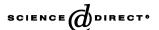


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The economical and international dimensions of the environmental problems, environmental problems in the Black Sea region and the role of the voluntary organizations

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Abstract

Differently than in the past, today environmental problems have local, national and international concern. The environmental problems in the Black Sea region are a good example for this phenomenon. These problems have affected all six countries that have shores with the Black Sea. The current study analyses these problems in detail. It intends to detect potential reasons for problems and provide suggestions to solve these problems by considering the economic dimensions. In addition, the impact of problems on the city life is examined. Also, the roles and importance of voluntary organizations on solving environmental problems are emphasized. © 2005 Elsevier Ltd. All rights reserved.

Keywords: Environmental problems; Black Sea; Voluntary organizations; Urban life

1. Introduction

Growing dimensions of environmental problems out of boundaries necessitates international cooperation more by time passed. Environment, as prominent element of international relations, is going to be a determinant fact in the 21st century. A rapid globalization process is going on environmental matters parallel to many other fields. The process owes its acceleration to the nature of issue which is an over boundary one. Besides, as one of the main development source in international economic relations, environmental issues are much open to globalization process.

The most effective environmental governance in a curtain time and region is a regional strategy assisted by both natural and regional precautions. Experiences, that are gained by international cooperations about environmental matters illuminates the policy. The policy enables cooperation among countries sharing common basin, allows physical, ecological and geographical properties to be regarded, and encourages legal and institutional initiations. Non-governmental organizations (NGO) seen most appropriate actor for legal applications.

The Black Sea (BS), as a rare case, has environmental problems at international, regional and local dimensions. Both in connection of causes and effect, the region have faced an environmental disaster beyond six surrounding countries. Jeo-strategical, jeo-economical and jeo-political prominence of the region with some outcomes of environmental problems entails some initiations and cooperations.

Pollution of the BS, not only as an affair of the close countries, becomes an international issue. Regarding possible functions of the voluntary associations, initiations and cooperation from specific to general, we will consider pollution of the BS concerning reasons,

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consequences and solution proposals. Some analyses in the paper put forward the place of the voluntary associations in those solution proposals.

2. Economic dimension and over systems peculiarity of the environmental problems

The problems of environmental deteriorations are named environmental problems in general and one of the most issues that human being have faced fill now. Human being, for the will of diversion of environmental towards its desires and necessities, has always been in interaction with it rather inclining to dominate it. However, deteriorations, overusing for disfavor of ecological balance, depletion of resources, high pressure over it and some other wrong policies inter-resistance of environment cause leading "a chain of sophisticated and extensive problems [1]" named environmental problems.

Since a high degree of interaction happens between economical activities and environment, environmental problems are economical based in essence. Population explosion, rapid and unbalanced urbanization, industrialization over consumption and such phenomenon all together with main reasons, the economic ones, enlarged the dimensions of environmental problems. Over consumption of some free natural resources, negative externalities of economic activities, advantageous production of monopolies disregarding pollution and such that placed environmental problems to the focus of the local, regional, and international discussions.

Industrialization and urbanization are the main source of environmental problems. By industrial revolution, the idea of dominating environment came into being. Industrialization at first by industrial wastes caused depletion of forests and other resources, extinct species, air, water and noise pollution. Besides it brings some other problems as well.

Sensitivity to environmental problems in 1960s accelerated in 1972 by Stockholm Environmental Conference. Beyond developed—underdeveloped, socialist—capitalist, and similar dichotomies, the conference with many countries, except the Soviet Union, put forward emergency of environmental problems. Over-systems property of environmental problems was discussed first at the conference as well.

Environmental problems in different economic systems were discussed whether they have some characteristics or not. Although a controversial issue the two views, environmental problems are free from economic systems and the two phenomenons are related to each other to a great extent, have prevailed.

For the first view, environmental problems have equal importance and characteristics both in liberal and command economies. They claim that political systems and economic systems have no sense something different pertaining to environmental problems. As a matter of fact, environmental problems of both systems corroborates their views. Regarding development and industrialization levels, population density and such issues have caused various dimension differences in various geographical and climate conditions. However, economic systems, political regimes and dominant ideologies have not been influential concerning environmental matters. Environmental problems in a country may even emerge at various dimensions. Effective use of public enterprises emerges at various dimensions. Effective use of public enterprises comparing to that of private ones have affirmed that environmental issues are free from systems.

