БИОЛОГИЯ BIOLOGY

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M.A. Mukasheva¹, G.Zh. Mukasheva¹, A.K. Arymbekova¹, D.V. Surzhikov²

¹Ye.A. Buketov Karaganda State University, Kazakhstan; ²Research institute of complex problems and occupational diseases, Novokuznetsk, Russia (E-mail: manara07@mail.ru)

Implementation of the regional program supports of non-governmental organizations on improvement of the ecological situation of the Karaganda region

This article is devoted to implementation of programs of local governments which in all countries is very closely connected with environmental issues. Reforming of the ecological legislation is impossible without their participation. The first step of formation of local governments are cooperatives of owners of apartments, agricultural cooperatives and associations to the earth - and water users. Local governments according to the legislation of Kazakhstan have the privilege to use of the natural resources located in their territory and without fail coordinate transfer of rights of such use to other legal entities and individuals. The common system faults depend on horizontal communications in the ecological legislation and with the adjacent, industry legislation. These shortcomings were repeatedly emphasized with national experts at various seminars.

Keywords: Karaganda region, ecological state, environmental protection, ecopolicy, industrial district, chemical contamination, natural resources.

In order to improve the environmental situation, preserve the natural resources of the Karaganda region, 40 non-governmental organizations (NGOs) in the field of environmental protection and ecology are registered in the region [1, 2]. To ensure a constructive dialogue between state authorities and NGOs on solving environmental problems in the region, they have now held thematic meetings or so-called «round tables», which, according to the results of which, mandatory development of preventive recommendations and action plans aimed at reducing industrial emissions, in particular persistent pollutants into the environment [3].

To collect and disseminate environmental information about the role of the public in solving environmental problems, the development of democratic processes in society, the public association «Ecomuseum» and the territorial administration of «CenterKazNedr», the Ecological Museum was opened for the first time in the territory of the CIS countries. The opening of the Ecological Museum was of great importance in the scientific provision of environmental safety, the development of methods and means of preventing and eliminating pollution, the systematization of accumulated knowledge and the coordination of scientific research in the field of environmental protection [4]. So, in order to solve the problems of the Semipalatinsk region, environmental educational materials were developed for the project «Developing a Sustainable Land Use Plan at the Semipalatinsk Test Site», a script and animation of educational cartoons about the safety rules for the population living in the Semipalatinsk test site was written. Here, an environmental action and training seminars were held for rural NGOs to increase civic engagement of the residents of Karkaralinsk and Shetsk districts in solving local environmental problems and shaping the public's ecological thinking [5].

The purification of the Nura River from mercury remains an urgent problem [6, 7]. On this issue, public hearings are held on a regular basis, «The cleaning of the riverbed. Nura from mercury» with the participation of monitoring organizations, the rural community and other interested persons, residents of settlements within the zone of implementation of the above-mentioned project are informed. At the meetings, the public was «for» the process of cleaning the river without detrimental impact on the livelihoods of the surrounding

settlements. However, only with the involvement of the active forces of society to solve the problems of pollution of small rivers of the city of Karaganda within the state social order since 2010 the project «Clean River» is being implemented with the participation of schoolchildren, students and initiative groups. As a result, 500 meters of the shore and the channel of the Malaya Bukpa river are cleared of debris and other contaminants.

In his message to the people of Kazakhstan on February 16, 2005, the country's president, for the first time sounded the program of greening the country «Zhasyl El» [8]. In order to implement this initiative, by the Decree of the Government of the Republic of Kazakhstan No. 632 of June 25, 2005, the «Zhasyl El» program was approved and widely implemented. In the management of natural resources and regulation of nature management in the Karaganda region, a meeting of NGO leaders with the commanders of the squads «Zhasyl El» was organized. As a result of such meetings, knowledge was gained on how to track the distribution of income from the use of natural resources, promote their equitable distribution and invest in environmental, social and community programs in the Karaganda region.

To assess the existing system of environmental policy instruments in the Republic of Kazakhstan over the past fifteen years, in Kazakhstan, as in other countries of Eastern Europe, the Caucasus and Central Asia, serious steps have been taken to reform environmental policies, including legislation and the institutional framework for environmental protection.

