

PRIORITY ENVIRONMENTAL PROBLEMS FOR THE BLACK SEA AND THE ROMANIAN SEA COAST

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ABSTRACT: *During the past decades there has been detected a growing pollution of the Ocean Planet, covering over 70% of the world surface. Pollution occurred and is occurring either indirectly, through rivers flowing into it, or directly, through wastewaters located along the coastline, through the industrial activities from the coastal platforms or through shipping. In addition to the quantities and types of pollutants, a role in the practical and varied deterioration of the marine environment is played by the physical and geographical factors, such as, among others, the shape and depth of the respective aquatic areas, the climatic zones, the physical-chemical properties of waters, and, especially, the dynamics of waters at surface and depth levels.*

Lately, the Black Sea has suffered damage to environmental conditions, due to coastal erosion, eutrophication, sewage treatment failure, and introduction of exotic species, habitat loss and inadequate management. Biological diversity has decreased dramatically. Several oil tanker accidents led to oil pollution, and their number is likely to increase, taking into consideration shipping routes. The Black Sea is now considered the most seriously degraded sea of the planet.

KEYWORDS: *pollution, marine environment, sustainable development, legal protection, the Black Sea.*

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International waters have always been an important area of human community life. In these conditions, there have been gradually developed several professional activities, to which scientific concerns added, in a continuous ascent, all having an important role in the creation of several customs, but also in creating legal rules specific to these professions whose activities take place in the coastal area, or even on the waters of rivers, seas and oceans.

Due to technological developments in the contemporary period, the new conditions for use of sea areas (in their complexity and diversity: fishing, aquaculture,

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shipping, hydrocarbon resources) require international cooperation as the only guarantee of optimizing all activities.

Based on these realities, the EU related the scientific and technological research of marine areas to its general political, economic and social aims. The starting idea was that the oceans and the marine environment, in general, represent the guarantee for the preservation and the continuity of life on earth and that we need to manage these areas at global level, in order to ensure a sustainable balance between their use and protection.

The tremendous degree of pollution, the overpopulation and the displacement of populations to coastal areas, the over-exploitation of fishery resources, the dramatic decrease of marine resources necessary to life, the progressive degradation of coastal areas and the major climate change represent a warning that increasingly justifies the carrying out of concerted action of all world states.

Contrary to earlier statements, seas and oceans ability to absorb harmful substances is in fact limited, so that any residues, overflow even by a single country, enter the global ocean, and the marine space may eventually become toxic and lifeless for all countries. Therefore, there are sufficient grounds in order to take strong measures to counter several individual explorations of common resources, belonging to all mankind, thus justifying the development of this article.

Scientific research faces a problem of extreme complexity; therefore, the multi-disciplinary approach becomes fundamental; another fundamental element is also represented by the creation of conditions for the integrated management of oceans, seas and coastal areas, by means of adhering to all acts of decision of all protagonists, in particular Governments and civil society.

The establishment of a new legal, economic and moral order, regarding marine areas, should help to promote justice and equity in the use of marine resources and environment, with care, and in order to respect the principle of solidarity with future generations, within a sustainable development. Currently, the European initiatives in marine science and technology are dispersed; therefore, there are several issues which have to be imposed, such as a European and even global coordination, and the creation of an International Agency of Oceans and Seas, whose direction of activity should be represented by marine science and technology.

A new legal order of marine areas is necessary especially due to the expansion of sovereignty and of coastal States jurisdiction over marine areas that go far beyond the traditional limits of the territorial sea, as to which limits have been set in order to reflect a new geographical distribution of natural resources for which the coastal States have assumed rights and privileges.

The motto of the World Maritime Organization, "Safer Shipping and Cleaner Oceans", indicates that one of the two major concerns of the international maritime community is to prevent and combat marine pollution.

For this purpose, we must first detect the sources of marine pollution from land, sea or air.

Knowledge of sea water and pollutants is also important in developing measures in order to prevent and combat the effects of discharges of harmful substances.

