

Research and Restoration of the Essential Filters of the Sea - REEFS

Summary report on the research and analysis of the legislative and institutional framework in the partner countries - BULGARIA, GEORGIA, ROMANIA, TURKEY, UKRAINE in regard of artificial reefs application in Black Sea basin

(Abstract)

The present report is developed by Alexander Asenov LLM, within the frameworks of Project „Research and Restoration of the Essential Filters of the Sea - REEFS”, implemented by Bulgarian Biodiversity Foundation under the "Black Sea Basin Joint Operational Program 2007-2013 of the European Union "

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INTRODUCTION

The report is developed within the framework of the project (Research and Restoration of the Essential Filters of the Sea - REEFS) in view of the overall and specific objectives under the Grant contract № 40921 / 05.30.2012 concluded between the Bulgarian Biodiversity Foundation and the Ministry of Regional Development and Tourism of Romania, in its capacity as Joint Managing Authority of Operational Programme "Black Sea Basin 2007-2013 of the European Union".

One of the project's main goals is to provide information and to support the decision-makers in defining contemporary strategies, action plans and internal programs for recovering the marine resources, which allow for fishing in the Black Sea Basin to sustain in the future.

The aim is to increase the knowledge of the legislation and reef installment procedures in various best-practice countries, at the authorities/institutions, which are in charge of fishery management in the countries, participating in the Action and to stimulate positive legislative and administrative changes in all riparian Black Sea countries in relation to the artificial reefs installment as a practical active measure for support the self-restoration of the Black Sea ecosystem.

METHODOLOGY AND STRUCTURE

Some of the main activities and objectives of the REEFS project are related to the analysis of the relevant legal and institutional framework in riparian countries and to respective particular proposals and recommendations for improvement of the legislation on biodiversity conservation in the Black Sea Basin.

The report presents a synthesis of the existing legal and institutional framework of Bulgaria, Georgia, Romania, Turkey and Ukraine, relevant to the subject and purpose of the REEFS project, a list of analyzed regulations, conclusions, recommendations for improving the relevant provisions of national legislation on the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural environment in the Black Sea as well as on easing administrative procedures in connection with the placement of artificial reefs, proposed by experts and stakeholders in those countries.

Research and analyses were performed by a working group of 4 Legal Advisors, specialized in decision-making activities. The Country Assistants of the partners supported the activity by providing written laws and national regulations, related to the local management of the marine ecosystem.

Information is oriented in a way to illustrate the role of different stakeholders in different countries in the Black Sea in the field of nature protection and biodiversity improvement, there is also a brief overview of the purpose and objectives of relevant international agreements and national laws and regulations, outlining the main administrative procedures for placement of artificial reefs.

This analysis of the legal framework and institutional framework in each Black Sea riparian country appears subject of improvement and further deepening in view of the practical aspects of the REEFS project and the overall implementation of its activities.

The present report is developed according to the national law, including national legal reports, prepared by national legal experts. The overview of the existing legal and institutional framework is consistent with the regulations in respective Black Sea countries by 01.11.2012.

GENERAL OVERVIEW OF THE LEGAL FRAMEWORK

The laws of the Black Sea countries differ both by the content of specific rules and by the name of individual acts, by the authorities, which appear competent on artificial reefs subject and by the way of implementation of these standards.

Depending on its hierarchy and its level of abstractness, the legal applicability of national laws of each country pays insufficient attention to the issues related to the artificial reefs. In some cases, these issues are regulated only indirectly by existent legislation and often there is a gap in the law.

Except partially for Bulgaria and Turkey, in the other countries there is no specific legislation, which explicitly provides for regulation of activities, associated with artificial reefs.

INTERNATIONAL AGREEMENTS

UNIVERSAL AND REGIONAL AGREEMENTS

An important component of the national framework is the number of international agreements to which the Black Sea countries are parties.

Some of the main universal international agreements are mentioned hereunder:

Maritime law agreements

United Nations Convention on the Law of the Sea (UNCLOS) ,New York, 1982

Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter, London, 1972, as amended with Protocol of 1996 to Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter

Convention on International Maritime Organization (IMO)

Convention on Facilitation of International Maritime Traffic (FAL), 1965

Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972

International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS), 2001

Special environmental agreements

Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, Geneva, 1977

European Landscape Convention, Florence, 2000

Convention on Biological Diversity(CBD), Nairobi, 1992.

Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus, 1998

Convention on the Conservation of European Wildlife and Natural Habitats, Bern,1979

Convention on the Conservation of Migratory Species of Wild Animals, (CMS), Bonn, 1979.

Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 1991

Multilateral agreement among the countries of South-Eastern Europe for implementation of the Convention on Environmental Impact Assessment in a Trans boundary Context, Bucharest, 2008)

Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Trans boundary Context, Kiev, 2003

Natural/Cultural heritage agreements

European Convention for the Protection of the Architectural Heritage, 1987

European Cultural Convention, Paris, 1954,

Convention on the Protection of Archaeological Heritage, Valletta, 1992,

Convention for Safeguarding of the Intangible Cultural Heritage, 2003

Convention on the Protection of the Underwater Cultural Heritage, 2001,

Convention Concerning the Protection of the World Cultural and Natural Heritage ,1972

Regional seas agreements:

Convention for the Protection of the Black Sea Against Pollution, Bucharest,1992

Protocol for protection of biological and landscape diversity in the Black Sea to the Convention for the Protection of the Black Sea against Pollution, signed on 14 June 2002

There are some other regional agreements of specific importance not directly related to the Black Sea basin, but referring to other regional seas with similar problems /such as Baltic Sea or Mediterranean Sea/.

