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DOCTORAL THESIS

INTERNATIONAL RESPONSIBILITY AND LIABILITY OF STATES FOR TRANSBOUNDARY ENVIRONMENTAL DAMAGES

SUMMARY

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Research area

The research topic started from the fact that pollution knows no frontiers, it is a transboundary phenomenon that concerns the entire international community, becoming thus a global problem. Intensification and diversification of pollution, degradation of environmental elements, determined international cooperation and regulation at international and national levels for environmental protection issues. It is certain that interdependence of these natural environmental elements represents a global phenomenon.

Time has shown that activities in industrial, agricultural and technological fields, undertaken on a state territory can have damaging effects on the territory of another state or in the areas that are not under the jurisdiction of any state. Such transboundary damages determined the emergence of theories relating to states' responsibility and modalities in which such damages may be repaired.

The most known case of transboundary pollution is Chernobyl accident. Chernobyl accident was the most severe in the history of nuclear accidents. Radioactivity reached alarming levels and damaging consequences surpassed USSR borders.

In this case, the great discrepancy between theory and practice relating to states' responsibility for transboundary environmental damages could be seen. The issue of the measure in which a state can be held responsible according to international law for environmental damages caused to other states was drawn, as well as what jurisdictional measures are available to the state or even to natural persons being affected, in order to invoke a state's responsibility for the prejudice suffered as a consequence of the transboundary environmental damage. We shall try to answer these questions, throughout the study, as they become the central element of this research topic, around which shall gravitate all analyzed issues.

The present study is aimed at analyzing the problem of states' responsibility for transboundary environmental damages, the evolution of regulations in the field and the impact that these transboundary damages have not only on present, but also on future generations.

In order to approach this study, it is necessary – with priority, to undertake an analysis of international regulations evolution on the international environmental law. This, an analysis of the environmental damage concept is imposed, analysis that is centered mainly on studying the technology used in the field and the difficulty in most cases to transpose exactly, by translation from English, the sense of terms like ,,harm", ,,injury", ,, damage", ,, state responsibility" or ,,state liability". Also, the analysis of main conventions in the field was imposed, as well as the underlying of the role that doctrine and jurisprudence have had until the present in forming rules relating to transboundary environmental damages.

Also, issues on states' responsibility for transboundary damages is analyzed from the International Law Commission perspective, who elaborated in 2001 the draft articles on *Responsibility of States for Internationally Wrongful Acts* and the Project of articles titled *Prevention of Transboundary Harm* from *Hazardous Activities.* Then, in 2006, ILC adopted the set of 8 ,,*Principles – Project on Allocation of Costs in Case of Transboundary Harm Arising Out of Hazardous Activities".* At the 60th session of 2008, in the same spirit, ILC adopted the draft articles on *Applicable Law to Transboundary Aquifers.*

The development of international environmental law led in a large extent to concentration of adopting preventive measures rather than compensation measures, taking into account that most of the times, environmental damages are irreversible. Nonetheless, the transboundary environmental damages continue to occur and therefore the issue on invoking responsibility and compensation of loss suffered arises. The manner in which compensation can be obtained is usually established by treaties, namely by political and diplomatic channels or by calling on national or international legal means.

The study is aimed also at analyzing comparatively the legislation in the environmental field at the national level of certain states, taking into account that in a large extent the formation of international legal norms on transboundary environmental damages are determined by development of national regulations and practice in this field.

The innovative elements of this thesis are in a number of three. The first element refers to the distinction between environmental damage and ecological damage. The conclusion resulted has been that, while for the environmental damage the loss can be quantified while in case of ecological damage, loss cannot be quantified. Ecological goods are public goods or mankind common goods (the high sea, the outer space, the atmosphere, the Polar Regions) as they do not belong to anyone in the sense of property. Many times, in this case, the insurance companies state that they cannot quantify possible damages and therefore cannot ensure against these risks. „Ecological damage is in the first time the environmental damage to water, air, soil, flora or fauna. It can be a species of an animal living in the wild world, for example, or water resources belonging to everybody. The ecological damage will always involve affecting a free natural resource".[2]

The second element is represented by the analysis of the gap between theory and practice in the field of international environmental law, analysis which is completed by new and revealing cases supporting this statement.

