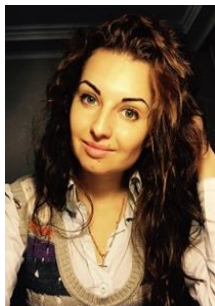


**JEL B410**



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**SUBSTANTIATION OF BASIC DIRECTIONS OF WATER USERS  
INTERACTION IMPROVEMENT IN RIVNE REGION**

**PROBLEMATYKA PODSTAWOWYCH KONCEPCJI  
PROWADZENIA EKOLOGICZNEJ GOSPODARKI UŻYTKOWANIA  
ZASOBAMI WODY W REGIONIE RIVNE**

**ОБОСНОВАНИЕ БАЗОВЫХ НАПРАВЛЕНИЙ  
СОВЕРШЕНСТВОВАНИЯ ВЗАИМОДЕЙСТВИЯ СУБЪЕКТОВ  
ВОДОПОЛЬЗОВАНИЯ РОВЕНСКОЙ ОБЛАСТИ**

**Summary**

*We consider eco-economic regulation in Ukraine as a part of ecological-economic mechanism in perspective of coordination between ecological and economic factors of natural resources use and of the industry development of Ukraine considering the concept of ecologization. We analyze ecological-economic tools, methods and ways of their implantation. Modern economic concepts of state development often less consider aspects of ecologization, so we insist on the fact that main principles of ecological-economic regulation of industry, ecologization of industry and rational resources use are in the jurisdiction of nation, which executes appropriate tasks by implantation of tax policy, licensing, permission for natural resources use etc. It is necessary to improve existing mechanisms of state management in the sphere of ecological-economic regulation of industry. There is a need in the balance between maintenance of national aims and directions and between the opportunities of industrial development in Ukraine considering aspect of sustainable development. One of the conditions of existence of mutually beneficial connections between the subjects is adequate forming of prices for natural resources, stimulating of innovations, creating of propitious investment climate and financing of scientific-technical programs. Innovative activities of industrial enterprises are basis of their further development and their main task.*

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**Opublikowany: 2017-06-30**

**DOI: 10.5604/01.3001.0010.4258**

**Wydanie: International Journal of New Economics and Social Sciences 2017; 1 (5): 91-98**

**Keywords:** ecological-economic mechanism, ecologization, rational natural resources use, industry, sustainable development, innovation, Rivne region.

### **Streszczenie**

*W artykule opisano współdziałanie podmiotów gospodarki i przebiegu procesów w globalnym systemie ekologicznego użytkowania zasobami wody. Autorzy w ekonomicznym ujęciu rozpatrują relacje zachodzące między użytkownikami gospodarki zasobami wody. Przyjmując za podstawę ekonomiczne determinanty gospodarowania zasobami wody przedstawiono ogólne tendencje kształtowania, rozwoju i doskonalenia ekonomicznych determinantów i uwarunkowań gospodarki zasobami wody. W artykule poddano analizie ekologiczno-ekonomiczne instrumenty działania systemu gospodarki zasobami wody w ujęciu ogólnym oraz z uwzględnieniem charakterystyki poszczególnych elementów składowych. Określono przyczynowo-skutkowe relacje w zakresie ingerencji w system użytkowania zasobami wody w różnych aspektach badawczych. Autorzy w oparciu o analizę wskaźnikową wskazują na jakościowe przemiany w systemie użytkowania zasobami wody na Ukrainie. Zaproponowano udoskonalenie systemu współdziałania elementów systemu gospodarki zasobami wody celem wzrostu racjonalizacji i poprawy efektywności funkcjonowania podmiotów użytkujących zasoby wody użycia wody. We wnioskach autorzy sugerują, że wielocelowe i kompleksowe użycie wodnych zasobów stanie się kluczowym aspektem rozwoju gospodarki. W procesie prognozowania rozwoju systemu współdziałania podmiotów użytkujących zasoby wody należy uwzględnić normatywy regulacji prawnych. W artykule przeprowadzono badania procesów współdziałania podmiotów gospodarki zasobami wody z uwzględnieniem realizowanych przez te podmioty przedsięwzięć i ekonomicznych zasad prowadzonej działalności, oraz z wprowadzeniem aspektu ekologizacji do badanego ogólnego systemu racjonalnego gospodarowania zasobami wody. Poza tym należy doskonalić istniejące rozwiązania państwowego zarządzania w zakresie współdziałania podmiotów i instytucji systemu gospodarki zasobami wody w kontekście istniejących warunków otoczenia gospodarczego.*

