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GREEN BUILDING

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Abstract

This work presents new trends in the construction industry, which are to reduce the negative impact on the environment at all stages of construction. This is the practice of construction and operation of buildings, which aims to reduce the consumption of energy resources throughout the life cycle of the building.

Keywords: construction industry, natural, environmental technologies, green building.

The construction industry as a whole absorbs more than a third of the world's natural resources. As a result of the projected increase in the world's population, the demand for housing may increase. To solve this problem, the concept of green building has emerged.

The aim of the work is to acquaint the audience with new trends in the construction industry, to inform about the benefits and prospects of development and use of new trends in the construction industry.

Eco-technologies mean energy and heat conservation, a rational approach to resource consumption. Green construction is based on minimizing the impact on the environment.

This can be achieved by:

- the use of natural materials in the construction and finishing of buildings (wood, glass, clay, straw); for example, the use of wood has become quite popular now not only in construction but also in interior decoration;
- the use of rainwater, which is collected in special tanks installed on the site;
- installations on the south side of solar panels that will supply heat and energy to the house;
- high-quality thermal protection, which is achieved through the use of natural materials;
- roofs and floors, which are insulated with wool fibers, which in turn are mixed with wood resin, which helps increase vapor permeability;
- waste disposal;
- Secondary use of materials.

At first glance, it may seem that the use of such environmental technologies is an expensive pleasure. But you should take into account the savings that you will receive after their installation.

Houses with their own garden are also in great demand. Such a building will be the Cedar Tower, which got its name because of its unusual shape. The project was designed by Italian architect Stefano Boeri, a 117-meter residential building in Lausanne, Switzerland, which will be the world's first building covered with evergreen trees that will protect apartment interiors from harsh winds, dust and noise. In addition, such a building will undoubtedly be the decoration of any city.

The Italian bureau has created a "Forest City" in China, but the project has not yet been implemented. Special standards have been developed for such buildings, which make it possible to test it for safety, environmental friendliness and comfort.

But is such construction developing in Ukraine? Unfortunately, not as fast as in European countries. The development of green building depends on the level of development of the country and public awareness of environmental principles. Ukraine is actively involved in international conventions that reduce environmental pollution, and seeks to improve national standards in line with international requirements. There are already examples of BREEAM-certified green construction of residential complexes in Kyiv. The general economic and political situation seems ready to welcome the introduction of green building throughout Ukraine. The development of green building will be an important area, and more comprehensive research on green building can contribute to its further progress.

Conclusions

Such rioting not only reduces the negative impact on the environment. But also to turn the concrete jungle of the city into greenery. And you can save financial resources and maintain your own health.

REFERENCES

- 1. Construction ecology: nature as the basis for green buildings / edited by Charles J. Kibert, Jan Sendzimir, and G. Bradley Guy. p. cm. ISBN 0-415-26092-2 (pbk. : alk. paper).
- 2. New technologies in construction: scientific and technical. magazine / Acad. building of Ukraine, N.-d. Inst. vir-va. Kyiv: [p. v.], 2001. ISSN 2664-0406 (print). ISSN 2664-0414 (online).
- 3. Green Architecture Philip Jodidio ISBN 9783836522205.

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