The third element is the study on analysis of international responsibility regime for transboundary environmental damages, study accompanied by most representative details and recent cases in the field of environmental protection and their means of settlement. In analyzing the international responsibility regime for environmental damages, the greatest challenge was the analysis of the concept of environmental damage caused to the common heritage of mankind. Environmental damages caused to the common heritage of mankind began to attract more and more the international attention due to the major impact these damages have on present and future common resources.

In recent years, we were witnesses of the development of new concepts that have an impact on the international environmental law. The most important are undoubtedly the

[2] http://www.thecroforum.org/documents/2013/08/insurability-of-eco-damage.pdf

common heritage of mankind and intergenerational equity. The concept of the common heritage of mankind is among the few concepts of international law that caused a lot of controversies. Nevertheless, it is closely related to the concepts of common interest and common concern or to the concept of *res communis*, which applies to free sea, atmosphere, outer space, seabed in international law, and therefore to all global assets that are not subject to individual rights or their proximity.

Necessity and actuality of the research topic

The necessity to study *states' responsibility for transboundary environmental damages* occurs due to the need to elaborate a comprehensive monography relating to the search and analysis of certain solutions to the issue of states' responsibility for transboundary environmental damages, taking into account the fact that this issue has not found a concrete solution in the doctrine.

The study aims to cover the gaps that the national legal literature has in relation to research of transboundary environmental damage. Environmental issues regarded in the perspective of international relations are becoming more and more complex, especially due to the controversies on the connection to environmental protection, sustainable development and human rights, reason for which a new vision on this problem is imposed.

On the other hand, the necessity of a thorough knowledge of the topic, in order to depict the regime of states' responsibility for transboundary environmental damages and the means for dispute settlement in international environmental law, is generated by the challenges that the international community is facing relating to the needs of economic development, needs that causeimmense pressure on the environment and implicitly the need to find a balance between economic development and environmental protection.

In this sense, China provides us the best example on the pollution issue and the negative impact that excessive industrialization of China has, this statement being best underlined in the article *Taking Back China's Blue Skies*, where the author says ,,Chinese

people used to feel some sort of pride for the fact that it is „the world's factory". Now,everybody realizes what the costs of being this factory are. Our waters are no longer drinkable, our food has become inedible, our milk poisoned, and worst of all, the air in our cities is so polluted that we cannot see the sun"[3]. The Chinese lesson is a valuable lesson for all states, by the fact an economic growth must not be at the expense of environmental protection.

Therefore, the necessity for research on the means by which states' responsibility for transboundary environmental damages can be invoked, accompanied by the presentation of concrete and recent cases of pollution as in the previous example, is of special importance both from the doctrinal point of view, but also as a way of signaling the irreversible environmental degradation.

It is also up to date to present the difference between the obligations of developed countries, on the one hand, and those of developing ones, the principle of common but differentiated responsibility and the means in which all these apply to serious problems that the environment is facing at global level, as the depreciation of the ozone layer, the climate changes and biodiversity damages.

A current issue underlined in the present study is related to states'difficulties in implementing and strengthening the international environmental regulation by national authorities and courts of jurisdiction.

At theoretical level, important and diverse materials appeared in the field of environmental protection, but at practical level progress is quite limited. This is because developments in recent years led, by political and economic pressures, to the attempt to transform the initial objectives of the three world conferences (Stockholm (1972), Rio de Janeiro (1992) and Johannesburg (2002) by *diluting* their contents.

The legislative framework is the field is oversized, since the number of environmental treaties reached after some theorists to more than 1000, fact that conditions and makes difficult the efficiency of environmental policies.

[3]https://hbr.org/2013/11/jack-ma-on-taking-back-chinas-blue-skies/

As a consequence of the significant impact of environmental damages at international level, the necessity of states' responsibility for transboundary environmental damagesbecomes more and more evident. Accordingly, the breach of and obligation with an international character relating to environmental protection, will result in the international responsibility of states.

In the international environmental law, the issue of legal responsibility has become sensitive and timely, because of the worldwide ecological situation, severely affected by the consequences of industrialization and automation, but also to the application of space and nuclear high technologies, the irrational exploitation of natural resources, excessive urbanization as well as other factors influenced by the policy in this area in each country. This situation led to the necessity of new techniques for repairing the victims of pollution, to the establishment of special regimes in international public law and harmonizing the system of responsibility in the internal law.

