



ANALYSIS OF THE WATER STATE MONITORING REGULATORY SUPPORT IN UKRAINE

The problem of water quality status in Ukraine remains relevant. Water resources act as a source of industrial and household water supply, therefore they play a decisive role in the development of the entire national economy and in the life of the population. During the implementation of the water management policy in our country for many decades, water has never been considered as the basis for the life support of natural ecosystems and humans, the economic state of water systems and their impact on biodiversity have not been taken into account or predicted. Traditionally, water was considered and used only as an economic resource for industrial and agricultural production, electricity generation, as well as for wastewater discharge, which ultimately led to the exhaustion of the natural and ecological potential of water resources. Among the main problems associated with water resources, which in turn are due to the peculiarities of the formation of water resources in the regions of Ukraine, is the imbalance of the placement schemes of the most water-intensive enterprises and the inheritance of imperfect water policy. State water monitoring is carried out for the protection and reproduction of water resources. Currently in Ukraine, the main requirements for the organization of state water monitoring are determined by the "Procedure for state water monitoring implementation", approved by the Cabinet of Ministers of Ukraine Resolution dated September 19, 2018 No. 758, which entered into force on January 1, 2019. It defines the purpose, main tasks of monitoring, its organization, etc., which do not contradict the main positions of similar European documents. Actually, the most significant difference between the modern environmental legislation of Ukraine from the European one is that it is predominantly declarative is almost not implemented, instead the sources of EU law determine the quantitative and qualitative indicators that must be achieved by each country over a certain period of time. The course taken by our state towards European integration in this area also requires compliance with the level of requirements of domestic regulatory documents with the level of requirements adopted in the EU documents. In this article, the state of normative and methodological support for monitoring the state of the waters of our country is investigated and recommendations are developed for improving the current regulatory documentation to bring it into line with the level of international and European standards.

Keywords: environmental protection; ecological status; classification; chemical status; surface, underground, sea waters; potential.

Introduction / Вступ

The development level any society, the degree of its civilization are accepted to define by certain reference points of social consciousness – the attitude to the most socially vulnerable segments of the population, nature, historical heritage and etc. One of such indicators is the attitude of most countries modern society to water, problems of its preservation, quality control these issues are exceptional priorities what were dictated by a simple understanding of the water necessary for the mankind survival, ensuring basic physiological needs and security needs, its determining impact on health, possibilities for the development of society based on sustainable development.

Water resources ensure the existence of people, fauna and flora and are limited and vulnerable natural objects. In the conditions of increasing anthropogenic pressure on the

natural environment, the development of social production and the growth of material needs, it becomes necessary to develop and comply with special rules for the use of water resources, their rational use and environmentally safe protection.

There is the so-called Water legislation – a set of legal norms that regulate public relations in the field of the use and protection of water resources in our country. The task of water legislation is to regulate water relations in order to ensure the scientifically based, rational use of water for the needs of the population and the economy, their protection from pollution, the prevention and elimination of the harmful effects of water, and the improvement of the state of water, etc. The main document regulating water relations is the Water Code of Ukraine.

The Water Code, in combination with measures of organizational, legal, economic and educational impact, contri-

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butes to the formation of water and environmental law and order and environmental safety of the population of Ukraine, as well as more efficient, scientifically based use and protection of waters from pollution, clogging and depletion [12].

In the world practice of assessing the aquatic ecosystems state and water pollution, there happens a shift of emphasis from assessing the environment quality as a resource towards assessing the environment state as a human and biota place of residence.

Accepting the European development path as a non-alternative Ukraine is reforming the state water monitoring system taking into account international experience to the requirements of the relevant EU directives, and also is adapting its own regulatory and methodological documents which concerning water quality. Such a regulatory document that defines the basic requirements for the organization and conduct of state water monitoring is the "Procedure for state water monitoring implementation", approved by the Cabinet of Ministers of Ukraine Resolution [13].

The object of the study is the water fund of Ukraine as a whole and the pollution sources.

The subject of the study is the state water monitoring in Ukraine, the assessing of domestic and international regulatory framework for water quality.

The purpose of the work is a comparative analysis of the regulatory support for waters state monitoring in Ukraine with the European Union relevant directives requirements.

