

ECOLOGICAL DIRECTION OF INVESTMENTS IN UKRAINIAN ECONOMY

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Key words: <i>Environmental investments</i> <i>Investment activity</i> <i>Environmental policy</i>	ABSTRACT
Article history: Received 13.02.2015 Received in revised form 12.03.2015 Accepted 25.04.2015	Ecologization of investment activities' entities, implementation of environmentally oriented investments in the industrial enterprises is urgent task to achieve the sustainable economic development. But businesses pay attention to ecological direction of investments only if government motivates them to protect environmental by creating an effective motivation mechanism for implementation of ecological investments. The goal of our paper is to describe the role of government in providing of financial support for the ecological investments' implementation and creation of environmental policy's mechanism. The authors consider the following key issues in the paper: the features of environmental investments and environmental policy; the role of environmental investments in Ukrainian economy; the economic instruments of environmental investments activation.
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ЕКОЛОГІЧНЕ СПРЯМУВАННЯ ІНВЕСТИЦІЙ В ЕКОНОМІКУ УКРАЇНИ

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Екологізація інвестиційної діяльності суб'єктів господарювання, реалізація екологічно орієнтованих інвестицій на промислових підприємствах є актуальним завданням для досягнення сталого економічного розвитку. Але бізнес звертає увагу на екологічну спрямованість інвестицій, як правило, у тому випадку, якщо уряд мотивує його захищати навколишнє середовище, створюючи ефективний механізм мотивації для реалізації екологічних інвестицій. У статті описано роль держави у забезпеченні фінансової підтримки для реалізації екологічних інвестицій та у створенні механізму екологічної політики, а також визначено особливості екологічних інвестицій й екологічної політики, роль екологічних інвестицій в українській економіці, економічні інструменти активізації екологічних інвестицій.

Ключові слова: екологічні інвестиції, інвестиційна діяльність, екологічна політика.

Introduction. Investment is an integral part of industrial enterprises. Under conditions of modern society's existence the implementation of investment activity

must take into account not only economic consequences of investing, but also environmental. Economic growth and investments greatly depend on the degree of the rational usage of natural resources and the environment.

The leading role in the organization and management of “green” investment process should belong to the state. The governmental motivation and financial support are necessary to improve the quality of the environment and achieve sustainable development.

Purpose of the article. The goal of the paper is to describe the role of government in providing of financial support for the ecological investments' implementation and creation of environmental policy's mechanism. To achieve the goal tasks were formulated as follows:

- to describe the main features of environmental investments and environmental policy in Ukraine;
- to analyse environmental investments and their share in GDP;
- to consider the level of funding for environmental investments from public funds;
- to consider the economic instruments of environmental investments activation;
- to define the main problems of environmental policy in Ukraine and propose some ways to enhance the effectiveness of economic instruments in environmental policy.

The main methods that were used during writing the article were analysis and descriptive method.

The main results. Ecologization of investment activity is a comprehensive and systematic process. Investment activity should be converted according to the environmental constraints and should be aimed at reducing of ekodestructive influence of production, circulation and consumption. The main priority of “green” investment process is the widespread implementation of the latest achievements of scientific and technical progress.

Environmental investments have certain features compared to other types of investments in economic activity [1]:

The main purpose of environmental investments is not a profit. Although it is arguable that in the long term period environmentally oriented investment projects are very often profitable and create conditions for the other investment projects to achieve a high level of profitability.

The environmental investment is common challenges to many entities and persons and this leads to the fact that the implementation of environmental investment must endeavour of many participants (individual entities, local authorities and general government).

The environmental investments are directly related to the natural processes so that human labour cannot fully reproduce everything that was created by nature. This means that environmental investments should be aimed not only at restoring the natural environment, but also aimed to prevent negative human impact on nature.