OSPAR Convention - Convention for the Protection of the Marine Environment of the North East Atlantic (adopted in 1992 and in force since March 1998); this document has replaced the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircrafts (Oslo Convention).

Barcelona Convention - Convention for the Protection of Mediterranean Sea against Pollution (1977).

Helsinki Convention - Convention on the Protection of the Marine Environment of the Baltic Sea Area (1992)

EUROPEAN UNION LAW

In the context of this study EU law counts that two of the countries / Bulgaria and Romania / are already members of the European Union, and one more country / Turkey / is in the process of applying for EU membership.

European Union law is a single, multi-legal system, being a kind of a legal hybrid, combining elements of the international legal systems with elements of domestic systems of the Member States of the European Union.

In this sense, the term "EU Law" will be used as a general term that includes all the contracts, constituting primary law and any secondary legislation, adopted by the EU institutions or individual communities, regardless which authority has adopted or approved these acts. The EU law will also comprise the adoption of acts, including here acts, adopted before the Treaty on European Union has become valid.

The provisions of the European Union law might be further divided into two large groups - primary and secondary EU law.

"Primary law" covers all contracts, concluded between Member States, regulating mainly the relations in the field of building and functioning of the administrative structures of Communities and European Union.

The acts issued by the European Union authorities represent the largest group of EU law regulations. The standards of these acts are assumed to be known as the "secondary EU law" or "derivative law" of the European Union.

International conventions to which the EU has acceded are part of the EU law.

In practice, the conventions on the environment play an important role in EU law only where the EU has adopted a directive or regulation to implement the content of a convention. The Member States are free to decide whether to ratify a convention and to apply it or not.

Many acts can be mentioned in this field, mostly related to the implementation of policies for fisheries and ecology and in particular the problems of integrated marine and coastal zone management.

1. Some acts mainly related to the problems of fisheries and aquaculture in general terms with the problems of the Common Agricultural Policy:

Council Directive 83/515/EEC of 4 October 1983 concerning certain measures to adjust capacity in the fisheries sector

Commission Regulation (EEC) No 3440/84 of 6 December 1984 on the attachment of devices to trawls, Danish seines and similar nets

Council Regulation (EC) No 3071/95 of 22 December 1995 amending for the 19th time, Regulation (EEC) No 3094/86 laying down certain technical measures for the conservation of fishery resources

Commission Regulation (EC) No 2740/1999 of 21 December 1999 laying down detailed rules for the application of Council Regulation (EC) No 1447/1999 establishing a list of types of behavior which seriously infringe the rules of the common fisheries policy

Council Regulation (EC) No 724/2001 of 4 April 2001 amending Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms

Council Regulation (EC) No 199/2008 of 25 February 2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy

2. Some important acts related to environmental issues including the problems associated to biodiversity / NATURA 2000, Water and the specific problems of the marine environment:

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment

Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC - Statement by the Commission

Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage

Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy

Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment

Commission Decision of 12 December 2008 adopting, pursuant to Council Directive 92/43/EEC, an initial list of sites of Community importance for the Black Sea biogeographical region

Commission Decision of 1 September 2010 on criteria and methodological standards on good environmental status of marine waters

LEGISLATION:

1.1. List of the legal documents providing grounds for artificial reefs (or relevant structures) settlement

Bulgaria: The situation in Bulgaria is characterized by existence of a relatively comprehensive legal framework at different levels, although in other Black Sea countries there is no codification in matters, associated with artificial reefs. Legislation in its entirety gives enough clear legal framework, concerning the administrative procedures and requirements for placement of artificial reefs in the marine environment. A major problem is the lack of practice for the application of this legal framework, which poses the risks of

improper and non-uniform application. Only the main legal instruments are indicated, which appear relevant to the subject of analysis and their list may not be treated as comprehensive at this stage:

- CONSTITUTION OF THE REPUBLIC OF BULGARIA
- THE OWNERSHIP ACT
- STATE PROPERTY ACT
- MUNICIPAL PROPERTY ACT
- TERRITORY PLANNING ACT
- MARINE WATER, THE INTERNAL WATER WAYS AND THE PORTS OF THE REPUBLIC OF BULGARIA ACT
- MERCHANT SHIPPING CODE
- ACT ON BLACK SEA COAST
- BIOLOGICAL DIVERSITY ACT
- WASTE MANAGEMENT ACT
- WATER ACT
- FISHERY AND AQUACULTURES ACT
- ACT ON PROTECTED TERRITORIES
- CONCESSIONS ACT
- ACT ON THE LOCAL GOVERNMENT AND THE LOCAL ADMINISTRATION
- ENVIRONMENTAL PROTECTION ACT
- ACT ON THE LIABILITY FOR PREVENTING AND REMEDYING ECOLOGICAL DAMAGES
- ACT ON TOURISM
- PHYSICAL EDUCATION AND SPORT ACT
- PROTECTION AND DEVELOPMENT OF THE CULTURE ACT
- CADASTER AND PROPERTY REGISTER ACT
- ORDINANCE FOR THE USE OF SURFACE WATER
- ORDINANCE FOR THE CONDITIONS FOR ENVIRONMENTAL ASSESSMENT OF PLANS AND PROGRAMS
- ORDINANCE FOR THE CONDITIONS AND THE ORDER FOR IMPLEMENTING ENVIRONMENTAL IMPACT ASSESSMENT
- ORDINANCE FOR THE CONDITIONS FOR COMPATIBILITY ASSESSMENT OF PLANS, PROGRAMS, PROJECTS AND INVESTMENT PROPOSALS WITH THE OBJECT AND PURPOSE OF THE PROTECTED AREAS CONSERVATION
- ORDINANCE № 7 FOR DIVING AND UNDERWATER ACTIVITIES
- ORDINANCE FOR THE PROTECTION OF THE MARINE WATER ENVIRONMENT
- ORDINANCE № 4 ON THE QUALITY OF WATER FOR FISH AND SHELLFISH ORGANISMS
- ORDINANCE № 8 ON THE QUALITY OF COASTAL MARINE WATERS
- ORDINANCE № 3 FOR COMPILING OF ACTS AND RECORDS DURING THE CONSTRUCTION
- ORDINANCE № 7 CONCERNING RULES AND NORMS FOR DEVELOPMENT OF SEPARATE KINDS OF TERRITORIES AND DEVELOPMENT ZONES