To achieve this goal, the following *main objectives of the study* are defined:

- to analyze the current state of state water monitoring in Ukraine;
- to determine the functions and competencies of executive bodies, to consider management mechanisms for the implementation of the state water monitoring program;
- to disclose the structure of responsible public authorities involved in monitoring activities at the appropriate level;
- to study the mechanism of participation of all subjects of the water monitoring system, structural-organizational, scientific-methodical and technical base of functioning of this system at the state level;
- to take into account the requirements of the Water Framework Directive (WFD) 2000/60/EU;
- to assess the possibility of meeting the requirements of the WFD in Ukraine.

Analysis of recent research and publications. Since the updated regulatory providing for water monitoring was created taking into account the Water Framework Directive (WFD) 2000/60/EC requirements – the main document in the field of EU water policy we will consider only some WFD requirements and will try to assess the possibility of their performance in Ukraine. The defining WFD feature is primarily focus on result – achieving a "good" state for all waters; the requirements of this document are a comprehensive approach to the protection of all natural waters – surface and underground; water resources management according to the basin principle; strengthening cross-border cooperation; large-scale involvement of citizens, stakeholders, improvement of legislation, etc. According to WFD Article 8 the programs for monitoring surface water state, underground water state and protected zones should ensure concerted and complete water state analysis in every district river basin and for underground water such programs should cover monitoring of chemical and quantitative state [1]. In developed European countries, in particular Poland, which joined the European Union in 2004, a number of me-

asures have been implemented for 6 years (during the first period of implementation of the Water Framework Directive) to ensure the establishment and operation of a dense network of automated control of quantitative and qualitative indicators and remote transmission of information, regular water testing, application of the latest analytical techniques on a wide range of chemical elements and compounds, operational processing and analysis of data using the latest computer technology and information support of government and the public [2].

It should be noted that European documents are quite democratic in the sense, that they are mostly of a recommendatory nature and leave the national programs the right to freely choose observation points, a list of the majority monitored indicators, the frequency of observations and etc.

The problem of improving environmental monitoring, in particular monitoring of water pollution in Ukraine, remains an urgent task for the scientific community, which is highlighted in the works of many domestic scientists. Thus, in [7] the general principles of the organizing monitoring of the main objects of natural environment in the EU countries are considered. Also, considerable attention was paid to the systematization and analysis of international experience in water management in order to implement it in Ukraine [8, 9]. Theoretical and practical aspects of monitoring are thoroughly presented in [10, 11], features of organization of different levels of environmental monitoring system are described, modern methods and means of monitoring research are considered, and a set of issues on environmental management of Ukrainian water resources is given, their problems in the 21st century.

Materials and methods of research. In the course of the research, general scientific research methods were used: the hypothetical-deductive method and the methodological approach. The researches are based on the analysis of normative documents on ensuring legal relations in the field of water legislation, the main of which are: the Water Code of Ukraine, approved by the Resolution of the Verkhovna Rada of Ukraine dated June 6, 1995 No. 213/95-VR., which entered into force on July 20, 1995; "The procedure for conducting state water monitoring", approved by the Resolution of the Cabinet of Ministers of Ukraine dated September 19, 2018 No. 758, which entered into force on January 1, 2019; Water Framework Directive (WFD) 2000/60/EC of 23 October 2000.

The Water Code of Ukraine is the main legislative act that regulates public relations regarding the ownership, use and disposal of water bodies in the country. The Procedure for state water control is a regulatory document that defines the basic requirements for the organization of state water control. The Water Framework Directive (WFD) 2000/60/EC is a systemic document that consistently tackles a range of water management challenges to ensure a "good" ecological status for each water body.

