

[Environmental Diary](#) for the 3rd-4th grade (in Estonian, Russian and English). By the end of the second year (in spring 2003) was published a methodical material for schools - Lessons plans on the topic of environment and sustainable development for [social studies teachers](#). Project's teaching-learning materials may found on the page: <http://www.emieco.ee/cms/eesti/trykised>

High Education

Tallinn Pedagogical University and Tartu University have acted as a promoter of new educational ideas and as a centre for teacher training in Estonia.

The second international conference of JTET (Journal of Teacher Education and Training) and UNESCO network “**Sustainable Development, Culture and Education**” would be organized by Tallinn Pedagogical University next year in Estonia (14. – 16. April 2004 in Tallinn).

Competence development

The need for training in ESD is extensive for officials, headmasters and teachers.

We have started to compile **The National Teachers' Pre-service and In-service Development Plan** from the point of ESD. This plan was presented to the Minister of Education in December 2003.

National Examination and Qualification Centre has already done the suggestions to universities to reorient teacher's pre-training and to develop the ESD and integrative teaching courses for students in main state universities.

Translation and distribution of Baltic 21E

An Agenda 21 for Education in the Baltic Sea Region – Baltic 21E program has been translated into Estonian. It is available to the Internet on the [Ministry of Education and Research web-page](#).

Estonian Ministry of Education have nominated national ESD co-ordinators (one representative in formal education, one representative in high education and one representative in non-formal education field of the three working groups) to be the responsible co-ordinator in each field of education in Estonia, as well as for activities in collaboration with other countries in the Baltic Sea Region.

THE TASKS OF ESTIMATING THE WEAR AND COST OF BUILDING IN RECONSTRUCTION

ANNA DOROKHINA, PhD student

A. Yu. STAROSTINA, PhD in Engineering, Scientific Adviser

O. L. ILIENKO, PhD in Philology, Language Adviser

O. M. Beketov National University of Urban Economy in Kharkiv

Reconstruction of buildings and structures plays an important role in the construction projects. To preserve the original appearance of historic buildings is a fundamental goal. The need for reconstruction projects is due to a number of reasons, such as the economic requirements for the modernization of buildings,

completion of suspended construction, including the undertaken conservation measures; moral and physical deterioration of technological equipment and the construction parts of the objects. Physical deterioration can occur in emergency conditions or accidents of building structures and their systems.

The main characteristic of the new quality of planning is a transition to the project management based on the partnership relations of the city government with various business entities located on their territory as well as involving the population in these processes. In the reconstruction projects, an important step is to determine the content of the project. Thus, in this stage it is necessary to determine the list of activities that are closely related to the object of reconstruction and are determined by its current state.

Assessing of depreciation is necessary in order to take into account the differences in the characteristics of the new facility and the real estate being valued. Besides, it is necessary to determine the required project design parameters and the adjusted data for comparable peers.

The characteristics of depreciation of buildings are used in assessing the market value of the real estate. The most effective is the method of comparative sales, which uses the knowledge base, formed in terms of the real estate market analysis, sales dynamics and prices.

To improve the efficiency of the process of assessing buildings and structures, they should be classified using the cluster analysis method. When estimating a real estate with the help of the cluster analysis, individual data on prices are grouped into clusters by some characteristics common for all of them. In each group, the average cost is calculated, which is then used to construct a mass valuation model. Ultimately, the pricing patterns inherent in the market are identified [1].

Using the abovementioned method, a Decision Support System (DSS) has been developed to manage projects for reconstruction of buildings. The collection and systematization of information on the real state of the housing stock is provided by automating the on-site inspection of buildings. The analytical module evaluates the physical and moral depreciation of the structures (using the model bank) and calculates the remaining period of the reliable operation of buildings. In addition, it offers a rational structure for technical preparation, repair and construction operations based on information accumulated in the knowledge base.

In DSS, the following options are realized: the choice of the building, the preliminary determination of the physical wear of the structures, determination of the physical wear of the building, determination of the remaining service life and the predicted wear, the cost of reconstruction.

Thus, the system allows to:

- collect and analyze information on the real state of multi-apartment buildings (urban or regional housing stock),
- compare residual resources for reliable operation of buildings,
- forecast changes in the state of the housing stock by years,

- formulate recommendations for reconstruction or optimization of the project's performance parameters, taking into account the state and multisided requirements of the real situation.

References

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MODERN TRANSPORT OF UKRAINE

ALYONA GREKOVA, student

DMYTRO A. PRUNENKO, Associate Professor, PhD in Economics,
Scientific Adviser

YEVHENIIA S. MOSHTAGH, Senior Teacher, Language Adviser
O. M. Beketov National University of Urban Economy in Kharkiv

The developed transport system and infrastructure are a guarantee of the high level of the country's development. Transport affects all kinds of social activities: economy, political life, social life, cultural life and defense. Today, the global trends necessitate constant perfection of management of transport infrastructure, in particular, investment attraction.

The growing scale of cargo and passenger transportation, increasing the distance of transportation, the construction of highways in remote and hard-to-reach areas with severe climates, the need to organize transport services for large cities and industrial facilities, speeding up, reliability of communications, improving comfort and reducing the cost of transportation – all these issues require development of new non-traditional vehicles. Many of them exist in the form of projects, some of which have already been implemented.

Ukraine belongs to a few countries of the world with a full cycle (macro technology) of aviation technology and occupies a leading position on the world market in the transport and regional passenger aircraft sector. According to the level of development of aircraft industry, Ukraine belongs to the most developed countries.

In Ukraine there is only one institution with a full cycle of aircraft manufacturing. This is *Antonov factory*. Only during the years of Ukraine's independence about a dozen passenger aircrafts were produced in the plant. Among them are Tu-334, An-148 and An-158. Moreover, in 2011, the plant began serial production of An-158 [1].

According to some experts, Motor Sich is one of the leading companies in the world engaged in the development, production, repair and maintenance of aeronautical gas turbine engines for aircraft and helicopters, as well as industrial gas turbine installations. The company's name comes from the word "Sich", that is Zaporizhian Sich [2].