Georgia: Concerning the absence of specific provisions on this stage, it is indicated only the act that was committed -sinking of the above mentioned ship i.e. Government Decree No 1008 released on 13 May 2011: "Respective activities to sink a passenger ship - vessel "Alexander Pachulia". This is a typical case of an „ad hoc“ legislation. Possibly in the future public authorities will proceed with similar special instruments, adopted for the installation of artificial reefs. However, it might be mentioned that certain acts are relevant to the issues associated with artificial reefs:

- THE CONSTITUTION OF GEORGIA
- LAW ON ENVIRONMENT PROTECTION
- LAW ON ENGINEERING PROTECTION AND REGULATION OF THE SEA, INLAND WATERS AND RIVER BANKS
- STRATEGY FOR SUSTAINABLE DEVELOPMENT
- NATIONAL ENVIRONMENTAL ACTION PROGRAMME

Romania: Although there are no specific rules on artificial reefs adopted, there are laws in force, related to the topic:

- LAW NO. 310 AMENDING AND SUPPLEMENTING WATER LAW 107/1996
- LAW NO. 280/2003 FOR APPROVING GOVERNMENT EMERGENCY ORDINANCE NO 202/2002 ON INTEGRATED COASTAL ZONE MANAGEMENT

- ORDINANCE EMERGENCY NR.202/2002 ON INTEGRATED MANAGEMENT OF THE COASTAL ZONE
- LAW NO. 493/2006 APPROVING GOVERNMENT ORDINANCE NO.32/2006 TO AMEND ARTICLE 4 OF LAW NO. 597/2001 CONCERNING CERTAIN PROTECTION MEASURES AND ADMITTING THE CONSTRUCTION IN THE COASTAL ZONE OF THE BLACK SEA
- LAW NO. 6/1993 FOR ROMANIA'S ACCESSION TO THE INTERNATIONAL CONVENTION (1973) FOR THE PREVENTION OF POLLUTION FROM SHIPS, MARPOL 73/78
- LAW NO. 3167/2005 TO ACCEPT AMENDMENTS TO THE 1988 INTERNATIONAL CONVENTION ON LOAD LINES, 1966 ADOPTED BY THE INTERNATIONAL MARITIME ORGANIZATION RESOLUTION MSC.143 (77) MARITIME SAFETY COMMITTEE IN LONDON ON JUNE 5, 2003
- LAW NO. 98/1992 RATIFYING THE CONVENTION ON THE PROTECTION OF THE BLACK SEA AGAINST POLLUTION, 1992, BUCHAREST
- LAW NO. 160/2000 APPROVING GOVERNMENT EMERGENCY ORDINANCE NO. 14/2000 FOR ROMANIA'S ACCESSION TO THE INTERNATIONAL CONVENTION ON PREPAREDNESS, RESPONSE AND COOPERATION IN CASE OF OIL POLLUTION
- GOVERNMENT DECISION NO. 619/2004 APPROVING THE REGULATION ON ORGANIZATION AND OPERATION OF THE NATIONAL COMMITTEE OF THE COASTAL ZONE
- GOVERNMENT DECISION NO. 164/2004 FOR THE APPROVAL OF THE MEASURES AND WORKS ON COASTAL PROTECTION AND REHABILITATION
- ORDER NO. 38/SMI/1.044/671/2004 ISSUED BY THE THE MINISTER OF ENVIRONMENT AND WATER, MINISTER OF TRANSPORT, CONSTRUCTION AND TOURISM AND THE MINISTER OF HEALTH ON THE CODE OF CONDUCT FOR RECREATIONAL ACTIVITIES IN THE COASTAL AREA

Turkey: Turkey has clearly defined rules for the placement of artificial reefs although the rules are applied mainly to the reefs, installed in the Mediterranean Sea and the Aegean Sea and only some of them refer to Black Sea.

- FISHERIES LAW, NO: 1380
- MINISTERIAL NOTICE REGULATING ARTIFICIAL REEF APPLICATION. (2002)
- DECREE ON THE ORGANIZATION AND TASKS OF MFAL (08 JUNE 2011, NO:639)
- REGULATION FOR THE ACTIVITIES FOR TOURISM (NO: 14736/ARTICLE 8) ISSUED BY THE MINISTRY OF CULTURE AND TOURISM.
- ARTIFICIAL REEF DESIGN, PLANNING AND IMPLEMENTATION GUIDELINES - DG FISHERIES (2002)

Ukraine: The LAW OF UKRAINE ON AQUACULTURE is referred as the most important act it , although the act only came into force on 1 July 2013. This Law determines principles of public policy, basic principles of development and functioning of aquiculture, legal frameworks concerning the activityby authorities of executive powerand authorities of local self-government in the field of aquaculture.