Research results and their discussion / Результати дослідження та їх обговорення

For Ukraine in the field of environmental protection (including water resources protection) the implementation of European Union legislation takes place within eight sectors which regulated by 29 sources of EU law (directives and regulations) in this area. Directives and regulations set out general rules and standards that must be transposed (carried over) to internally state law. These rules and stan-

dards are not the subject of discussion and must be achieved in full otherwise penalties are provided. Unlike the modern environmental legislation of Ukraine which in many aspects is declarative the sources of EU law determine the quantitative and qualitative indicators that each country needs to achieve for a certain period of time. A feature of the EU Directives is that states must adapt their legislation to achieve the goals defined by the Directives but wherein they themselves determine the methods of achieving them. For example, we will give a schedule for achieving the goals in Ukraine under the Water Framework Directive: 1) 3 years – for the adoption of national legislation and the definition of the authorized body, consolidation at the legislative level the definition unit of hydrographic zoning of country territory, development of a regulation about basin management with the assignment of appropriate functions to him; 2) 6 years – for the determining river basin areas and creation mechanisms for managing international rivers, lakes and coastal waters, analysis the characteristics of river basins areas, introduction water quality monitoring programs; 3) 10 years – for the preparation of river basin management plans, conducting consultation with public and publication of these plans [3].

In Ukraine quite significant attention has recently been paid to the problem of environment state monitoring improving and water bodies transboundary pollution monitoring. At the same time, the existing monitoring system is not yet fully compliant with international requirements. Water monitoring is an important tool for effective water resources quality management, timely prevention of pollutants harmful effects, and also broad public informing of the state and trends of changes the environment in general.

In order to ensure the collection, processing, storage and analysis of information on the waters state, predicting its changes and developing scientifically based recommendations for making management decisions in the use and waters protection and water resources reproduction state water monitoring is carried out, which is an integral part of the environment monitoring state system.

The Procedure for the waters state monitoring implementation approved by the Cabinet of Ministers of Ukraine Resolution dated September 19, 2018 No. 758, which entered into force on January 1, 2019, defines the basic requirements for organizing the waters state monitoring implementation, interaction of central executive bodies in the process of its implementation and provision of state authorities and local governments information for making decisions on the waters state [13].

Objects of state water monitoring are:

- massifs of surface waters (surface water bodies or their parts), including coastal waters and zones (territories) subject to protection;
- massifs of underground water (groundwater bodies or their parts), including zones (territories) subject to protection;
- sea waters within the territorial sea and the exclusive maritime economic zone of Ukraine including zones (territories) subject to protection.

The subjects of state water monitoring are Ministry of Environmental Protection and Natural Resources of Ukraine, State Water Resources Agency of Ukraine, Ukrainian Geological Survey, State Service of Ukraine for Emergencies, and also State Agency of Ukraine for Exclusion Zone Management. The general coordination and organization of monitoring is entrusted to the Ministry of Environmental Protection and Natural Resources of Ukraine.

Subjects carrying out state social and hygienic monitoring, state supervision over sanitary legislation, legislation on protection, use and reproduction of aquatic bioresources, state control over fisheries activities, must free provide the subjects of state water monitoring data obtained by the result of their activities, monthly until the 5th.

Monitoring will be carried out in accordance with the approved program, which should contain:

- information on the object of state water monitoring (code, name of the object, location and other characteristics);
- biological, physicochemical, chemical and hydromorphological indicators, monitoring periodicity, information on the subject and executor of water monitoring.

Depending on the goals and objectives of state water monitoring, the following procedures are established:

- diagnostic monitoring of surface waters and underground water massifs;
- operational monitoring of surface waters and underground water massifs;
- research monitoring of surface waters massifs;
- monitoring of sea waters.

Diagnostic, operational and research monitoring is carried out according to the basin principle.

Diagnostic:

- for surface waters – during the first year of state monitoring implementation and in case of failure to environmental goals are not achieved – additionally during the fourth year;
- for underground water – during the first 2 years of state monitoring.

Operational – (for water massifs in which there is a risk of failure to achieve environmental goals or water intake from which for meet the population drinking and household needs of the on average during the year is more than 100 m3 per day) annually between the years of diagnostic monitoring implementation.

Research – for surface water massifs in order to:

- establishing the reasons for deviations from environmental goals;
- clarification of the scale and consequences of emergency water pollution;
- establishing the risk presence reasons of failure to achieve environmental goals, detected in carrying out process diagnostic monitoring before the operational monitoring start.

Seawater monitoring – for the territorial sea and the exclusive maritime economic zone of Ukraine in order to:

- determination of the sea waters ecological state;
- establishment of reference conditions for sea waters;
- assessment of progress in achieving the set environmental goals;
- assessment of trends in long-term natural and anthropogenic changes in the sea waters state.

