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**CORRELATION OF MONITORING AND CONTROL
IN CONNECTION WITH INTERNATIONAL CO-OPERATION
ON THE PROTECTION OF THE BALTIC SEA
FROM LAND-BASED POLLUTION ***

Ten years ago, on the 22nd of March 1974 the Convention on the Protection of the Marine Environment of the Baltic Sea Area (further the Helsinki Convention) was signed in Helsinki. It entered into force on the 3rd of May 1980. The convention forms a firm base for the regional co-operation of the Baltic states and aims at protecting the environment of that semi-enclosed sea. The Baltic Marine Environment Protection Commission (further the Helsinki Commission) was established. The Helsinki Convention fixed certain principles and obligations for the Baltic states in order to prevent or minimize the discharges of several pollutants into the sea from any kind of sources. At the same time, in regard to the main source of pollution — land-based pollution¹ (up to 80% of all the marine pollution), it ought to be noted that the problem is regulated only by general obligations; no precise rules exist as yet, neither are there any rules elaborated for an international (regional) control or responsibility. These essential questions should be solved in the future provided the contracting parties strengthen the efficiency of the existing legal mechanism on land-based pollution prevention as established by the Helsinki Convention, and pass jointly the declaration of their obligations in the matter of a proper marine environment protection.

The main problem is the fixing of norms (standardization) for land-based pollution and the realization of an effective control by the Helsinki Commission. To find acceptable solutions for these questions it is necessary to examine the notions «monitoring» and «control» with respect to the marine environment protection.

Monitoring is mostly used not by lawyers but by scientists in the sphere of natural sciences. In the opinion of a group of Soviet scientists led by prof. Y. Izrael, the monitoring of the seawater pollution in a broader sense consists of three main components: 1) observation and analysis of the dynamics of water pollution levels; 2) prognosis of these dynamics; 3) elaboration of scientific recommendations to prevent or minimize the discharges of pollutants into the marine environment, taking into consideration the prognosis received.² It seems necessary to carry

* Papers in the Estonian and Russian languages on the same subject are published in the juridical journal «Nõukogude Oigus», N 3, 1984.

¹ According to article 4 point 2 of the Helsinki Convention «land-based pollution» means pollution of the sea caused by discharges from land reaching the sea water-borne, airborne or directly from the coast, including outfalls from pipelines.

² Симонов А. И. Мониторинг химического загрязнения морских вод. — *Проблемы исследования и освоения Мирового океана*. Л., 1979, 96, 97.

out continuously such kind of monitoring on the Baltic for providing the Baltic states with a constant survey of the state of the marine environment. In this case the Baltic states will be able to develop their regional co-operation on the basis of objective criteria in accordance with the extent of marine pollution.

The strict meaning of monitoring as a system of observations is used in the Baltic Monitoring Programme (further BMP), elaborated by the experts of the Baltic states. Monitoring means «repeated measurements of selected parameters and pollutant concentrations in order to follow changes over a period of time»³. Since 1984 the BMP has also been including periodical assessments of the state and a prognosis of possible anthropogenic implications to the marine environment.⁴ But within the framework of the BMP, the scientists from seven Baltic states have been carrying out observations rather seldom and only at some single stations on the longitudinal axis of the Baltic. Because of several reasons such a set of observations cannot yet function as a system for obtaining essential and reliable data on the state of the marine environment; it can be merely considered the first attempt to solve a scientific-technological problem. From the juridical point of view, it is above all necessary to determine the legal meaning of the BMP and only then define certain tasks (requirements set to the BMP) of the oceanographers and technicians.

Noting that regional monitoring on the Baltic exists and will exist not for the BMP itself as one of the components of monitoring — a system of observations to determine the factual concentrations of pollutants in the seawater — it could at the same time be a component of international (regional) control, serving to answer the question whether the coastal states take sufficient measures to protect their coastal waters from pollution or not. This task could be carried out in accordance with the principles and norms of the contemporary international law and the provisions of the Helsinki Convention in the following way.

Bearing in mind the ecological criteria it would be necessary to define the standards of the seawater quality (PCL — permissible concentration limit) for the most hazardous or noxious pollutants for the sea-border (the width of 12 miles) of the Baltic states. Thus the respective states would be obliged, to an equal degree to take measures on their territory in order to keep the water quality at sea-border within the permissible limits. If the monitoring stations would be placed near the sea-border of the Baltic states, it could be possible to assess their activities with a certain credibility by measuring the factual concentration of pollutants in the seawater.

