

THE ACTIVITIES OF AMALGAMATED TERRITORIAL COMMUNITIES IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT OF THE ENVIRONMENT: THE EXPERIENCE OF UKRAINE AND THE EU STATES

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Summary

The relevance of the study implies the need to explain the main determinants of environmental policy, allowing countries to converge on a common working basis. The purpose of the research is to explore ways in which the environmental aspects of EU regions and territories can be shaped to apply to domestic environmental policy. A total of 997 representatives from the Ukrainian UTCs, who are involved in local environmental policy, participated in the survey. Results of the research. A hierarchy of regional environmental policy objectives has been identified. Three key principles of eco-policy development have been distinguished. The means of the innovative approach strategy implementation have been outlined (formation of the regional market of environmental services; organization of interaction between environmental agencies and market structures; establishment of environmental funds which finance environmental activities; implementation of the "collateral return" system; formation of a system of benefits and loans to enterprises that successfully implement the environmental policy). The means of the prognostic approach implementation strategy to the development of the region's environmental policy have been determined (the use of an orderly and successful long-term strategy of economic development of the region; obligatory consideration in the mechanisms strategy aimed at improvement of environmental management system of the region, interbranch impact of the projects implemented on the region's ecological situation; taking into consideration the economic and geographical peculiarities of the region, the necessary infrastructure, issues of the territorial location of the large enterprises in the region and their impact on the environment). The means of the traditional approach strategy implementation have been outlined (activity programs focused on solution of specific problems, rather than on the implementation of measures for environmental restoration and enhancement; nature conservation problems have interbranch, interdepartmental character due to unity of the region's ecosystem; tracking complexity of changing conditions (water basins, woodlands, air-mass transport), regional boundaries generally do not coincide with natural ecosystems boundaries). The practical significance of the study lies in providing recommendations for

the implementation of certain aspects of Ukrainian UTC's environmental policy.

Key words: *environmental policy, UTC, implementation experience, civic engagement, territorial development.*

1. Introduction

The implementation and dissemination of environmental policy is a cornerstone issue in the management of European ecosystems. Policy dissemination meets the needs of the principle of coordination, according to which EU countries have to approach the objectives. On this ground, it is necessary to explain the basic determinants of environmental policy so that countries can converge on the common working basis.

European environmental policy is formed through the combination of various instruments and mechanisms established by separate/individual states to address their environmental challenges. European governments have proven willing to make long-term investments in finding solutions to infrastructure eco-problems as a result of economic literacy.

At the regional level, environmental policy is part of the region's socio-economic policy. It is directly attributed to the economic processes. The main factors that environmental policy aims to address arise in the functioning of the economic system.

In the context of decentralisation changes in Ukraine, it is important to describe the European experience of all branches of political management, including economic aspects.

Therefore, based on the experience of the EU, suggestions on certain aspects of the implementation of ecological policy in Ukrainian UTCs can be put forward.

2. Literature Review

At the time of its establishment in 1957, the European Union (EU) had no environmental policy, no environmental management, and no environmental legislation. Today, the EU has one of the most ambitious environmental policies in the world (Jordan et al., 2021). It has been extremely difficult to coordinate often divergent foreign policy objectives. Considerable space has been set aside to improve the EU's ability to promote and protect the environment in the rapidly changing world order (Biedenkopf, & Groen, 2021). Boyko (2021) concludes that Ukrainian legislation has important compatibility with European national standards, including public environmental policy. According to Mulder et al. (2015), there is a clear lack of an appropriate legislative basis in the national and supranational eco-industry (EU) for UTCs. Since most indicators demonstrate intensive use of the subsoil resources over the next few decades, geological and legislative constraints will become increasingly critical to optimizing their use. Achieving the EU's environmental policy objectives using the Environmental Performance Index defines that economic variables play a key role in the dissemination of environmental policy (Arbolino, et al., 2018).

Vanassche et al. (2009) analyze the relationship between environmental policy and society's environmental expenses, environmental index and international competitiveness. It has been proved that environmental policy is an important cost factor of environmental investments, which has a positive impact on both environmental and economic indicators. Moreover, only capital outlays for the pollution prevention mechanisms (technology integration processes) lead to improvement in environmental and economic performance. The capital outlays for pollution control (end-of-pipe technologies) do not affect the overall environmental performance, the competitive capacity or strategic differentiators of companies. Finally, the community's environmental strategy also affects environmental capital outlays.