**Słowa kluczowe:** determinanty użytkowania wody, ekonomiczne uwarunkowania gospodarki surowcami przyrody, ekologizacja, dematerializacja, racjonalne wykorzystanie bogactw naturalnych, Obwód Rówieński.

### **Аннотация**

*Взаимодействие субъектов системы водопользования является отображением процессов, происходящих в глобальной системе водопользования. Мы рассматриваем связи между субъектами водопользования в экономическом поле, таким образом, принимая за основу экономический механизм водопользования и общие тенденции его формирования, развития и совершенствования. Мы анализируем эколого-экономические инструменты воздействия на данный механизм в целом и на его составляющие в частности. Устанавливая причинно-следственные связи вмешательств в ту или иную часть структуры системы водопользования на различных уровнях, мы предполагаем качественные изменения в системе водопользования Украины, отображаемые в*

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**Opublikowany:** 2017-06-30

**DOI:** 10.5604/01.3001.0010.4258

**Wydanie:** International Journal of New Economics and Social Sciences 2017; 1 (5): 91-98

количественных показателях. Результатом создания усовершенствованной системы взаимодействия элементов системы станет улучшение эффективности функционирования субъектов водопользования, а также рационализация использования водных ресурсов данными субъектами. Мы приходим к выводу, что многоцелевое и комплексное использование водных ресурсов станет отправной точкой развития такого механизма. Для прогнозирования развития системы взаимодействия субъектов водопользования, мы будем учитывать мотивационные механизмы его элементов, основываясь на правовой базе, их базовых целях и путях их достижения. Учитывая регуляторную функцию экономического механизма природопользования, мы будем рассматривать процессы взаимодействия субъектов через призму программно-целевых мероприятий и экономических методов водоохранной деятельности, проводимых с целью внедрения аспекта экологизации в общую систему рационального водопользования. Необходимо совершенствовать существующие механизмы государственного управления в сфере взаимодействия субъектов системы водопользования в существующих экономических условиях.

**Ключевые слова:** субъекты водопользования, экономический механизм природопользования, экологизация, дематериализация, рациональное использование природных ресурсов, Ровенская область.

Interaction between the subjects of the water utilisation scheme should lead to a qualitative development of their activities, improvement of financial indicators, rational water use and environmental improvement. Thus, it will help the water utilisation scheme to reach a sustainable development. According to the definitions of a number of scientists, water use includes both the use of water and its consumption, the blurring the lines between them is a consequence of integrated water management in the modern world [1]. It is the multipurpose and integrated use of natural resources that is both the most accurate definition of the phenomenon, or the process of water use in general, and the starting point of our research. We consider the best ways to provide mechanisms for integrated and multipurpose water use as a basic activity to improve the interaction of water stakeholders.

Government is responsible for the optimization of the interaction of the subjects of a particular field of activity. The

quality of such interaction can be defined as a balance between the elements of the water use system in the process of subordination to the legislative base and the level of achievement of the global goals of rationalization of water use in the process of achieving specific financial results in various sectors of the economy. The goals of rationalization of water use are closely related the processes of ecologization.

For example, environmental policy includes work in such areas as: the use of non- and low-waste technologies (this is associated with reducing water losses at all stages of the manufacturing cycles in the water management system; using less water technologies; taking into account the regional and allocation factors of productive forces placement for transferring water-consuming processes to regions with abundant water resources or their replacement); the use of treatment facilities at the final stages of production processes.