Even though he appropriated a Marxian approach for environmental solution, H. M. Enzensberger did not accuse capitalism, in which the means of production are used by individuals, of being responsible for environment, claiming there would not have been environmental problems in the former Soviet Union otherwise.

As a matter of fact, Pravda and Izvestiya mention about air pollution of the Don Valley and pollution of the Volga River. French sociologist H. Chombart de Lauwe underlines environmental problems not specific to capitalist but to socialist countries as well. As an anthropologist Margeret Mead emphasized, "capitalism, socialism and communism are equal incapable of protecting environment" [2]. Those views, illuminating the era of the Soviet Union, have been confirmed by the collapse of the Soviet Union in 1990s. The new era of freedom clearly disclosed many frightening environmental problems from the Aral Lake to the Caspian Sea and from Chernobyl to such other nuclear tests. Thus, environmental problems are not only specific to liberal economies but to command economies as well. From another perspective, environmental problems are not necessarily related to any system, rather they are beyond the systems.

The scholars, who defend an absolute relation between the systems and environmental problems, put forward various dimensions of environmental problems in two different economic systems. That is, environmental problems emerge regarding the economic structure and properties.

They claim that environmental problems are closer to liberal economic systems mainly due to issue of consumption within them. Considering that, those problems arise much more during production when compared to consumption process, however. Hence, the argument is not so valid. They also claim that, even though no difference has there between both systems. In terms of reasons of pollution, environmental policies followed are not the same and have some differences to an extent.

Besides they accuse liberal economic systems of having no plans of environmental and urban problems,

which could possibly emerge in future. Profit motive in the essence of system predominates individual ends to social ends.

Noteworthy here is that, those views are to be handled in the framework of difference between the classical and neo-classical economic notions. As a matter of fact, the classical view focuses on production, consumption and distribution of goods and services disregarding their quantitative dimension. In neo-classical view, however, qualitative side is taken serious, then air, water, other public goods and services and semi-public goods and services as a subject matter of environmental issues gained importance especially around the phenomenon of social welfare.

Today, however, discussion of environmental matters tied to the systems is senseless at all. In fact, both socialist-capitalists, developed-underdeveloped, western-eastern etc. all are prone to environmental problems de facto. Massive and beyond-frontiers characteristics of the problems necessitate effective solutions. The first condition is attentive region affects others, who are not in that region, then, the decision, should be taken collectively. Environmental problems, today, are typical example of this [3]. In this sense, as Toffler indicated, never before a civilization could prepare conditions that can destroy whole universe, not a single city. Never before oceans had been polluted all or some species became extinct overnight, earth had been drilled for mines or ozone layer had been destroyed by cosmetics [4]. No matter, says Schumpeter, how scientific and technological solutions are dexterously designed, they pollute environment and corrupts social structure and human being himself. Concentrations of economic power in few hands and bigger machines by days are not symbols of progress yet, ignoring wisdom [5].

Environment in agenda for the last 30 or 40 years is due to the problems pertaining to it. Whoever is responsible or whatever the reasons, environmental problems threaten the whole mankind and world. They emerged by first intervention of people to nature and accelerated by industrial revolution with economic-rational approach. Eventually they have constituted good portion in the agenda of socialist–capitalists, western–eastern and developed–underdeveloped.

Environmental problems from man-made artificial milieu and negativeness of artificial atmosphere have potentially become resources of social, economical and cultural problems due to its cumulative property.

3. The Black Sea as a regional environmental problems

Massive and rapid industrialization-urbanization by second half of the 20th century brought "global wide" environmental problems disregarding ideologies of capitalism and socialism.