The EU Water Framework Directive (WFD), adopted in 2000, defined ambitious environmental objectives to be achieved by the end of 2015 through the implementation of Integrated Water Resources Management (IWRM) principles (De Stefano et al., 2020).

Anthony, B. et al. (2019) are studying the environmental thinking and raising the environmental awareness about fundamental principles and their application in the context of European policy. They also discuss local and regional environmental issues from the perspective of policy development, promulgated by the EU.

Energy innovations are essential for addressing climate change problems and environmental transitions in developed and developing countries. A study by Kijek et al. (2021) is based on data covering a large-scale category of

patents addressing mitigation technologies in the energy sector, including inventions related to mitigation and emission reduction potential (e.g. using biomass) provided by the Organization for Economic Co-operation and Development (OECD). The findings have an important impact on the environmental situation of the community for they indicate the need for more developed policy. This policy should be based on the framework of smart development and specialization, aimed at increasing energy innovation in backward countries, making fuller use of their potential in less technologically advanced sectors, such as agriculture.

Dinić, et al. (2021) assert that environmental protection has become one of the most significant national interests of all countries in the world. Environmental protection in the areas where it is conducted is an important part of the European Union's activities, where it is regulated normatively and institutionally. The European Union's environmental policy faces numerous challenges, including preventive measures to protect and correct environmental awareness. G'aybullayev (2017) believes that the stages of the formation of international environmental policy, direction, forms and principles of international cooperation in the environmental sphere, international treaties in the field of environmental protection, concern the spheres of globalization of environmental policy.

According to the definition of Prisac (2017), the international community and national governments have been engaged in an active process of discussing eco-policy over recent decades, developing more concepts, objectives, and strategies for sustainable development. The main challenge facing Eastern European economy today is how to put economic development and sustainability on the track to dynamic equilibrium, enabling its social system to provide functional welfare. The important conclusion of this section is in the idea that economic policy of Eastern European countries should take into account all the achievements of legal, environmental and strategic policy. It should also seek to continue the development of the process towards transdisciplinary approach in all decisions and actions through the transition to new levels of sustainable development.

As defined by Cousins, & Schmitz (2020), Colombian communities, such as those involved in the protection of their territory, are concerned not only about the loss of their lands, but also about losing their identity, history and frame of life. The strategies of self-protection include the establishment of public organizations and support networks, the establishment of neutral zones and reliance on cultural institutions such as indigenous guards, and welcoming of international support.

Tourism nowadays is one of the most dynamic industries. It is important to understand its good and bad practices. This will provide politicians with as much information as possible to adapt specific policies to promote

tourism and economic growth (Kerner et al., 2021). Škrinjarić (2021) provides a critical review of relevant research on the evaluation of sustainable tourism in European countries and the extensive empirical research on achieving sustainable tourism. The main reason for sustainable tourism development is the stable environmental policy implemented by united territorial communities.

Rudomakha (2019) is studying directions for implementing a geoinformation analysis of land use in the united territorial communities, which provides a visualization of geospatial information and a monitoring framework for improving land use of united territorial communities. For maintenance of territorial development the author offers to implement methodological guidelines to enhance the effectiveness of the land use of united territorial communities in the context of systemic factors (spatial, city-planning, investment and environmental) based on the formed information-analytical maintenance of monitoring and application of modern geoinformation instrumentarium.

According to Korkun, et al. (2020), every united territorial community (UTC) now has tourism potential, but not everyone can identify, evaluate and exploit it. This article is concerned with outlining the current issues and identifying the prospects for green tourism development of united territorial communities. It has been established that green tourism can be an additional factor in filling the revenue part of the UTC budget and in strengthening its capacity. Green tourism can act as a catalyst for economic restructuring, ensure demographic stability and solve socio-economic and environmental issues arising during the formation and development of UTCs in Ukraine. Thus, based on a number of scientific studies on the actualized topic, arises a need to highlight key aspects of implementing qualitative European environmental reform in newly established local communities of Ukraine.