However, environmental policy still lacks priorities, realism and systemic character. Ecopolitics is not focused on the end result still, and environmental ministries are still viewed as monitoring bodies, and not organizations responsible for long-term planning of the territories and improving the environment.

The purpose of this report is to analyze the state of environmental policy for the subsequent development of measures to improve its effectiveness. For the analysis, three key areas of environmental policy were selected, for which there has been no major improvement in recent years: urban air pollution; River basin management; Management of solid domestic waste.

The experience in the countries of Europe was also considered, where in recent years significant progress has been made in improving the ecological situation.

Kazakhstan has achieved significant results in the process of reforming environmental policy. Here, the necessary foundations for the implementation of environmental policy were created.

In Kazakhstan, virtually the entire arsenal of environmental policy instruments, developed by the world community, the most important of which are: environmental assessment; Ecological rationing; Permitting system for emissions into the environment; Environmental control; Monitoring; Payments for pollution of the environment; Environmental insurance; Liquidation funds; Ecological audit; Administrative and criminal liability.

However, practically all the tools of environmental policy have so far not been very effective in reducing pollution and rational use of natural resources.

The system of environmental quality standards (MPC) has changed little since the times of the Soviet Union. It is more ambitious than in Western Europe and North America, covers thousands of pollutants and prescribes unattainable concentrations of pollutants. This system does not take into account the costs and benefits associated with compliance with standards, and the requirements for monitoring controlled substances exceed the capabilities of competent authorities. Unsupported by finance and technology standards (pollution in many cities still exceeds the norms several times) lead to non-compliance and constant violation of the law.

Moreover, the strict binding of environmental quality standards to permits based on maximum permissible emissions / discharges (MPE / MPD) prevents the introduction of alternative cost-effective tools.

In plans and programs, communication with the implementation of environmental policy goals is often lost, and a continuous change in the administrative system leads to a disruption of horizontal intersectoral linkages and a sequence of actions.

Normalizing the quality of the environment is one of the key areas for improving environmental performance. At the meeting of the Foreign Investors Council under the President of the Republic of Kazakhstan at the end of 2007, the Ministry of Environmental Protection and the Ministry of Health was commissioned to analyze existing environmental quality standards with the possibility of convergence with the WHO and the EU system.

For the introduction of a more progressive system of integrated environmental permits, following the example of the EU, the Environmental Code introduced the possibility of setting targets for the quality of the environment for certain territories. Such environmental quality targets can be set for a residential area (1);

Specially protected natural areas (2); Recreational areas (3); Desert and semi-desert regions (4); Water bodies (5).

Ecological taxes. The economic mechanism of nature management does not stimulate a reduction in environmental pollution, since its main elements: the payment system, the planning tradition, the legal and methodological framework underlying the standardization of emissions of pollutants, were created back in the late 1980s.

Currently, payments for emissions into the environment are credited to local budgets, and fines for violations are included in the income of the republican budget. In 2007–2008, the volume of such revenues amounted to more than 70 billion tenge. However, the effectiveness of this tool is not high and does not correspond to world experience. Numerous sanitary and environmental standards, which form the basis for calculating payments, only make calculations difficult, because the bulk of payments (99 %) are collected for 10–15 pollutants.

It is possible to use the best world experience in the «green tax reform», which provides for the redistribution of the tax burden from «taxes on labor» to «taxes on consumption of energy and resources». The Prime Minister of Kazakhstan was instructed to create an interdepartmental working group for a detailed study of the issue of environmental taxes. However, the new tax code only took into account proposals to reduce the list of pollutants, for which the fee is calculated.

Environmental taxes are widely used in most developed countries. In Germany, there are taxes on electricity generation, excises for motor fuel, charges for discharges of sewage, payments for water collection, equalizing payments. In the US, a tax is imposed on the production of hazardous chemicals, for collection of waste, payment for the use of water. In Poland, charges for emissions of 6 substances, discharges of 5 substances, charges for the formation of municipal waste, excise taxes on cars, gasoline, diesel, mineral oils, fertilizer tax, excise on plastic packaging, penalty for applying noise, payment for water extraction are applied.