By the collapse of the Soviet Union in the 1990s and during the independence processes of the republics, environmental problems have revealed themselves not specific to capitalist systems but whole mankind. The Caspian, Aral and especially the Black Sea are remarkable examples. Being surrounded by socialist, capitalist, developed, underdeveloped, the Black Sea is faced with an environmental disaster at regional and global dimensions that is beyond local. Whatever the reasons or whoever the responsibilities, the crucial thing should be done is an international cooperation and application of some policies. If only some policies and efforts are activated, a future is foreseeable in the region. Those efforts should include wide spectrum from administration of countries in the region to international and regional organizations. The voluntary associations for environment are especially important both for local and regional cooperation. As a matter of fact, they (NGO) focus on the subject in the region.

Before discussing the activities of environmental NGOs about the region, the problems in this framework are better to be handled since helpful to understand dimensions of issues and appreciate the efforts of the voluntary environmental associations.

The BS, regarding pollution, is a specific example for it has been negatively influenced by adjacent countries and distant ones. In other words, pollution of the sea has international dimension as well. The sea is locked by countries, in the middle of substantial economic and political transformations, that continually polluted it leading to catastrophe. Once been a blessed water source and famous from the times of Ovoid and Hereto with harsh waves and people around, the BS turned into a messy for half of Europe in the last three decades. Almost 160 million people around the sea have used it for their mess, inorganic nitrogen, phosphorus, oil, mercury, DDT etc. [6]. The crucial point about the pollution is international and regional effects originated from Europe besides six neighboring countries. Hence, the issue is not confined to those six countries, yet, is a regional and international dilemma. The Danube River from Central Europe through East Europe sweep industrial wastes to the BS threatening the Danube Delta rich of plant and animal species. The fact urged the environmentalists to none as an environmental disaster.

The 90% of the body of the sea without oxygen is almost dead. Industrial organizations at worth, west and south, at the Danube hinterland and through Dnieper River of Ukraine are main sources of pollution. The dead body of the sea and pollution caused 21 type of commercially valuable fish species to be extinct species. The Main–Danube sluice-way connected the Danube and the Ren Rivers between Rotterdam and Constantza at ends, beside the North Sea and the BS in September, 1992. On the other hand, water transportation of the

former Soviet Union is possible to be transferred to the BS for commerce with the eastern Mediterranean countries. Such a possible transportation also accelerates environmental stress including the straits which give way to the Aegean and the Mediterranean [7]. The case of straits while constituting a severe between Russia and Turkey at one side, place another problem into the agenda, pollution of ports of the BS on the other hand. Resources for betterment master plan, about 750 million dollars force two countries to act together [8]. Indeed, the Turkish authorities take attention to the straits claiming no more rooms for oil tankers throughout the Bosphorus and the Dardanelles [9]. The disaster threatens all countries in the region.

Energy transportation issue via the BS put forward international environmental disaster. Because the sea is mainly polluted by organic and industrial wastes through neighboring countries and the rivers plus by tanker trafficking.

The BS accepts 571 million m³ wastes annually. Most of the beach are closed mainly Ukraine due to cholera epidemic. Wastes especially composed of nitrogen consume biological oxygen and phosphorus is from neighboring countries and mostly from two, Germany and Austria. None of the countries comply with the Nitrogen Regulation of the European Union. Some fishprocessing factories are closed for pollution, 80% of children born with defect in Novorossisk, 75% males are not enrolled for military service because of unfit health conditions, and tuberculosis, asthma and allergy are common as epidemics [10]. Pollution at 90% amounts is from the Danube, Don and Dnieper rivers of Central Europe [11]. Of 75% of 90% pollution is caused by the Danube River. The channel between the Maine and the Danube enlarged the Danube Basin almost including whole Europe.

Oil transporting tankers pollute the sea as well. Lester Brown in his book, (State of the World, 1998) denotes disappearance of 25 fish species out of 30 and decline of 700,000 tones of fish product to 100,000 tones in the last 40–50 years by 1995. The figures will probably worsen in the 21st century [12].