1.2. Additional regulations (ratification of international legal documents)

Bulgaria: The international treaties, ratified in accordance with the constitutionally established procedure, promulgated and entered into force for Bulgaria, do form a part of the domestic law. Bulgaria appears party to most of the relevant international agreements. Bulgaria is also party to some bilateral agreements with other Black Sea countries.

- LONDON CONVENTION
- OSPAR CONVENTION
- BARCELONA CONVENTION
- HELSINKI CONVENTION
- BUCHAREST CONVENTION

Georgia: In order to be more close and to be appropriately integrated into the developed international community, Georgia strives to introduce internationally adopted environmental approaches and regulations where possible. Currently, negotiations on the EU-Georgia Association Agreement are being conducted. One of the topics of the agreement is environment protection. Georgia is a party to approximately 50 multilateral and bilateral environmental treaties, which impose specific requirements on member countries, but most important action is involvement in the activities related to the Black Sea Convention and its protocols. In Georgia there are other international agreements relevant to the considered issues as follows:

- CONVENTION ON BIOLOGICAL DIVERSITY

- CONVENTION ON ACCESS TO INFORMATION, PUBLIC PARTICIPATION IN DECISIONMAKING AND ACCESS TO JUSTICE IN ENVIRONMENTAL MATTERS
- CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS
- CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS
- EUROPEAN LANDSCAPE CONVENTION

Romania: Most of the specific Regional Plans, which refer to the use of artificial reefs in the marine environment, and/or Guidelines for the construction of artificial reefs have been derived from the above general Conventions. Examples are represented by the "Guidelines for the placement at sea of matter for purpose other than mere disposal (construction of artificial reefs)" (UNEP MAP, 2005) and the "OSPAR Guidelines on artificial reefs in relation to living marine resources (OSPAR COMMISSION, 1999). The following international agreements are specified as important for Romania /though Romania is not directly a party to some of them/:

- LONDON CONVENTION
- OSPAR CONVENTION
- BARCELONA CONVENTION
- HELSINKI CONVENTION
- BUCHAREST CONVENTION

Turkey: Turkey is the only direct party to the CONVENTION FOR THE PROTECTION OF THE MEDITERRANEAN SEA AGAINST POLLUTION (1977). By the Turkish side it is also emphasized the importance of the CONVENTION FOR THE PROTECTION OF THE BLACK SEA AGAINST POLLUTION, appearing the basic legal instrument for solving problems of the Black Sea, including artificial reefs issues. In Turkey is located the seat and the headquarters of the institution, responsible for the implementation of the Bucharest Convention-Black Sea Commission.

Ukraine: Most important international agreements from Ukrainian point of view are as follows:

- LONDON CONVENTION AND THE 1996 LONDON PROTOCOL TO PREVENT THE DUMPING OF WASTE AND OTHER MATTER INTO THE SEA.
- THE CONVENTION ON THE CONTROL OF CROSS-BORDER MOVEMENTS OF DANGEROUS WASTE AND THEIR ELIMINATION (BASEL CONVENTION, 2002)
- OSPAR CONVENTION
- BARCELONA CONVENTION 1976 AND AMENDED IN 1995
- EUROPEAN COMMUNITY ACTS AND INITIATIVES

1.3. Existence of legal definitions for „artificial reef“:

Bulgaria: At least two definitions, which are similar but not equivalent, exist in Bulgaria. The first one is according to the provisions and in the context of the basic Act on the fisheries and aquacultures / Fisheries and Aquacultures Act -Additional provisions § 1.12 and the second one is according to the provisions and in the context of Ordinance for the use of surface water-Additional provisions § 1.11. Having two different definitions in the legislation raises the possibility of conflicting interpretations to exist in the practice.

Georgia: The definition for **„artificial reef“** is not explicitly defined in national legislation. The most appropriate definition, considered according to the London Convention and Protocol *“Guidelines for the placement of Artificial Reefs”* (UNEP 2009), is that an artificial reef *“is a submerged structure deliberately constructed or placed on the seabed to emulate some functions of a natural reef such as protecting, regenerating, concentrating, and/or enhancing populations of living marine resources. Objectives of an artificial reef may also include the protection, restoration and regeneration of aquatic habitats, and the promotion of research, recreational opportunities, and educational use of the area. The term does not include submerged structures deliberately placed to perform functions not related to those of a natural reef - such as breakwaters, mooring, cables, pipelines, marine research devices or platforms - even if they incidentally imitate some functions of a natural reef.”*

Romania: There is not a proper definition according to the national legislation. The most appropriate definition is specified in London Convention and Protocol “Guidelines for the placement of Artificial Reefs”, as cited above.

Turkey: There is a definition according to the Ministerial notice, regulating artificial reef application (2002)- “Artificial reefs are bottom structures which are created like natural reefs by using a variety of materials such as concrete blocks, iron bars, etc. to protect sensitive ecosystems, to improve fishing, diving tourism and primary production, to avoid overfishing.”