Objectives of the research

The objective of the research thesis is to provide an analytical, practical and theoretical framework on states' responsibility for environmental damages, concept that is analyzed in of legal, sociological, and philosophical terms, bringing arguments such as intergenerational equity or the right to a healthy environment.

The main objective of this paper is to examine the states' responsibility for transboundary environmental damages, from several perspectives, as follows: firstly it analyzes states' responsibility for environmental damages caused by activities not prohibited by international law - in the sense of „state liability", and in the next section is considered the states' responsibility for activities prohibited by international law - in the sense „state responsibility". The last section makes an analysis of states' responsibility for transboundary environmental damages caused to common heritage of mankind - „commons goods".

After reviewing states' responsibility from the three perspective, the means of settlement of international environmental disputes are researched, both the political-diplomatic and the legal ones, with particular reference to the jurisprudence of the International Court of Justice. In the same time, we will also take into account the contribution of other international courts and tribunals whose decisions have an impact on environmental protection, such as the International Tribunal for the Law of the Sea, European Court of Human Rights, World Trade Organization, Permanent Court of Arbitration or the European Court of Justice. Also, a key objective in this section is to analyze also how to avoid disputes as an alternative means for dispute settlement.

An important objective of the paper is represented by the perspective of comparative presentation of the way in which environmental legislation is viewed in different states of the world, given that the globalization of environmental legislation is a manifestation of present trends on multiplying environmental treaties and other international legal instruments, of the rapid development of national environmental legislation and of the increasing importance of transboundary law. It also represents the inevitable recognition of the fact that finding effective solutions to global environmental problems requires not only an interstate cooperation, but also a development of national environmental legislation and the effective implementation in the field[4].

Finally, a general objective is to combine the theory with practice throughout the paper, by presenting from case to case the most relevant examples of cases solved in states' practice, both at national and at international levels. In the analysis of states' responsibility of transboundary environmental damages, practice plays an essential role, being the only able to demonstrate the manner in which environmental legislation corresponds to reality and to present its limits related to environmental protection.

Methodology used for studying and elaborating the paper

[4] Roger R. Martella JR., Brett Grosko – Editors, International Environmental Law. The Practiyioner s Guide to the Laws of the Planet, American Bar Association, USA, 2014, p. 49

The legal research methodology represents the body of principles, stages and phases, methods, techniques and tools of investigation and scientific knowledge to determine the contents and the legal nature of the issues approached and for supporting properly legal solutions adopted.

For the documentation and elaboration of the present work, methods pertaining to general legal science, and to specific public international law or international environmental law, depending on the peculiarities of the theme approached and of principles governing this area were used, having as a basis of the analysis the legal regulations contained in international regulations, jurisprudence, factual material historically accumulated, methods of direct observation and analysis of practical reality, and results ofother researches materialized under the form of concepts, notions, theories, principles, confirmed or denied by practice.

The stages of scientific research were remarked by: setting goals of the research topic, developing a preliminary plan of the work, the activity of bibliographic documentation, the explanation of specific phenomenon to the studied topic - the research itself and the final stage materialized in drafting the paper work.

The first stage of scientific research took into account bibliographic documentation. the international legal regulations in the field of environmental law were analyzed, as well as the ways in which provisions of environmental law are regulated at internal level. Also, an important role in research was played by the internal and international jurisprudence. In the same time, for documentation reasons, various treaties, monographies, studies, articles, conventions and international documents, as well as the Internet were taken into account.

Throughout the bibliographic research, the preliminary work plan has been continuously improved based on processing the accumulated knowledge and outlining a logical structure of the paper (chapters, sections, paragraphs).

The next stage to bibliographic documentation was represented by the „construction" of the paper work, under the form of interpretation, comparison, supplementing ideas, acceptance or rejection of opinions based on convincing arguments.

