

International Cooperation For Saving The Black Sea and The Coordinated Parallel Audit by SAIs of The Region

Dr. H. Ömer KÖSE

T.C. Sayıştay Başkanlığı, Sayıştay Uzman Denetçisi, ANKARA

Dr. Ahmet TANER

T.C. Sayıştay Başkanlığı, Sayıştay Başdenetçisi, ANKARA

Berna ERKAN

T.C. Sayıştay Başkanlığı, Sayıştay Denetçisi, ANKARA

ABSTRACT

As the most isolated sea in the world, the Black Sea is under great threats stemming from human activities in the region and it is clear that the effects of great deal of polluters from lots of sources on the Black Sea environment could be devastating if they are not managed properly. Considering the fact that international collaboration is crucial to save the Black Sea, SAIs of coastal countries carried out a coordinated parallel audit to evaluate the effectiveness of the implementation results of the Bucharest Convention. Comprehensive evaluations and recommendations in both the Joint Report and more detailed national audit reports provide a strong basis for implementing the necessary strategy and policies effectively and enhancing these efforts. Taking notice of these reports, responsible actors at each level of environmental governance should take appropriate steps to protect and rehabilitate the Black Sea before its being too late.

Key Words: *Black Sea, Marine Environment, Coordinated Parallel Audit, Supreme Audit Institutions (SAIs), Bucharest Convention*

JEL Classification: *F53, R11, Q53, Q56*

Karadeniz'in Korunmasına Yönelik Uluslararası İşbirliği ve Bölge Sayıştaylarının Koordineli Paralel Denetim Çalışması

ÖZET

Dünyanın en izole denizlerinden biri olan Karadeniz, bölgesindeki beşeri faaliyetlerin yol açtığı ciddi kirlilik tehdidi altındadır ve eğer bu tehdit iyi yönetilemezse, çok sayıdaki kirletici kaynağın Karadeniz çevresi üzerindeki etkileri vahim boyutlara ulaşacaktır. Karadeniz'in kurtarılmasında uluslararası işbirliğinin öneminin bilincinde olan kıyı ülke yüksek denetim kurumları (Sayıştayları), Bükreş Sözleşmesinin uygulama sonuçlarının etkinliğini değerlendirmek amacıyla uluslararası paralel bir denetim çalışması yürütmüştür. Denetim sonucunda hazırlanan gerek ortak rapor ve gerekse daha ayrıntılı ulusal raporlarda sunulan kapsamlı değerlendirme ve öneriler, gerekli strateji ve politikaların uygulamaya geçirilmesi ve geliştirilmesi için güçlü bir temel oluşturmaktadır. Bu raporları da dikkate alarak, bu alanda rol üstlenen her düzeydeki aktörün çok geç olmadan Karadeniz'in korunması ve rehabilitasyonu için gerekli adımları atması büyük önem taşımaktadır.

Anahtar Kelimeler: *Karadeniz, deniz çevresi, uluslararası paralel denetim, yüksek denetim kurumları (Sayıştay), Bükreş Sözleşmesi*

JEL Sınıflaması: *F53, R11, Q53, Q56*

I. INTRODUCTION

Water, as an indispensable source for the maintenance of the lively life and natural balance of the earth, is increasingly turning into one of the most strategic elements of the ecosystems. However, the unsustainable management of water resources is among the most urgent environmental problems of today's world. As one of the vital water resources, the importance of the seas and especially of the regional seas has been more and more appreciated due to the economic, social and environmental opportunities they offer. Since regional seas are faced with massive threats which are growing day by day, protection and sustainability of the seas is perceived as one of the priorities on the governments' agendas in terms of the environmental protection policies.

The Black Sea, as an isolated inland sea from the oceans, is one of the most vulnerable seas in the world. Especially pollution inputs and other factors have radically changed Black Sea ecosystems since 1960s and seriously threatened biodiversity, fishing and marine activities which are of vital importance for the sustainability of socio-economic life of the countries in the region. In this context, collective efforts have been accelerated recently for the protection and rehabilitation of the Black Sea, whose strategic importance has been steadily increasing but at the same time which has become more vulnerable to environmental risks.

