

FINANCIAL ASPECTS OF HOUSE BUILDING ECOLOGIZATION IN UKRAINE

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Presently, the environmental problem is vital for each country. In Ukraine it is aggravated by such things as misuse of natural resources, disobeying the law and high density of stationary polluters in a limited area. A significant part of pollution - chemical, physical and biological contamination – is caused by industries, including the house construction business. The purpose of the article is to clarify housing affect the environment, identify financial sources of its improving.

Therefore, strict government regulation and finding ways to increase interest of manufactures and builders in greening their operations are equally important. In 2011, a number of environmental programmes were adopted: these were programmes of soil fertility maintenance, land reclamation, water resources management, waste management, environmental monitoring, formation and development of ecological networks, and others.

Among numerous adverse impacts of house building on the environment, the most important ones include wastes from construction and production of building materials, wastes created during the wrecking of a building (demolition debris), excessive energy consumption, and the negative health effects of harmful substances contained in building materials.

When a house is being put into operation, the sanitary inspection has to accept it at any rate, and the Research Institute of Hygiene can check the house only if it receives a claim. Since the range of building materials in construction is wide, we can only hope that they do not contain harmful substances, or that the company is concerned about its reputation.

The range of building materials in construction can be divided into relatively safe ones and those that require tight control. According to engineers of the Research Institute of Hygiene, over 50% of all building materials in the domestic market can't be called safe for health. For example, formaldehyde and phenol regarded as the most unfavourable components in dirty premises are present in almost all polymeric materials, flake board, carpeting, and glues. One of the most widely used chlorinated plastic polymers is polyvinyl chloride (PVC) commonly referred to as vinyl. Meanwhile the US Green Building Council has acknowledged that the chlorine content of PVC building materials and the resultant dioxin emissions “puts PVC consistently among the worst materials for human health impacts.” Radon can also be dangerous to health and life. Cement is quite a friendly building material but only if it does not contain additives.

There is no doubt that using ‘green’ and high quality building materials could become one of the solutions to environmental problems. All materials should have hygienic conclusions from sanitary and epidemiological expertise and be certified. Nevertheless, in 2011 such an effective tool for preventing damage to the environment and human health as ecological inspection was liquidated.

Transition to the policy of sustainable development involves not only meeting housing needs but also building resource-saving houses, whereas current multi-storey buildings are characterized by low energy efficiency. However, with the threat of energy crisis looming and within the national environment protection and energy conservation policies, Ukrainian business will have to pay more attention to environmental and economic innovations in house building. According to the adopted energy strategy, which implies taking energy conservation measures, energy intensity calculated as units of energy per unit of GDP, is expected to decrease twice in Ukraine by 2030 - to 0.41 kg of standard fuel per USD.

It should be noted that production of building materials has ample energy saving opportunities. Presently, the construction sector consumes about 30% of all fuel used in Ukraine, 85% of standard fuel being consumed in functioning houses. Transition to dry cement production is going to reduce energy consumption by 0.5 million tons of standard fuel per year. For instance, 30-40% hollow in bricks can reduce gas consumption by 100 million m³ per year (25% of the total volume). The programme “Energy efficiency in construction” is aimed at improving thermal properties of houses and transition of the building industry to using energy-efficient constructions of external walls.

The experience of other countries shows that financing is an essential component of sustainable development. Numerous strategies for mobilizing capital toward sustainability projects can be used to provide the ways and means for local and national governments to finance the development and maintenance of sustainable systems. These may be governmental grant programs and preferential taxation policies, giving concessional loans for energy-saving businesses and granting tax exemption for environmental protection funds, implementing green pricing programs for utility companies investing in renewable energy technologies and many other financial tools.

Such environmental instruments don't function in Ukraine. The mechanisms through which subsidies influence the formation of environmental infrastructure and the national market of environmental services are not developed.

It goes without saying that implementation of the National Environmental Strategy must be based on the systemic expansion of the financial base of the environment protection, this base being balanced with the GDP and budget revenues. It is necessary to extend the environmental tax base and use economic instruments of stimulating ecological behaviour in manufacturing and construction.

Overall, truly sustainable house building should incorporate economic and environmental issues to provide a house that is affordable and environmentally sound. The key instruments should involve environmental compliance, i.e. conforming to environmental laws, regulations and standards, environmental monitoring, appropriate funding of environmental measures and using high quality construction and finishing materials.