Some areas are more sensitive, more affected by pollution than others. In these areas, the preventive measures and the intervention programs and means in case of disaster must be carefully tuned. In those areas where operational discharges are permitted, the conditions are more stringent.

The impact of hydrocarbons¹ and of other harmful substances should be well known in order to justify the preventive measures, which usually are very expensive, and in order to intervene effectively in case of accident. The national and international law needs to be known both by those who operate with harmful substances and by those who monitor, prevent or intervene in case of pollution.

One of the main sources of marine pollution is navigation. Operational and accidental pollution from ships, both with hydrocarbons and with other substances, should be prevented or at least limited, which is why the legislation within the domain is addressed primarily to vessel activities.

The marine pollution effects on relatively short term are: the disappearance of marine fauna and flora in the affected areas, but not only, as the coastline in these areas is also affected; therefore, the fight against pollution of all kinds and against the effects of this phenomenon must be a permanent goal for each of us, in order not to become alone, at some point, on a lifeless planet.

Europe's marine environment is facing serious threats, which are increasingly numerous. The marine biological diversity of Europe is shrinking and it continues to deteriorate, and marine habitats are destroyed, degraded and disturbed. Additional difficulties are represented by the barriers against improving the protection of Europe's marine environment and the significant information and knowledge gaps.

Despite the worldwide well-developed framework in terms of international standards of safety at sea and protection of the marine environment - the majority included in Agreements concluded under the International Maritime Organization (IMO) and the International Labor Organization (ILO) - many countries and ship owners continue to break the rules, thereby endangering the crew and the environment and benefiting from unfair competition. Thus, there arose the need to create a common European policy on maritime and marine environment safety.

The Commission adopted its first common policy on maritime safety in 1993, aimed at ensuring that all vessels raising the flags of EU Member States or entering a port of the European Union comply with international safety standards.

Erika and Prestige accidents helped to raise the awareness of risks related to shipping and led the Commission to adopt a series of preventive measures, grouped into the so-called Erika I and II legislative package, in order to reduce the risks of accidental pollution by vessels. It has also been established the European Maritime Safety Agency (EMSA), responsible for improving, suggesting and enforcing of EU rules on maritime safety.

But these legislative packages proved to be insufficient. After countless spots of oil devastated the coasts of Europe in the last decade, the Commission seeks to improve maritime safety both by preventing accidents and pollution and by means of a better control of their effects. The Commission's legislative proposals also seek to improve the safety of passengers and crews subjected to the risks of accidents and terrorist attacks. Thus:

- November 23, 2005: The Commission adopted the third package of legislative proposals on maritime safety (the Erika III);

¹ The main marine polluting substance.

- December 12, 2006: the Council discussed the Erika III package and agreed to the Directive;
- February 26, 2007: the European Parliament Transport Committee adopted an opinion on the package;
- April 24, 2007: the Parliament votes on first reading of the proposals. The Commission started the proceedings in order to adopt the third legislative package on maritime safety, from the following statistics:
 - 25% of world vessels are sailing under flags of Member States and 40% are controlled by European companies;
 - almost 90% of external trade in goods and more than 40% of EU internal trade is transported by sea;
 - about 1 billion tons of oil enter the European Union ports or cross over the waters surrounding its territory, each year;
 - the most recent disasters in the EU include Erika (in 1999) and Prestige (2002) oil tanker accidents. From these tanks there have leaked about 22,000 and respectively 20,000 tons of oil into the sea, causing immense damage to environment, fisheries and tourism industry.
 - 350 million passengers are carried by European passenger vessels annually.
 - worldwide, more than 100 ships are lost each year, the accidents provoking the loss of 3,000 lives.

The Commission adopted on 23 November 2005 a third legislative package to supplement and improve the existing rules, consisting initially of seven legislative proposals; subsequently, the draft directive regarding the recognized organizations was split into a proposal for a directive and a proposal for regulation.