The subjects of state water monitoring independently determine the monitoring points, the indicators list and their measurement periodicity taking into account various features (fig. 1).

Based on the data and information obtained as a result of monitoring water massifs, the following are determined:

- ecological and chemical status of surface/groundwater massifs;
- ecological potential of artificial or significantly changed surface water massifs;
- quantitative and chemical state of groundwater massifs.

A developed corresponding "Methodology for assigning a surface water massif to one of the classes of ecological and chemical states of a surface water massif as well as assigning an artificial or significantly changed surface water massif to one of the classes of ecological potential of an artificial or significantly changed surface water massif" was approved by order of the Ministry of Ecology and Natural

Resources of Ukraine (now – Ministry of Environmental Protection and Natural Resources of Ukraine) dated January 14, 2019 No. 5, which entered into force on February 26, 2019 and determines the grounds and procedure for classification of surface water massifs, according to their ecological and chemical status and also the grounds and procedure for classification of artificial or significantly changed surface water massifs, according to their ecological potential.

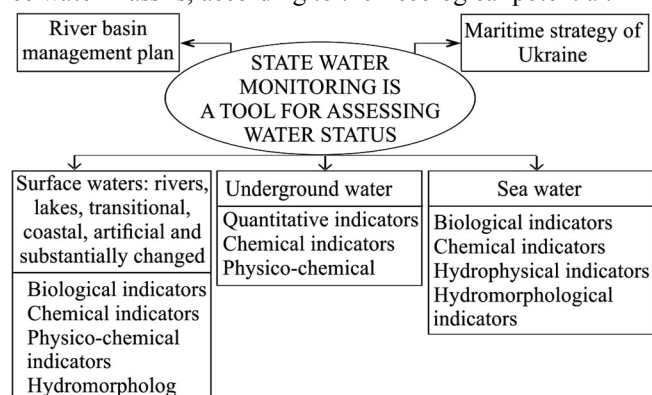


Figure 1. State water monitoring is a tool for assessing water status / Державний моніторинг вод – інструмент оцінки стану вод

Determination of a surface water massif ecological status is based on the use of the biotic and abiotic components

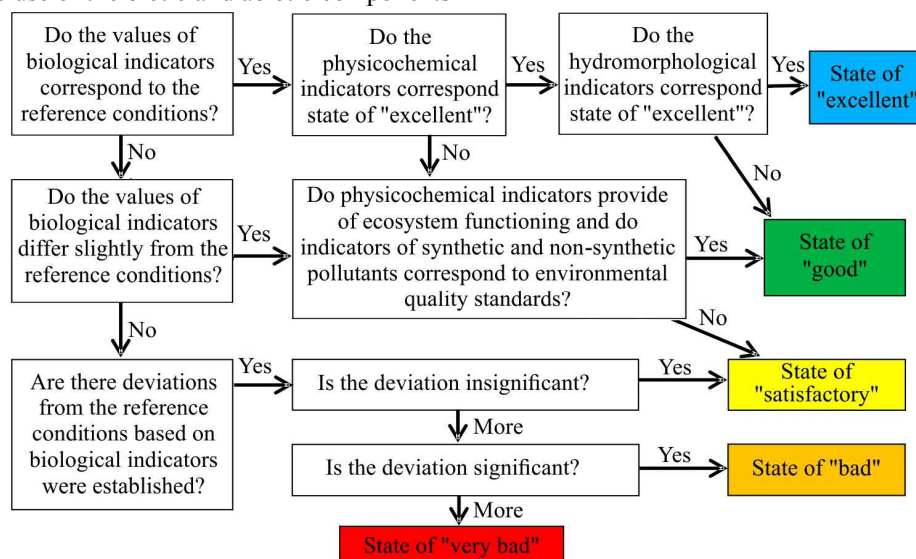


Figure 2. Algorithm for determining the ecological state of the surface water array / Алгоритм визначення екологічного стану масиву поверхневих вод [4]

Two classes are used to classify the surface water massif chemical state. For graphical display, each of the classes is indicated by the corresponding color [4]:

- I Class of chemical state – "good" is indicated in blue;
- II Class of chemical state – "failure to achieve good" is indicated in red.