Ukraine: There is a proposal, suggested by local partner, but it has not been yet adopted. The aim is to be introduced a legal definition in the Law of Ukraine on aquaculture: “Reefs - artificial sub water constructions, placed in the layer of water or on the bottom, creating additional habitats and the concentration of hydrobionts, the basic function of which consists of improvement of quality of aquatic environment, increase of the biological productivity and recreational properties of ecosystem.”/Law of Ukraine on aquaculture - Chapter I art.1 „Definitions“.

1.4. Legal eligibility criteria concerning the potential artificial reefs initiators

Bulgaria: Public authorities may require the fulfillment of certain criteria in order to protect the environment. The initiator will act as an owner of this artificial reefs equipment and beneficiary of the contract. A substantial part of the activities under this project is to put artificial reefs in water body/Black Sea/, for which activity the potential initiators of artificial reefs have to obtain at least a permit for use of a water site/object. Permit for use of a water site/object shall be issued only to legal entities and to sole entrepreneurs. bBy definition, NGOs might be holders of the permit although they are not commercial entities.

Georgia: At this stage there are no specific requirements identified for the permitting and placing of artificial reefs. Based on existing precedent of sinking of the ship, it may be assumed that the authorities will take ad hoc measures.

Romania: There are no specific legal eligibility criteria for potential artificial reefs initiators. Still there are a number of requirements for designers and builders if engineering constructions have to be settled. A determined number of legal entities, certified by the Ministry of Environment, might be elected for this type of construction settlement. The legal framework for environmental compliance can arrange a large artificial reef, made of materials that resemble natural reefs such as concrete and limestone.

Turkey: Selected areas should be appropriate for legal regulations (military, navigation, tourism, fisheries, aquaculture, coastal management, etc.).The depth of the water should be not more than 40 meters in the reef area. Height of the reef groups should not be higher than 1/3 of water depth. The slope of the sea floor should not be more than 30 %. Substratum of reef areas should not be muddy and slimy. Artificial reefs should not be established in intense sedimentation areas (such as river mouths).Artificial reefs should not be established on areas with sea-grasses (*Posidonia oceanica*, *Zostera noltii* etc.). The material, used for the construction of an artificial reef should not cause pollution. Used cars, tires, industrial and other waste materials should not be used as artificial reefs. The base of artificial reefs should be plain. The surface of the artificial reef should be appropriate for organisms. Artificial reefs should be resistant to waves. Settlement areas should be marked with buoys on sea. Areas must be marked on the naval maps. Progresses in/on the reef area should be monitored for a period of two years by a scientific institution. "Artificial Reef Monitoring Report" (including pictures and video) should be submitted to the Ministry 2 years after the implementation has been finished.

Ukraine: Considering the lack of regulation, there is a lack of data for certain criteria concerning the legal eligibility criteria about the potential artificial reefs initiators. However, experts indicate that such specific criteria will not be assessed by the authorities until entry into force of the Law of Ukraine on aquaculture. It is expected that after the Law becomes valid, such criteria will be settled on sub-legislative level.

1.5. List of relevant administrative procedures

Bulgaria: Depending on the type of construction and the materials used as well as the specific approach for determination of the submersible equipment and determination of the locations of submersion, this may lead to usage of various administrative procedures. Such procedures might include:

- Environmental impact assessment /EIA/
- Strategic impact assessment /SEA/
- Approval of the investment project
- Compliance assessment /NATURA 2000/
- Construction permit
- Issuance of permit for usage of water site/object
- Diving & Underwater activities permits

Georgia: It is not stipulated, because there is no legal framework envisaged. The special rules have been adopted by the Government and did apply for the above mentioned case- sinking the ship "Alexander Pachulia". This is a typical case of an ad hoc legislation. It is likely to be a similar approach in the future and public authorities will proceed with special ad hoc instruments, adopted for the installation of artificial reefs.

Romania: There are no specific procedures but general legal procedures are applicable to any activity of water management:

- Technical report of activity for obtaining environmental approval;
- Impact assessment study for obtaining environmental approval;
- Risk assessment analysis for obtaining environmental permits;
- Development of Program Compliance;
- Elaboration of the form of presentation and testimony for issuance of environmental permits

Turkey: Usually scientific institutions submit artificial reef projects. The Ministry of Food, Agriculture and Livestock /MFAL/ and DC Fisheries, give permissions after evaluation under the responsibility of Directorate Resource Management and Fishery Infrastructures. Prior to permission issuance, the position of the Ministry of Transportation, Maritime and Communication is required in terms of security of navigation in/near harbors, especially in the maneuvering areas. If the reef is considered to be for diving and recreational purpose, permission by the Ministry of Culture and Tourism is also required. Ministry of Interior and the Coast Guard Command carry out control and inspection. After submission of the application, the period for obtaining permission lasts two weeks.

Ukraine: The central authority with executive power develops the public policy in fisheries and approves the procedure for ecological amelioration implementation. The order for realization of ecological melioration of water bodies is approved by the central executive authority, which elaborates public policy in the field of fish industry. Relevant is ecological melioration, carried out by installing the artificial reefs for maintaining of basic reference of aquatic ecosystem functioning. Under the provisions of the Law on aquaculture and in accordance with the instructions on the activities related to aquaculture / including those, based on the artificial reefs / there could be realized the following aims:

- Production of marketable products of aquaculture with further selling;
- Artificial breeding, cultivation of aquatic biological resources;
- Restoration and maintenance of aquatic environment quality and the high level of biodiversity;
- Provision of recreational services

1.6. Detailed forecast for the period needed for legal permit issue and costs to be incurred for state charges, fees

Bulgaria: Basic legal act to which beneficiaries must comply is the Regulation on the use of surface water, which determines the conditions and procedures for issuance of a permit for usage of surface water body. Permit for the use of such water body would be issued after payment of all state fees. If other procedures would be necessary, for example, we can identify these maximum periods that might be forecasted.