In order to achieve the objectives proposed, different scientific research methods were used, including **historical, logic, statistical, sociological and comparative methods**, which were used as following:

- **historical method** was used,for example, for the presentation of the evolution of regulations in international environmental law and to illustrate evolution in the establishment of international jurisdictional bodies and jurisprudence in the field;
- **logical method**was used to express own interpretations, opinions and conclusions based on the study of legislation and jurisprudence relevant in the field of states' responsibility for transboundary environmental damages;
- **statistical method** was used to investigate the repetition and the succession of legal phenomena and realities in universal or regional planes, relating to environment dispute settlement and ways to implement solutions adopted, but also international regulations in the field, attempting to determine trends that ultimately contributed to the formulation of proposals to improve international environmental law;
- **sociological method** enables an understanding of different regulations in certain regions of the world, rules of conduct and manner in which the issue of environmental protection is perceived in different areas, depending on the level of development of those areas and on the priorities derived from this level of development ;
- **comparative method** is used throughout the research work, being analyzed by comparison, similarities and differences between domestic law order and international legal order, jurisprudence of national and international courts and tribunals.

Research outcomes and modalities of taking them into value

The research outcomes were materialized in the doctoral thesis carried out, but also in a number of articles, participation to conferences and papers presented at mainly during the doctoral fellowship I attended at the Institute for Legal Research of the Romanian Academy.

The publication of the research outcomes, as a way of turning them into value, aims at communicating conclusions drawn up, such that they become an instrument of knowledge well motivated and founded.

Although many aspects included in the research paper were analyzed, studied, by well-known experts in law, the paper synthesizes through a new and updated perspective, the concept of states' responsibility for environmental damages by calling on the connections between different legal systems, the evolution of regulations in the field and the way in which jurisprudence has contributed to the development of international environmental law.

At the same time, many issues are clarified concerning the institution of states' responsibility in international public law, issues to which are added particularities of international environmental law. Thus, an in depth conceptual delimitation of notions of ‚state responsibility" and „state liability" is carried out, taking into account the inconsistency with which these concepts were translated into Romanian literature and the obvious confusion that was created. In fact, the concepts of "harm", „loss", „ damage", „injury" etc. are inconsistently translated and often, the meaning of provisions from the treaties is slightly changed, which is why we considered useful some clarifications in this regard.

This paper presents a comprehensive description of all activities that generate transboundary pollution, description accompanied by relevant international legal norms in the field and relevant jurisprudence.

Thus, from the scientific point of view, the paper work represents an international database on how states'international responsibility can be invoked for acts not prohibited by international law, but causing environmental damages and for wrongful acts that violate international law norms. The paper also contains many interpretations of jurisprudence from different states and jurisdictions, and some opinions of well-known authors.

The last part of this work reflects the conclusions and proposals on problems analyzed, concluding that after the analysis conducted throughout the work, the environment law is still a law looking at the future, highlighting the need to increase its role in the improvement of the dispute settlement means and implementation of environmental legislation.

The research paper also points out that in general, international cooperation in environmental protection field has succeeded in determining governments and people to acknowledge the importance of maintaining a balance between economic development and environmental protection, and on the interdependence of states in the field of transboundary pollution. At the same time, it notes that only through harmonization of national legislation of all states we can effectively fight against environmental degradation.

Finally, after all the analysis and interpretations of law and jurisprudence in the area of international environmental law, we keep in mind that a state cannot be held responsible for environmental damage unless it failed to meet certain standards under international law. However, due to large differences between countries (rich or poor), with different levels of economic and social development, environmental issues must be considered in an integrated manner, in which the concept of responsibility solves only part of the problem.

The paper work resulting from this research may constitute therefore a guide for those interested in deepening knowledge on states' international responsibility for environmental damages, but also in terms of how victims of transboundary pollution may require the states to be respected their right to a healthy environment.

Paper structure

The research paper comprises an introduction, three sections, each having two chapters and a final chapter dedicated to conclusions and proposals for *lex ferenda*.

The introduction contains classic elements to approach general issues concerning the doctoral research, such as: describing the research topic, the necessity and actuality of the research topic, research objectives, the methodology used for the study and elaboration of the paper, research outcomes and methods of turning them into value, and in the end, the paper structure.

Part I is dedicated to a general overview of the complexity of the problems posed by international environmental law. **Chapter I** does not present only an introduction in the field, but aims to clarify controversial issues related to specific concepts of the notion of responsibility, damage, environmental damage and ecological damage. In the same measure it is analyzed the problematic of environmental protection from the perspective of the evolution of regulations and jurisprudence in the field.