As the basis of these collective efforts, the Bucharest Convention was signed in 1992 by six coastal countries, namely Bulgaria, Georgia, Romania, Russian Federation, Turkey and Ukraine. This pioneering initiative sets a sound basis for protection of the Black Sea against pollution by means of international cooperation, especially cooperation of the acting countries. The Convention has also set a basis for international cooperation among the SAIs of the contracting countries through a coordinated parallel audit which focuses on the effectiveness of the implementation of the Convention. As the main outputs of this international audit, the national audit reports of each SAI and the joint report present substantial contributions as well as huge opportunities for protective collective efforts for the Black Sea launched by the relevant actors.

II. THE IMPORTANCE OF THE BLACK SEA FOR THE REGION AND ITS CRISIS

With its rich ecosystem, the Black Sea provides diverse opportunities for economic and social life and has a vital importance for the region. It has many "uses", ranging from fishing, tourism and mineral extraction on one hand, to its use as a cheap transport route and as a convenient place to dump solid and liquid waste on the other. Many of these uses have an additional economic cost through their impact on the environment. Like so many environmental issues, by paying little or no attention to these "costs", they have been conveniently transferred from one generation to the next (UNEP, 2012).

As revealed in the GEF-BSEP Report of Black Sea Transboundary Diagnostic Analysis (UNDP, 1997), the Black Sea is 5 times more polluted than the Mediterranean Sea which has 6 times wider surface area and 7 times higher

water volume than the Black Sea. As one of the underlying reasons for this situation, it is put forward that pollutants from almost one third of the entire land area of continental Europe, which is an area including major parts of seventeen countries, thirteen capital cities and some 170 million persons drain into the Black Sea. The second, third and fourth major European rivers, namely the Danube, Dnieper and Don, discharge into this sea; but the Black Sea's only connection to the world's oceans is the narrow Bosphorus Channel which makes it an isolated region. And under these circumstances, the Black Sea has turned into a litter dump of the Europe in the last 30 years although throughout history it has been accepted as one of the richest water resources of the earth (Ökmen, 2011: 170). As a result, the Black Sea ecosystem suffered catastrophically during the 1980s and early 1990s from the effects of eutrophication (Kıdeyş, 2002).

Increasing globalisation has led to a strong increase in international shipping activity (OECD, 2010: 2) especially in the Black Sea region and this seriously affects the Black Sea ecosystem. Because the region is on a strategic route in terms of transportation and trading as well as energy corridors in Eurasia and thereon the region has been steadily gaining importance as a key energy supply route for Europe and the rest of the world (Noyan and Güney, 2012: 103). In fact, high density of oil transportation has a huge potential for irrecoverable damages arising due to accidentally and illegal dumping. In the case of maritime accidents, the environmental damage caused by ships is not only serious but also, in a way, spectacular (Algemene Rekenkamer, 2006: 8).

As a different aspect of this marine pollution, the Black Sea is also one of the worst affected marine regions of the world impacted by the ship-mediated transfer of invasive species (Kıdeyş, 2008). Similarly, growing population density, urbanization and industrial and agricultural activities as well as resulting increased levels of domestic, industrial and agricultural wastes significantly threaten the sustainable use of this unique resource.

As an inevitable result of these pressures, the Black Sea is in a deep crisis today. In a period of only three decades, the Black Sea has been suffering from the catastrophic degradation of a major part of its natural resources. The environment of the Black Sea has deteriorated dramatically in terms of its biodiversity, habitats, fisheries resources, aesthetic and recreational value and water quality (UNEP, 2012). Because of over exploitation of its resources and increasing level of marine pollution, this invaluable asset is under great threats.

This risk of environmental degradation and the responsibilities emerged for all countries in the Region make it necessary to take all the measures to struggle against the pollution effectively through developing comprehensive and long-term policies for the Black Sea and ensuring the sound implementation of them by collaborative strategies.