- Environmental Impact Assessment /EIA/ - up to 1/2 years;
- Strategic Environmental Assessment /SEA/ - up to 1/2 years;
- Compliance assessment -integrated; if not any, this will take at least 30 days;
- Approval of the investment project-up to 60 days;

- Construction permit -at least 30 days;
- Issuance of permit for use of water site - at least 68 days;
- Diving & Underwater activities-up to 60 days;

Georgia: The lack of specific regulations concerning the installation of artificial reefs makes it impossible for accurate and detailed forecast to be made at this stage. The lack of precedent will probably result in the need for separate procedures to be defined, based on similar procedures under the environmental legislation of Georgia. There are no available data about insurmountable obstacles for the implementation of procedures and unbearable cost for installing artificial reefs.

Romania: The preparation of the documentation to obtain all the permits may take maximum one month, followed by a period within which this documentation goes to each authorized institution that ought to give its approval. There are no available data about insurmountable obstacles for the implementation of procedures and unbearable cost for installing artificial reefs.

Turkey: In Turkey there are no requirements for paying any fee and charge for the permissions. A Ministerial notice is issued to regulate artificial reef application (2002). Based on this document and the experience from similar projects the following forecast data may be determined:

- Preparation of preliminary report (It should contain fisheries, ecological and physical data);
- Preparation of a project report for implementation;
- A document regarding the fact that reef materials are harmless to the environment.

The activity should start after approval of the project for Implementation.

Ukraine: Below you may find described the basic procedure related to artificial reefs installation but at this stage it is impossible to describe in details the procedure and to make a prognosis for its duration and estimated cost.

- Prefeasibility study;
- Project feasibility study;
- Project Design and documentation (including environmental impact assessment (EIA));
- Coordination of the Project Design and documentation;
- State expertise and approval of the Project Design;
- Building

1.7. Access to financing and respective regulations of the donors

Bulgaria: As possible sources of funding may be determined the following:

- Joint Operational Programme “Black Sea Basin 2007 - 2013”;
- Romania - Bulgaria Cross - Border Cooperation Programme 2007- 2013;
- Seventh Framework Programme;
- Operational Programmes through which resources received from the EU funds are to be redistributed on national level

Georgia: Ship sinking was financially supported by the German Technical Assistance Fund Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). GIZ is providing some support to the Ministry of Environmental Protection in biodiversity conservation, including identification and approval of "biodiversity indicators."

Romania: As possible sources of funding may be determined the following:

- Joint Operational Programme “Black Sea Basin 2007 - 2013”;
- Seventh Framework Programme;
- Sectorial Operational Programme Environment;
- Romania - Bulgaria Cross - Border Cooperation Programme 2007 - 2013

Turkey: Local municipalities have funded many projects. However, the entire financial source is provided by governmental or international organizations.

Ukraine: At this stage, there is no collected evidence of public funds to finance such activities related to the artificial reefs, except for activities in the frame of individual scientific projects. Costs should be borne by initiators of artificial reefs.

2. Institutional framework:

2.1. Existence of institutional framework for artificial reef settlement and monitoring on national level

Bulgaria: An institutional framework exists on national and regional level and there are specific competent authorities determined. Rights and obligations of these authorities are clearly defined but there is no practical application of the relevant provisions.

Georgia: An institutional framework exists although there are no specific authorities determined and there are no clearly defined rights and obligations concerning the artificial reefs problems.

Romania: An institutional framework exists and there are separate authorities that may be relevant to the problems addressed.

Turkey: An institutional framework exists and there are particular authorities which are not focused on the problems of artificial reefs in the Black Sea.

Ukraine: An institutional framework exists but there is no clear idea on the specific rights and obligations of the involved institutions.

2.2. List of the authorities involved in the permission procedure and distribution of the responsibilities amongst them

Bulgaria: Below there is a list of the main competent authorities and bodies, governed by them:

1. The Council of Ministers of the Republic of Bulgaria is a governmental body of general jurisdiction.
2. Minister of Environment and Water
3. Minister of Agriculture and Food
4. Minister of Regional Development and Public Works
5. Minister of Transport, Information Technologies and Communications
6. Minister of Economy, Energy and Tourism
7. Minister of Foreign Affairs
8. Minister of Defense
9. Minister of managing EU funds (Minister without portfolio)
10. Executive Director of the Regional Inspectorate of Environment and Water
11. Executive Director of the Environment Agency
12. Executive Director of the Executive Agency for Fisheries and Aquaculture
13. Director of Basin Water Directorate/Management of the Black Sea region
14. Executive Director of the Executive Agency "Maritime Administration"

Georgia: Below there is a list of the main competent authorities:

1. Ministry of Environment and Forests
2. Ministry of Regional Development and Infrastructure
3. National Environmental Agency
4. Agency on protected areas

Romania: Below there is a list of the main competent authorities:

1. Ministry of Environment and Forests
2. Constantza Environment Protection Agency
3. National Administration Romanian Waters - Dobrogea Littoral

Turkey: Below there is a list of the main competent authorities:

1. Ministry of Food, Agriculture and Livestock

2. Ministry of Transportation, Maritime and Communication
3. Ministry of Culture and Tourism
4. Ministry of Interior of Coast Guard Command