It is necessary to mention such a mechanism as environmental insurance, introduced in Kazakhstan since 2006. However, insurance cases are literally single, although in the world the insurance market in the field of environmental protection exceeds a trillion dollars. One of the reasons for the underdevelopment of the insurance market in Kazakhstan is the lack of an effective mechanism to compensate for environmental damage.

Ecological funds the recommendations of the OECD show the possibility of using environmental funds, in which the means of payments and fines for pollution of the environment accumulate, followed by their targeted use. Such funds existed in Kazakhstan until 2000. At the same time, it is possible to send environmental payments and fines to the existing National Fund of Kazakhstan for subsequent targeted use of funds for environmental needs. It is also possible to use liquidation funds, which are available on deposits of second-tier banks — this is about 50 billion tenge. There are also prospects for the creation of public and trust funds. For example, such a Biodiversity Conservation Fund was established under the GEF project.

Local governments in all countries are very closely connected with environmental issues, therefore, it is impossible to reform environmental legislation without their participation. The first step in the formation of local self-government bodies are cooperatives of apartment owners, agricultural cooperatives and associations of land and water users. Local authorities in accordance with the legislation of Kazakhstan have the pre-emptive right to use natural resources located on their territory, and necessarily coordinate the transfer of rights of such use to other legal entities and individuals. This practice of local self-government works in most Western European countries.

Mechanisms of the Kyoto Protocol and energy efficiency. The mechanisms of the Kyoto Protocol can contribute to a significant improvement in environmental policy. The implementation of new laws and projects on energy efficiency and renewable energy sources will also allow Kazakhstan to solve many environmental problems.

In conclusion, it is necessary to note the general systemic shortcomings, which depend on horizontal links within the environmental legislation and with related, sectoral legislation. These shortcomings are defined by OECD recommendations and have been repeatedly emphasized by national experts at various seminars: non-application of «package» reform; Lack of a coherent and goal-oriented legal policy; Low level of development of the civil sector; Non-systematic financing.

Tool packages should be accompanied by management, and their development should be comprehensive: all aspects should be envisaged, both within the environmental legislation «from the bottom to the top», and in related branches of legislation. Each package of instruments should be tested within a certain time, it is necessary to legislatively provide transitional provisions and conduct effective consultations.

The indirect nature of legislative norms contributes to the distortion of the original goal when moving from one level of performance to another. In contrast, EU directives have the status of legislative acts. If you follow the experience of the EU, you need to exclude the government level, and at the ministerial level, only instructive methodological documents and various forms of documents need to be approved. Now the draft of the State program «Ecology of Kazakhstan for 2010–2020» is being developed, which requires the establishment of targeted Indicators of the state of the environment and practically feasible and most effective tools for their achievement.

Thus, the actions of many NGOs in the Karaganda region have been associated with many educational institutions in the cities of the region. In the city of Balkhash, the public association (PA) «Balkhash ecological center» together with students and employees of the Balkhash humanitarian technical university, an ecological campaign «Let's revive the green lungs» was held. In Temirtau NGO «Reflection» public hearings and a presentation of the project for the construction of a mercury disposal site on the hill of Apan, where the main objective of the project is to conserve natural resources and protect the territory adjacent to Temirtau from harmful to human health and the environment emissions that are now idle factories. One of the directions of the project is the construction of a test site on the hill of Apan for burial of mercury, in order to avoid its harmful impact on people and nature. Construction of biogas plant in Bukhar-Zhyrau and Shakhtinsky districts of the region was carried out.