III. INTERNATIONAL COOPERATION FOR SAVING THE BLACK SEA AND THE BUCHAREST CONVENTION

Environmental problems know no borders such that most of them exhibit global or at least regional characteristics. Therefore, dealing with them needs

special international endeavours and it is a fact that improved environmental governance at the international level could significantly enhance environmental governance at the national level by, inter alia, supporting the judiciary, auditors and other stakeholders to more effectively implement environmental law. However, there are no settled mechanisms to cope with such issues and this results in the lack of a centralised supranational authority which is often cited as the crucial barrier to effective environmental protection (Ardia, 1998: 566). For that reason, there are crucial responsibilities at international, national, regional and local levels.

Protection of the marine environment which composes the largest part of our planet is by its very nature a transboundary issue. So, international collaboration is the most crucial requirement for saving the Black Sea environment which plays the role of an economic, geo-political and trade hub and serves as a crucial energy trade corridor connecting Asia with Europe (Dimadama, 2011: 22). However, it was not until the late 1980s that the international community became aware of the magnitude of the ecological crisis underway in the Black Sea. By 1992, when the alarm bell was sounded for international support to the Black Sea, the future of this unique marine system seemed grim (Mee et al., 2005: 100).

Degradation of the Black Sea environment is not a fault of just surrounding countries but also other eleven European countries which have a major part of their territory in the Black Sea basin have serious responsibilities. Whatever the reasons or whoever the responsibilities, the crucial thing that should be done is an international cooperation and application of some policies (Arslan and Ökmen, 2006: 1042). Because it is fact that protection of the Black Sea can not be achieved on a unilateral basis (UNEP, 2012).

Inspired by the Regional Seas Conventions which emerged after the 1972 Stockholm Conference on Environment and Development, the first decisive step towards a cooperative framework was taken in 1992 when representatives of the six Black Sea countries drafted the "Convention for the Protection of the Black Sea Against Pollution" by the help of the international community (IAEA, 2012). Entering into force in early 1994, the Convention includes a basic agreement and several specific protocols aimed at controlling land-based sources of pollution, curbing the dumping of waste, forging joint actions in the case of accidents (e.g. oil spills) and biodiversity and landscape conservation. Its implementation is decided to be overseen by a Commission with a permanent secretariat in Istanbul (the Istanbul Commission).

In order to set the goals, priorities and timetable that are needed to bring about environmental actions, a Ministerial Declaration on the Protection of the Black Sea Environment was signed by all six countries' Ministers of the Environment in Odessa in April 1993. The Convention and this Declaration have formed the legal basis for the Black Sea Environmental Programme (BSEP) launched with the support of UNDP-GEF. Within this Programme, many national, regional and international plans, programmes and projects have been carried out.

Especially with the Strategic Action Plan developed for the protection and rehabilitation of the Black Sea in 1996 and its revised version in 2009, urgent problems of the Black Sea ecosystem and necessary measures that have to be taken to cope with them are defined. The Plan also ensures strong commitment of the relevant countries to these measures.

Bucharest Convention with its Protocols and Black Sea Strategic Action Plans impose many tasks and responsibilities to the Contracting Parties on different issues such as land based pollution sources, pollution monitoring, environmental safety of shipping and biological diversity. As it was so long ago emphasized in the Bucharest Convention, the Contracting Parties to the Convention should commit themselves to take individually or jointly all necessary measures consistent with international law and in accordance with the provisions of this Convention to prevent, reduce and control pollution thereof in order to protect and preserve the marine environment of the Black Sea (Article 5, paragraph 3).

Bearing in mind that sharing responsibilities and supporting international cooperation mean a lot for saving the Black Sea, it is of vital importance to oversight the governments' effectiveness in the policies followed for the sustainability of the Black Sea in terms of their obligations exerted in the Bucharest Convention as well as in other related international and national legislative framework. Signing the Convention is perceived as an important step for coming together and reaching a consensus on both the problems and their solutions, but it is admittedly not enough for saving the Black Sea. Countries in the Black Sea Region need to further enhance implementation of multilateral environmental agreements and establish a more strategic environment cooperation in the region (Commission of the European Communities, 2007: 6).