Chapter II examines the regulation of states' responsibility and liability for transboundary damages in international environmental law. In this sense, sources of international environmental law are studied, such as: custom, principles specific to international environmental law and treaties. The following sections present the role of jurisprudence, of doctrine and of the International Law Commission, as secondary sources in the formation of rules on responsibility for transboundary environmental damages. Also,other possible secondary sources are analyzed, in regard to the contribution of non-governmental organizations to the setting up of rules on the transboundary environmental damages. In the same time, the concept of "soft law" is

presented as an important innovation in the process of regulation of international environmental law.

Part II is dedicated to the analysis of states' responsibility and liability, and of the means dispute settlement. **Chapter III** deals with the states' responsibility and liability for transboundary environmental damages. Thus, in section 1 are analyzed the damages resulted from facts not prohibited by international law, their manifestations forms, such as: nuclear, space, marine and other activities that involve the use of hazardous substances. Section 2 analyzes the environmental damages resulting from wrongful acts under international law, focusing primarily on presenting circumstances which exclude the wrongful nature of the offense, the consequences of determining responsibility for wrongful facts and presenting the forms of their manifestation, such as air pollution, transboundary watercourses pollution, transboundary aquifers problem and soil protection.

The third section of this chapter examines the states' responsibility and liability for damages caused to the common heritage of mankind. I considered it necessary to analyze the concept of common heritage of mankind and the theory of intergenerational equity problem. Then, I analyzed the activities of states' responsibility and liability for damages caused to high seas, atmosphere, Polar Regions and outer space.

Chapter IV analyzes the settlement of disputes relating to transboundary environmental damage and analyses primarily in the first section three ways of avoiding environmental disputes: consultations, monitoring and reporting. Section 2 is devoted to non-jurisdictional means for settling transboundary environmental damages, such as international negotiation, good offices, mediation, conciliation and investigation. Section 3 is the largest in this chapter and addresses jurisprudence means of dispute settlement. Thus, it begins by detailing jurisprudence and competence of the International Court of Justice and presents the situation in Tuvalu Island, as potential court case. Then, the section continues with the presentation of jurisprudence and competence of the International Tribunal for the Law of the Sea, of the Permanent Court of Arbitration, of

the European Court of Human Rights, of the Court of Justice of the European Union, and at the end of the means to settle disputed within World Trade Organization.

Part III approaches comparative law elements in the field of environmental legislation. **Chapter V** presents in the first section an introduction on the question of the application of national law in transboundary pollutions. The following section presents the environmental legislation in the United States, Argentina, Brazil, France, China, Nigeria and Australia. In this section, besides brief explanations on how it is regulated and implemented the environmental concern in every state analyzed, are also presented the most eloquent cases of the jurisprudence in the respective states. **Chapter VI** is dedicated legal responsibility for environmental damages in Romanian law. It presents the evolution of environmental protection in Romanian law, and the three forms of legal responsibility in environmental law, respectively civil tort liability, contravention liability and criminal responsibility.

The final chapter, Chapter VII, presents the **conclusions and proposals to improve the regime of responsibility and liability for environmental damages**. Conclusions from the first section bring arguments to support the fact that pollution knows no borders. Section 2 presents a series of proposals and perspectives that we consider useful in the development of the analyzed field. As part of the proposals has been analyzed by well-knownauthors in this area, we continue to offer those interested a scientifically documented vision on states' international responsibility for environmental damages.

2. **Conclusions resulted from doctoral paper**

Borders do not stop pollution. Pollution (air, water or soil) produced in a part of the globe is likely to spread gradually everywhere, fact which causes unimaginable climate changes.

In the first part of the paper, I found it necessary to introduce firstly the issues in environmental protection in general, highlighting the conceptual delimitations between environmental damage and ecological damage. The conclusion of this brief analysis is that the definition of environmental damage should not be confused with the definition of ecological damage. While in case of environmental damage, the loss can be quantified,in case of ecological damage, the loss cannot be quantified. Ecological goods are public goods or common goods of mankind (the free seas, the air space, the atmosphere, the Polar Regions) since they do not belong to anyone in the sense of property.

