5. Озеленення міст. Економічна енциклопедія. Київ : ВЦ «Академія», 2001. URL: https://economic.lviv.ua/gospodarstvo/ozelenennya-m-st.html

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THE GREEN AND HEALTHY CITY

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Green cities are a new vision of cities where people let nature into the urban environment and cities become more friendly to people. Such a concept of cities can bring great benefits to humanity and help solve many of today's problems. Our world is constantly changing and we can make positive changes if we take care of the future today. Therefore, by creating green cities, we can change the way we look at urban planning, educate people about responsibility and savings, start restoring ecology and make our planet Earth better.

City is a place where the many components of the natural ecosystem are interwoven with those of the social, economic, cultural and political urban system in a unique manner. A major challenge for all cities is to reconcile economic activities and growth with cultural, social and environmental considerations, as well as reconciling urban lifestyles with green constraints and opportunities.

As focal points for consumption and innovation, cities can play a key role in shaping greener behaviour and consumption. Climate change is an important factor motivating cities to become more resource efficient. Like all economic actors, cities will have to take responsibility for reducing CO₂, emissions. Cities are also in many ways best placed to act on the use and misuse of natural resources.

A vision of the compact and green city: an important basis for efficient and sustainable use of resources is a compact settlement structure. This can be achieved by spatial and urban planning, the strategy of mixing housing, employment, education, supply and recreational use in urban neighbourhoods.

The compact and green city offers an interesting urban landscape, a healthy functional mix, and a good quality of architecture and design in its built environment public spaces, buildings and housing. It offers easy access to green areas and open space for everyone. It takes care of and makes use of its historical sites and monuments.

Since people no longer need to search for green areas outside the city, they have moved back to the centres and no longer need to go to work or to leisure facilities by car. As an alternative, they can easily hop on clean and convenient public transport, which works efficiently due to the higher concentration of potential clients. These savings in transport free up more public space, and make cities cleaner and quieter.

A vision of the green city: while our cities have maintained high urban densities, a dream is coming true: greenery is invading the cities and boosting life and urban ecology. People love their 'urban biotope' and enjoy the variety of green and water areas, ranging from bigger parks and natural areas, to allotment gardens, pocket parks or potted plants on roof terraces. This environment offers a multitude of different uses and helps to keep people healthy – literally something for everybody.

The pleasant and safe green areas have encouraged people to spend more time outside and boosted social life in the city. Most of these places are public ones, thus everybody benefits easily. Green life makes the city a pleasant and attractive place to live people are proud of this and strongly identify with their city. This has often reduced the need for expensive technological solutions and has allowed cities to function in smarter ways.

Green walls and roofs are not only attractive but insulate the buildings against cold and heat, which helps energy saving and thus reduces the ecological footprint of cities. Outside, trees provide shadow and fresh air, important when the future is likely to bring more heat waves to many European regions. Urban greenery lets people breathe, trees and shrubs filter particles out of the air, dense vegetation lessens noise and hides visual nuisance. Green is ubiquitous in the Cities of tomorrow and asphalt and concrete are held back to the minimum. Plant roots penetrate the soil, and the surface water of heavy rainfall can readily penetrate the ground, thus preventing urban floods.

For cities, the amelioration of the air quality, the reduction of traffic congestion, and the health of their inhabitants are much more direct benefits of greener practices. Reduced congestion would also bring economic benefits by enabling a more efficient and productive use of time. Increased energy efficiency reduces the economic and energy vulnerability of cities. The related innovations, technologies and services are important drivers for a greener local economy.

A pedestrian and cycle-friendly city with clean air and water, plenty of green spaces and high-quality built space is also an attractive city for people and for businesses. Urban green growth requires both technological and social innovation strategies, which have to be designed in relation to the overall development of the urban space. A necessary gradual retrofitting of the existing

housing stock to reduce energy consumption and adapt it to new environmental conditions [1].

The main problems of cities related to the state of the urban environment are air pollution, noise, water pollution, transport problems, intensive urbanization, etc. The city of the future is an ecological city that lives in harmony with nature. The countries that are the first to understand this and invest in their "green (ecological) own future" receive not only an environmental, but also an economic advantage.

The projects reviewed below indicate a global trend in developing the concept of an ecological city of the future. The need for balanced development of cities is emphasized not only by scientists and environmental activists, but also by the country's governments, local self-government bodies, and mayors of large cities, which are trying to attract investments for eco-city construction projects. The differences lie in the choice of renewable energy sources that best suit specific locations and climatic conditions. Instead, the common features are an understanding of the need for: production of "clean energy"; rational use of all, some for vital activities of the city's resources (water, air, energy, food, etc.); development of "ecological transport" (electric transport, bicycle transport) and maximum use of public transport; preservation and development of parks and "green zones" in cities; environmental education and promotion of balanced nature use and lifestyle; construction of new buildings according to the standards of "passive" construction and conversion of old buildings to "energy-saving" ones [2].

References

- 1. Bondarenko V.D. and Bondarenko T.V. Ecological aspects of the concept of cities of the future: overview of projects. *Scientific Basis of Biotic Conservation Diversity*. 2015, vol. 6 (13), no. 1, pp. 27–36. (in Ukrainian).
- 2. Catalin Berescu, Jan Vranken and Anne Querrien. Cities of tomorrow. Challenges, visions, ways forward.