

DEVELOPMENT OF THE ENVIRONMENTAL MONITORING SYSTEM AS A BASIS FOR ENSURING SUSTAINABLE DEVELOPMENT OF LOCAL COMMUNITIES

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Introduction. Sustainable development is development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. In Ukraine, from January 1, 2020, the Basic Principles (Strategy) of the State Environmental Policy of Ukraine for the period up to 2030 (hereinafter - the Eco-Strategy-2030) were introduced. The document explains the root causes of environmental problems and declares “the introduction of an ecosystem approach to sectoral policies and the improvement of the system of integrated environmental management.” There are 5 goals: 1) the formation of environmental values and principles of sustainable consumption and production in society; 2) ensuring the sustainable development of Ukraine's natural resource potential; 3) ensuring the integration of environmental policy in the decision-making process for socio-economic development of Ukraine; 4) reduction of environmental risks in order to minimize their impact on ecosystems, socio-economic development and public health; 5) improvement and development of the state system of environmental management (Law of Ukraine 2697-VIII, 2019).

All the goals of the 2030 Eco-Strategy correspond to the global and national Sustainable Development Goals and are aimed at: balanced use of natural resources, mandatory presence of environmental requirements in all spheres of life, reduction of environmental risks and proper environmental governance.

Presentation of the main research. According to the environmental passport of Dnipropetrovsk region, emissions of harmful substances into the atmosphere amounted to 534.7 thousand, which is 42.2 thousand tons (7.3%) less than last year. As part of the

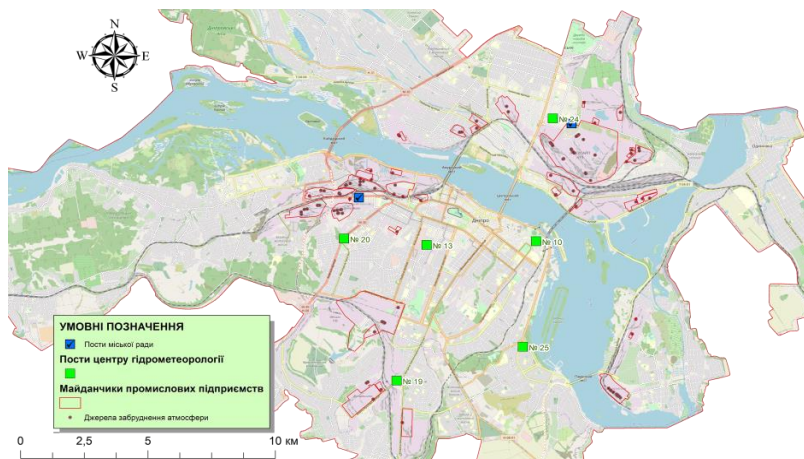
emitted pollutants, carbon oxides amount to 274,719 thousand tons; dioxides and other sulfur compounds - 60,857 thousand tons; substances in the form of suspended solid particles - 52.22 thousand tons; methane - 115,967 thousand tons; nitrogen compounds - 28,298 thousand tons; metals and their compounds - 0.619 thousand tons, etc. In addition, during the reporting period, the atmosphere received 20.5 million tons of carbon dioxide - the main greenhouse gas that affects climate change (EcopassDnipro, 2021).

The city of Dnipro is characterized by a high level of air pollution. More than 200 enterprises of various profiles are registered in the city of Dnipro, which emit more than 100 types of pollutants into the environment. In recent years, there has also been a significant increase in motor transport, which accounts for about 40% of total emissions of toxic substances into the atmosphere.

Observations of air quality in Dnipro are carried out at 6 stationary posts by the Dnipropetrovsk Regional Center for Hydrometeorology, which remained from 26 posts from the observation system, launched about 30 years ago (see Figure 1).

Figure 1

Scheme of atmospheric air quality monitoring posts in Dnipro (EcopassDnipro, 2021)



In connection with the European integration processes of Ukraine in recent years there have been significant changes in its environmental legislation. Today in the field of air monitoring the following legal documents are in force: Law “On Atmospheric Air”, Law “On Metrology and Metrological Activities”, PKMU №391 “On Approval of Regulations on the State Environmental Monitoring System”, as well as PKMU of August 14 2019 №827 “Some issues of state monitoring in the field of air protection”, repealing the PKMU of March 9, 1999 № 343 “On approval of the Procedure for organizing and conducting monitoring in the field of air protection”, the main document used for over 20 years to organize a monitoring system, which in fact still operates a network of city observation posts of the hydrometeorological center.

However, it is difficult to correctly interpret the data of the Hydrometeorological Center on air quality due to the lack of a system of continuous registration of pollutants, and their incomplete list in accordance with current standards.

Conclusions. Thus, among the main reasons for the inefficient functioning of the state environmental monitoring system as a basis for sustainable development of local communities can be identified imperfect regulatory framework, low level of coordination of environmental monitoring entities, extremely insufficient funding. The solution to these issues may be cooperation with industrial enterprises and agencies responsible for collecting thematic source information necessary for the implementation of the program of state monitoring of ambient air with the assistance of local governments.

References

EcopassDnipro (2021). Ecological passport of Dnipropetrovsk region for 2020 [in Ukrainian]. <https://adm.dp.gov.ua/storage/app/uploads/public/60e/d38/c15/60ed38c15a69f512978009.pdf>

Law of Ukraine 2697-VIII (2019). On Principles of Monitoring, Reporting and the Concept of Public Policy in Climate Change for the period up to 2030 [in Ukrainian].