Geo-strategic and geo-economic situation of the BS and Azak Sea are prone to ecological damages and the calamity has many scientific reports. The damages caused by pathogenic microbes and toxic chemicals. To conclude, all neighboring countries are deprived of invaluable water products, recreation and tourism potential. Furthermore, declining flow of the rivers may deteriorate hydrological balance of the sea. Sixteen countries in the basin will shape the future of the sea, at least by half of them that have shares to the sea and have direct responsibility of administration of commonplace [13]. Both its regional and international dimensions, cost and solution proposals come into being. Even though responsibilities share by surrounding countries the

problem is international in its essence. That is, "the BS is vulnerable to pollution of whole Europe besides neighboring ones" [14].

The issue of pollution, however, is tied to neighboring countries as a de facto case. In fact, the efforts also verify that claim "As the largest landlocked sea of the world, the BS collects sewerage of shores which are experiencing rapid industrialization, urbanization, development and pollution explosion. After the Mediterranean a great prominence is given to the BS as Regional Environmental Program of Agenda 21.

Six surrounding states, Bulgaria, Georgia, Romania, the Russian Federation, Turkey, and Ukraine have signed an agreement and protocols of Protection of the BS against Pollution on 21 April 1993 [15].

However, the case of the countries above should be crystallized in terms of how they pollute it before solution proposals. Besides the common pollution by all surrounding countries, pollution of shares by each also emerges. "Turkey is getting more place in the agenda of pollution both at regional and international platforms. Of course the Danube-Ren with increasing industrial wastes and the Don, Dnieper and Dniester Rivers with nuclear and other pollutants add extra dimensions to the issue. On the other hand, Turkey, with Sakarya, Kizilirmak, and Coruh (the last 24kms of the river before reaching the sea is out of Turkey) cause pollution by urban wastes sluice of industrial organizations and fertilizers and agricultural chemicals that increase nitrogen—phosphorus rates.

Heavy pollution by Bulgaria, Romania, Ukraine and the Russian Federation on the other hand hits north shares of Turkey first by flows in the Sea then the Marmara Sea via the Bosphorus. Transportation of Azerbaijan oil through the straits is another threat nowadays. It is still remembered that toxic waste tubes were discharged to sea for it was perceived as if a dump [16]. Spokesman of the Black Sea Environmental Protection Program, Rodu Minhea pointed out that the Black Sea is dying of pollution; even it is supposed to be dead and yet the case is worsening [17].

A heavy population increase in the last 20–30 years and accordingly a heavy settlement on the shores of the BS accelerated pollution by agricultural and urban wastes rather than industrial wastes. Industrial development is weak on the shore urban and rural residential places and small-scale industrial organizations besides rivers firstly pollute rivers then the sea. A heavy erosion alongside the rivers due to agricultural activities and roads opened helter-skelter cause landslides. Deforestation on the shares of the BS also disturbs ecosystem and negative effects of deforestation meets with industrial and urban wastes from the urban areas and oil wastes and bilge waters from offshore [18].

Pollutants from lands of the surrounding countries cannot be ignored. "Of 75% of the pollutants are from

the Danube River, 20% from the former Soviet Union's rivers and 5% from the Bulgarian and Turkish rivers. For pollution central strategies pollution originated from the lands should be known quantitatively" [19].

Georgia has a remarkable place considering pollution originated from lands. "Georgia, as in the third place of environmental pollution amongst the former Soviet Republics, face severe difficulties. Still we observe anthropogenic pollution and degeneration of ecosystems." [20] Then, Georgia constitutes one of the worst examples among all others referring damages of industrial, urban and agricultural pollutants.

Georgia disposes huge amount of urban and industrial wastes to the BS by rivers and bays. Rubbish of refinement and oil storage flow to the sea in Batumi. Those rubbish precipitate at mouths of the rivers and bays [21]. Together with all other surrounding countries, Georgia suffers from danger of ecological balances. Pollution in various kinds; by industrial and radioactive disposes, overuse of agricultural terrain by chemicals support, fishing out of law, constructing gigantic dams and hydroelectrical bases, all led to disaster of mechanical collapse of offshore line, disappearance of hydrochemical and hydrological systems at offshore water and river deltas, and layers underwater without oxygen. Of course, unique features of the BS and heavy hydrogen sulfur at depth are additional factors of pollution [22]. Now the BS faces a disaster. Almost none of the cities around the BS has refining facilities, or they do not work. Thus, organic materials pollution deepens. Chernobyl was another disaster released radioactive that worsened the situation [23].