Ukraine: Below there is a list of the main competent authorities:

1. President of Ukraine
2. Ministry of Ecology and Natural Resources of Ukraine
3. Ministry of Agrarian Policy and Food of Ukraine
4. Ministry of Economic Development and Trade of Ukraine
5. State Ecological Inspectorate

2.3. Coordination and cooperation between the institutions in the management, monitoring and control of the artificial reef facilities

Bulgaria: Bulgaria is a parliamentary republic with a clear division of powers (legislative, executive and judicial). The Council of Ministers is the main body of executive power in Bulgaria. Ministers direct and implement domestic and foreign policy, maintain the public order and national security and exercise overall guidance over the state administration and the Armed Forces. Executive administration (central and local) includes the Council of Ministers, ministries, government agencies, the administration of state commissions, executive agencies, local and regional authorities and other administrative structures established by a statutory instrument that has functions in relation to the implementation of executive. The following main bodies of executive power are competent for the activities associated with artificial reefs:

1. The Council of Ministers of Republic of Bulgaria (CMRB)
2. Minister of Environment and Water
3. Minister of Agriculture and Food
4. Minister of Regional Development and Public Works
5. Minister of Transport, Information Technologies and Communications
6. Minister of Economy and Energy and Tourism
7. Minister of Foreign Affairs
8. Minister of Defense
9. Minister of EU funds management (Minister without portfolio)
10. Executive Director of the Regional Inspection of Environment and Water
11. Executive Director of the Environment Agency
12. Executive Director of the Executive Agency for Fisheries and Aquaculture
13. Director of Basin Water Directorate / Management of the Black Sea region
14. Executive Director of the Executive Agency "Maritime Administration"

Georgia: Despite the fact that there are no artificial reefs in Georgian territorial water, some may be settled in the near future, most likely placed (in order to protect them) by the institution, which shall be in charge also for the other marine facilities. Currently it is within the scope of the law of Georgia on "Engineering protection and regulation of the Sea, Inland water and River banks", within the competence of the Road Department of the Ministry of Regional Development and Infrastructure. The Ministry of Environmental Protection is the main governmental agency, at national level and it is in charge for the Black Sea protection. The Ministry of Economy and Sustainable Development (MESD), the Ministry of Labour, Health and Social Affairs (MLHSA), the Ministry of Education and Science (MES), the Ministry of Agriculture (MA) and the Ministry of Regional Development and Infrastructure (MRDI) also play important roles in addressing Black Sea related problems and implementing necessary measures. Local municipalities have responsibilities as well, as they are in charge of municipal waste management at local level.

Romania: The responsibility for implementation of norms and achieving compliance with the water management matters is devolved through the following institutions:

- at ministerial (governmental) level:
 - the Ecological control bodies;
 - the Water State Inspection.
- at the local level- the representatives (inspectors) from:
 - the environmental protection agencies;

- the water quality protection bureau from the Romanian Water Authority branches.

Turkey: Main authority is the Ministry of Food, Agriculture and Livestock /MFAL/. At present MFAL do not need to get permissions from other relevant authorities:

- DG Fisheries
- Directorate of Fishing and Control
- Directorate of Aquaculture
- Directorate of Resource Management and Fishery Infrastructures
- Directorate of Statistics and Information Systems
- Directorate Administration and Coordination
- DG EU and Foreign Affairs
- DG Agricultural Research and Policies

Ukraine: In the case of Ukraine even though the main institutions, responsible for approving the projects for artificial reefs are determined, there is a lack of clarity about the division of obligations and the coordination of activities. According to the national experts there are no obstacles for the approval of projects related to the immersion of artificial reefs; and this is even more justified for research projects. Since Ukraine is a presidential republic, the role of the President and his administration appears crucial for the coordination of state bodies and the pursuance of legislative and administrative policy. Other public authorities including referred ministries are: Ministry of Ecology and Natural Resources, Ministry of Agrarian Policy and Food and Ministry of Economic Development and Trade act, according to their competence for approving and monitoring artificial reefs.

3. Steps of the procedure for obtaining legal permit for artificial reef settlement and monitoring in the marine aquatory of the respective country

Bulgaria: According to the Bulgarian legislation in order to obtain a permit for installation of artificial reefs in the Black Sea, , the competent institutions should be notified about the objectives and activities of such project and its relation to the functions of the administrative structure and the current policies of the government in the field of marine conservation. As a first step for the preparation of the documents, required to be submitted in administrative proceedings, there should be determined places where the reef structures for the project are expected to be immersed. Permit for use of water objects has to be issued by the Director of the Basin Directorate, following approval by the Minister of Defense and Minister of Transport and Communications upon the request by an individual or an entity. Other important steps could be procedures related to:

- determining the locations of submersion
- coordination with authorities
- first notification to the government and the public
- assessment procedures-EIA,SIA,CEA
- permits issuance
- construction permits issuance
- deployment activities-diving & underwater

Georgia: In the Georgia's law on "Engineering protection and regulation of the Sea, Inland water and River banks", the artificial reefs and related specific actions are not defined. The reason for this is absence of any natural or artificial reefs in the Black Sea area of Georgia. Creation of artificial Reefs is concerned in one Government Decree N1008, released on 13 May 2011: "Respective activities to sink a passenger ship - a vessel" Alexander Pachulia" for creation of artificial reefs and its usage for underwater tourism".