IV. COORDINATED PARALLEL AUDIT ON SAVING THE BLACK SEA AGAINST POLLUTION

Taking into account that it is almost impossible to save the Black Sea without international cooperation, SAIs of the Black Sea countries, based on a decision taken at the EUROSAI Congress in 2009, decided to come together to carry out a Coordinated Parallel Audit for the protection of the Black Sea against pollution. In the framework of a "Common Position", the Project has relied on the wills of the SAIs of the Black Sea countries (Bulgaria, Ukraine, Russian Federation, Romania, Turkey and Georgia) to explore the extent of the effectiveness of implementation of the Bucharest Convention by the relevant governments and its current results and impacts on the Black Sea ecosystem. In other words, with this initiative and audit process that began in 2010, SAIs decide to examine their governments' effectiveness in the policies followed for the sustainability of the Black Sea in terms of their obligations exerted in the Bucharest Convention as well as in other related international and national legislative framework.

The evaluation of compliance of government policies with the legislative framework and conventions at both national and international level is one of the

most important benefits of environmental auditing. As revealed in the INTOSAI WGEA Guidance (WGEA, 2007), strengthening especially the compliance with national laws, regulations and international agreements are among the expected impacts of audits on the environmental management systems. Bearing this in mind, collaborating with other SAIs to determine the effectiveness of the implementation of the Bucharest Convention at national and regional level admittedly has great implications for the Black Sea ecosystem as well as all regional countries.

Turkish Court of Accounts (TCA), perceiving environmental auditing as a management tool to improve the environmental performance, gives great significance to improving international relations and presents willingness for taking place at the international arenas related to environmental auditing initiatives. For instance, the first environmental auditing workshop was held by INTOSAI WGEA and IDI in Antalya (Turkey) for ASOSAI Members in 2003. A similar workshop was organised in April 2011 again in Antalya for ECOSAI Members in two parallel sessions one of which was in English and the other in Russian.

Besides this kind of training activities on environmental auditing, TCA has participated and provided significant contributions to the “Coordinated Parallel Audit on Protection of the Black Sea against Pollution (2011)”, as the most recent initiative. For this audit, a team has been formed from the instructors and participants of the environmental auditing workshop. Gaining deep insight for environmental issues and environmental auditing methodology throughout the course, the team has started to work on exploring the audit area by focusing both on international and national dimension of the issue.

Bucharest Convention and its Protocols and Strategic Action Plans for the Black Sea (first version in 1996, revised version in 2009) are reviewed for further details of implementation. National laws and regulations, strategies and performance reports of related institutions, research reports and academic studies, related national and international literature etc. and media coverage is also overviewed to determine the main problems in the Black Sea region. Since the task of SAIs is to offer as good as possible a basis for decision making for the relevant agencies to achieve the governance targets (Pollitt and Summa, 1997), related public bodies and other responsible actors have been defined as well.

The audit team gets in contact with central and local governmental agencies that have responsibilities in the Black Sea region. During the national audit, waste problem of the region, preparedness for the instances of ship pollution and effectiveness of the pollution monitoring system as well as the importance of the international and regional cooperation especially through the Black Sea Commission have been focused on in order to detect the main deficiencies or good examples in these issues and develop sound recommendations.

During the audit process, close cooperation with the other SAIs’ audit teams has been sustained. For this purpose, three expert team meetings have been

arranged with all audit teams from each SAI. The first meeting was held in Kiev, Ukraine in June, 2010; the second one in İstanbul, Turkey in October, 2010; and the third one in Bucharest, Romania in April, 2011. In these meetings where fruitful discussions took place, TCA has made great contribution in terms of its methodological approach during the audit and the proposed structure of the Joint Report.