Bulgaria, by technological improvement deteriorated ecological balance to severe degree. Natural resources are used rakishly. Industry, energy, transportation and agricultural sectors use water irresponsibly. The Danube basin and hence the BS suffer from the irresponsibility. Approximately one million and two hundred thousand biogenic elements are channeled to the Sea via the Danube of which basin almost related to two third of Europe. Biogenic materials cause eutrophication and florescence. Then, both fauna and mankind diving water are under a serious threat. Almost all fish species are about to be extinct. From small to big scale, 34 rivers at north and northwest pollute the sea [24].

Pollution by surrounding as well as Bulgaria is an aggregated and multi-dimensional issue. "This condition of the hydric environment of the BS appeared in the postwar period, when due to the explosive development of the industry, sea transport, chemical agriculture, urbanism and tourism, increased considerably the various ejections in the surface waters and sea, full of noxious ingredients. Drained from a hydrographic basin with a surface of approx. 2405 km² and over 90 inhabitants, the contribution of the water with impure ingredients together with the fuel ejections of the

thousands of ships traveling on the big rivers from the afferent hydrographics basin and the BS, determined the deterioration of the aquatic environment the BS" [25]. Romania is an actor in pollution of the sea, alongside the Danube River especially. "The Danube Basin, constituting 34% of the hydrogrophical basin of the BS, with exceeding 8 millions people involved in some complicated socio-economic activities as industry, energy, agricultural, all with devastating effects on environment which is felt terribly in Romania.

Rapid urbanization and population growth in the Danube basin have constantly increased disposals to the river. Four seaports (Sulina, Midia, Constanta and, Mangalia) and some health resort facilities between Midia of south and Bulgarian border have some negative contribution of Romania to the sea.

Oil drilling activities since 1976 alongside its BS offshore Romania welcomes thousands of various type ships with millions of tons sea traffic [26].

Today, international and local dimension of the issue is extremely important. Ukraine and Russian Federation are two other actors in addition to those mentioned. The BS has a high density of coastal population among few such others in the world. Water collection basin of it includes 14 countries and 24 Ukrainian, 12 Russian and 4 Belarussian regions as well. Hence a remarkable part of European population settled in the BS basin and experienced concomitant development of industry and agriculture. This fact determines anthropogen amount of the BS and its Marshy fields in the basin [27].

All those problems mentioned above have forced especially countries in the region to find out what can be done to tackle with. Activities and efforts as a response to the question are going to be discussed in the subsequent part.

4. Activities and cooperation efforts towards the environmental problem

Environmental problems have trans-boundary effects today. Severe dimensions of environmental problems compel international cooperation more and more in the days. The issue is a current agenda for people in the BS region and it obliges them in the framework of protection of the sea. Heavy transportation burden, careless fishing, sewerage water are only a few factors that ecologically spoil the sea from every adjacent country.

Some positive developments, on the other hand, drive us near optimistic thought about the region. The activities by cooperation of the regional actors are about both removing current problems and avoiding possible future ones. Besides, internationally organized economic, social and legal cooperation efforts accelerate that cooperation. All those works are triggered by a wide spectrum from central and local administrations of the regional countries to universities and regional and international NGO.

Before mentioning noteworthy activities, they constitute a global problem which is regarded as a serious topic by international institutions that are involved in various fields. A global system considering environment is aimed by UN, EU, OECD and European Council that both encourage their members in environmental issues and concentrate on them. For its very nature the issue needs to be cooperated, co-organized by international initiations. Thus, the international law should shoulder a leading role for establishment promotion and rearrangement of international cooperation in the fields. International traditions together with international conventions are important as well. International organizations and certainly the UN at first and its expert institutions' decisions in the process play a remarkable role [28]. Stockholm Environmental Conference of 1972 and Rio Conference of 1992 draw a good legal perspective. International conventions are tools to be used for positive development in the regional cooperation. Regional and sub-regional legal documents aim to modify international conventions for proper use in geographical and natural context [29].