The definition of the notions «control» and «monitoring» is given by prof. Y. Izrael as follows: «Control of the state of the natural environment in a broader sense includes environmental monitoring and regulation of environment's quality, taking into account geophysical, ecological, economic and social aspects».⁵ Monitoring as a scientifically based and organized system of observations has to give data about the factual concentrations in the seawater (pollution levels). If there were previously established regional PCL, one could compare these data with the norms (standards). That is the way to assess with a certain probability how the Baltic states fulfil their international obligations set by the Helsinki Convention.

³ Working papers of the Helsinki Commission: Guidelines for the Baltic Monitoring Programme for the First Stage. August 2, 1980.

⁴ Working papers of the Helsinki Commission: 2nd Meeting of Experts on Monitoring of the Baltic Sea Area. March 23—25, 1982.

⁵ Израэль Ю. А. Экология и контроль природной среды. Л., 1979, 11.

Realization of a regional control on the pollution from several sources from land is an important political, economic and legal problem. Its solution by a modernization of the BMP will beyond any doubt raise some questions to lawyers. Firstly, how could one ensure the representability and reliability of the data (pollution levels) during observations? The answer to this question must be given by the scientists of the Baltic states who all have to determine the parameters to be observed, work out recognized methods of observation and prepare the standard control-measuring techniques (see the United Nations Convention on the Law of the Sea, article 204, p. 1). Secondly, is it necessary to conduct the monitoring of all components of the marine environment (water, biota, seabed) or not? Marine scientific research is relatively expensive. The establishing of an international control system makes it possible to assess the limits of expenses for an expedient and reasonable action. Because of the economy of human and ship resources, the control data have to be obtained automatically. Therefore it is necessary to approve of the method of observing the water-body by means of uninhabited automatic buoy-stations as measuring techniques. Thirdly, where could the monitoring stations be placed? According to article 4 point 2 of the Helsinki Convention, the international control or monitoring stations could be placed only beyond the territorial sea, that is within the economic zone of the Baltic states, in case they will use the right given to the coastal states by the UN Convention on the Law of the Sea and extend jurisdiction with regard to the protection of the marine environment as well as to the marine scientific research of the Baltic Sea as a whole. In these new conditions the marine scientific research on the Baltic will depend on the consent of the coastal state. Therefore the realization of regional monitoring could be possible by observing the principle of mutuality on the basis of an agreement between the Baltic states. Fourthly, what juridical consequences will follow if, according to observations by BMP, the factual pollution level (by one or more pollutants) exceeds the established PCL? It seems that the data of the factual pollution levels serve only as a signal characterizing the state of the marine environment. In order to take some juridical decisions (for example, in responsibility matters) it will be necessary to carry out special expert research to exclude possible occasional mistakes in monitoring data processing and fix more precisely the presence, extent and spread of pollution.

Finally, if the Baltic states will consider the realization of the regional control on land-based pollution by Helsinki Commission in the proposed way expedient, they will have to modernize the BMP jointly and do the following:

- 1) elaborate ecological criteria, and on that basis define the PCL for the sea-borders according to the single pollutants, taking into account the notion «patchness» as well as the geophysical and other conditions of the coastal zone;
- 2) elaborate recognized observation methods;
- 3) elaborate uninhabited automatic buoy-stations as measuring techniques, and methods for passing on the information to the coastal states as well as to the Helsinki Commission;
- 4) fix the quantity and position of the buoy-stations in the economic zones;
- 5) establish the Control Service at the Helsinki Commission in order to register the information and the maintenance of the equipment;

6) formulate and fix all above-mentioned points as an additional appendix to the Helsinki Convention.

The modernization of the BMP and the partial combination with the control system could serve two purposes. The organization of a permanent observation system will give an opportunity to assess the state of the marine environment and also prognosticate changes in it. These scientific data represent objective criteria showing whether the pollution prevention measures taken by the Baltic states individually are sufficient or not, or if it will be necessary to take jointly some additional measures in order to achieve the aims set by the Helsinki Convention. On the other hand, the concretization of the obligations of the Baltic states on land-based pollution prevention and the realization of a regional control on the observance of these norms will certainly help to avoid the disputes in the matter which of the Baltic states should take additional measures to fulfil honestly the requirements of the Helsinki Convention. This will also help to prevent violations of international obligations.