In addition to these preventive measures, the Commission has made a proposal aimed at improving the Union's response to incidents which result in marine pollution. The plan aims to provide additional funds for EMSA, so that the agency can provide anti-pollution vessels to the States affected by hydrocarbons pollution or by other harmful or toxic substances, and in order to develop a centralized service of satellite surveillance (SafeSeaNet), which facilitates the quick detection of polluting incidents and the identification of responsible vessels. The European Parliament approved the legislation draft in September 2006.

The classification of vessels which do not meet the standards

States are required to verify if the vessels which raise their flag meet the international safety standards. However, the existing conventions afford a quite great liberty to States Parties and the international shipping companies can easily deviate from the rules. The Commission, by means of the third Erika package, proposed that the IMO rules, on the responsibilities of States, become compulsory for all Member States, and this is to be checked through regular audits and assessments. Another goal would also be to strengthen the monitoring of classification companies, which are independent bodies, to which States delegate certain tasks, such as inspecting vessels and issuing statutory certificates.

Checks can be applied only to ships raising a flag of a Member State, but accidents in EU waters are often caused by vessels that do not meet the standards and which come from third countries. Therefore, the EU introduced, in 1995, a port state control system, in order to monitor the foreign vessels entering EU ports. The vessels

that do not meet the standards can be added to an EU blacklist and may be denied the access to EU ports.

Following the Erika accident, the EU decided to increase the number of checks, requiring Member States to inspect 25% of all foreign vessels. This purely quantitative control system has generated considerable costs and inconvenience for vessels, which, although were considered safe, had to go through multiple checks. Moreover, despite an increase of five times the number of inspections, the unsafe vessels continued to slip through the system. The Commission proposed to introduce a new scheme whereby all vessels are inspected according to their risk profile, and the vessels with a higher risk are submitted to more frequent checks. However, Member States have asked to be allowed to withhold up to 10% of inspections, while focusing on vessels that do not enter too often in European Union ports.

Reducing the discharge risk

Fires, explosions, collisions and fragments in the hull are the main types of accidents which amplify the hydrocarbons pollution. In the event of collisions or minor stranding, double hull oil tankers are much less likely to suffer leakage than those with a simple hull. Both Erika and Prestige oil tankers had a simple hull and, following these two accidents, the European Union decided in 2002 to ban single hull oil tankers to carry oil in the European Union since 2003 and to phase out single hull oil tankers by 2010. This transition has been integrated into the IMO Convention for the Prevention of Pollution from Ships² and it was enforced by 130 countries.

However, a high-level panel of experts appointed by EMSA published a report showing that while the use of double hull oil tankers will undoubtedly reduce pollution, it will not be a final solution. There is still room for the improvement through hull maintenance and the use of gas detection systems.

Ensuring refuge spaces

When a vessel has suffered an incident, the best way to prevent damage or pollution due to its deterioration, is to transfer the load and to repair the vessel. This is best done in an area of refuge. However, by accepting a damaged vessel, countries are exposed to financial and environmental risks. The costs of rescue, pollution cleaning, discontinuity of economic operations or loss of property can be enormous.

The Directive on vessel traffic monitoring seeks to take into account the rights and interests of coastal states and the need to assist the damaged vessels. This Directive obliges Member States to designate independent authorities to take the decision to accept or refuse vessels, following a full risk assessment. At the same time it enables the Member States to require a vessel to be covered by insurance, thus allowing adequate compensation for costs and damages associated with its acceptance in a place of refuge.

The liability of ship-owners

In September 2005, the EU has adopted measures by means of which ship owners are considered fully responsible for any discharge made intentionally, recklessly or negligently and penalties are also introduced. A coalition of shipping industry organizations, led by Intertanko, states that the directive is illegal and it has initiated legal proceedings in order to contest it.

² MARPOL.

The Commission completed the legislation, considering that ship owners are also responsible in the event of damage to a third party. International conventions in this area succeed to a small extent to discourage because they allow ship owners to limit their responsibilities in almost all cases. The Commission wants to establish an unlimited liability for gross negligence and to establish compensation levels set high enough in order to cover most possible scenarios. The Commission also suggested that ship owners be required to accept an insurance policy in order to ensure that they can meet their obligations to third parties.

