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**PECULIARITIES OF ENVIRONMENTAL MANAGEMENT  
AND NATURE PROTECTION IN UKRAINE**

**Abstract:** The article deals with the features of environmental management and nature protection in Ukraine. The basic economic tools and principles of ecological environment security system of environmental control have been outlined. The importance of funding for environmental protection has been emphasized. The question of deteriorating condition of forests and illegal felling of forests as one of the biggest environmental problems in Transcarpathia has been analyzed.

There have been grounded typical environmental problems of related cross-border regions and their solutions in the context of the suggested Strategy of the development of Slovak-Ukrainian cross-border cooperation by 2020.

**Keywords:** management, environmental management, environment, principles and tools, problems of the region, environmental policy.

**JEL Classification:** Q20

**Introduction**

Sustainable economic and social development of the country and its regions is inseparably connected with the reasonable usage of natural resources and providing of environmental protection and ecological safety of human activity. In the process of implementation of these components of sustainable development there is being formed an economic mechanism of regulation of such activity in the system of national paradigm of economic management.

The economic encyclopedia terms environmental management as a reasonable, based on an integrated approach to the usage of natural resources, focused and systematic socio-economic social activity, targeted at the usage of objects and phenomena to meet social needs, direct and indirect human impact on the environment, due to which irreversible changes in nature took place (Ekon.encykl., 2009, p. 84).

Environment is a part of the composed economically estimated potential of natural resources, which in its turn requires maintenance of the bases of its reasonable usage and protection in the process of implementation of effective management. Components of environmental protection include a set of global and local measures (legal, political,

socio-economic, scientific and technical, administrative and social) aimed at preventing violation of ecological balance and elimination of such violations, and at providing the environment that is responsible to a man as a natural and social being and to the requirements of conservation of natural resources in the name of present and future generations (Ekon.encykl., 2001, p. 677).

Indirectly, environmental management and environmental protection in Ukraine have been the object of research in the works of M. Bashtova, A. Zalyevska-Shyshak, M. Hvesyk, but each of these researchers highlighted the issue in general, without taking into account regional differences.

### **Results**

The main principles of ecological security which make the bases of state environmental control in Ukraine are the following: minimizing the negative impact on the environment in the process of economic activity; the state provision of ecological environment necessary for human life and health; the usage of new technologies to address environmental issues; expanding of international cooperation within questions of compliance of environmental safety and environmental protection, especially on protected areas of neighboring countries.

In the process of providing positive results of reasonable environmental management one must mention an important fact of implementation of a complex of scientific, technical, socio-economic, educational, cultural, political and legal measures to meet human needs in combination with the attitude towards natural resources and the environment. Optimal ecological and economic strategy of economic development involves the use of effective economic methods of environmental management and environmental performance.

In Ukraine as a whole, the current economic mechanism of environmental management and environmental protection with the use of some economic instruments has been formed.

On the basis of summarizing the research and practice of reasonable environmental management and environmental protection, it is necessary to identify the following points:

- implementation of financial incentives into the practice of ecological and economic policy;
- providing a greater freedom of action to the users of natural resources;
- involvement of state and local authorities in the process of implementation of ecological and economic policies;
- focused, direct or indirect improvement of the environmental situation;

- greening awareness of population;
- regulation of natural resources and environmental practices;
- charges for resources and environmental pollution;
- penalties on non-compliance with environmental legislation (Khvesyk 2007, p. 88).

The main tools of state regulation of environmental activities are environmental regulations and standards, permits, fines system and environmental monitoring.

Within governmental regulation there are determined the following issues: mandatory environmental standards of the requirements and usage of natural resources; limits of the use of mineral resources, water, land, deforestation; standards of maximum permissible emissions and discharges of polluting substances and materials in the environment, the permissible level of harmful substances in food. The state regulates and ensures the environmental assessment in planning the development of industries, building settlements, in the process of technical and economic rationalizing of economic activity expansion, implementation of investment projects, etc.

Another important environmental control lever is funding of environmental protection measures. Accumulation of funds for these purposes is due to the payment of enterprises and organizations of the profit from the use of natural resources, pollution and so on. The fee is set according to the state specified limits of emissions and discharges of pollutants. It is calculated on the basis of the Order of Ministry of Environmental Protection and Nuclear Safety of Ukraine "On approval of instruction on calculation and payment of the fee for environmental pollution" (Instrukcija 1999).