The algorithm for determining the chemical state of the surface water massif is shown in fig. 3.

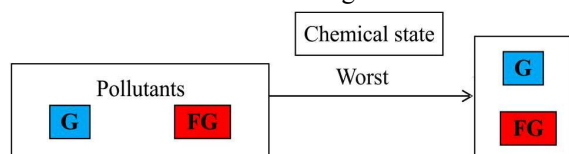


Figure 3. Algorithm for determining the chemical state of the surface water massif / Алгоритм визначення хімічного стану масиву поверхневих вод [4]

The ecological potential of artificial or significantly changed surface water massif is an integrated indicator of

complexes inherent in aquatic ecosystems and is carried out on biological, hydro-morphological, chemical and physicochemical indicators, which generally characterize their status. Five classes are used to classify the ecological status of the surface water massif. Each of the classes of a surface water massif ecological status is indicated by the corresponding color for graphical display [4]:

- I Class of the ecological state which corresponds to the ecological state of "excellent" is indicated in blue;
- II Class – "good" is indicated in green;
- III Class – "satisfactory" is indicated in yellow;
- IV Class – "bad" is indicated in orange;
- V Class – "very bad" is indicated in red.

Algorithm for determining the ecological state of the surface water array is shown on fig. 2.

The surface water massif chemical status is determined according to the "List of pollutants for determining the surface and underground water massifs chemical state and the ecological potential of artificial or significantly changed surface water massif" approved by order of the Ministry of Ecology and Natural Resources of Ukraine (now – Ministry of Environmental Protection and Natural Resources of Ukraine) dated February 6, 2017 No. 45 registered in the Ministry of Justice of Ukraine February, 20, 2017 No. 235 / 30103 (list for surface waters) [5].

the state of artificial or significantly changed surface water massif, which is determined by biological indicators using hydromorphological, chemical and physicochemical indicators. Four classes are used to classify the ecological potential of artificial or significantly changed surface water massif. For graphical display, each of the classes of ecological potential is indicated by the corresponding color [4]:

- II Class corresponds to the ecological potential "good" is indicated by parallel stripes in green and gray;
- III Class – "satisfactory" is indicated by parallel stripes in yellow and gray;
- IV Class – "bad" is indicated by parallel stripes in orange and gray;
- V Class – "very bad" is indicated by parallel stripes in red and gray.

Taking into account the collected data on water massifs, river basin management plans are developed and the level of ecological goals achievement is assessed; for marine waters, a marine strategy for achieving "good" ecological sta-

tus is being developed. The information received and processed by the subjects of state water monitoring is official.

The analysis of information obtained within the framework of state waters monitoring, for assessing the waters status and provision of information for executive authorities and local governments for acceptance of the corresponding decisions, is carried out by:

Ministry of Environmental Protection and Natural Resources of Ukraine – in part of marine waters state monitoring and at the national level (annually);

State Water Resources Agency of Ukraine (in part of surface water massif state monitoring including coastal waters) and Ukrainian Geological Survey of Ukraine (in part of underground water massif state monitoring) – at the level of rivers basin districts (annually).

Scientific and methodological support of state water monitoring is provided by the Ministry of Environmental Protection and Natural Resources of Ukraine.

Forecasting of water status and its changes is carried out by modeling the quantitative and qualitative indicators of water in order to development the recommendations for measures implementation to prevent possible negative changes and improve the existing water status.

State water monitoring financing is carried out at the expense of the state and local budgets, as well as other sources not prohibited by law.

The definition of a particular object boundaries is one of the main conditions for getting objective information during carrying out monitoring studies. The territory of the river intake (basin) should be considered as an elementary spatial unit in difficult geographical conditions. The spatial structure of environmental monitoring in the administrative territory is based on a network of main and additional permanent observation points (POP). The main POPs are located within 6-16 km², they form a regional monitoring network, which is connected with the European POP network. The number of such points on the territory of each administrative-territorial unit depends on its area. In urban areas, additional permanent observation points for the organization of local monitoring around industrial enterprises with significant emissions of pollutants into the atmosphere are laid.

