are perceived as more cost-efficient and economically desirable, especially in the tourism sector
- Providing information for a better understanding and appreciation of ecosystem services are crucial for the introduction of an appropriate policy framework and mainstreaming of NBS

ABOUT THE PROJECT

NATure-based URban innovATION is a 4-year project involving 14 institutions across Europe in the fields of urban development, geography, innovation studies and economics. We are creating a step-change in how we understand and use nature-based solutions for sustainable urbanisation.





Sustainability challenges and opportunities

Sofia's sustainability challenges result from a legacy of a Soviet-era industrialization with no attention paid to environmental issues, and from currently pressing issues of aligning economic growth with environmentally sustainable urban development.

As the capital of Bulgaria and the largest city in the country Sofia is an economic, cultural and educational centre. It is a dynamic and continuously growing area, which at the same time holds significant natural resources such as hot thermal springs, long sun hours, fertile agricultural land, biodiversity, etc. Thus, Sofia is not yet capitalising on its potential. First the lack of data and information on the benefits and importance of ecosystem services as well as on the anthropogenic impact inhibit not only the introduction of an appropriate policy framework but also the raising awareness and mainstreaming NBS. Second the unsatisfactory conditions of green spaces, public infrastructure and transport system with no priority regarding pedestrians and bicyclists zones deepen the pressing issue of air pollution in the city: ***“Sofia is one of the green cities, [...] there are many parks and green areas, but we are considering other aspects [...] such as how many citizens in a radius of 300 to 400 m have access to these areas”¹***. Nevertheless, there is a shift in the expectations and behaviour of citizens and public officials. Nature-based solutions are beginning to gain prominence in Sofia, which, for example, is suggested by the upswing in the reconstruction of parks since 2010, the rising number of new urban gardens, of private afforestation initiatives or volunteer work in parks.

Solution story and key actors

The Urban forest initiative is a very suitable example of civic engagement and a representation of the different benefits provided by ecosystems in an urban environment. Funded and realized by the citizens of Sofia the initiative is planned not only to provide environmental services such as the mitigation of air pollution and climate regulation but also to become a landmark in Sofia green's heritage and elicit a sense of place and belonging.

Planned as a community tree park the “City Forest” project targets the biggest environmental challenge of air pollution in Sofia city and shows the shift-tendency in current society's awareness and understanding towards an ecological and cultural sustainable urban development. The intervention is being initiated and implemented by the nongovernmental organisation Grupa Grad in collaboration with Sofia municipality and active citizens. The idea unfolded after the NGO Grupa Grad and other nongovernmental organizations had started the initiative “Sofia- green capital” appealing to the city and municipality to take part in the contest for the European Green Capital Award. By planting trees on neglected urban land and simultaneously restoring one of the green eco-corridors that are allowing fresh air from the mountain to reach the city, the intervention is expected to improve the air quality, reduce carbon emissions, provide a place for recreation and free time activities and add to the green footprint of Sofia's history: ***“a new park in the smog-covered city – a new urban forest”²***.



Governance strategies

Sofia municipality is setting new priorities, searching for more sustainable solutions and best practices to the city's environmental challenges. For this, it is also reaching out to NGOs, start ups and citizens.

The project is being implemented in collaboration between the NGO Grupa Grad, the Sofia municipality and its citizens. Coordinator is Grupa Grad, ***“an unit in which architects, urban planners and landscape architects are involved”³***. The local population can make monetary contributions or/and take part in the tree planting and maintenance of the park, while the municipality is involved in organizing a suitable location and will be later responsible for the management and maintenance of the forest. To implement the initiative, Grupa Grad is negotiating with the central administration department ‘Green systems’, managing parks and green areas in the city, as well as with several of the specialized regional (district) administrations. The initiators are being supported by various institutions with an essential Know-how: ***“We found a way, where we assist those citizen in every step, e.g. counselling or [...] contact with the other involved institutions”⁴***. The key factors for a successful implementation are being identified in committed and experienced initiators, engaged participants as well as an open-minded and motivated municipality administration, which balance slow procedures and unsatisfactory policy framework.



Business models

In the municipalities' plans and strategies for NBS are being discussed in the context of the development and expansion of the tourism sector. Investing in NBS is being seen as a ‘booster’ of the local economy and as a conservation strategy⁵.

In terms of finance, the initiators rely on contributions from citizens, following the crowd-funding principle. The initiative launched a fund-raising campaign in 2016 and has already a certain amount of means available for the purchase of saplings. The land will be provided by the municipality as its future management body. In general, there is a risk associated with the relying solely on citizen's voluntary engagement and donations in terms of emergence and implementation of such intervention since it can lead to a ***“tendency of selective and small scale, inhomogeneous activities”⁶***. The municipality has yet to wide its scope of investment to other areas besides the reconstruction of parks. For this, it already initiated first steps in assessing cultural and natural amenities and public space quality.



Citizen engagement

“The main principle we want to base our work on is engagement. That is why it is good to have a maximum number of people involved”⁷.

The idea for the initiative originated in a civil society movement and the citizens can directly participate and contribute to any of the implementation stages voluntarily, e.g. by planting or buying a tree (by making a donation). There are already various established communication channels, especially via the social media and



the experience from previous similar forestation initiatives which proved to be very effective. Looking at the expressed support during the first fundraising campaign, the continuously growing interest towards the project and the highly organised lead initiator and coordinator Grupa Grad, there is a significant involvement of citizens to be recognised. To enable even further engagement and voluntary activities, the municipality has to work on the provision of **“information for a better understanding of ecosystem services”⁸**.

Innovation pathways



- **Created by the citizens of Sofia for Sofia and its future generations.**

In a city like Sofia, with an emphasis on growth, infrastructure and mobility have traditionally been prioritized in urban planning. The motivation and openness from the municipality’s side towards the realisation of the project shows a changed perspective in terms of a sustainable urban development. This reflects the changed public demand and perception of the urban environment and its challenges.

Additionally, the initiative is not only a good example for the multiple benefits of ecosystems in urban areas, but has a strong emphasis on historical, cultural and social values as well as on cost efficiency: **“[...] the green areas are the lungs of the city and studies show that in comparison to the other methods for reducing greenhouse emissions the afforestation is the best and cost efficient one”**.

¹ Coordinator “Green Sofia”; ² Citizen’s Initiative “Sofia - Green Capital” 2016; ^{3, 8} Coordinator Grupa Grad; ⁴ Director “Parks and city gardens”; ⁵ Sofia municipality 2014; ⁶ Representative “Association of Urban Planners in Bulgaria”; ⁷ Director “Sofprekt”; ⁹ Karapavlova et al. 2018