According to the Law of Ukraine "On taxation system" the levy for pollution is one of the common taxes and fees. According to the Law of Ukraine of December 20, 2016 No. 1791-VIII "On Amendments to the Tax Code of Ukraine and laws of Ukraine to ensure the balance of revenue in 2017" amendments to Articles 243-248 of the Tax Code of Ukraine have been made. Mainly from 1 January 2017 tax rate for environmental air emissions of some pollutants from stationary sources of pollution, for discharges of some water pollutants have been raised in 12% comparing to the current 2016 tax rates (Podatkovi zminy 2017).

As for environmental monitoring, today there is no coordinated system of collection, processing and analysis of the environment in Ukraine. To ensure its operation and to continuously monitor the environment the following points are mandatory:

- to create and use a system of appropriate equipment to monitor the environment;
- to establish a system of collection and transferring of information;

- to formulate a system of analysis and forecasting of environmental condition to ensure nationwide solutions of environmental issues.

Modern environmental policy in Ukraine is characterized by a lack of coordination and implementation of the principles of achieving safety of the environment, improving ecological safety of the country and its regions.

The system of reasonable environmental management and providing of sustainable development at the national level is characterized by such problems:

- limited natural resources and their uncontrolled use;
- lack of effectiveness in implementation of mechanisms of environmentally sound use of the natural environment and resources;
- high anthropogenic load on the environment of the country;
- imperfection of the existing types of business entity and of fiscal management;
- lack of investment in the sphere of environmental protection;
- weakening of monitoring of compliance with environmental legislation;
- socio-economic reforms without considering environmental factors.

At the regional level the management and conservation of natural resources is aimed to regulate the use of natural resources in the region; to implement the economic mechanism of environmental management and monitoring of environmental pollution; to perform state environmental review and monitor the condition of the environment; to implement investment policies in the field; to promote environmental education of the population.

Researcher A. Zalyevska-Shishaki referred to these factors that contribute to the development and revitalization of action for regionalization of national environmental policy:

- inconsistency of the share of spending on conservation and contributions to gross domestic product in some regions;
- regional differences regarding the environmental loss per unit created in the region's GDP;
- the difference in the number of environmental problems that have accumulated in some regions in the previous period;
- regional differences in the ratio of mining and processing industries;
- an uneven distribution in Ukraine of certain types of natural resources and regional disparities regarding the use of natural resource potential (Zalyevska 2014, p. 51).

In the regional dimension the following problems of current importance have occurred: pollution by industrial waste production due to outdated fixed assets; low productivity of treatment facilities; unsatisfactory operation of the landfill; deterioration of hygiene and

sanitary epidemiological conditions of human life; failure to comply in a timely measures for the reduction of pollution to the required level in the regions; due to the intensive agricultural use of lands and false economic activities there take place manifestations of abuse hydrological regime, over-compaction, the development of water and wind erosion, soil contamination by toxic substances, non-ensuring of timely disposal of solid waste and emissions from industrial enterprises, energy and transport.

For border regions of the country the question of cooperation with regions of neighbouring countries on issues of solving common problems of environmental protection is urgent. Among the environmental problems of cross-border regions, scientists emphasized the following:

- compensation for ecological and economic damage from the activities of any industry that takes place on the cross-border area;
- joint disposal of any waste from industries that are not on the cross-border areas, but can cause damage on them;
- formation of cross-border environmental infrastructure by joining efforts (Bashtova 2015, p. 13).

According to the 2016-2020 State Programme of cross-border cooperation (Derzhprohrama 2016) the main measures to improve the standards and quality of life, well-being and security of life and environmental protection are:

- creation of conditions and promotion of convergence in living standards of border regions of Ukraine to the European average and the free movement of people and capital between the border regions;
- ensuring the development of cooperation in education, science and health linkages between research (scientific and technical) institutions, healthcare facilities;
- promotion, protection and maintenance of cultural and historical heritage of border regions of Ukraine;
- ensuring border management and security of the state border;
- establishment of a joint management system in the field of environmental protection, natural resource management and environmental safety;
- the creation of common warning system for neighbours concerning natural disasters and protection for emergency situations;
- providing development cooperation to ensure the safety of life;
- sustainable use, protection and restoration of water resources;
- the creation and functioning of trans-border protected areas and facilities with the need to preserve the integrity and continuity of ecosystems, natural corridors, formation of ecological network.