Environmental investments are formed from internal and external financial sources. Internal sources include own funds of enterprises and organizations, and external — borrowed funds (loans, money of foreign investors, funds of local and state budgets, international organizations, the State Fund for Environmental

Protection, etc.). In our country the financial mechanisms are implemented for environmental management and environmental performance. According to the hierarchy, they are divided on the mechanisms of national, regional and local (district) levels. Financial sources for the strategy of environmental policy are:

- State budget of Ukraine — General Fund (environmental programs);
- National Fund for Environmental Protection;
- Agreement between Ukraine and the EU about funding of the program

"Support of the implementation of National Environmental Strategy in Ukraine."

The basis of ecologization of investment policy is the continuous process of environmental quality's improvement. The process of continuous improvement of environmental quality can be ensured only through the State environmental policy. Environmental policy can be defined as the organizational, regulatory and control activities in society and the state, aimed at the protection, sustainable usage and restoration of natural resources, environmental sanitation, effective combination of nature usage and the environmental safety's standards. The goal of environmental policy is the stabilization and improvement of the environment through integration of environmental policy and socio-economic development of Ukraine to ensure ecologically safety for life and health, implementation of environmentally balanced system of nature usage and conservation of natural ecosystems [2].

Ecologization of investment activity has clearly defined strategic character. Strategic documents, which are the legal basis for the strategy of environmental policy in Ukraine [2]:

Resolution of the Verkhovna Rada of Ukraine that approved the Law of Ukraine "On the General Principles (strategy) of the State Environmental Policy in Ukraine to 2020" (December 21, 2010);

Instruction of Cabinet of Ministers in Ukraine of 25 May 2011 № 577-r "On Approving the National Action Plan on Environment for 2011—2015".

According to the basic document of environmental policy's implementation in Ukraine to 2020 there will take place increase of energy efficiency 50 % in comparison to 2010 by implementation of energy and resource conservation in the areas of energy-consuming and energy. The amount of renewable and alternative energy sources will increase 55 % compared to 2010. Increase the share of land usage for organic agriculture — to 7 % (by 2010).

The main components of environmental policy in Ukraine are:

- a system of government management in the sphere of protection, rational usage and reproduction of natural resources, which involves the public;
- state and public supervision of compliance with existing national environmental legislation and international obligations of the country;
- information policy in the environmental field;
- environmental assessment of the hazardous projects;
- environmental education and outreach activities.

The main reasons that do not allow move to a comprehensive environmental policy in Ukraine are:

- environmental policy is formed by authorities in Ukraine almost only because of influence of the international community and the national community;

- no environmental component in the political programs of the ruling party and parliamentary opposition;

- the necessary of significant resources to implement the environmental measures.

Expenses in the budget in 2011 that were directed on environmental policy's implementation almost equal to three billion UAH, including:

Measures for the creation and preservation of natural areas, flora and fauna — 81,565 million UAH.

Overall leadership and management in the sphere of environment and natural resources — 70,513 million UAH.

Leadership and management in the sphere of environmental control — 86,383 million UAH.

Comprehensive implementation of the national environmental policy, the implementation of environmental protection measures — 257,115 million UAH.

Table 1. Capital Investments and Operating Costs in the Sphere of Environmental Management, created by authors based on [4]

Indicators	2000	2005	2007	2008	2009	2010	2011	2012
GDP, million UAH	170070	441452	720731	948056	913345	1120585	1349178	1459096
Capital investments and operating costs, million UAH	3224,3	7089,2	9691	12176	11073,5	13128	18490,7	20514,0
In % to GDP	1,9	1,6	1,3	1,3	1,2	1,2	1,4	1,4
-Capital investments, million UAH	605,9	1775,6	3080,7	3731,4	3040,7	2761,5	6451,0	6589,3
including: repair of environmental protection's facilities	233,3	32,3	517	809,4	554,2	498	843,6	635,0
- Operating costs, million UAH	2618,4	5313,6	6610,3	8444,6	8032,8	10366,6	12039,7	13924,7

Table 1 shows that the capital investment and operating costs in the sphere of environmental management in 2012 were less than 2 % of the total gross domestic product (GDP) and they were lower than in 2000 (1,4<1,9). It is estimated by experts that the amount of ecological investments must be at least 3 % of GDP to achieve significant economic and environmental results. So, implementation of reasonable environmental policy at any level cannot be effective with that level of ecological investments. The structure of ecological costs showed that in 2012 only 32 % were capital investments, but it is more than in 2000 (19 %). This trend is positive; it indicates a more reasonable approach to the development of environmental protection's system.

