Caspian Sea which passed to Aktau (Kazakhstan), representatives of Azerbaijan, Russia, Kazakhstan, Turkmenistan and Iran signed the protocol on reaction and cooperation in case of different incidents.

Without settlement of a row of legal and political affairs with an involvement of all countries of the Caspian region, environmental problems of the Caspian Sea cannot be solved.

Problematic issue of demarcation of the water area of the Caspian Sea and its day between all states of the region and uncertainty of legal status of a reservoir — the main hindrances hindering the solution of the majority of other questions including, on a protection environmental the environments.

In recent years environmental problems of the Caspian Sea are an object enough the vigorous foreign policy activity not only the states of the region, but also the developed countries of the West. Prospects of the Caspian Sea as the oil-extracting region in combination with its advantageous geographical location automatically do it by a source of a set of the geopolitical contradictions infringing not only the interests of actually Caspian countries.

The Caspian Sea – the largest closed reservoir on the planet with a unique ecosystem, including 400 endemic types. If not to take care of safety of an ecosystem of the Caspian Sea, then not only valuable stocks of water resources, but also many species of sea plants and animals will be as a result lost.

References

1. Ranjbar R Das Rechtsregime des KaspischenMeeres und die Praxis der Anrainerstaaten. 2004.

2. Nomos, Baden-Baden Romano CP. The Caspian Sea and international law: like oil and water / W. Ascher, N. Mirovitskaya (eds). 2000.

3. The Caspian Sea: a quest for environmental security. Kluwer, Dordrecht/ Boston Salimgerei AA Pravovoi Status Kaspisjskovo Moria (Legal status of the Caspian Sea). Kazakh State University Publishing House, Almaty, 2003.

УДК 327.7

EU ENVIRONMENTAL POLICY

M. Saleh, L. V. Boronina**, O. M. Shikulskaya*** **KTH Royal Institute of Technology (Stockholm, Sweden)* ** Astrakhan state university of architecture and civil engineering (Russia)

Начало XXI века отмечено обострением ряда глобальных проблем, среди которых особое место занимает проблема охраны окружающей среды. Значительное место в решении экологических проблем в последние годы принадлежит Европейскому союзу.

Ключевые слова: безопасность, международное сотрудничество, политическое сообщество.

Historical, political economic prerequisites of formation of the European Union are shown in article.

Keywords: safety, international cooperation, political community.

The largest region exerting impact on world environmental policy is European Union. The modern European Union (EU) is the only of all nowadays existing groups of the states which have arisen in the course of regional economic and ecological integration which has as much as possible approached a stage of full integration [1].

However the environmental problems facing today the European Union, and state of environment in EU countries can't be characterized unambiguously. Despite ongoing efforts, in a condition of the woods and maintenance of their biological diversity of progress it is practically not observed. The areas of the woods in the territory of the EU in the 1990s have increased by 10 %, but more than a half of all woods of Europe test serious consequences of acidulation of soils, pollution, droughts and wildfires. In the countries of Central and Southern Europe the shortage of clean drinking water is felt. More than in half of the large cities of the EU overexploitation of resources of ground waters takes place, and many countries note their essential pollution by nitrates, pesticides, heavy metals and hydrocarbons. The condition of coastal ecosystems and water areas, especially in Northern Europe and also in the countries of the Mediterranean has considerably worsened.

The tendencies observed in the EU set thinking of such difficult theoretical questions as formation of environmental policy for preservation and restoration of the surrounding environment of Europe. It is supposed that in the Draft constitution of EC2 where the important part is assigned to questions of environmental policy, the policy in the field of the environment has to be directed to achievement of the following purposes:

- protection and improvement of quality of the environment;
- health protection of the person;
- reasonable and rational use of natural resources;

• the international cooperation in development of the measures directed to the solution of both regional, and universal environmental problems.

Environmental policy of the EU has to consider a variety of environmental problems in different regions of the European Union and also potential benefit and costs of the taken actions or inaction, to be based on the principles of precaution and preventive actions, to stimulate the balanced economic and social development of regions of the EU. The European laws and the action programs in the field of the environment are adopted after consultations with Committee of regions, economic and social Committees. Member countries have to finance and apply the policy accepted by the EU in the field of the environment [2].

The European Union in the last 50 years carried out own policy in the field of environmental protection. Considerable events of nature protection char-

acter on scale have been held, the legal base for regulation and coordination of ecological activity of member states is created, new approaches to protection and improvement of quality of the environment are developed and introduced.