As an addition to those general documents, hopeful legal steps specific to the BS were passed. Global character of the problem in the region required a series of international documents to be signed including Bucharest Convention about the Protection of the BS (1992), Odyssa Declaration of Environment Ministers (1993) and regional environmental programs.

Bucharest Convention, by support of the UNs Environmental Program, was signed in 1992 in Bucharest. By its additional protocols it started to be implemented in 1994 by the consent of all countries in the region. The convention denotes fundamental priorities and principles of international environmental protection in the BS basin.

Barcelona (1976) and Helsinki (1974) Conventions, similar to that of Bucharest, define protection of sea environment, use of natural resources regarding international cooperation strategies and policies in the Mediterranean and the Baltic Seas.

Apart from those conventions, Bucharest Convention has faced some obstacles at the beginning due to economic challenges of the former Soviet Republics. Sharp decrease in production caused budget deficits generally affected environment protection programs especially the one of the BS Region from financial point of view. The aimed mechanism thought to be established, could not be activated.

The general policies towards use and protection of the natural resources of the BS by surrounding countries are enumerated in the Odyssey Declaration signed in 7th April 1993 in Odyysa by the environment ministers of Bulgaria, Georgia, Russia, Romania, Turkey, and Ukraine. The declaration arranges all social efforts on activity base by motivation for environmental protection around the BS. As a matter of fact it puts concrete ideas forward that was mentioned in the Bucharest Convention. The Management and Protection of the BS (The Black Sea Environmental Program-BSEP) by the support of the Global Environmental Facility (GEF) between the years of 1993 and 1996 encouraging the regional countries to conduct the principles of the convention was firstly mentioned in which. In fact, BSEP constitutes an international base for the mechanism thought to be established by the Bucharest Convention [30]. GEF started to be implemented as an environment friendly program on agricultural base in Romania a country prone to substantial amount of erosion by the Danube River [31]. GEF project towards protection of biological variation at onshore corridor of the Black and Azak Seas also was accepted by Ukraine with participation of local groups and NGOs [32].

The above-mentioned declaration, final document and protocols brought an Activity Plan for the BS. The declaration draws framework of the plan and prepares a case evaluation report proposed to be discussed in the Council of Ministers. Furthermore, the countries appropriated to act together on many issues such as from emission standards of land pollutants, proper technology use to disposal of radioactive materials. The preconditions for effective implementation of the convention and protocols are environmental case study in the BS, developing an effective, applicable method in the region, empowering technical and institutional capacity, supplying the regional countries with modern technological facilities, determining investment needs to stop pollution and deterioration, mobilizing resources for those investments and canalizing financial resources out of the region to the BS Region.

Developing coordination among the regional countries in the context of above-mentioned issues; managing all efforts, national, regional and international under a complementary approach and using all experiences and knowledge of expert institutions at international scale are proposed by Turkish side to be used for the region [33]. The proposal was handled as a project in Varnain 30th June 1993 and signed by relevant parties. The activities concerning the project are run by the Project Coordination Unit in Istanbul.

Even though the BSEP became concrete by Bucharest Convention and Odyysa Declaration, "solution to the BS environmental problems is not only the duty of scientists. Environmental deterioration, on the other hand, cannot be natural or physical devolution. The solution pertains to innovative administration applications and multi-sector councils political and economic

nature of the system and using data by social, economic and scientific studies and socio-economic efforts.

Onshore-integrated administration methods clearly necessitate other institutions contribution and exemplifies progressive need for cooperation among sectors. The BSEP encourages councils among sectors to be established while promoting the BS Activity Plan.

The issue is a challenging one but the results are much more important. Only if all parties (governments, municipalities, entrepreneurships, NGOs, research centers and more importantly media and society) act together the case will be reversed and all could utilize the sea.

The BSEP encourages participation and implementation of the programs of related organizations, which have effective researches about deterioration of ecosystem in the region. It spends efforts for public sensitivity and mobilization, and activation of non-governmental organizations regarding local and national interests as well [34].