In order to exchange experience in the field of alternative energy, expand the use of renewable energy sources in Central Asia, contribute to improving the regulatory framework and legislative mechanisms that stimulate the development of renewable energy and resource-saving technologies, a meeting was held with the Japanese energy firm to review the potential of alternative energy in the city of Karaganda. As a result of the conference, its participants were able to establish contacts with foreign and Kazakhstan organizations working in the field of renewable energy, join forces and create favorable conditions for the implementation of programs and projects using renewable energy sources in the region, which will be confirmed by participation in EXPO 2017 In the city of Astana. To familiarize with methods of collection and dissemination of information related to environmental problems and environmental protection, the NGO «Ecomuseum» together with the American ISAR Foundation held a seminar on environmental journalism.

The above mentioned information, would like to note, the important role of the ongoing activities of environmental NGOs, where the main goal is to attract the attention of the population to the state of the environmental situation in the region, providing access to information on the ecological status of the region, youth participation in such activities.

References

1 Отчет Департамента экологии по Карагандинской области за 2011 г. — Караганда, 2012. — 110 с.

2 Информационно-аналитический отчет по контрольной и правоприменительной деятельности экологической инспекции Департамента экологии по Карагандинской области Комитета экологического регулирования и контроля МООС РК за 2011 год. — Караганда, 2012. — 172 с.

3 Мукашева М.А. Мониторинг атмосферного воздуха на территории крупных природопользователей Карагандинской области / М.А. Мукашева, Г.М. Тыкежанова, Ш.М. Нугуманова и др. // Успехи современного естествознания. — 2014. — № 12. — С. 181.

4 [Электронный ресурс]. — Режим доступа: http://www.mailto:ecocenter2010rk@gmail.com

5 Райымбеков А.М. Информация о деятельности Нура-Сарысуйского департамента экологии / А.М. Райымбеков // Индустриальная Караганда. — 2014. — № 45 (879). — 10 нояб.

6 Мукашева М.А. Экологический риск в решении задач среды обитания и здоровья населения // Превентивная экология / М.А. Мукашева: Современные проблемы устойчивого развития территорий: материалы междунар. науч.-практ. конф. — Чебоксары, 2012. — С. 59–61.

7 Мукашева М.А. К вопросу о региональном нормировании химических веществ в воде Карагандинской области / М.А. Мукашева, Д.В. Суржиков, Г.М. Тыкежанова и др. // Научное и творческое наследие академика Е.А.Букетова: материалы междунар. науч.-практ. конф., посвящ. 90-летию Е.А.Букетова (27–28 марта). — Караганда, 2015. — С. 468–474.

8 Постановление Правительства РК, № 632 от 25 июня 2005 г. — [Электронный ресурс]. — Режим доступа: www.online.zakon.kz

М.А. Мукашева, Г.Ж. Мукашева, А.К. Арымбекова, Д.В. Суржиков

Қарағанды облысының экологиялық жағдайын жақсартуға бағытталған үкіметтен тыс ұйымдардың өңірлік бағдарламасын іске асыру

Мақала жергілікті өзін-өзі басқару бағдарламаларын іске асыруға арналған, ол барлық елде экологиялық мәселелермен байланысты. Олардың қатысуынсыз экологиялық заңнаманы реформалау мүмкін емес. Жергілікті өзін-өзі басқару органының қалыптасуының алғашқы қадамы болып пәтер иелері, ауылшаруашылық кооперативтері және жер мен су пайдаланушыларының қауымдастығы табылады. Жергілікті өзін-өзі басқару органдары Қазақстан заңнамасына сәйкес өз аумағында орналасқан табиғи ресурстарды пайдалануға құқығы бар және де бұл құқықты басқа заңды және жеке тұлғаларға беру міндетті түрде келісіледі. Жалпы, жүйелік кемшіліктер экологиялық заңнама ішіндегі көлденең байланыстарға және шектес, салалық заңнамаға тәуелді. Бұл кемшіліктер түрлі семинарларда ұлттық сарапшылар тарапынан бірнеше рет қозғалған болатын.

Кілт сөздер: Қарағанды облысы, экологиялық жағдай, қоршаған ортаны қорғау, экосаясат, өндірістік аудан, химиялық ластану, табиғи ресурстар.