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**Opublikowany:** 2017-06-30

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Environmental policy is also associated with the trends of dematerialization that includes the reduction of the need for material and energy resources, as well as changing of consumption patterns, if we are talking about the end users. Also, structural, investment, financial and credit, scientific and technical, tax, social, budgetary and foreign policies [2] are associated with environmental policy. In the search for optimal ways to improve the interaction of water users, we will use methods that predictably work in modern economic conditions.

We take into account that the foundation of economic water management mechanism is a water charging system. Since the object of our study is the actual interaction between the subjects of water use, we draw your attention to the fact that all water users are charged in Ukraine. The legislation fixes the basic components of paid water use, such as licenses, standards, rates of payments, the procedure for collecting them, and the system for allocating funds [3]. Unsolved environmental problems are prompted to search for ways to optimize the interaction of water users. In the context of the mechanism of paid water use, one of the ways to achieve the goal is to press the issue of temporary financial incentives for enterprises that implement water-saving and environmentally friendly technologies. The reverse side of the paid mechanism is the strengthening of the system of penalties for violations of legislation in the sphere of the use of natural resources. Moving away from state's regulation functions, we come to the importance of using a market mechanism to strengthen the ecologization of economic activity [4].

Nevertheless, environmental activities are subordinated to the State in the absence of other incentives and environmental consciousness of water users. State

policy is one of the basic directions of interaction improvement between water users.

Considering the subjects of water use, we take as a basis their separation into primary and secondary. Primary water users have their own facilities for water intake, while the secondary system users use the primary water users' systems, carrying out withdrawals and wastewater discharges into the primary water users' systems. The basis of the interrelation between primary and secondary water users is the system of permits for water use [5]. Analyzing the current legislation regarding the use of water, we come to the conclusion that the system of payment for special water use is complicated. An enterprise planning to extract water from underground sources prepares a number of documents, the information in which is partially repeated. In general, due to the fact that a document collecting is a time-taking process for enterprises, it causes the number of illegal processes related to water use. The authorization procedure is complicated by the requirement to obtain approval from the State Agency for Water Resources of Ukraine (in case of management of surface water) and with the State Service of Geology and Mineral Resources (in the case of groundwater management), as well as from The Ministry of Healthcare of Ukraine (using water bodies recognized as therapeutic) [6; 7].

It is possible to obtain a permit for special water use for enterprises that are located in the Rivne region by contacting the Permit Centre of the Rivne Regional State Administration. The relevant documents are reviewed by the Environmental Impact Assessment and Permits Division of the Department of Ecology and Natural Resources of the Rivne Oblast State Administration include: an application; petition; individual balance norms of water

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**Opublikowany:** 2017-06-30

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consumption and drainage; if it is necessary - a water supply contract; draft standards for permissible emissions of pollutants that will enter water bodies together with wastewater, otherwise - wastewater management agreement; report on water protection measures and special water use conditions in case of documents reapplication; water supply plan and sewerage with indication of withdrawal points and discharge of sewage relative to the nearest points of water consumption; documentary confirmation of water intake structures ownership (for example, copies of well data sheets); a contract for the supply of water with the enterprise owning a sewerage water supply system; as well as conclusions about the possibility of issuing a permit from the relevant authority. These authorities are the State Water Resources Agency of Ukraine (if we are talking about authorization to use surface water); The State Service of Geology and Mineral Resources of Ukraine (in the case of groundwater management), as well as the Ministry of Healthcare of Ukraine (if used objects classified as medical) [8].

Such a list of necessary documents significantly delays the procedure for issuing permits. Improving water user interaction system requires the implementation of high-quality legislative initiatives. On the other hand, the issuance of permits through licensing centres is a qualitative innovation that improves the quality of permitting as a service. For example, up to 2009 the granting of permits occurred in the absence of full regulatory support.