Meanwhile, the Commission proposes to improve the safety of passengers by adopting regulations for passenger carriers responsibility, which would provide compensation for all passengers who have an accident, as long as they have bought their tickets in the European Union, even if they travel outside Community waters or on board of a non-EU vessel.

The Protection of vessels and ports against terrorism

Vessels, people, infrastructure, environment and trade may be affected by acts of terrorism or piracy. Therefore, the European Union set in 2004 certain mandatory standards to enhance the security of vessels and ports.

Each vessel intending to enter a port of a Member State should provide to the next port of call, 24 hours before or after leaving the previous port of call, if the trip duration is less than 24 hours, information about vessel and cargo safety.

Furthermore, the EU adopted a directive in October 2005 by means of which Member States are required to prepare security plans to strengthen port security, and the Commission is empowered to conduct inspections in order to verify the effectiveness of these plans.

The current deterioration of the marine environment and the erosion of its ecological capital are threatening the creation of prosperity and employment opportunities for Europe's oceans and seas.

The objective of the Directive - the Framework on the marine environment strategy - is to restore the ecological balance of oceans and seas, through achieving and maintaining "their good ecological status". Given the diverse conditions and problems of the marine environment in the EU, it establishes the European Marine Regions on the basis of geographical and environmental criteria.

There will be set no specific management measure at EU level. The Directive offers an integrated policy framework taking into account all pressures and impacts, setting clear and operational actions in order to better protect the marine environment. The directive should be functional and implemented in the maritime regions.

The strategies are based initially on the assessment of the environmental state, in order to develop the policies supported by the best available scientific knowledge. In a second stage, each Member State, in close cooperation with the other Member States and with the relevant third countries within a marine region, will develop and implement their own strategies for the marine environment, in order to achieve a "good ecological status". In developing marine strategies, Member States will be encouraged to work within the existing regional seas conventions – OSPAR for the Northeast Atlantic, HELCOM for the Baltic Sea, the Barcelona Convention for the Mediterranean Sea and the Bucharest Convention for the Black Sea.

The Directive on the marine environment strategy is included in the Sixth Environmental Action Programme adopted in 2002. The Directive should also be considered in the broader development of a new EU maritime policy announced in the Green Paper entitled

Towards a future maritime policy for the Union: A European vision on oceans and seas, adopted by the Commission on June 7, 2006. The Framework Directive proposed for the Marine Environment Strategy will constitute the ecological pillar of the future EU maritime policy.

The assessment methods and those of redressing ecological damage, dealing with different national laws, are manifestly improvable.

Thus, the rebound to the situation previous to prejudice occurrence is often only an illusory goal; it can become effective if the possibilities to realize it and the control means are well determined³.

Starting from scales establishing the monetary value of the protected species, the contractual systems of assessment and repair of the environmental damage have many advantages, being relatively easy to apply and bring an element of certainty, both for nature protection authorities and for the perpetrators of damage and their insurers, in a land still belonging to scientific uncertainties.

On the other hand, these contractual assessment methods are, in some cases, too rudimentary to be a valid basis for assessing damages.

A mixed system is recommended, combining contractual assessment with individualized repair, based on certain thresholds, whose only model is the U.S. state of Alaska.

In this respect, we can imagine a system that takes into account the causes of the environmental damage, the affected areas, the type of the degraded ecosystem and its relative rarity, biological diversity, the time necessary to the natural regeneration (if possible), its original condition and the current one (if known). However, to the costs for restoring the previous state, another cost can be added – the *pretium doloris* – for the damage brought to the natural environment, provided that the amount of money is spent for conservation works and environmental protection.

This is necessary also because environmental damage is related, in fact, to an inextricable right linked to the fundamental human rights (such as the right to life and health, but also the right to information and participation)⁴.

As a result, marine environmental protection should be achieved through the rational use of natural resources, by preventing and combating pollution of all kinds and the harmful effects of natural phenomena.