М.А. Мукашева, Г.Ж. Мукашева, А.К. Арымбекова, Д.В. Суржиков

Реализация региональной программы поддержки неправительственных организаций по улучшению экологической ситуации в Карагандинской области

Статья посвящена реализации программ органов местного самоуправления, которые во всех странах очень тесно связаны с вопросами экологии. Реформирование экологического законодательства невозможно без их участия. Показано, что первым шагом становления органов местного самоуправления являются кооперативы собственников квартир, сельскохозяйственные кооперативы и ассоциации земле- и водопользователей. Отмечено, что органы местного самоуправления в соответствии с законодательством Казахстана имеют преимущественное право на пользование природными ресурсами, расположенными на их территории, и в обязательном порядке должны согласовывать передачу прав такого пользования другим юридическим и физическим лицам. Выделены общие системные недостатки, которые зависят от горизонтальных связей внутри экологического законодательства и со смежным, отраслевым законодательством. Определено, что эти недостатки неоднократно подчеркивались национальными экспертами на различных семинарах.

Ключевые слова: Карагандинская область, экологическое состояние, охрана окружающей среды, экополитика, промышленный район, химическое загрязнение, природные ресурсы.

References

1 Otchet Departamenta ekolohii po Karahandinskoi oblasti za 2011 h. [The report of Department of ecology on the Karaganda region for 2011]. Karaganda, 2012, 110 [in Russian].

2 Informatsionno-analiticheskii otchet po kontrolnoi i pravoprimenitelnoi deiatelnosti ekolohicheskoi inspektsii Departamenta ekolohii po Karahandinskoi oblasti Komiteta ekolohicheskoho rehulirovaniia i kontrolia MOOS RK za 2011 hod» [The information and analytical report on control and law-enforcement activity of ecological inspection of Department of ecology on the Karaganda region of Committee of ecological regulation and control of MOOC PK for 2011»]. Karaganda, 2012 [in Russian].

3 Mukasheva, M.A., Tykezhanova, G.M., & Nugumanov, Sh.M. et al. (2014). Monitorinh atmosfernoho vozdukha na territorii krupnykh prirodopolzovatelei Karahandinskoi oblasti [Monitoring of atmospheric air in the territory of large users of nature of the Karaganda region]. Uspekhi sovremennoho estestvoznaniia — Achievements of modern natural sciences, 12, 181 [in Russian].

4 Retrieved from http://www.mailto:ecocenter2010rk@gmail.com [in Russian].

5 Rayymbekov, A.M. (2014). Informatsiia o deiatelnosti Nura-Sarysuiskoho departamenta ekolohii. [Information on activity of Nur-Sarysuysky department of ecology]. *Industrialnaia Karahanda — Industrial Karaganda*, 45 (879), November, 10 [in Russian].

6 Mukasheva, M.A. (2012). Ekolohicheskii risk v reshenii zadach sredy obitaniia i zdorovia naseleniia. [Environmental risk in the solution of problems of the habitat and health of the population]. *Preventive ecology — Preventivnaia ekolohiia*. Proceedings from Modern problems of sustainable development of territories: *Mezhdunarodnaia nauchno-prakticheskaia konferenciia — International scientific and practical conference*. (pp. 59–61). Cheboksary [in Russian].

7 Mukasheva, M.A., Surzhikov, D.V., & Tykezhanova, G.M. et al. (2015). K voprosu o rehionalnom normirovanii khimicheskikh veshchestv v vode Karahandinskoi oblasti [To a question of regional rationing of chemicals in water of the Karaganda region]. Proceedings from Scientific and creative heritage of the academician Ye.A. Buketov (27–28, March: *Mezhdunarodnaia nauchno-prakticheskaia konferentsiia, posviashchennaia 90-letiiu Ye.A.Buketova (27–28 marta) — International Scientific and Practical Conference dedicated to the 90th anniversary of Ye.A. Buketov (27–28 March)* (pp. 468–474). Karaganda [in Russian].

8 Postanovlenie Pravitelstva RK № 632 ot 25 iiunia 2005 hoda [The resolution of the government of RK No. 632 of June 25, 2005]. Retrieved from www.online.zakon.kz [in Russian].