

ENVIRONMENTAL URBANISM AND SUSTAINABLE CITIES

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Abstract

The paper focuses on the links between sustainability and urbanism with a focus on the environment. In order to achieve the sustainability of cities, it is necessary to monitor the balance between economic, social and environmental interests, and urbanization is closely linked to this. Urbanism with a focus on the environment or ecological urbanism is a type that focuses on projects in ecological aspects, such as humidification, temperature reduction in the city, energy buildings, planting, urban surfaces, etc. Sustainability of cities is also one of the topics of the United Nations which generally addresses Sustainable Development Goals. In order to achieve the goal of sustainable cities, it is necessary to ensure access to trouble-free and affordable housing and services for all citizens by 2030. This development program is set for the time period 2015-2030. As far as the city is concerned, this in itself fundamentally affects the quality of the surrounding environment, especially interventions in undeveloped areas, land use and city administration. Spatial urban development is also focused in detail on searching and regeneration of unused areas which can have a negative impact in the form of slower growth or decline. The newly emerging BIM method, which demonstrably streamlines the management and development of cities, can also contribute to overall sustainability which further leads to the concept of smart cities. It is a concept of smart cities of urban development that moves to the sectors of management, energy, environment, infrastructure and population in an effort to streamline the management and development of cities using new methods.

Results

Warming cities

The best way to reduce the temperature in cities is to use green roofs, green facades, vertical gardens, restoration of parks as well as open water areas. We know from experience that green areas play an important role in climate regulation, protection against noise, wind, dust and exhaust gases.

Sustainable cities

There is a need to move to sustainable energy sources as wind source, sun, water and also nuclear source which can better predictable and influenced source of energy. Today, the energy used in cities is mainly generated from fossil fuels. Interestingly, even though cities occupy only 2% of the earth's surface, they consume 60-80% of energy and at the same time generate $\frac{3}{4}$ greenhouse gas emissions thereby this situation is not sustainable.

Transportation in the city

Cities need to focus on providing bicycles for transport, effective public transport and reducing car transportation.

Smart City

Cities across Europe and elsewhere in the world need to transform into smart cities, which is an effort to innovate in urban development. There is a need to be able to understand and organize the city in more detail in order to achieve greater habitability. Smart cities have the task of using data and technology in order to increase efficiency and sustainability and, above all, to improve the quality of life in the city. Thanks to City Information Model, we can perform various visualizations of the entire city, plan construction more efficiently and streamline the entire process of spatial planning, construction and traffic management.

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