3. Aims

The aim of the research is as follows: investigation of ways of forming the environmental aspects of EU regional and territorial development, appropriate for the domestic policy of environmental conservation.

Research objectives:

- To conduct a sociological research among UTCs representatives whose competence includes environmental policy issues;
- To provide suggestions on implementation of certain aspects of ecological policy of Ukrainian UTCs.

4. The research methods and methodology

This work includes general scientific and special research methods, especially analysis and synthesis,

systematization and generalization, as well as dialectic approach. The dialectic method is used to determine the specific features of environmental policy organization in the EU Member States.

A sociological survey was conducted using the electronic resource "MySurveyLab" in order to understand the importance of introducing elements of European environmental policy into the activities of Ukrainian united territorial communities. The service used provides a trial period of 14 days. This was sufficient to conduct the survey. During the test period, there is an unlimited number of questionnaires without restrictions on the number of questions. Respondents are limited to 1000 people. The way of collecting answers is as follows - website, mailing list, link, framer. There is access to editing questions and analytics. This service was used because the timing and number of respondents matched the content of the survey. 997 UTCs representatives (municipal, village, rural) from all over Ukraine, who are engaged (directly or indirectly) in the implementation of environmental aspects in the activities of communities, participated in the survey. The respondents had the following types of questions: single choice, ranking, free answer. All answers were automatically logged in the browser.

5. Results

Question 1. Free field. "What kind of territorial community do you represent?" Please enter your answer. The results are given in the Table. 1.

Table 1. Spatial coverage of survey participants.
(Provided by the author)

Oblast (region)	Municipal	Rural	Village	Total
Vynnytsia	17	2	20	39
Volyn'	10	10	20	40
Dnipropetrovsk	19	15	35	69
Donetsk	42	4	9	55
Zhytomyr	11	12	22	45
Zakarpattia	10	9	25	44
Zaporizhzhia	13	7	26	46
Ivano-Frankivsk	14	13	14	41
Kyiv	23	3	12	38
Kirovohrad	11	6	11	28
Luhansk	19	2	5	26
Lviv	38	6	8	52
Mykolaiv	8	14	19	41
Odesa	18	15	37	70
Poltava	15	10	14	39
Rivne	10	3	30	43
Sumy	14	5	11	51
Ternopil	17	6	11	30
Kharkiv	16	6	3	25
Kherson	8	7	13	28

Khmelnyskyi	12	11	15	38
Cherkasy	15	2	30	47
Chernivtsi	10	4	24	38
Chernihiv	15	2	7	24
Total	385	191	421	997

Question 2. Ranking. Rank the hierarchy of regional environmental policy objectives in ascending order.

Response 2. In the first place respondents have chosen a significant improvement of the environment quality and ecological living conditions (with the result of 79 %), in the second place with the result of 47 % is the formation of a balanced ecologically oriented economy development model, in the third place – the construction of environmentally competitive production (41 %). The results are presented in Figure 1.