The most ample part of the paper work refers to the analysis of the regime of international responsibility for transboundary environmental damages. In this chapter, we analyzed the environmental damages resulting from facts not prohibited by international law, environmental damages resulting from wrongfulf acts under international law and environmental damages caused to the common heritage of mankind. In particular, the draft principles elaborated by the International Law Commission were taken into account. The issue of states' responsibility was a constant concern of the International Law Commission since 1949, but only in 2001 ILC adopted the draft articles on states' responsibility for internationally wrongfulf acts and the draft articles on prevention of transboundary damage stemming from dangerous activities. Later, in 2006, CDI has adopted the draft principles on the allocation of responsibility for damages in case of transboundary damages stemming from hazardous activities, and in 2008 the draft articles on applicable law to transboundary aquifers.

The draft principles - project for codifying international responsibility of states, although useful in doctrinal terms, as they were developed in a long time, have lost some

interest they showed in the beginning, mainly due to the trend to establish international legal norms that are specific to international responsibility of states (exp. Law of the Sea, Air Law etc.), these prevailing, according to the principle *specialis generalibus derogant*.

The conclusion derived from this analysis is that it is unlikely that the draft principles to form the basis of an international treaty or to be adopted in another form, but they may influence the development of customary rules of international law on transboundary damages.

Despite these difficulties, the norms on states'responsibility for transboundary environmental damages have been widely accepted by the world states and international tribunals that have faced environmental protection issues. But despite commitments and intentions proclaimed at conferences from Stockholm in 1972 and Rio 1992, international law has failed to develop an effective regime on responsibility and compensation for most of global environmental issues.[5] Multilateral treaties have failed to impose a responsibility regime only for certain types of pollution, most forms of pollution not having regulated a specific protection regime.

Establishing states'responsibility for transboundary environmental damages represented the establishment of international legal obligations for the state responsible with pollution to bear the legal consequences as a result of breaching certain legal international obligations. But as no regime on environmental responsibility does not provide legal consequences for states' responsibility, the general rules of international law apply. Thus, the legal consequences of states' responsibility for wrongful acts causing transboundary environmental damages are cessation of the wrongful act and repair of damage, restitution, compensation or satisfaction. On the other hand, in case the states'responsibility for facts not prohibited by international law legal, the legal consequence is compensation for the damage caused.

The adoption of the obligation to cease and to guarantee not to repeat the acts referred to in ILC draft-articles on the states' responsibility for wrongful acts represents a

[5] Robert V. Percival, Routlege Handbook of International Law, ed. by Shawkat Alam [et al.], London, 2013, p.695

significant progress with regard to regulating the states' responsibility. By this principle, prevention takes on an important and primary role in the fight for environmental protection. An example of these issues could be shutting down a nuclear reactor which has not complied with the environmental obligations, this shutdown of the reactor being an effective method to prevent potential transboundary environmental damages.

Unfortunately, in practice, the principle of obligation to cease in case of an activity causing transboundary damages was not used very often. In the case of 2001 nuclear power plant MOX, Ireland requested the Tribunal to order the United Kingdom to immediately suspend the authorization for MOX nuclear power plant, in order to protect the marine environment from the radioactivity generated by the plant, but the Tribunal invited the parties to cooperate and exchange information between them relating to taking the necessary measures to prevent risks and damages[6].

Thus, the second legal obligation for states' responsibility both on the wrongful acts and the lawful acts but causing transboundary environmental damages is the repair. The responsible state must assume full repair of transboundary environmental damage both from material and moral points of view. Although in terms of repair, the ideal is to restore the initial situation, from an environmental perspective this is often impossible. In this sense is the situation of the Chernobyl nuclear power plant accident, where some areas contaminated by radioactivity are unusable in the present too, as a result of the nuclear accident. Therefore, compensation becomes a viable solution in the situation in which the restoration is no longer possible.

Compensation for transboundary environmental damages is determined according to the conventions in the field and the norms of international law. The issue was raised in the present study on who is responsible for such damage, the state or the private entities? The obvious conclusion is that in the situation in which the activity that caused the transboundary pollution belongs exclusively to state bodies, then they are responsible.