Currently, considerable work is being done on the formation of automated environmental monitoring, is automatic monitoring systems by specialized analytical stations, which today are beginning to spread from pilot projects of international cooperation programs between Ukraine and the European Union. In particular, this concerns the State Targeted Ecological "Program of ecological rehabilitation of the Dnieper river basin and improvement of drinking water quality", "Program of formation and development of the national ecological network", "Comprehensive program of flood protection of the Tisza river basin" and others [6].

Geographic information systems (GIS) are becoming an important new tool for monitoring research today, which are hardware and software systems and algorithmic procedures developed for digital support, replenishment, analysis and mathematical-cartographic modeling. GIS technologies are used in monitoring when operational management of natural resources is required for quick decision making. According to some estimates, 80-90 % of all information can be presented in the form of GIS, their use makes it possible to collect information, provide it in a convenient form and manipulate data that are spatially bound. The application of GIS technologies in the practice of environmental monitoring

and environmental management in general allows to look at the problem in a new way, comprehensively analyze it and offer highly qualified conclusions and forecasts, to prevent emergency ecological situations of anthropogenic origin on a national scale [10, 11].

Discussion of research results. In general, our studies on the analysis of the regulatory framework for monitoring the state of waters in Ukraine with the requirements of the relevant directives of the European Union and the assessment of the possibility of fulfilling the requirements of the WFD in Ukraine correlate with the results of the studies. are given in [2, 3, 6, 7, 8, 9]. It should be noted that a certain limitation of water resources in Ukraine requires the implementation of such principles of management, integrated use and protection of water that would meet modern requirements for European countries. Particular attention should be paid to the management of water resources in river basins on the based on integrated environmental assessments of the physical properties, chemical and hydrobiological composition of waters. Also, ways to improve the environmental situation in the field of water resources and mechanisms for implementing environmental policy in the field of water management are proposed, recommendations are developed for improving existing regulations in order to bring them into line with international and European standards, using remote sensing to monitor the state and protection of our water resources country [10, 11]. While the EU has a leading role, the responsibility for the effective implementation of the WFD lies with the Member States (National Governments). This is a very important link in the system, in other words, the best EU legislation cannot be implemented effectively if it is not properly applied by the Member States and translated into their national legislation. However, due to the lack of the necessary institutional structure and appropriate regulatory framework, the basin management principle in Ukraine has not reached the level that exists in developed countries.

So, based on the analysis of the Procedure for state water monitoring implementation, approved by the Cabinet of Ministers of Ukraine Resolution dated September 19, 2018 No. 758, it can be concluded about the prospects for development of effective water quality management and improvement of water monitoring in Ukraine. The effectiveness of surface and underground water monitoring in Ukraine is shown in fig. 4.

The scientific novelty of the results of the study – the article analyzes the current status of state water monitoring in Ukraine and identifies promising ways to improve the monitoring system, taking into account international experience and the requirements of the relevant European Union directives. It has been established that the current domestic regulatory framework for assessing water quality is not sufficiently integrated with the regulatory framework of advanced European countries, however, Ukraine pays considerable attention to improving environmental monitoring, including water pollution monitoring.

The practical significance of the results of the study – the results of the researches can be used to improve existing and develop new regulatory documents for monitoring the state of waters in Ukraine.

Conclusions / Висновки

The main condition for bringing the domestic water monitoring system in line with European standards is the focus

on achieving a "good" status for all waters, which is a defining feature of the Water Framework Directive – the main document in the field of European Union water policy.

Significant work to implementation the EU water directives regarding water quality questions and water resources management in Ukraine is being done. A Steering Commit-

tee for the National Dialogue on Water Policy has been formed. The schedule for achieving purposes on each of directives has been developed in which indicated terms of realization of tasks number. For example, a specific schedule for achieving purposes in Ukraine under the Water Framework Directive is given.

