

CONCEPT AND INSTRUMENTS OF ECOLOGICAL AND ECONOMIC STIMULATING OF UNDERGROUND SPACE

Recent decades throughout the world are characterized by abrupt urbanization of industrialized countries. This is, explained above all, by the increased level of mechanization and automation in agriculture, as well as concentration in urban centers where complex processes are created, providing vital functions of society. In this sense technological processes (technologies) are meant as the exercise of any structured information resources in a chain of successive operations or actions leading to the first goal: the material, humanitarian, spiritual prosperity.

Justification of the basic principles and strategies in the development of large cities is now urgent tasks that require detailed analysis, discussion and development of specific solutions.

The growing congestion makes it necessary to active seeking ways to increase the living space, one of which – is underground space, which has in comparison with surface along additional useful properties. Underground structures are more isolated from the surface of factors, often more durable and require less maintenance costs than superficial. All these factors lead to significant development of underground construction in recent years, which doubled in volume every 10 years. However, the use of underground space requires increased responsibility. Excited due to irrational use of natural subsoil becomes only the integrity of hundreds of years later, and artificial restoration until it fully is not possible.

The growth of megacities living space can be achieved in three ways:

- Extension of city limits;
- Increase of the high of buildings;
- Development of underground space.

The first two ways are to some extent in conflict, especially in old cities with those of the prevailing architectural appearance in countries with dense buildings and a population that is growing. In this regard, the most common option for solving the problems of urbanization of modern society is the development of urban underground space. However, this way, despite the availability of appropriate technologies of underground construction is simple and

straightforward system of economic and legal relationships that often do not consider the environmental aspect of urbanization that occurred. The current legal framework also takes into consideration the interests of all participants in the process of nature, including, above all, state, and encourages them to an effective, safe and economic activity. For example, the objective is realized through the principle of the system requiring payment for royalty and their pollution, there is no effective system of investment and innovative resources in the development of urban underground space, there is no effective legal basis of its ecological and economic incentive.