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MONITOOINGU JA KONTROLLI VAHEKORRAST LÄÄNEMERE SAASTAMIST MAISMAALT VÄLTIVAS RAHVUSVAHELISES KOOSTÖÖS

22. märtsil 1974 kirjutasid seitsme Läänemeriügi esindajad alla Läänemere piirkonna merekeskkonna kaitse konventsioonile, mis jõustus 3. mail 1980 ning pani soliidse aluse rahvusvahelisele koostööle. Ometi jäid mõned olulised probleemid konventsiooniga reguleerimata. Näiteks on jäänud konkretiseerimata kaldariikide kohustused maismaalt lähtuva saastamise vältimisel. Samuti on fikseerimata teed kehtestatud normidest kinnipidamise rahvusvaheliseks kontrolliks. Mõlemad on aga poliitiliselt, majanduslikult ja õiguslikult tähtsad küsimused.

Artiklis on pakutud võimalik lahend rahvusvahelise õigusliku reguleerimise tõhusamiseks. See peaks vastama regiooni kaldariikide huvidele ning olema kooskõlas nii rahvusvahelise õiguse printsiipide ja normidega kui ka Helsingi konventsiooni sätetega.

Eesti NSV Teaduste Akadeemia

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Хейки ЛИНДПЕРЕ

О СООТНОШЕНИИ МОНИТОРИНГА И КОНТРОЛЯ ПРИ МЕЖДУНАРОДНОМ СОТРУДНИЧЕСТВЕ ПО ЗАЩИТЕ БАЛТИЙСКОГО МОРЯ ОТ ЗАГРЯЗНЕНИЯ С СУШИ

Подписав 22 марта 1974 г. Конвенцию по защите морской среды Балтийского моря, Прибалтийские государства заложили прочную основу региональному сотрудничеству, направленному на предотвращение загрязнения этого моря. Создана Комиссия по защите морской среды Балтийского моря. Вместе с тем следует отметить, что в отношении суши — главного источника загрязнения — конкретные обязательства государств по регулированию сбросов загрязнителей с их территорий не установлены, как не определены ни формы, ни средства обеспечения ответственности. Решить эти существенные вопросы предстоит Прибалтийским государствам в будущем, если они считают необходимым повысить эффективность международно-правового регулирования в обла-

сти предотвращения загрязнения моря, чтобы совместно перейти от деклараций своих обязанностей к конкретным мерам по защите Балтийского моря.

В статье рассматриваются понятия «мониторинг» и «контроль» при защите морской среды с точки зрения юриста-международника и предлагается один из возможных вариантов организации международного (регионального) контроля за загрязнением моря с суши в соответствии с принципами и нормами современного международного морского права. Этот вариант включает разработку предельно допустимых концентраций (ПДК) наиболее токсичных загрязнителей в территориальных водах (шириной 12 миль) Прибалтийских государств с учетом геофизических и других условий прибрежной зоны. При наличии таких конкретных норм предлагается организовать непрерывные наблюдения за фактическим уровнем загрязнений с помощью необитаемых автоматических буйковых станций. Данные с этих станций позволят составить объективную картину о том, как выполняются Прибалтийскими государствами принятые ими международные обязательства. Рассматриваются также вопросы, возникающие у юристов в связи с осуществлением такой системы международного контроля, и вносятся предложения по модернизации существующей Программы мониторинга Балтийского моря.

В статье отмечается, что модернизация упомянутой Программы и ее частичное совмещение с системой контроля послужат двум целям. Во-первых, организация автоматических наблюдений за динамикой уровней загрязнений морской воды позволит дать оценку состоянию морской среды в каждый момент времени и прогнозировать изменения в ней. По этим данным как объективному критерию можно будет судить о том, являются ли собственные усилия Прибалтийских государств по уменьшению загрязнений морской среды с суши достаточными или необходимо принять какие-то дополнительные, совместные меры для достижения положений Хельсинкской конвенции. Во-вторых, конкретизация обязательств Прибалтийских государств по установлению ПДК и осуществлению контроля за их соблюдением предупредит возникновение возможных споров о том, какие государства региона добросовестно выполняют требования Хельсинкской конвенции и какие нет, и к тому же будет содействовать предупреждению правонарушений. В конечном счете все это будет способствовать быстрейшему претворению в жизнь решений Хельсинкской конвенции.

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