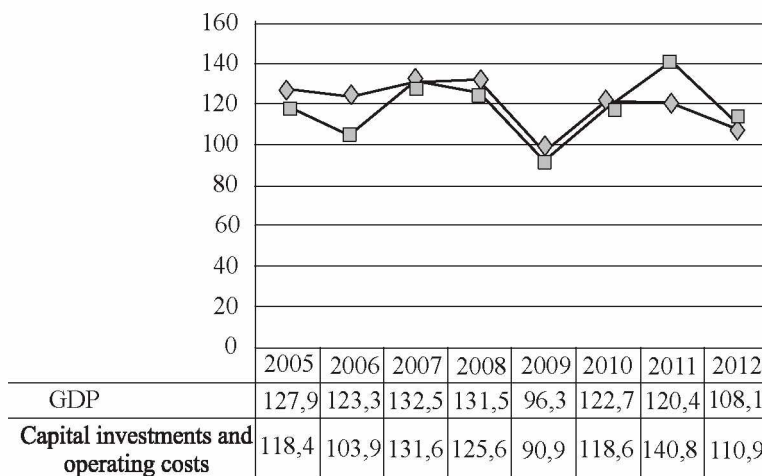


Fig. 1. Rate of Growth GDP and Capital Investments in the Sphere of Environmental Management, % to previous year, created by authors based on [4]

According to the statistics (Fig. 1) the gross domestic product and capital investments have similar trends of growth with compare to the previous year. However, the positive moment can be called that the growth rate of capital ecological investment is higher than GDP growth in 2011 at the first time during analysing study period.

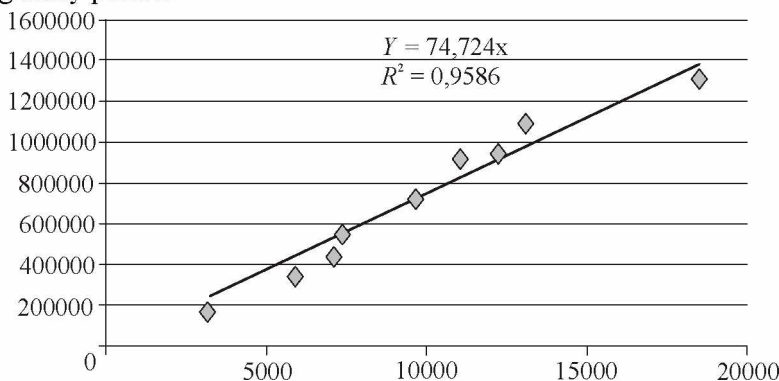


Fig. 2. Dependence between GDP and Capital Investments in the Sphere of Environmental Management, created by authors based on [4]

In addition, there is a very strong link between GDP and capital ecological investment. It's evidenced by the ratio of determination in Fig. 2. Correlation-regression equation shows that one hryvnia (1 UAH) of capital environmental investment gives an average of 74,7 UAH GDP.

Table 2. The Share of Costs in the Sphere of Environmental Management Financed from the State Budget, %, created by authors based on [4]

Indicators	1996	2000	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Capital investments	7,5	7,9	12,9	8,5	10,3	9,7	19	20,5	8,7	4,4	1,4	1,3
Operating costs	1,3	1,3	2,1	2,1	1,8	2,2	2,4	4,1	2,7	2,6	2,5	2,6

The share of the state budget's finance in the total cost in the sphere of environmental management is insignificant. In 2013 it was 1,3 % (7,9 in 2000) in capital investments and 2,6 % (1,3 % in 2000) in operating costs. So we can conclude that now the government is unable to finance ecological investments and doesn't have the interest in that financing although the process of developing environmental policy is continuing.