Indeed, as generally happens at Environmental problems the BS pollution includes a multi actor case too. Both economic, social, political, cultural and administrative aspects of the issue and local, regional and international participation as actors make the problem sophisticated. The fact beyond that complexity is the need for participation of all actors. The subject, in addition to regional countries, takes part in the agenda of all Europe as a cumulative problem in any way. Thus, all administration and regional and international institutions face a challenging responsibility.

The NGOs that is, voluntary associations are actors in the issue as well. All participant parties, while involving in their interest in a way, the NGOs are the most potentially effective ones without any expected interests from the initiations. Their power coordination at international level will ease the solution such coordination promotes productivity and effectiveness on one hand, and fits the trans-boundary and oversystems character of environmental problems on the other hand.

5. Activities and cooperation efforts of voluntary associations in the regional countries

Democratic participation, plural democracy mass organization society-wide democracies are common terms in contemporary democratic countries. Besides, NGOs are inevitable part of the picture. All those concepts and terms should be considered remedies for solution to social problems, which societies face today. In certain cases, in which national and international associations are inadequate at solutions, voluntary associations play important roles at first

preventing issues to attentions of administrators, who cannot care of some, in national and international arenas [35].

Even though emerged at the second half of the 19th century, the voluntary associations put themselves forward for protection of environment in contemporary meaning especially after 1960s. Overwhelmingly in countries of long democratic past, voluntary associations is the "third sector" after public and private. From local to national, national to international, they act in a wide spectrum extending in fields of problems as nuclear bases, deterioration of the green, hazardous wastes, poverty etc. "the efforts of voluntary associations aggregates in four main fields, information, education, general environmental projects and observation [36].

Voluntary associations can potentially contribute to environmental policies regarding the above-mentioned four fields as follows; "Sensitizing public opinion, steering policy-makers, removing opinion controversies between public and private, supporting consensus while determining priorities, contributing to expert, information and skill pools, shouldering roles in environmental information data system and having responsibilities in coordination and division of labor at national, regional and international levels" [37]. Since ecological problems are not perceived as prior issues by state and industrial companies those can not be tackled with by them. Of course not a voluntary association either. The more issues are complicated and erode interest of some; the money voluntary associations will be under repression [38].

In the context of environmental issues in the BS, regional and international cooperations are involved. Among all in surrounding countries, voluntary associations in environmental issues have a distinguished place. The BSEP that may enable us to capture whole picture, supplying the region with healthy development environmentally proposing the activities of preparing legal, political and economic sanction tools. Aiming proper applications of relevant associations working for ecosystem well being in the region, the BSEP recognizes their effective structure, sensitizes and triggers public opinion for positive ends.

The BSEP demands NGOs to coordinate their activities at national level in the first hand. A basic network by effective NGOs in relevant issue has been established in all participant countries.

Secondly, supporting an international forum of NGOs the BSEP invites delegations from national networks. The aim is establishing a system through which NGOs can raise there and collect and transmit information. A chain of decisions was taken in the previous meeting in Constanta in December 1994. Those decisions appeared in the meeting report that supports the development of NGOs Guide of the Black Sea, which enlarges the network.

As a last, the BSEP backs up NGO activities encouraging public consciousness and participation through which the Black Sea is aimed to be preserved in a better way. The key point in the process is establishment of a flexible network at both national and regional level [39].

Putting a side improvement of regional cooperation of NGOs, their efforts may potentially be effective and directed to final ends are important especially for countries that are wide. Russia in this context is in confusion geopolitically and economically. The south side of the country is faced with projects hazardous for environment those projects may leave unredeemable effects.

Voluntary associations out of profit purpose check and publicize environmental matters through mass media. They also raise their voices by campaigns and petitions with mass participation. Environmental problems should be for access through Internet channel. The activities are required to be coordinated before decisions are taken in local and national assemblies. The voluntary associations in Russia try to fulfill similar duties [40].

Another neighboring country, Ukraine has a council of NGOs at national level with participation of 22, a representation of the Ministry of Environment also participate. Ukrainian NGOs have ties with others especially ones in former Soviet republics. A good examples of the efforts gave fruit as Sofia Plus 3, project with five members (Ukraine, Moldavia, Russian Federation, Belorussia and Tajikistan) related to issues some methodological foundations go on as well [41].