As the main outputs of this Coordinated Parallel Audit that lasted approximately one year, each country has produced its own national report and based on the common findings, conclusions and recommendations, a Joint Report is prepared. This Report was signed at the 8th EUROSAT Congress in Lisbon, Portugal by the Presidents of the SAIs of the Black Sea countries and then published on the INTOSAI WGEA website (<http://www.environmental-auditing.org/tabid/126/CountryId/401/Default.aspx>).

V. CONCLUSIONS OF THE COORDINATED PARALLEL AUDIT: MAIN CHALLENGES AND RESPECTIVE SOLUTIONS

The aim of the participants of the Coordinated Parallel Audit is to eliminate deficiencies in the environmental protection measures to a minimum level and promote the effectiveness of the audited bodies and welfare of the Black Sea community to higher levels. With the Joint Report (EUROSAT, 2011), by revealing the state of the Black Sea pollution and each country's contribution to the total pollution, it is aimed to draw attention of both coastal countries and other related countries to the pollution in the Black Sea and to make recommendations regarding steps toward improving international collaboration and developing common strategies against pollution. As the outputs of these collaborative efforts, main findings and recommendations presented in the national reports as well as in the Joint Report are expected to contribute significantly to the rehabilitation of the Black Sea ecosystem.

The Joint Report consists of four sections, the first of which presents the joint conclusions and recommendations deduced from the results of the national audits. The summaries of results of the national audits are revealed in the second section while the third section includes a comparative analysis based on the evaluation of the national strategies, current state of the Black Sea pollution and dynamics, monitoring and supervision activities and data access. And the last section puts forward the possibilities toward improving international and regional collaboration to deal with the Black Sea pollution.

The point that is highlighted at first place in the Joint Report is that *there is no problem about the contracting parties' adoption of the Bucharest Convention and other related documents*. In fact, necessary measures for implementing the provisions of the Bucharest Convention are reflected in the national legislature of the countries and each country in the Black Sea region has identified the government executive authority, responsible for implementation of provisions of the Bucharest Convention and the authorities, responsible for supervision and protection of environment against pollution.

However, the problem in reality is much more related with the effectiveness of the implementation of these provisions stated in both international and national regulation and the level of the international and regional cooperation. Today, as revealed in the Joint Report (p.12), threats from both land-based and ship-based pollution have been continuing for the Black Sea region. In many scientific researches, it is indicated that ***eutrophication, which is overabundance of the sea by compounds of nitrogen and phosphorus that originating primarily from agriculture and municipal sewage, is the main threat to the Black Sea ecosystem.*** Land based pollution discharged into the Black Sea by rivers from a wide catchment area contributes significantly to the eutrophication phenomenon.

Since the main pollutants are land based and the rivers are the main channels in carrying substantial inputs of untreated sewage and industrial waste water into the Black Sea, effectiveness of the river basin management is very important for the Region. In fact, it is reflected in the Joint Report that ***dumping of the waste water into the Black Sea can not be adequately controlled***, so that ***significant funds are necessary*** for the implementation of river basin management and especially for treatment systems to increase the number of waste water treatment plants and improve the existing ones. Besides the waste water problem, ***discharging of solid waste into marine environment*** is another challenge for the region and as the main requirement to promote sound waste management system, ***enhancing institutional, technical and financial capacity of especially local governments*** is emphasized in the Joint Report (see p.12, 13, 15).

The Joint Report also highlights that ***the Black Sea is under a great threat of pollution caused by intensive ship traffic among the Black Sea ports and especially through the Turkish Straits*** (see p.16, 17). Due to intensive ship traffic, the level of potential operational and accidental risk of oil spills is very high in the Black Sea and notably in the Bosphorus due to its strategic and at the same time narrow location. As also pointed in the Report, more than 50.000 ships of which 1/5 carry oil and other hazardous chemicals pass through the Istanbul Strait leading to great threats for the Bosphorus and the coastal zone of İstanbul and this shows the rising risk of accidental oil spills for the Black Sea. Therefore, ***it should be ensured that all related facilities have the adequate equipment and capacity*** with regards to the marine environment safety. Moreover, ***ship surveys and port state control activities need to be improved*** in the Black Sea Region. ***Besides the accidental oil spills, waste disposal from the ships is another challenge*** pointed in the Joint Report that necessitates to take relevant measures to improve the capacities and functioning of the waste reception facilities and increase ship inspections for preventing illegal waste disposal to the sea. In this sense, effective implementation of the “polluter pays” principle is specifically highlighted in the Report to deal effectively with the ship based pollution.