Table 3. Innovation Activity of Industrial Enterprises in Ukraine, created by authors based on [4]

Year	Implemented new technical processes	Including low-waste, resource saving processes	In % to total number of implemented processes	Commercial production of innovative products	Including new types of technics	In % to total number of commercial production of innovative products
2000	1403	430	30,6	15323	631	4,1
2001	1421	469	33,0	19484	610	3,1
2002	1142	430	37,7	22847	520	2,3
2003	1482	606	40,9	7416	710	9,6
2004	1727	645	37,3	3978	769	19,3
2005	1808	690	38,2	3152	657	20,8
2006	1145	424	37,0	2408	786	32,6
2007	1419	634	44,7	2526	881	34,9
2008	1647	680	41,3	2446	758	31,0
2009	1893	753	39,8	2685	641	23,9
2010	2043	479	23,4	2408	663	27,5
2011	2510	517	20,6	3238	897	27,7
2012	2188	554	25,3	3403	942	27,7
2013	1576	502	31,9	3138	809	25,8

Innovation will play a key role in the environmental protection. Existing technologies and consumer behaviour will produce positive results only up to a point when the depletion of natural capital begins to affect the whole process of growth. Therefore, it is important to implement innovative low-waste and resource-saving technologies. Although the implementation of new manufacturing processes was gradually increasing in 2011, 180 % of the level in 2000, but the proportion of these low-waste and resource-saving technologies was reduced in 2011; 20,6 against 30,6 in 2000. In 2013 amount of the implemented new manufacturing processes decreased and it was the main reason of increasing the proportion of the low-waste and resource-saving technologies till 31,9 %. The proportion of new technics in the total commercial production of innovative products in analysing period increased and it was 25,8 % in 2013 compared to 4,1 % in 2000.

Economic instruments are instruments that affect the costs and profits from doing alternative activities based on economic principles, help to change people's behaviour in a positive side for environment. The usage of economic instruments helps to build some economic activities according to the principles of well-balanced environmental and economic development. Ecological and economic instruments define the financial strategy, and it's a reliable base of sustainable development. Economic instruments:

- Support activities aimed at improving the quality of the environment;
- Encourage waste reduction, recycling and rational utilization of waste;
- Contribute to the production of environmentally friendly products and implementation of appropriate technologies;
- Promote the balanced development of the territory;
- Support protected areas and help restore affected areas.

Paid exploitation of natural resources determines the nature of economic stimulus's system of environmental protection, measures to reduce pollution of the environment. This system should promote ecologically balanced behaviour of producers and consumers. The most effective means to achieve the goal of environmental policy is economic instruments of motivation at the national level. These instruments are: payments for pollution of air, water, soil, waste disposal, collection and recycling of waste, appropriate fines, fees, exemption from certain taxes, subsidizing prices of ecological goods, accelerated depreciation, etc. The application of these methods to encourage environmental conservation activities has increased its efficiency in many countries. Taxes are used especially widely. The environmental taxes have two objectives:

- To make the cost of production on a reasonable cost and to cover damage to the environment;
- Promote a policy whereby the polluters compensate for losses rather than the general public (implementation of the principle of "polluter pays").

In general, tax incentives for manufacturers should be established taking into account the level of environmental protection, environmental activity. The application of effective measures should be appropriate to reduce taxable income, for example, reducing it to an amount that is reinvested in environmental protection by the company. In some cases, taxes are generally not required. For example, the environmental funds are tax-exempt. This policy should be performed and for the profits derived from utilization of secondary resources and waste, for contributions of organizations, as well as grants for nature conservation.