The EU is one of world leaders in the sphere of the international nature protection cooperation now. At the same time environmental policy and activity of the EU in general are inseparably linked with the global actions in the sphere of environment protection including held under the auspices of the UN [3].

Environment protection is one of priority activities of the EU along with other directions of integration. The EU has broad competence in environmental protection, in this sphere a significant amount of the all-European regulations is published. The EU has also necessary powers on implementation of the international cooperation in the ecological sphere and in the field of the environment [4].

Flexible market mechanisms are effective for application in all priority fields of environmental policy: in fight against climate change and for the conservation of biodiversity, in environment protection and health of the person, in ensuring steady use of natural resources [5–9].

Thus, market tools stimulate producers and consumers on change of behavior in favor of eco-efficient use of natural resources and also development and development of innovative environmentally safe technologies. In addition, the offered mechanisms answer sustainable development goals and the Lisbon program.

Being guided by the report of the European agency on the environment, it is possible to give the following classification of the modern operating market tools:

• the trade permissions entered for decrease in emissions (for example, quotas for emissions of CO_2) or economy of natural resources (for example, quotas for catch of fish);

• the ecological taxes imposed for the change in price and, thus, policy of consumers and producers;

• the ecological contributions entered in whole or in part to cover expenses on ecological services, measures for reduction of pollution of water resources, on waste disposal;

• the ecological subsidies and privileges created for stimulation of development of new technologies, creation of the new markets of ecological goods and services and also for support of achievement of high levels of environment protection by the companies;

• schemes of responsibility and compensation, which purpose – to provide adequate compensation of consequences of the activity dangerous to the environment and also expenses on prevention and restoration of damage.

The practical experience demonstrates that it is the most effective to use a combination of these tools [10].

The EU is the world leader in carrying out environmental policy who is successfully solving many environmental problems of the continent and world in general.

References

1. Law Nr. 94 of 2007.04.05 on Ecological Network. URL: http://lex.justice.md/index.php?action= view&view=doc&lang=1 (2). [In Romanian and Russian].

2. Law No. 1989-III on the State Program on the National Environmental Network Development for the period of 2000–2015. Vidomosti Verkhovnoi Radi. 2000. № 47. st. 405. [In Ukrainian.]

3. Magurran A. E. Measuring Biological Diversity. Blackwell Science Ltd. Cornwall, 2003. 256 p.

4. Munteanu A. I., Andreev A. V. Principles of forming of zoocoenoses in agrolandscape. // Bull. of Academy Sciences of SSRM, Series of Biological and Chemical Sciences [In Russian]. 1990. \mathbb{N}_{2} 1. C. 3–15.

5. On approval of National Biodiversity Strategy and Action Plan. Decision of Parliament of the Republic of Moldova 112-XV of 27.04.2001. Monitorul Oficial al Republicii Moldova. № 90–91 ofr 02.08.2001.

6. Proca V. E. Landscapes. Atlas of Moldovan SSR. 1978. P. 69-72.

7. The indicative map of Pan-European Ecological Network – scientific background document.

8. Bouwma I. M., Jongman R. H. G. & Butovsky R. O. (ed.). Tilburg, European Centre for Nature conservation. 2001, draft. Technical report series.

9. Van Swaay, C., Cuttelod, A., Collins, S., Maes, D., LópezMunguira, M., Šašić, M., Settele, J., Verovnik, R., Verstrael, T., Warren, M., Wiemers, M. and Wynhof, I. European Red List of Butterfies. Luxembourg: Publications Office of the European Union. 2010.

10. Munteanu A. I., Ganea I. M., Ostaficiuc V. G., Andreev A. V. Some approaches to fauna regulation in agrocoenoses // Bull. of Academy Sciences of SSRM, Series of Biological and Chemical Sciences [In Russian]. 1987. № 5. P. 31–34.

УДК 614.841

RESEARCH OF DISEASE INCIDENCE RISK DEPENDENCE ON CHEMICAL INDICATORS OF DRINKING WATER QUALITY ON THE BASIS OF NEURAL NETWORK APPROACH

V. V. Istomin*, O. E. Konovalova**, T. V. Istomina**, O. M. Shikulskaya*** *VAB "Istomin" (Vilnius, Republic of Lithuania) **Penza state technological university (Russia) *** Astrakhan state university of architecture and civil engineering (Russia)

Определены основные химические показатели воды, влияющие на заболеваемость населения. Проведено исследование зависимости риска заболеваемости от превышения содержания химических показателей качества питьевой воды с помощью нейросетевого подхода.

Ключевые слова: химические индикаторы, заболеваемость, нейросетевой подход.