Another point emphasized in the Joint Report (p.12, 13, 18) is about the importance of the pollution monitoring programs launched by the respective

countries in the Black Sea region. In fact, ***despite great funds allocated, there is still need for increasing investment in pollution monitoring systems*** since the issues of financing the development and functioning of the existing monitoring activities at the national level as well as financing issues of scientific laboratory researches involve certain risks such as ***hindering receiving reliable and rather complete data on marine ecosystem quality changes***. And as expectedly, this situation affects adversely the quantity and quality of the data as well as sustainability and efficiency of monitoring programs executed in the Black Sea region. Therefore, ***development of the data quality assurance and quality control procedures by the BSC and harmonization of monitoring programs and standardization of sampling and sample analysis techniques among the countries*** are regarded as essential steps in the Joint Report in order to obtain expected results from the pollution monitoring programs.

The Black Sea Commission (BSC) which was established to achieve the declared targets in the Bucharest Convention and BSEP, is a ground that is expected to harmonize all the collaborative efforts in the Black Sea Region. Commission offers a basis for facilitating the cooperation among not only coastal countries but also other countries that contribute pollution via exchanging information and best practice on dealing with pollution. In this sense, Black Sea countries have committed to report relevant data and information about the state of the Black Sea pollution to the Black Sea Information System (BSIS) within the BSC. However, as noted in the Joint Report (p.12, 13), ***there are gaps in data availability and data reporting*** due to insufficient harmonization and standardization between the national monitoring programs ***and this results in the lack of a comprehensive common database***. Without effective data production and reporting activities, it is clear that it becomes more difficult to develop common strategies for the collaborative struggle against pollution. Therefore, ***the need for effective collaboration at both regional and international level*** is presented as one of the main messages of the Joint Report for ensuring the achievement of the goals of the Bucharest Convention. And regional and international initiatives to protect the Black Sea should be enhanced especially via ***developing the operational capacity of the BSC and the cooperation of the countries via the BSC***.

VI. THE IMPLICATIONS OF THE COORDINATED PARALLEL AUDIT FOR TURKEY AND TCA'S CONTRIBUTION AT NATIONAL LEVEL

By the audit conducted at national level within the scope of the Coordinated Parallel Audit, TCA has examined and evaluated institutional and technical capacity of the governmental agencies that are responsible for the implementation of the Bucharest Convention, efficiency of the allocated public funds and effectiveness of the activities that are carried out in the Region to prevent pollution and rehabilitate the ecosystem are examined and evaluated in detail.

Undoubtedly, the Turkish Black Sea coast is under a great pollution threat stemming from both human activities such as land based pollution and ever growing ship traffic, and natural circumstances. Although the legal framework to set up a sound waste management system is in place, the implementation capacity remains low in general. The processes of collection and transportation of the waste to the landfills are functioning well in general, but the treatment facilities in the region are mostly insufficient and therefore it is an urgent need for the Region to improve the number and capacity of sanitary landfills. Dumping of waste water is another significant threat such that the number of waste water treatment plants or the level of current treatment systems are still not adequate to deal with improper sewage discharges. However, almost all municipalities have ongoing projects on waste water treatment plants. After all, the report highlights that for preventing land based pollution, sound waste and waste water management systems should be put into place at especially coastal cities of the region as well as in the river basins (see p.15-17).

Intensive ship traffic in the Black Sea is another major threat for the marine environment and this threat is increasing continuously. Efforts towards controlling pollution originated from operational activities of ships and marine accidents are needed to be enhanced. In this regard, particularly serious measures are required to eliminate the threats caused by tankers passing the Bosphorus Strait.