Aquatic environmental degradation is the most aggressive factor currently involved in reducing both the quality and duration of life.

The Convention on the Civil Liability for Nuclear Damage from Vienna⁵ includes common and complex principles which apply equally to nuclear facilities and during the transportation of nuclear materials.

According to the Convention, no nuclear accident undertakes the nuclear liability regime, unless it is about nuclear fuel or radioactive waste or products, as expressly provided by the Convention.

Given the issues presented in Art. 6 of the Vienna Convention and knowing that the effects of environmental damage often occur in time, we come with a law proposal in order to eliminate the limit for taking action and we consider that the termination of the right to damage reparation should not be eliminated if proceedings were instituted; the effects of

³ see Daniela Marinescu, *Tratat de dreptul mediului*, Ed. All Beck, Bucharest, 2003, p. 186.

⁴ Mircea Dutu, *Dreptul mediului*, Ed. Economică, Bucharest, 1996, p.284.

⁵ To which Romania adhered by Law no. 106/3.10.1992 published in the Official Gazette no. 258/15.10.1992.

nuclear accidents are felt after decades and according to the basic principle of environmental law, the polluter pays, the person who degrades the environment must pay for the damages, knowing that most times, environmental damage cannot be monetarily assessed.

Thus, the development of an appropriate legislation in order to allow the maintenance and preservation of knowledge, the innovations and practices of indigenous and local communities with traditional lifestyles, and the provision of financial support or any other support to avoid the environmental harm are deemed necessary.

The international debate in recent years emphasized the need to develop cooperation between all international environmental institutions, aiming to increase their effectiveness in the fight against pollution⁶.

Most reputable environmental analysts warned that "environmental protection can be achieved only through a sector approach"; the effectiveness in this area involves "the concerted action at global level of all factors which the environmental protection depends on"⁷.

Given that the effects of pollution extend on long and very long terms, and that sometimes they have unpredictable consequences, it was natural for the International Maritime Organization to notice and adopt a series of measures to compel the enforcement of several constructive restrictions and to impose several "clean" activities.

Furthermore, national governments also have aligned to these very large coercive measures.

The crew who is directly involved in activities at sea should be aware of the need to respect all international and national conventions and regulations relating to pollution, especially due to the fact that the restrictive measures range from consistent and very consistent fines to prison on sometimes long terms.

An intensive exploitation of all marine biological and mineral resources and the different uses of the marine environment immediately raise the problem of pollution of the seas and oceans and of the fight against them.

A number of factors indicate that we are still in a transitional period between industrial civilization, with an essentially continental character and a new era that will translate into a real coastal and marine revolution, through the development all types of activities, on sea and ocean coasts and within the marine environment: industrial uses, multiple exploitation of marine resources, aquaculture etc.

This development must quickly seek reconciliation between the valorization of oceans and marine environment protection and the protection of its resources against degradation, reduction and pollution.

This explains the promptness with which our country was aligned, in legal terms, to the regulatory requirements of the international community.

This accounts for the honorable effort to meet these goals and regulations concerning the exploitation of planet waters, as ultimately we are a country with traditions in shipping, and in particular of the Black Sea.

We chose this theme in order to demonstrate that beyond the political excesses previous to 1990, a certain rationality of the legal creation remained constant, despite a central decision, which does not always obey the commands of historical necessity.

⁶ Dumitru Mazilu, *Dreptul comunitar al mediului*, Ed. Lumina Lex, Bucharest, 2006, p. 13.

⁷ Idem.

We evoke a certain technological disability, which also influences internal regulations and which lawyers and legislators cannot compensate or counteract by means of normative acts. It depends on the resources we have at hand, which are few and poor. However, some acts of normative tolerance can still be corrected. Thus, we believe that fines for pollution under Romanian regulations are insignificant compared with the international legal practice. Law ought rather to authorize the government to regularly update fines, creating a flexible mechanism for this purpose.

Also, in the sense of a law proposal, we ought to create a special unit (such as those known as Coast Guard) charged with only the supervision, inspection and finding of vessels, being assigned only the tracking task (Hot Pursuit).