Against the background of other regions of Ukraine Transcarpathia region, which borders four European countries, is considered a region

with relatively favourable environmental situation. Carpathian Mountains is a unique natural ecological system, which is a nationwide value. Ecosystem of Carpathian Biospheric Reserve is referred to the most valuable ecosystems on Earth and is included into the international network of UNESCO biosphere reserves.

However, the sphere of ensuring environmental activities remains in adverse conditions: the territory of the region is characterized by high total manifestation of dangerous geological processes such as landslides, mudflows, river side and surface karst erosion, increased seismicity. The territory of Transcarpathia belongs to the most flood dangerous regions of Europe. There are a number of sites of high ecological risk; they are the main ways of transporting oil, gas and products.

There are a number of other environmentally dangerous manifestations:

- violations of environmental situation as a result of gold mining of Ltd. "Zakarpatpolimetal", where there are signs of pollution, mainly soil, surface and groundwater pollution;

- ecologically threatening is terminated DC "Solotvyno salt mine" (subsidence of soil surface, filling the mine with water). Similar manifestations appear as a result of activity of the coal mine "Inytsa" in Irshava district;

- there is a problem of water pollution as a result of inefficient operation of plants, public utilities and industry;

- in the region there is no system and no infrastructure for collecting and sorting of solid waste.

One of the biggest environmental problems is the deterioration of the conditions of forests. The total forest area of Ukraine is 10.4 mln hectares, out of which 9.6 mln hectares are covered with forest vegetation. Environmentalists say that in recent years forest cover in Ukraine was decreased at least by 11%, while official sources report that this number is 15.9%.

The problem of illegal cutting of forests has not been solved yet. Only in 2015 the volume of illegal logging in Ukraine amounted to 24,100 cubic meters. And in reality this figure is ten times higher. According to the State Customs Service of Ukraine, every year wood worth about \$272 million is being trafficked (Doskich 2016).

Losses from illegal logging in Ukraine for 5 years grew by 77%, causing losses of 300 million. Only in 2016 the state had losses of forest in hryvnyas 157 million, and the fire caused damage to forestry for another hryvnyas 8.6 million during the last year (Terrible figures 2017).

According to the data of the Prosecutor's Office in Transcarpathian region, in 2016 a total number of criminal offenses on illegal felling of forest according to 246 Article of the Criminal Code of Ukraine was 139.

Most illegal logging took place in Tyachevo and Rakhiv districts - 29 and/or 20 cases. In Mukachevo district there were 16 cases, in Velykyy Bereznyy and Mizhgyrya districts 10; in other areas the number of cases is less than 10.

Today at the national level there is a need to address issues of reforming the forest sector, its financing and forestry protection work.

Since 2003 Swiss-Ukrainian project FORZA is active in the region; it aims at developing multifunctional forest management approach to natural forestry and reduce pressure on the environment during harvesting, maintenance of forest functions, increasing the production of forest goods and services. It presupposes as well the reconstruction of affected elements and biotic forest stands, the formation of mixed multi-level forests of Khust and Rakhiv State Forestry. However, the effects of this project are not very comforting.

In 2013, the UN adopted a programme of reproduction of forest landscapes in the world, it has committed to spread 350 million hectares of forests by 2030. US pledged to create 65 million hectares, China - 70 million hectares.

Ukraine has not adopted this programme. Ministry of Economy and Finance did not support the implementation of targeted programmes. There is no plan and no funding. 2011 was the last year, when funding for forestry was equal to \$100 million. Now that funding overall, together with reserves is equal to 4 million. The main ways of rational use and restoration of forests include: a complete and economical use of wood; implementation of scientifically-based calculation and distribution of forest; forest protection against pests, disease, forest fires and unauthorized felling; compliance with the rules and regulations of logging, maintenance of forest cover at current levels; restoration of indigenous forest types in the process of forest exploitation (Destruction of forests in 2017).