Comparing the water abstraction indicators and freshwater use in the Rivne region, we draw attention to the fact that the volumes of water consumption in the period from 2000 to 2014 have steadily increased. It was collected 73 million cubic meters. of surface water in 2000,

131 million cubic meters - in 2005, 145 million cubic meters - in 2010, 157 and 165 million cubic meters - respectively in 2013 and 2014. The freshwater abstraction in 2015, compared to the indicators of previous reporting periods, was significantly lower - namely, 95 million cubic meters. The use of water from underground sources for the period under review has been steadily declining. So, in 2000 this figure was 71 million cubic meters while in 2005 and 2010 - 55 and 46 million cubic meters respectively. The indicator of 2013 is 44 million cubic meters, 2014 - 42 million cubic meters and the lowest indicator of 2015 is 37 million cubic meters [9].

Decrease in water abstraction from underground sources can be both an indicator of the complexity of obtaining permits and the collection of necessary documents, as well as processing complexity and a combination of economic factors, including the result of tariff raising.

With regard to complicated procedures in terms of the use of natural resources, in particular water, state policy has set a course for deregulation.

In general, deregulation should lead to decrease in administrative pressure on the Ukrainian economy. It includes reducing regulatory restrictions, unnecessary licensing, outdated monitoring systems, conducting expert examinations and etc. Despite the fact that licensing is one of the basic components of the economic mechanism of water use, its procedures are the factors blocking development of economic sectors. A good example is the procedure for issuing permits for special water use.

At the moment, licensing has been cancelled for 26 types of economic activity. Amendments are made to the Law of Ukraine on licensing [10].

It is planned to cancel issuance of those certificates in the agricultural sector

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that are recognized as ineffective, as well as abolishment of monitoring of subsoil use. First of all, reducing the number of documents in the use of monitoring procedures, issuing permits, licenses, etc. should ensure a reduction of corruption. The overall economic effect forecasted for Ukraine in case of adoption of project changes, may reach UAH 1.7 billion [11].

As we consider the interaction of the subjects of the water use system in a complex, the influence of such factor as simplification of administration can lead to large-scale consequences both in economic terms and affect the quality of natural resources, including water resources. Simplification of official testing, registration and re-registration of pesticides and agrochemicals for agricultural enterprises, directly affects the state of water resources in the region.

In addition, the draft decree on Deregulation excludes monitoring and scientific support from the list of mandatory conditions for obtaining a special permit for subsoil use. Thus, there is a stimulation of the development of economic sectors, but at the same time, the ecological factor is not taken into account.

Another component of economic reform concerns the improvement of the investment climate by adopting changes to the Law on the protection of investors' rights, which are intended to increase the amount of investment in the national economy. The increase in the scale of investment will also enable the development of innovative activities, which in turn will have a positive impact on the environmental processes.

Considering the level of investment activity in the Rivne region, we pay attention to increasing the number of invest-

ments in 2015, compared to the previous years. The estimated capital investment in 2010 was 1937.1 million UAH, in 2013 it was 2837.3 million UAH, in 2014 - 2804.6 million UAH and in 2015 - 4334.2 million UAH. As for capital investments and current costs for environmental protection, their volumes also increased significantly from 2000 to 2015. So, in 2000 the amount of investments and expenses was 67.9 million UAH, in 2005 - 128.7 million UAH, in 2010 - 217, 7 million UAH, in 2013 - 312, 1 million UAH, and in 2015 - 383.4 million UAH. The clean-up costs of return waters were at their peak in 2000 and amounted to 97.9% of the total costs and investments, while in other years they fluctuated between 17 and 47% (in 2013 and 2005 years respectively).

Regulation of the interaction between water users at the state level by amendments to the legislation on investments, and deregulation should ensure further growth of the economy of the Rivne region, as well as the balance of interests of the basic subjects of water use.

The improvement of this system can lead to the improvement of water management performance in the context of sustainable development, which is one of the key problems. The solution of this issue lies in the system interaction, the introduction of economic, environmental and social activities at all levels of water users.

The ways and directions of such improvement considered in this article are able to show the result for the first reporting period and can be used in the creation of integrated development programs, as well as regional programs, in particular in the Rivne region.

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**Opublikowany:** 2017-06-30

**DOI:** 10.5604/01.3001.0010.4258

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**DOI:** 10.5604/01.3001.0010.4258

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