Finally the disjunction of the jurisdiction between the Harbor master's office and the Agency for Environment Protection may create confusions, extensions of or withdrew from jurisdiction with negative effects on committing the act of jurisdiction. We believe that only one authority should be empowered in order to ensure the protection of the marine environment against pollution.

We do not believe that pollution will be stopped only because regulations will severely incriminate it. No homicides or other serious crimes have been eradicated, although, for a long time, Criminal Codes foresaw the death penalty conviction.

A small but real triumph in this regard would be represented by deterring the perpetrators. The rest depends only on the Darwinian human ability to adapt or die in the fight against our own toxins.

This requires education and training programs for scientific and technical research, in order to promote and encourage the use of scientific progress on the assessment of environmental damage and the protection in all-important areas.

The deterioration of the marine environment and the erosion of the ecological capital of this ecosystem are threatening the creation of prosperity and the sustainable development of the Black Sea. If we do not pull the alarm on the problems faced nowadays by the Black Sea ecosystem, this trend will threaten its very existence.

The Black Sea is an almost closed sea and it deserves a special attention because large quantities of Russian oil are being transported on it, and also due to the overall increase in traffic and the phenomenon of eutrophication (growing in recent years) coming from terrestrial sources and rivers.

The Sustainable development of the Black Sea

The sustainable development of the Black Sea requires a broad international cooperation. The Strategic Action Plan for the Black Sea, the Bucharest Convention and the Odessa Declaration form a reference framework for sustainable management of the region. The success of this Strategic Action Plan for the Black Sea depends on the implementing actions and on the involvement of all riparian countries and of all countries from the Black Sea basin.

The concept of sustainable development (eco-development) was clearly formulated in the report of World Commission on Environment and Development (1978), a committee met under UN auspices and led by the former Norwegian Prime Minister Gro Harlem Brundtland. The Commission's conclusion is that sustainable development and environmental protection can be compatible if a proper reform in economic theory and practice is made at global level⁸.

⁸ The Commission defines sustainable development as "a development, which meets the needs of the present generation without compromising the needs of future generations of satisfying their own needs and aspirations".

The international community will have the opportunity to contribute effectively to this Plan, together with local communities so that both present and future generations could enjoy the Black Sea beauty and wealth.

Among the most serious environmental problems currently faced by the Black Sea ecosystem include beach erosion, increased eutrophication, decreasing biodiversity and biological resources decrease, causes which provoke imbalances and irreversible changes to ecosystems, especially on the Romanian seaside, affecting all sectors of national economy, but primarily fisheries, public health and tourism.

Concerted international actions, such as the Black Sea Environmental Program⁹ (BSEP) funded by GEF, resulted in some modest local improvements, but it also allowed the achievement of the stability framework of regional, national and local strategies, and also of coordination strategies. The most important achievement is the establishment of the Strategic Plan of Action at the Black Sea, adopted by the Environment Ministers of the six riparian states, in Istanbul on October 31, 1996.

The Strategic Plan of Action at the Black Sea recognizes the importance of the participation of all sectors of the society to the implementation of the Plan principles and to the achievement of sustainable development in the region.

Nationally, the Romanian seaside is a unique area, with several values: economic, strategic, commercial, spa, touristic, cultural and historical, architectural and urban and natural.

In terms of legal regulations, the Romanian seaside does not have sufficient and firm provisions. It is true that both O.U. No. 195 of 2005 on environmental protection¹⁰, amended, and the Water Act¹¹ (107/1996), amended, reminds of the rules of behavior towards the sea, and of the regime on the ownership of beaches, but provides almost nothing about how the coast should be managed.

O.U. no. 19 of February 22, 2006¹² on Black Sea beach use and on the control of the beach activities state instead that "the Black Sea coast is a protected zone", that it "is a public good" and that it should receive special attention, both for its protection in order to keep its natural functions and for the touristic exploitation.