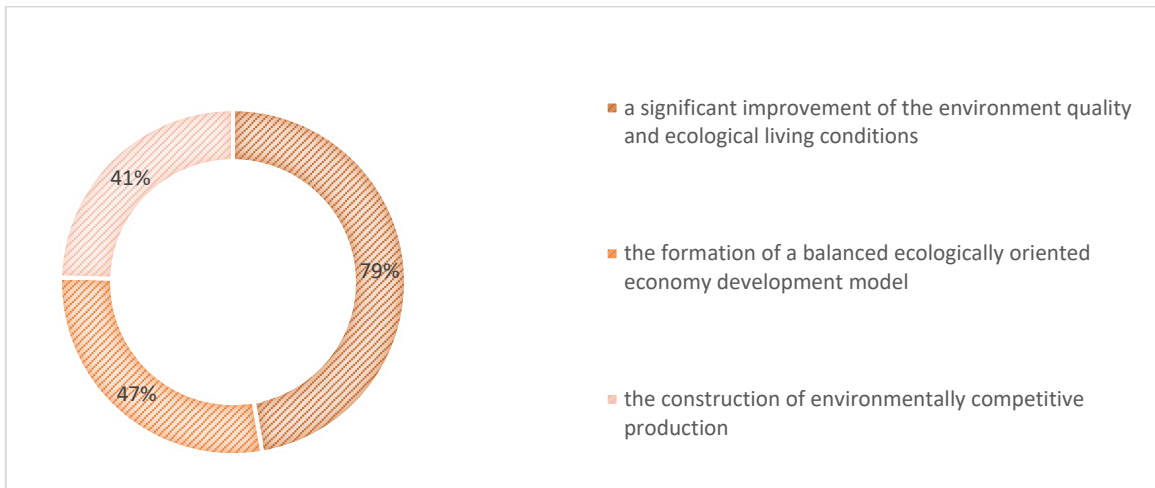


Figure 1. Scoping objectives of the regional eco-policy (Provided by the author)

Question 3. Free answer. Specify the basic principles of the environmental sector in your UTC.

Response 3. The author has made three key principles based on the analysis of the answers provided. I place – coordination of economic development and nature

protection objectives; II place – development of measures for rational use of natural resources; III place – introduction of environmentally safe technique and technologies into production. The results are presented in Fig. 2.

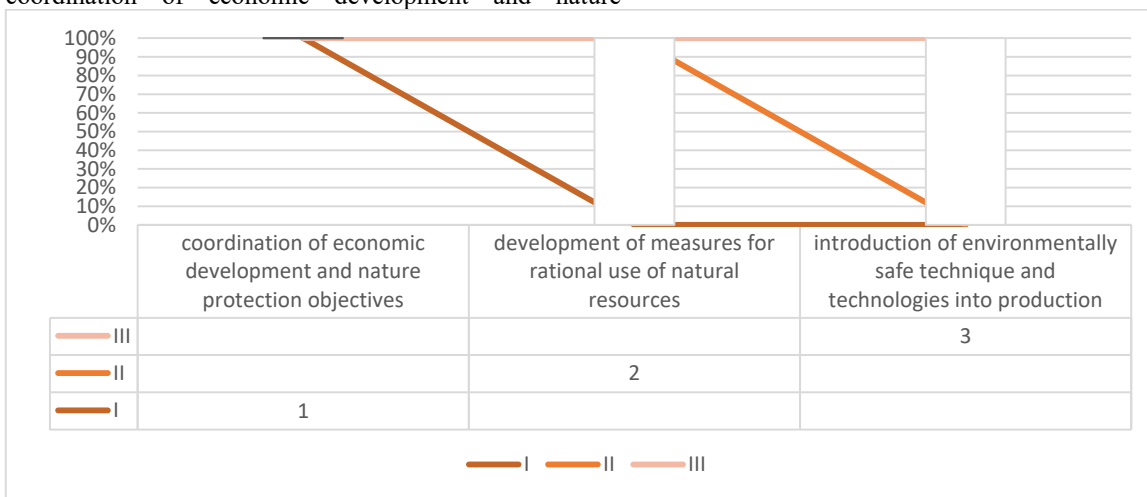


Figure 2. Basic work principles of the environmental sector in UTCs (Provided by the author)

Question 4: Ranking. Specify in the hierarchical system the main, in your opinion, means of the innovative approach

strategy implementation to development of the regional environmental policy among the suggested ones: formation

of the regional market of environmental services; organization of interaction between environmental agencies and market structures; establishment of environmental funds, which finance environmental activities; implementation of the “collateral return” system; formation

of incentives schemes and loans system to enterprises that successfully implement the environmental policy.

Response 4 is presented in Figure 3 using numerical response indicators.