Surface and underground water monitoring in Ukraine

AS IT IS		AS IT WILL BE
Determination of water status for management decisions	← AIM →	Determination of the ecological, chemical, quantitative states of each separate massif of waters for river basins management (for development and evaluation of implementation of the river basin management plan)
Monitoring and control	← FUNCTIONS →	Monitoring only
Objects of the water fund in general and sources of pollution	← OBJECTS →	Separate defined arrays of surface and undergroundwater
A small number of predominantly chemical indicators: some are unnecessary	← INDICATORS →	A large number of indicators: biological, chemical and physicochemical, incl. specific to the basin, as well as hydromorphological
Is absent	← CYCLICALITY →	Six-year cycle
No	← DATA EVALUATION TOOL (classification) →	Provided for: 5 classes of surface water massifs ecological state; 2 classes of undergroundwater massifs chemical state
Duplication of powers, high-priority orientation on ensuring industry interests	← SUBJECTS →	Clear division of responsibilities: Coordinator – Ministry of Environmental Protection and Natural Resources of Ukraine
Departmental	← PROGRAM →	Unified state
Several hundred	← NUMBER OF MONITORING POINTS →	Several thousand
Not taken into account	← BASIN PRINCIPLE →	Taken into account

Figure 4. The effectiveness of surface and underground water monitoring in Ukraine / Ефективність моніторингу поверхневих та підземних вод в Україні

The central executive body that ensures the formation of state policy in the field of environmental protection (including the protection of water resources) is the Ministry of Environmental Protection and Natural Resources of Ukraine. State Water Resources Agency of Ukraine, which is the central executive body, whose activities are directed and coordinated by the Cabinet of Ministers of Ukraine through the Ministry of Environmental Protection and Natural Resources of Ukraine, is responsible for the implementation of state policy in the field of management, use and reproduction of water resources. An important area of these departments activity is the adaptation of the regulatory framework to European requirements due to the preparation, together with the public, of proposals for changes in national legislation.

Today, the modern domestic regulatory framework for assessing water quality is integrated insufficiently with the regulatory framework of advanced European countries, however, in recent years in Ukraine, in accordance with government decrees, the harmonization of national environmental regulatory documents with the corresponding regulatory documents of Europe highly developed countries and the world has been carried out.

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АНАЛІЗ НОРМАТИВНОГО ЗАБЕЗПЕЧЕННЯ МОНІТОРИНГУ СТАНУ ВОД В УКРАЇНІ

Проблема якості стану вод в Україні стає дедалі актуальнішою. Водні ресурси є джерелом промислового і господарсько-питного водопостачання, а тому відіграють вирішальну роль у розвитку всього національного господарства та в життєдіяльності населення. Під час здійснення водогосподарської політики в нашій країні впродовж багатьох десятиліть воду ніколи не розглядали як основу життєзабезпечення природних екосистем і людини, не враховували і не прогнозували економічний стан водних систем і їхній вплив на біорізноманіття. Традиційно воду розглядали і використовували тільки як господарський ресурс для промислового і сільськогосподарського виробництва, отримання електроенергії, а також для скидання стічних вод, що зрештою і призвело до вичерпання природно-екологічного потенціалу водних ресурсів. Серед головних проблем, пов'язаних з водними ресурсами, які зумовлені особливостями формування водних ресурсів регіонів України, є незбалансованість схеми розміщення найбільш водомістких підприємств та успадкованість недосконалої водної політики. Для охорони та відтворення водних ресурсів здійснюють державний моніторинг вод. Нині в Україні головні вимоги до організації державного моніторингу вод визначає "Порядок здійснення державного моніторингу вод", затверджений постановою Кабінету Міністрів України від 19 вересня 2018 р. № 758, яка набула чинності 1 січня 2019 року. У ньому визначено мету, головні завдання моніторингу, його організацію тощо, які не суперечать основним позиціям подібних європейських документів. Власне, найістотніша відмінність сучасного природоохоронного законодавства України від європейського полягає в тому, що воно має переважно декларативний характер, тобто майже не виконується, натомість, джерела права ЄС визначають кількісні та якісні показники, яких треба досягти кожній країні впродовж визначеного періоду часу. Взятий нашою державою курс на європейську інтеграцію і в цій сфері вимагає відповідності рівня вимог вітчизняних нормативних документів до рівня вимог документів, ухвалених в ЄС. У цій роботі досліджено стан нормативно-методичного забезпечення моніторингу стану вод нашої країни і розроблено рекомендації щодо удосконалення чинної нормативної документації для приведення її у відповідність до рівня міжнародних та європейських норм.

Ключові слова: охорона довкілля; екологічний стан; класифікація; хімічний стан; поверхневі, підземні, морські води; потенціал.