All documents adopted in order to protect the Black Sea can be fully useful only if their terms will be strictly respected, both by signatory States and by all those who are directly involved in activities devoted exclusively to protecting the marine environment. And also, it must be clearly understood by everyone that safeguarding the environment depends both on the international community and of each individual.

In conclusion, it justifies the need for research programs on ecology and marine environment protection as a topic of high and maximum emergency. The implementation of effective measures at an integrated level can only be possible on the basis of scientific and systematic results, in space and time.

⁹ Black Sea Center for Information and Ecological Education.

¹⁰ Published in the Official Gazette No. 1196/30.12.2005.

¹¹ Published in the Official Gazette No. 244/8.20.1996.

¹² Published in the Official Gazette No. 220/10.03.2006.

REFERENCES

I. LITERATURE

1. ANECHITOAIIE, Constantin - Introducere în drept maritim, Ed. BREN, București, 2007;
2. BOLDEANU Cornel, Flori IORDACHE, Curs de dreptul mediului, Ed. Dobrogea, Constanța, 2005;
3. CHARBONNEAU Simon, Droit communautaire de l'environnement, Edition revue et augmentee, L'Hartmann, 2006.
4. COMBACAU Jean, Serge SUR, Droit international public, 7 edition, Montchrestien, 2006.
5. CLOCOTICI Dorin, Probleme actuale ale dreptului maritim și ale transporturilor internaționale pe apă în actualul context al globalizării, Revista de Drept Comercial, nr. 6/1999, Editura Lumina Lex, București, 1999.
6. DUȚU Mircea, Tratat de dreptul mediului, Ed. 3, Ed. C.H. Beck, București, 2007;
7. Daniela MARINESCU, Tratat de dreptul mediului, Ed. a III-a, revăzută și adăugită, Ed. Universul Juridic, București, 2008;
8. Dumitru MAZILU, Dreptul comunitar al mediului, Ed. Lumina Lex, Bucuresti, 2006;
9. Dumitru MAZILU, « Dreptul Mării - concepte și instituții consacrate de Convenția de la Montego-Bay Editura Lumina Lex , București, 2002.
10. Gerard PARDINI, La protection du littoral, Collection Pratique du droit, MB Edition, 2004.
11. Raphael ROMI, Droit international et europeen de l'environnement, avec la collaboration de gaelle Bossis et Sandrine Rousseaux, Montchrestien, 2005.
12. STAN, A.Valentin - Tratat de transport maritim, Ed. Universul Familiei, București, 2003;
13. Faculte de Droit de Brest – Centre de Drot et D'Economie de la Mer (U.R.A. CNRS 1264) sous la direction de Jean-Marie Becet, Didier Le Morvan, Le Droit du littoral et de la mer cotiere, Economica, 1991.

II. LEGISLATION

1. Legea nr. 110 din 10 octombrie 1996 - M.Of. nr. 300/21 noi. 1996 și promulgată de D. nr.492/1996 pentru promulgarea Legii privind ratificarea Convenției Națiunilor Unite asupra dreptului mării, încheiată la Montego Bay (Jamaica) la 10 decembrie 1982.
2. Legea apelor nr. 107/1996, modificată și completată.
3. *Legea 30/1995* pentru ratificarea Convenției privind protecția și utilizarea cursurilor de apă transfrontiere și a lacurilor internaționale de la Helsinki, în martie, 1995, publicată în MO 81/03.05.1995;
4. Legea nr. 6 din 8 martie 1993 pentru aderarea României la Convenția internațională din 1973 pentru prevenirea poluării de către nave, modificată și completată.
5. Legea nr. 98 din 16 septembrie 1992 pentru ratificarea Convenției privind protecția Mării Negre împotriva poluării, semnată la București la 21 aprilie 1992 a fost publicată în M. Of. nr. 242/29.09.1992.
6. O.U. nr. 195/2005 privind protecția mediului modificată și completată.
7. Legii nr. 17/7 august 1990 privind regimul juridic al apelor maritime interioare, al mării teritoriale și al zonei contigue ale României publicată în M. Of. Nr. 99 din 9 august 1990 modificată.