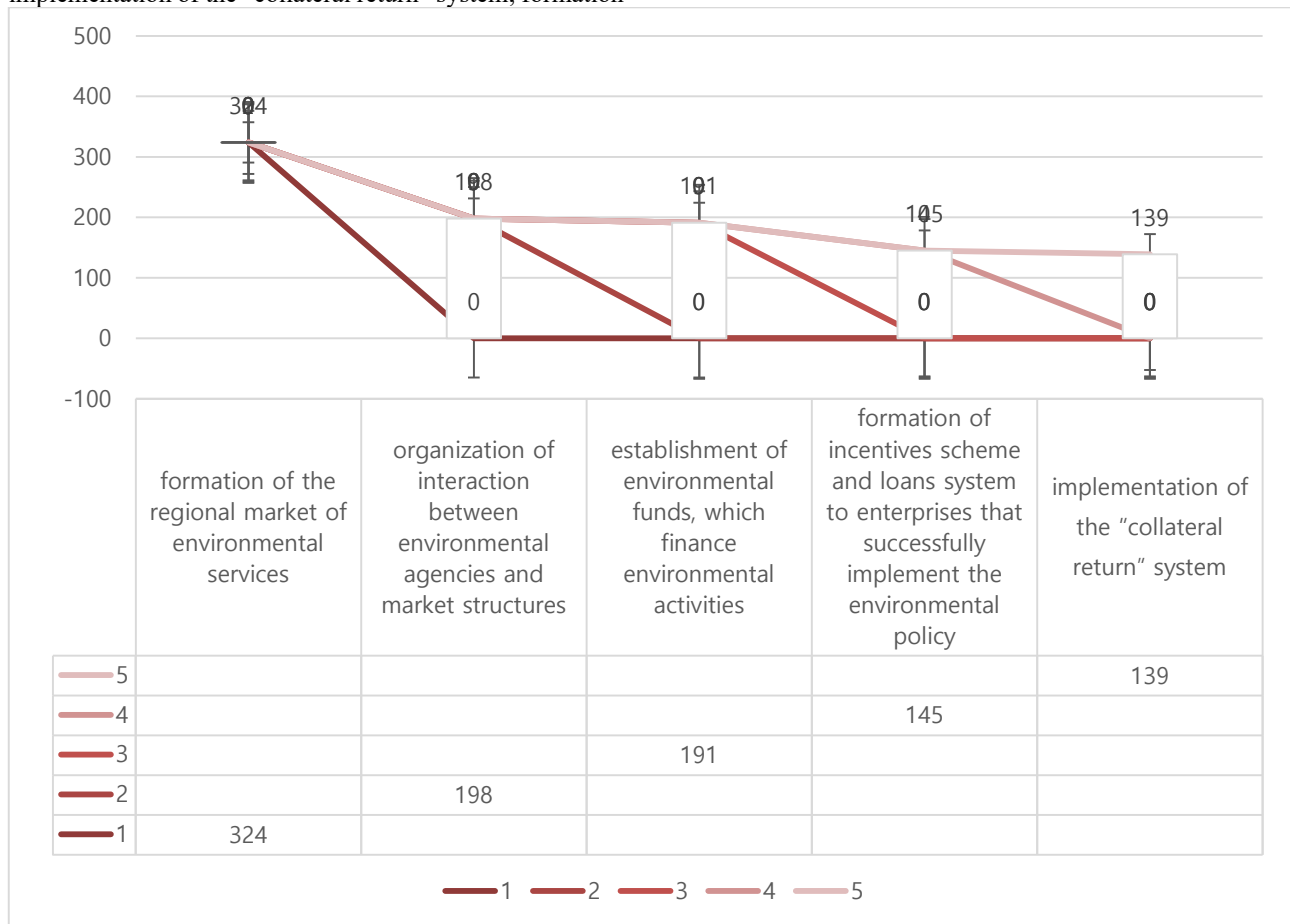


Figure 3. The means of implementing the innovative approach strategy to the region’s environmental policy development (Provided by the author)

Question 5. Ranking. Indicate in the hierarchical system the main, in your opinion, means of the prognostic approach implementation strategy to development of the region’s environmental policy among the suggested ones: the use of an orderly and successful long-term strategy of economic development of the region; obligatory consideration in the mechanisms strategy aimed at the improvement of environmental management system of the region, interbranch impact of the projects implemented on the region’s ecological situation; taking into consideration the economic and geographical peculiarities of the region, the necessary infrastructure, issues of the territorial location of the large enterprises in the region and their impact on the environment.

Response 5 is presented in Figure 4 using numerical response indicators.