[6] Zeidan, S., State Responsibility and Liability for Environmental Damage Caused by Nuclear Activities, Tilburg University, 2012, p.503

The issue raised is connected through to the case in which the situation is caused by a private entity on the territory of a state. Requesting compensation from a government for the transboundary environmental damage caused by a private entity undermines in a certain measure the *polluters pays* principle. The regulation of the situation by which the responsibility to be direct the private entity which caused transboundary pollution would be the most rapid and efficient. But in international law only states can bring international complaints against another state.

The solution would be to find a forum with jurisdiction that would depend on the agreement of another state, agreement that it is often difficult to obtain. In practice very few environmental damages have been resolved in this way. Usually, the simplest and most effective way is for those causing environmental damages to pay, and not the state under whose jurisdiction they find themselves. Such an approach has given rise to the civil responsibility theory, which however was not the object of the present study.

Otherwise, involvement of states'international responsibility require fulfilment of two conditions, such as: breach of an international obligation and fact which constitutes a violation to be assigned to a state. However, involvement of states' international responsibility in environmental protection presents many difficulties.

Currently there are more and more hazardous activities („hazardous activities") that are not prohibited by international law, but may have a negative impact on the environment. In such situations,there appears a state's obligation to repair environmental damages caused by its wrongful conduct to another subject, in practice and in theory this obligation being called risk-based responsibility.

Therefore, the states'international responsibility and the obligation to repair the damage caused intervenes only when committing an internationally wrongful act, in the situation in which the injury comes as a result of hazardous activity, but legitimate from the point of view of international law, the obligation of the state is only to repair the damage caused.

A delicate problem is represented by states' responsibility for damage to common heritage of mankind. In order to invoke the states' responsibility for damage to common

heritage of mankind in the first place an international obligation which has been violated must be identified. *Erga omnes* concept raises a series of legal problems, in the sense if astate may invoke on behalf of the international community the occurrence of a damage to the common heritage of mankind by another state.

In this respect, the International Law Commission states in its comments that the responsibility in relation to multilateral obligations can be classified into obligations *ergaomnes*, that all states have the right to invoke responsibility, and in obligations *erga omnes partes*, meaning that all states that are parties have the right to invoke responsibility.

The paper analyzes the problem of "rights of future generations", the recognition of these rights being expressed in numerous international treaties and declarations. However, the issue arising is "to what extent are the interests of future generations taken into account in the current discussions on responsibility and compensation, and in the assessment of damages in case of injury"[7].

At international level, the idea to prevent environmental damages is starting to be outlined, given the fact that most often they are irreversible. Due to this fact, cooperation between countries plays an important role in environmental protection, especially before the damages occur. The need for international cooperation was affirmed by principle 24 of the Stockholm Declaration and by principle 7 of the Rio Declaration, which highlighted the importance of international cooperation in environmental protection, the states having the duty to cooperate in the spirit of a global partnership. This call was materialized in many bilateral and multilateral international agreements between states that included international cooperation. Although at theoretical level it was stated that international cooperation is the key to prevention of environmental damage, practice proved just the opposite. It is the case of Japan nuclear accident at Fukushima plant, in March 2011, which showed that there are many shortcomings in managing such a disaster at international level, requiring much improvement especially at practical level.

[7] Malgosia A. Fitzmaurice, International Protection of the Environment, Collected Courses of the Hague Academy of International Law, Volume: 293, Brill | Nijhoff, Leiden | Boston, 2001, p. 202

Summarizing, we can state that despite progress in the environmental field, the large number of treaties, and the concrete international answer to transboundary environmental damages remains weak and often in theory.

Given the diffuse character of pollution, the problem of identifying the state where the pollution originates arises often, for example in the case of acid rain, depreciation of ozone layer or global warming. In addition, given that pollutants often act and produce conjugated effects, it is difficult to determine the accuracy of the effects of each of them.

The greatest challenge the international community is facing is the need for economic development and environmental protection at the same time. We consider it necessary to establish a balance between the two, due to the fact that, as we have seen, for example, in the case of nuclear accidents, even if nuclear activity has its benefits, in case of accident the risks are major and most times the damages are irreversible.

A problem encountered during the research is the access to justice, especially for victims, access which is often difficult to obtain because most times the treaties do not provide a simple, easy mechanism and compensation remains a problem. A step in this direction was made by the Aarhus Convention which suggests that access to justice is more efficient and provides solutions against environmental damages, but not enough.