Conclusions

The problems of environmental policy in Ukraine are:

- Lack of environmental education "kindergarten-school-university-advanced training";
- Lack of separation between environmental management and control of the state of the environment;
- Insufficient informing experts and the public on environmental issues;
- Lack of systematic monitoring of the environment on the basis of modern technologies;

- The problem of assessing current radiological situation that has changed considerably over a quarter century and restore economic activity in areas that have been assigned by law to those that affected by the Chernobyl accident;

- The problem of reconstruction of housing and utilities infrastructure, especially in big cities;

- Environmental issues related to hazardous waste, destroyed storage, decommissioning mines and quarries, and other hereditary problems of Soviet industrialization;

- The problems of degraded agricultural land as a result of debilitating and environmentally careless their usage;

- Destruction of the natural environment and unique recreation areas, Crimea and the Carpathians, as a result of non-system and often uncontrolled economic activity;

- Adaptation of Ukraine's economy to global climate change;

- Harmonization of national accounting and control reporting various forms of economic ownership as for environmental and economic performance to the standards of the EU and the UN.

In order to enhance the effectiveness of economic instruments in environmental policy of Ukraine should:

- Increase rates of fees for special usage of natural resources, environmental pollution, and reimbursement of damages caused by violation of environmental legislation;

- Improve the regulatory framework for the consumption of natural wealth based on objective assessments of nature resources' productivity and differentiating relevant payments for qualitative and spatial characteristics and mechanisms of regulation of rental income in nature;

- Improve the accounting basis and manner of tax's payment on environmentally harmful products;

- Reform the methods of compensation for damages and calculating fines in accordance with their economic substance as a preventive tool on irrational nature;

- Broaden the taxable base of pollutants and environmentally dangerous products;

- Activate the mechanisms of encourage businesses to implement environmental measures;

- Implement the target returned financing of polluters-producers to maintain specific environmental programs;

- Activate the formation of incentives to attract domestic and foreign investment in environmental protection.

“Green” growth has the potential to solve economic and environmental problems and to discover new sources of growth through the following ways:

- Productivity. The incentives for improving the usage of resources and natural assets are increasing productivity, reducing waste and energy consumption, maximize efficient usage of resources.

- Innovations. Opportunities for innovation, which are contributed by policy and framework, enable using a new approach to solving environmental problems.

- New markets. New markets that are created by stimulating demand for "green" technologies, products and services, create the potential for new employment opportunities.

- Confidence. Governments can increase investor confidence by ensuring of predictability and stability to solve major environmental challenges.

- Stability. It can be ensured by more balanced macroeconomic conditions, reduced volatility of prices for resources and supporting the consolidation of public finances, reviewing the composition and effectiveness of public spending etc.

“Green” growth may also reduce the risk of adverse effects of such factors as:

- Lack of resources, which leads to growing prices of investments. In this case, the loss of natural capital may exceed the benefits of economic activity, undermining the stability of the opportunity for further growth.

- Imbalance in natural systems also increases the risk of a deep, devastating and potentially irreversible destruction as it’s happened with some fish stocks, and how it could happen with the loss of biodiversity in climate change.

- Climate change, global nitrogen cycle and biodiversity loss.

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ЭКОЛОГИЧЕСКОЕ НАПРАВЛЕНИЕ ИНВЕСТИЦИЙ В ЭКОНОМИКУ УКРАИНЫ

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Екологізація інвестиційної діяльності суб'єктів господарювання, реалізація екологічно орієнтованих інвестицій на промислових підприємствах — важлива задача для досягнення устійливого економічного розвитку. Але бізнес звертає увагу на екологічну направленість інвестицій, як правило, в тому випадку, якщо уряд мотивує його захищати навколишнє середовище, створюючи ефективний механізм мотивації для реалізації екологічних інвестицій. В статті описано роль держави в забезпеченні фінансової підтримки для реалізації екологічних інвестицій і в створенні механізму екологічної політики, опреде-

лены особенности экологических инвестиций и экологической политики, роль экологических инвестиций в украинской экономике, экономические инструменты активизации экологических инвестиций.

Ключевые слова: *экологические инвестиции, инвестиционная деятельность, экологическая политика.*