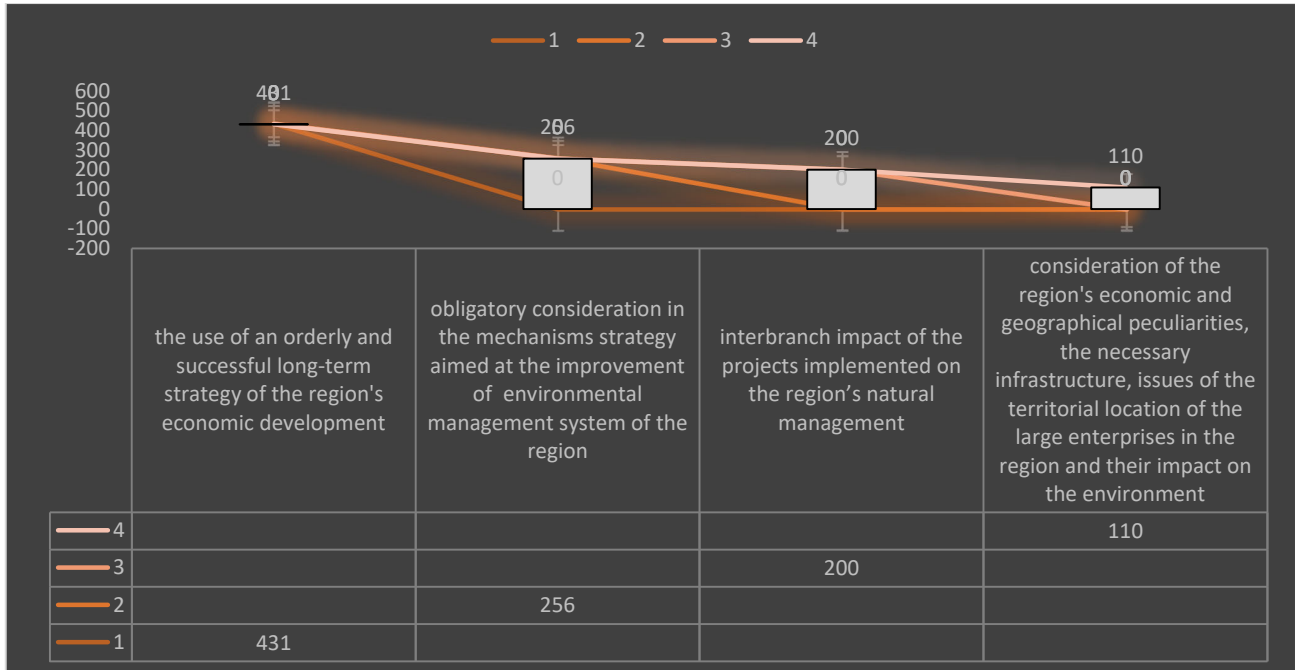


Figure 4. The means of implementing a prognostic approach strategy to the region's environmental policy development (Provided by the author)

Question 6. Ranking. Specify in the hierarchical system the main, in your opinion, means of the traditional approach strategy fulfillment to development of the region's environmental policy among the suggested ones: activity programs focused on solution of specific problems, rather than on the implementation of measures for environmental restoration and enhancement; nature conservation problems

have interbranch, interdepartmental character due to the unity of the region's ecosystem; tracking complexity of changing conditions (water basins, woodlands, air-mass transport), regional boundaries generally do not coincide with ecosystem boundaries. Response 6 is presented in Fig. 5 using numerical response indicators.