In order to ensure effective implementation of activities towards dealing with pollution, institutional and technical capacity of the relevant agencies is needed to be improved. Moreover, since supervision activities are of vital importance for controlling and reducing pollutants into the sea environment, fulfilment of the responsibilities with regards to inspecting and supervising the pollutant activities throughout the Black Sea catchments should be given weight by the central government and local bodies (see p.18).

To develop appropriate strategies and policies, pollution monitoring capacity of the related agencies should be enhanced and data reporting and collection activities should be carried out in a regular and harmonized manner. Because maintenance of a regular, up to date and consistent database comprised of comparative set of data provided by the coastal countries serves for deriving lessons from the ongoing environmental policies. In fact, such a healthy database helps to observe the trend of the pollution level and its main underlying dynamics in the course of time.

Implementation of effective inspections with respect to the pollution prevention and working toward solutions about financial, institutional and technical capacity problems are of vital importance for the Region. National audit shows that regional and international collaboration via common policies, strategies, plan or projects means a lot for the future of the Black Sea. National audit also points to the necessity of the regional and international collaboration and of taking the measures urgently for saving the Black Sea from its current situation (see p.14-15).

And apparently the first step to save the Black Sea is to increase the awareness of the citizens as well as all the related agencies both public and private about its importance and unfortunate worsening conditions. At this point, it can be claimed for Turkey that the awareness about the current pollution level and potential threats waiting for the Black Sea unless necessary measures are taken is rising and this awareness serves as the core of the national efforts in favor of the rehabilitation of the Black Sea.

VII. CONCLUSIONS

As the most isolated sea in the world, the Black Sea is so vulnerable to pressures from human activity such that if it is not properly managed, the effect of great deal of polluters from lots of sources on its environment could be devastating. And to manage these environmental risks, it is clear that especially Black Sea countries must take on serious responsibilities for the sustainability of the Black Sea and achieve their commitments to the settled measures and strategies. In this sense, Coordinated Parallel Audit of the SAIs of the Black Sea countries, as independent oversight mechanisms, plays a stimulating role for highlighting these commitments and launching further initiatives with regards to the protection and rehabilitation of the Black Sea. This international audit work is also perceived as an important tool to take attention of the public opinion on the Black Sea's worsening ecosystem and thereby to raise the general awareness about the strategies to be followed.

Struggling against the pollution in the Black Sea necessitates a comprehensive strategy at both national and international level since the arised problems are multifaceted such as land-based and ship-based pollution problems as well as problems related to pollution monitoring and data-process activities. The inflow of untreated sewage into the Black Sea is a serious threat to the population and economic activities and leads at the same time to public health problems. As a strategic transport and trade route and energy corridor in Eurasia, the Black Sea is face to face with many risks and threats ranging from ship accidents to alien species. So, a comprehensive strategy is of crucial importance to solve chronic problems of the Black Sea.

Establishing pollution monitoring systems and effectively utilizing them to produce data on marine ecosystem quality changes are also the essentials for protecting the Black Sea against pollution. These systems and their products provide opportunities not only in favour of struggling against the pollution in the Black Sea through corrective steps but also for taking proactive steps against the future possible pollution threats. In this sense, the integrity and reliability of national monitoring systems of the Black Sea countries, individually and interactively, and maintenance of the quality assurance of these systems are of vital importance for the preventing the pollution level to increase up to irreversible points.

To manage these multifaceted problems in the Black Sea, the Black Sea Commission (BSC) is expected to be the most important supporter of the coastal countries through launching cooperative efforts and facilitating the cooperation.

Commission may take more active roles in such areas of exchanging scientific and technical information, increasing public awareness and incorporation of sustainable (or environmentally friendly) approaches in economic development. Although such missions of the BSC has not been able to be carried out successfully all the time, the coastal countries as well as other relevant regional countries, are of the same opinion that collaborative and integrating effects of the BSC could be enhanced by developing the operational capacity of the BSC and the cooperation of the countries via the BSC.