These problems require in-depth analysis and immediate solution, as outlined in the 2016-2020 State Programme of cross-border cooperation (Derzhprohrama 2016). In particular, of priority importance is a cross-border cooperation of Ukraine with neighbouring states, mainly the Slovak Republic, Hungary and Romania. Regarding Transcarpathia the following has been defined, with Slovakia - minimizing the negative effects of industrial activity on the salt mines in the village of Solotvyno, Tyachiv district, Transcarpathian region; with Hungary - maintenance of flood protection and creation of an integrated flood forecasting system; implementation of tourist routes, including cycling and walking; improvement of water quality; sustainable use of natural resources, including water management and forestry; environmental protection, including the assessment of the risks and minimizing the negative effects

of industrial activity on the salt mines in the village of Solotvyno, Tyachiv district, Transcarpathian region; providing business development; exchange of experience with the Hungary on energy efficiency and energy conservation; cooperation among educational establishments; completion of the project "Efficient and secure borders between Hungary and Ukraine"; with Romania - environmental protection, including the assessment of the risks and minimizing the negative effects of industrial activity on the salt mines in the village of Solotvyno, Tyachiv district, Transcarpathian region on the environment, solving common problems to establish a joint waste management and water management resources; economic use of the estuary of the Danube river and construction of transport infrastructure, including bridges and ferries.

In the sphere of environmental management and environmental protection in Ukraine it is important to use foreign experience for the preservation of the environment for the sustainable development of border areas. In particular, it concerns joint cross-border cooperation in the operation and development of tourism and recreation.

### **Conclusion**

As it is stated in the strategy of the development of the Slovak-Ukrainian cross-border cooperation up to 2020 (Stratehiya 2014, p. 29), on the bordering Ukrainian and Slovak territories there is no proper management and business cooperation in tourism, there are significant shortcomings in the system of the exchange of information and promotion of tourism. This leads to competition rather than cooperation. To improve cooperation in tourism and recreation there must be taken a number of measures:

- to create a cross-border system for the joint promotion of the border area for the creation of common integrated complex tourism products, including cross-border tourism cluster, which will provide coverage of Eastern Slovakia and Transcarpathia. Equally important is the mutual communication among countries and attraction of partners to implement common system of tourism in the border areas;

- the goal is to ensure diversification and competitiveness of tourist and recreation services, development of tourism infrastructure, support for recreational and tourism potential, deepening ties among therapeutic and recreational complexes and related industries;

- creation of macro-regional tourism product competitive on Ukrainian and European tourist markets;

- expedient development and implementation of Programme of creating joint tourism products in the region "Transcarpathia - Eastern Slovakia" up to 2020 with the support of local councils;



- creation of cross-border tourism cluster "Transcarpathian region - Eastern Slovakia" (adopted name) as a part of travel agencies, hotels, institutions and business support, transport organizations, advertising and media companies;

- creation of a permanent (non-legal entity) Academy of cross-border tourism "Ukraine - Slovakia" on the basis of the Slovak Cultural Centre in Uzhhorod and the Ukrainian Cultural Centre in Presov; the Academy aims to prepare guides-interpreters, tour guides, printing of local history and culture tourist information booklets, printed and electronic publications, coordination of the development of joint tourism;

- improvement of the environment in the border area, the joint certification and preparation of documents with the purpose of the development of environmental protection, organization of professional events of disaster prevention and environmental protection, promotion of public awareness in environmental matters in the border areas;

- implementation of joint projects in environmental infrastructure, cooperation in protecting and improving the environment and solving environmental problems in Ukrainian-Slovak borderline;

- development of cooperation in the field of environmental education and the formation of environmental awareness of the population, including the improvement of the legal framework;

- support cooperation of environmental organizations on the both sides of the border in the context of environmental management and environmental protection.

The implementation of the above mentioned principles of regulating the components of economic mechanism of environment management and nature protection is designed to significantly change the approach towards harmonizing relations in the system "nature-society" in order to ensure sustainable socio-economic development of the country and its regions during the balanced use of natural resource potential.

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