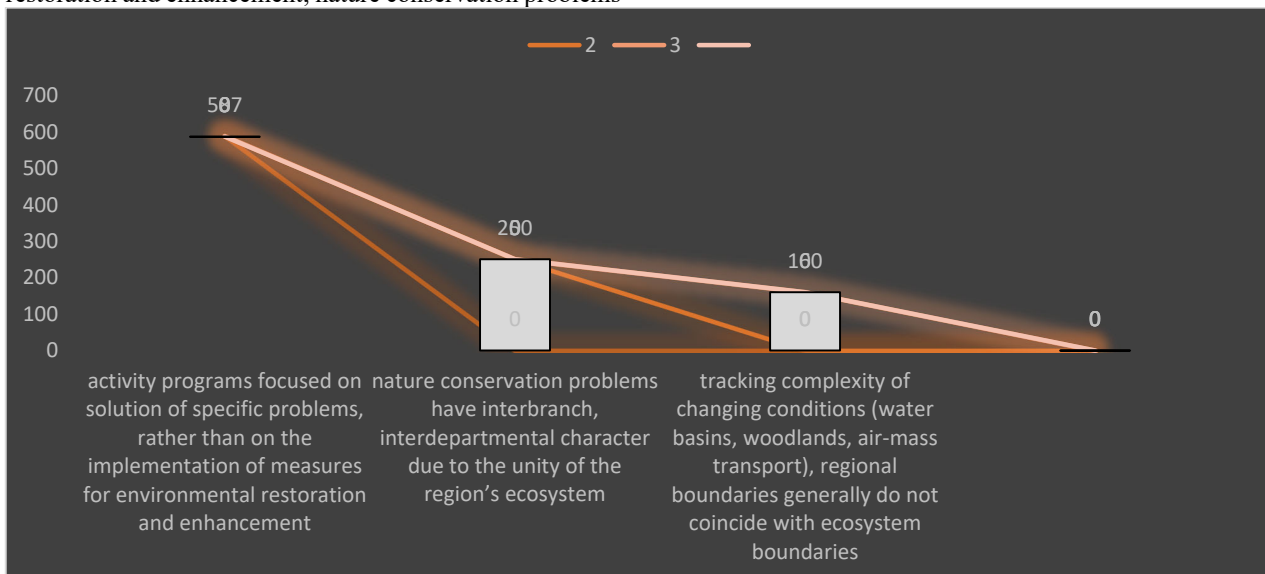


Figure 5. The means of implementing the strategy of traditional approach to the region's environmental policy development (Provided by the author)

Therefore, the process of developing environmental policy should be preceded by the identification of problems in the field, the analysis of the efficiency and sufficiency of the existing environmental management system, the identification of prospects, as well as the identification and ranking of environmental problems in the region.

5. Discussion

From the research results of scientists around the world, we realize that under the environmental background of social development, the issues of concern should be important.

- ❖ Potential impact of landfill gas on groundwater;
- ❖ methods to determine phase transfer as a source of groundwater contamination;
- ❖ described remedial measures (Christensen, et al., 2020);
- ❖ resource development in narrow structures and fields in the exploitation of natural gas, crude oil and shale oil (Speight, 2020);
- ❖ sustainable aspects of the use of recycled plastic in the automobile industry;
- ❖ examples of the use of recycled plastic in the automobile industry and the resulting environmental benefits (Greene, 2021).

Dushkova, & Kirillov (2017) introduce the concept of ecological awareness and the main characteristics of its development and implementation in environmental policy in European practice, taking Germany as an example. The reason for learning from Germany's experience is that among other developed countries of the world, Germany is the leading country in its active work at all levels of environmental policy. It is made clear that actions aimed at the development of ecological culture and environmental education of civil society in Germany have the same priority as the use of renewable energy, development of environmental technologies etc. According to the experience of Germany, the authors determine the preconditions, main causes and sources of ecological awareness formation and ways to integrate it into regional sustainable development programs and environmental policy. This research analyzes the main practical methods of implementing the principles of ecological consciousness in Germany, as well as the role of environmental organizations in environmentally oriented activities.

For more than 20 years, France, the United Kingdom and Germany have prioritized biotechnology in their innovation policy agendas (Zechendorf, 2014). Therefore, Smiljković (2017) analyses how certain European countries establish their own environmental policies, which constitute a unique European environmental policy. Although the term "Europeanisation" refers to a unilateral impact pathway, this is not the case in practice. The Europeanisation process

occurs simultaneously in several directions. The Netherlands, Ireland and Serbia have now put forward the latest policies to improve the environment. Bodiguel and Buller (2020) believe that the formal definition of region was made during a critical period of French economic modernization. To a great extent, it explained their further evolution and dramatically impacted their role in environmental policy-making.

D'Adamo, et al. (2021) are intended to assess environmental and energy sustainability of 27 European countries. The authors have developed a multicriteria solution analysis and analytical hierarchical process to collect and process information from experts. The results show that only four countries (Sweden, Denmark, Finland and Austria) show exceedingly significant performance. Politicians' intervention in the environmental aspect of community development should be adequate, punishing inappropriate behavior, encouraging the development of environmental practices, as well as by means of subsidies.