Another problem that hinders efficient protection of the environment is the fact that, by virtue of sovereignty,the means that oblige a state to respect the norms of international law do not have a coercive force,specific to domestic law[8]. Thus, states cooperate voluntarily and on a reciprocal basis. Penalties for states-parties for breach of an international obligation are like the suspension of certain rights or privileges, but they are not efficient.

In the light of the aspects analyzed in the present paper, it is clear that there is a need for a more efficient international cooperation and even for a fusion of environmental regulations in order to simplify procedures and to give them an actual effectiveness, taking into account the oversizing of the regulatory framework in the field, which makes it difficult to distinguish between norms of *jus cogens* and *softlaw*.

[8] Raluca Miga-Beșteliu, Drept internațional public, vol. II, Ed. 2, Editura C.H.Beck, București, 2014, p.29

The conclusion of this study is that states are responsible for the environmental damages caused by activities undertaken on their territory or under their jurisdiction. Two essential principles guide the behavior of states in this situation. The first is the principle of transboundary cooperation on environmental issues. The second is the *polluter pays* principle, the states being obliged to repair the transboundary environmental damages caused to other states both from material and moral points of view.

Regarding the states' responsibility for transboundary environmental damage caused by hazardous activities, there is no absolute responsibility of states in such situations. It is recommended that states and private entities performing activities that are potentially negative on the environment, to share this responsibility. Thus, the operator has a primary responsibility for transboundary environmental damage caused by its activity, and the state has a secondary responsibility and must provide additional compensation to victims of transboundary pollution, as established by conventions to which it is party. The state has the primary responsibility only if the environmental damages are the result of a breach of obligations established by international law.

Also, transboundary disputes will be efficient in environmental cases only if there will be a common minimum standard applicable independently of the place where the proceedings take place. The harmonization of national laws relating to environmental responsibility will have many benefits for the global environment, the main ones being related to fact that setting a common minimum standard for all legal systems will ensure effective access to legal and administrative proceedings, including compensation for damages and providing compensation under article 10 of the Rio Declaration. It may also help for a better implementation of the polluter pays principle, laid down in article 16 of the Rio Declaration. A beginning of harmonization is, for example, provided in the conventions concerning damages caused by pollution from ships and nuclear accidents. The main elements in these cases are outlined by a common scheme on the strict

responsibility of parties, operator'sresponsibility, limited as amount and completed by compulsory insurances and compensation funds.[9]

The problem was raised in doctrine[10]if responsibility provided in these treaties has more connection with the impact on the industry than with environment improvement. Another controversy is related to the selective application of strict responsibility only in certain fields, while others were left out. Although it is a sensitive issue because it interferes with topics related to fundamental concepts of national legislations, it may be a step towards the universal harmonization of regulations relating to environmental protection.

International procedures related to environmental litigation are not always the preferred solution by the states, in solving these situations. They can be used when states do not implement or implement superficially the environmental impact assessments, or do not cooperate with neighboring states on the issue of transboundary environmental damages.

States'responsibility presents many difficulties in reality. Firstly, because many times, the jurisdiction of international tribunals is not compulsory. Without the states'consent to resort to dispute resolution in this way, the issue of transboundary environmental damages can be solved only through negotiations. Whichever method is chosen, the procedure is long and expensive, and the victims of pollution have no control over the negotiations and settlement agreements. On the other hand, there may be situations where environmental dispute resolution to be more related to political interests than to the interests relating to environmental protection, states being reluctant to create precedents that could affect their behavior in future, for example when the damage is caused to common areas.

Despite these challenges, the international environmental law is a law that looks towards the future. We must preserve and protect the environment, not for us, but for

[9] Birnie, P., Boyle, A., Redgwell, C., International law and the environment, third ed., Oxford University Press, 2009, p.318

[10] Bergkamp, Liability and the Environment: Private and Public Law Aspects of Civil Liability for Environmental Harm in an International Context (The Hague, 2001); P.Birine, op. cit., p. 318

future generations. It requires harmonization of national legislations on environmental responsibility, because ultimately, environmental issues are not only a national problem but a universal one, pollution not knowing any borders.

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