The NGOs in Bulgaria, Georgia, Turkey and Romanian act out their roles for international projects to be applied and contribute to coordination. Environmental problems have no boundaries. The fact that is also true and in the agenda of people in the BS Region. Information swap among people in the region is possible through ways. Electronic mail systems enable people to transmit the information through a few Environmental Information Network. One, The Social Environmental Union virtually unifies the CIS. The network has its own environmental bulletin. It organizes seminars and conferences. May voluntary associations in Russia, Ukraine and Bulgaria are members of the Union. The mentioned information network unified BSEP members under the same roof. The network has its center in Istanbul. It acts at governmental level and conduct studies to inform the public. Three conferences, several educational seminars, publication of six books in six different languages are some examples from the activities of the network. A conference was organized in 1998 in Anapa for a network set up and installation of it in interconnected international network. Some current programs, besides bringing efforts of voluntary associations and governmental activities together. The TACIS

Foundation financially supports such program, through three countries (Ukraine, Russia, and Georgia) named as Anxiety and Social Participation. The program devoted itself to coordinate efforts for public information, protection of those unique places, adoption of laws regarding environmental protection.

The program organized a seminar in 1999 in Novorossiysk for journalists who illuminate studies of voluntary associations about environment. Furthermore, a cinema school at international level for voluntary associations of environmental issues was organized.

A strategic actively plan aimed to save the BS was signed with subsequent activities supporting the plan by ministers of environment in 1996. Further studies of information dissemination, education seminars and pollution observations in 1996–1997 were done too. The voluntary associations submitted results of analysis about pollution observations to the governments with solution proposals.

The BS Day is organized for three years with activities including pollution observations, garbage collection, photograph and banner contests in schools, speeches in local radio and television channels, international environment camps etc. All those activities aim to reshape approaches towards environment and take attention of everyone to the efforts [42].

6. Conclusion and suggestions

The efforts above are not adequate needless to say, to remove environmental problem in the Black Sea. The characteristics and both national and internationals dimensions of the problem evoke such a thought in the minds of people. The role of voluntary associations is not at levels of governmental programs and big investments projects yet, by referendum and some legal initiations the public takes place in decision process day by day more.

The basic preconditions to tackle with problems are; determination of environmental situation, development of a method, which is effective, experienced and applicable for the region, reinforcement of technical and institutional capacity, supplying the Black Sea countries with modern technological facilities, determination of investment needs to stop environmental pollution and decay, resources for investments and canalizing financial resources to the region.

Today, the environmental problems have economic, legal, political and social dimensions with their cumulative properties. The solution proposals should include this fact.

An analytical approach is needed for reasons and results by analyzing the environmental problems with local, regional and international properties. The matter of pollution due not only to surrounding countries since it has geopolitical, geo-economic and geo-strategically ties with the region and outside. Coordination in the region refrains further problems and facilitates the solution of current problems.

Several actors; countries, private institutions, local administrations, universities, international organizations and voluntary associations should be included in the picture of environmental problems solution in the region. Effectiveness of voluntary associations accelerates and diffuses the solutions especially if they cooperate with international environmental organizations that can bring a consensus in the field.

The voluntary associations in the region may take place in more concrete activities. The voluntary associations, regarding their functions, may undertake the following duties by cooperation with associations focus on environmental securities.

At first hand, the rivers flow to the Black Sea may be observed in terms of accidental pollution. Sewerage waters discharging, observations and control on accidental pollution of seasides, following plants constructed for purification of sewerage and rain water betterment works in garbage collection areas wastes carried to sea by rain water and sea bed leveling.

Loading-discharging works, sea-bed smoothing discharging bilge-water controls and observations; inspection of illegal fishing, use of biological resources, exploration of oil, gas, and other offshore mineral resources, disposal of wastes from the ships at seaports, improvement of systems for survival of plat and living creators for their proper existence etc. If voluntary associations have coordination with governmental organizations in the above-mentioned fields, may reach positive concrete results.

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