Vysochyna et al. (2020) study the peculiar systems of building environmental aspects of taxification exploring their convergent (divergent) correlation level. The authors test hypotheses of existing convergence processes in the architecture of environmental tax systems of European countries (such as the United Kingdom, Germany, Poland and Slovenia) based on the analysis panel data for a set of European countries using a regression model in Stata 12/SE and MS Excel.

Knyazev (2021) researches environmental policy in Slovenia and the role of numerous civic organizations. Its environmental policy system is implemented within the common framework of the European Union. The country's environmental strategy aims at phasing out carbon fuels and switching to renewable energy sources. It is based on the country's environmental strategy, progress in implementing energy and climate action plans until 2030, the current state of the energy sector and its compliance with the planned objectives. Although environmental indicators are gradually improving, emissions of deleterious gases are decreasing as well as the energy and raw materials efficiency is improving, Slovenia still lags behind the European average on most of these indicators. Meanwhile, it has a relatively high share of renewable energy in total output. This is achieved through budget subsidies for energy produced from renewable energy sources, so that its price does not exceed the market level. Significant monetary resources are spent on applying a wide range of incentives. The government is therefore forced to seek opportunities to further increase funding for environmental activities, in particular from European Union funds.

Faifura, & Krainskyi, (2018) in their article considered the issues of energy and environmental modernization of the socio-economic development of the Kupchynets association territorial municipality. The authors outlined the

current problems in these areas, the difficulties faced by the newly formed territorial communities, the specific strategic directions that the community should implement in the field of energy conservation and ecological optimization of the community territory. Key among them are what the authors see as educational activities for community management and other concerned parties, implementation of energy management systems in the community, energy audits of objects on the community territory and implementation of environmental conservation measures.

Aliyev, & Gojayev (2021) propose for consideration the issues of green (alternative or renewable) energy in addressing global environmental problems arising from the environmental disorder in the production and consumption of electricity from natural and depleted resources, as well as work undertaken and future plans for the use of green energy sources in the Republic of Azerbaijan.

Like our respondents, we agree that such parameters as environmental tax revenues (for air pollution) to total ratio of tax revenues, %; environmental tax revenues (for water pollution) to total ratio of tax revenues, %; environmental tax revenues (for waste management) to total ratio of tax revenues, %, should be chosen as a measure of environmental tax system characteristics (Vysochyna, et al., 2020)

5. Conclusions

Thus, a smart regional environmental policy should contribute to the establishment of a sustainable regional social, ecological and economic system. The development of the region's environmental policy should, above all, be focused on solving the problems arising from the implementation of strategies for socio-economic development of the region.

Environmental policy development allows prioritizing the region's development in the field of environment protection and natural management. It also permits to focus management system on solving specific problems that may arise during the implementation of investment projects and to improve the region's performance in this area.

The primary means of achieving a proper environmental policy is an adequate choice of regional

mechanisms for managing this process, and the mechanisms for implementing this policy.

The optimal choice of the region's environmental policy implementation mechanism improves the efficiency of measures implemented in the region and the assessment of their impact.

Note that there are several approaches to developing an environmental policy for a region. It is possible to distinguish three ways in which it will be constructed:

- innovative;
- prognostic;
- traditional (program-oriented and goal-oriented).

The innovative way of environmental policy construction of the region provides the improvement of the ecological legislation system, the system of ecological regulation of economic activity. The prognostic approach differs from the innovative one in that the emphasis in the choice of management mechanisms and implementation of environmental policy is made on the basis of forecasts of environment changes in the region during the implementation of significant socio-economic projects.

Each of the path considered can not only correspond to a specific development time span of the region, but also matches the environmental policy objectives as a whole. If a region intends to increase its competitiveness, it will most probably opt for an innovative type of environmental policy-making. Whereas the regional development presupposes the implementation of major investment projects, industrial re-equipment projects, etc., then the prognostic type of environmental policy is most appropriate. In regions with limited economic growth opportunities or those with acute environmental issues that require urgent solutions, the program-oriented and goal-oriented path of formulating environmental policy may be effective.

Further research will focus on the development of approaches to the implementation of environmental policy aspects of the region.

The practical significance of the study lies in providing recommendations for the implementation of certain aspects of Ukrainian UTC's environmental policy.

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