The Black Sea along with its economic, social and environmental value is a great natural resource not only for the region but also for the entire world. Along with its raising economic, political and strategic importance, international focus on the environmental problems of the Black Sea region is growing steadily. In parallel, initiatives for regional and international cooperation which are indispensable to protect, preserve and rehabilitate the Black Sea environment are also growing. As one of the most enriching initiatives for the Black Sea took by the related SAIs, Coordinated Parallel Audit will most likely provide significant contributions to the effective struggle against pollution and sustainable management of the Black Sea ecosystem since coordination and working together on the environmental programmes addressing the Black Sea ecosystems' problems is critical for the future of the Black Sea.

REFERENCES

- ALGEMENE REKENKAMER (2006), Marine Pollution from Ships: Joint Report Based on National Audits 2000-2003, The Hague, October.
- ARDIA, David S. (1998), Does the Emperor Have No Clothes? Enforcement of International Laws Protecting the Marine Environment, Michigan Journal of International Law, Vol. 19:497.
- ARSLAN, Nagehan Talat and Mustafa ÖKMEN (2006), "The Economical and International Dimensions of the Environmental Problems, Environmental Problems in the Black Sea Region and the Role of the Voluntary Organizations", Building and Environment 41 (2006), p. 1040-1049
- COMMISSION OF THE EUROPEAN COMMUNITIES (2007), Black Sea Synergy-A New Regional Cooperation Initiative, Brussels.
- DIMADAMA, Zefi (2011), "Greening the Black Sea: Environment and Sustainable Development", International Journal of Environmental Protection, Vol. 1, No. 1
- EUROSAI (2011), Joint Report on the Results of the Coordinated Parallel Audit on Protection of the Black Sea against Pollution, EUROSAI Task Force on the Audit of Funds Allocated to Disasters and Catastrophes.
- IAEA (2012), Helping to Save the Black Sea, UNDP IAEA Technical Co-operation Building Development Partnership, http://www.iaea.org/Publications/Booklets/UndpBook/black_sea.html
- KIDEYŞ, Ahmet E. (2008), "Challenges for the Safety of Navigation and Environmental Security in the Black Sea", International Expert Conference on "The Safety of Navigation and Environmental Security in a Transboundary Context in the Black Sea Basin", Odesa, Ukraine, 24-26 June 2008
- KIDEYŞ, Ahmet E. (2002), Fall and Rise of the Black Sea Ecosystem, Science, Vol. 297, No. 5586 (August), pp. 1482-1484
- MEE, Laurance D., Jana Friedrick and Marian T. Gomoiu (2005), "Restoring the Black Sea in Times of Uncertainty", Oceanography, Vol. 18 No: 2, June.

- NOYAN, Sumru and Meltem Güney (2012), “Two Decades of Cooperation in the Black Sea Region: The Organization of the Black Sea Economic Cooperation and Its Future”, J. Black Sea/Mediterranean, Vol. 18, No. 2, pp.102-113
- OECD (2008), Summary of Environmental Outlook to 2030, <http://www.oecd.org/dataoecd/29/33/40200582.pdf>
- OECD (2010), Globalisation, Transport and the Environment, <http://www.oecd.org/dataoecd/19/45/45095528.pdf>
- ÖKMEN, Mustafa (2011), Karadeniz’de Çevre Sorunları ve İşbirliğine Yönelik Yerel, Bölgesel Perspektifler, Bilig, Sayı: 56 (Kış)
- POLLITT, C. and SUMMA, H. (1997). Reflexive Watchdogs? How Supreme Audit Institutions Account for Themselves. *Public Administration*, 75 (2), p. 313-336.
- UNDP (1997), GEF-BSEP, Black Sea Transboundary Diagnostic Analysis, New York.
- UNEP (2012), A Joint Commitment to Saving the Black Sea, <http://www.grid.unep.ch/bsein/tda/files/preface.htm>
- WGEA (2007), Evolution and Trends in Environmental Auditing, INTOSAI Working Group on Environmental Auditing, <http://www.environmental-auditing.org>.