Romania: For this activity (similar to works executed on the seabed, Ordinance 662/2006) documentation must be prepared by a company, certified by the Ministry of Environment and Forests. The document has to be submitted to the National Administration of Romanian Water - Dobrogea Littoral, but the water management notice will be released by the "Romanian Water" National Administration. The term for issuance is 30 days in case all the documentation is complete and it is valid for 2 years. There will be also necessary approvals from other institutions to be obtained, for example from Constantza Environment Protection Agency, Border Police, Naval Authority.

Turkey: It is mandatory to get permission from the relevant authorities upon the approval of Ministry of Food, Agriculture and Livestock /MFAL/ before filling, drying, or changing the nature of areas partially or completely, or taking sand, rubble and stones, or dumping stones, soil, rubbish and similar materials which might have an adverse effect on the propagation or production of aquatic species in production areas, which appear under the authority and ownership by the general, supplementary and special-budgeted administrations and the state and public economical enterprises. Permissions are given by Ministry of Food, Agriculture and Livestock /MFAL/, DC Fisheries, after evaluation under the responsibility of Directorate Resource Management and Fishery Infrastructures. Before the permission, the standpoint of the Ministry of Transportation, Maritime and Communication is required in terms of security of navigation in/near harbours, especially in the maneuvering areas. If the reef is considered to be for diving and recreational purpose, permission of the Ministry of Culture and Tourism is also required.

Ukraine: The steps for building and immersion of artificial reefs, mentioned above, when considering administrative procedures. When taking particular steps to build and immerse artificial reefs, these steps apply mainly to build massive reef structures:

- Prefeasibility study
- Project feasibility study
- Project Design and documentation (including environmental impact assessment (EIA))
- Coordination of Project Design and documentation
- State expertise and approval of the Project Design
- Building

4. Local examples in artificial reefs deployment

Bulgaria: There is no practice of placing artificial reefs, developed for the purposes of biodiversity and improvement of the marine ecosystems. Most of the reported areas are occupied by coast protection equipment and equipment against wave impact /abrasion/. At the beginning of the 80s of the last century there have been experiments to create artificial reefs and for this purpose there are mainly concrete structures made, using elements of type ,tetrapods'. In 1999 in Varna Bay 45 truncated pyramids / anti-trawl blocks/ of concrete were deployed in order to prevent illegal trawling. There are no significant cases in the last 10 years except for deployment of the airplane owned by former Bulgarian Communist ruler Todor Zhivkov. There is no information about applicable procedures in this case. There are also some other research projects, where artificial reefs, covering small areas on the southern Bulgarian coast, have been deployed.

Georgia: For the purpose of creation of artificial reefs and their usage for underwater tourism the ship "Alexander Phachulia" was sunk in Achara region, near city Batumi, village Kvariati. It is 50 meter circle from Cape Kalendere - 296 degrees, the distance from the shore is about 400 meters.

Romania: *There are* no data on the placement of artificial reefs on the territorial sea of Romania in recent years or at least the goal of these reefs has to be the improvement of the marine environment or enhancement of biodiversity. The construction of hydraulic structures against abrasion has begun in the 80s of last century. There are structures composed by individual elements - tetrapods, placed in the areas of ports and seaside resorts. In recent years, there has also been a tendency to build large hydro facilities associated with the beaches and in particular to protect the coast from the wave influence of abrasion.

Turkey: On Turkish coasts, licensed artificial reefs which are ships, planes, concrete blocks, are settled at 62 locations. Most of them are mainly in the Mediterranean and the Aegean Sea coasts. Only 9 of them are located on the Black Sea coasts. Master plan was carried out in order to determine suitable areas for artificial reef by the Ministry of Food, Agriculture and Livestock. Research was performed at more than 30 points and conclusion revealed that generally the Black Sea is not a suitable area for artificial reefs because of severe waves and currents. Light penetration is limited in the Black Sea for alga production on reefs. A pilot Project in Edremit Gulf /Egean Sea/ is connected with the monitoring and research of the effects of artificial reefs. It is the biggest implementation in Turkey and Europe. The project will be monitored by a scientific team for 5

years. All data regarding the AR area will be compared with the data regarding the area without a reef. New artificial reef implementations will not be allowed until completion of the project in 2017.

Ukraine: There are attempts to be built reefs of spherical structures in the area of Yalta bay near the beach, where there are about 10 structures at a depth of 12 to 20 meters. Experimental studies have also been carried out using Floating reef, with 2 aims: to study the development of fouling community on the different materials on approved type of artificial reef and to compare the peculiarity of fouling community (species composition, biomass, filtering effect etc.) in the coastal area of different BS countries.

5. Potential risks and problems

Bulgaria: There is no legal impediment for the request to be made by legal non-profit organizations, but some problems and risks do exist:

- Lack of clear and transparent procedures;
- Lot of different regimes and institutions;
- Lapses in administrative capacity;
- Lapses in coordination between institutions;
- Prolonged terms for procedures;
- Problems with real rights and rights of use;
- Problems with type and materials for artificial reefs

Georgia: There is no specific law on the protection of the Black Sea, nor a law dealing in particular with artificial reefs' problems. According to the Black Sea Strategic Action Plan there should be a law, harmonized at regional level with the purpose a unified policy for the whole region to be set. Existing national legislation needs to be updated in accordance with the modern European practices. Introduction of Integrated Coastal Zone Management (ICZM) approaches and protection of the coastal zone from degradation also requires appropriate legislation to be in place.

Romania: Biomass, fixed on artificial collectors, is determined by the reproducing period of bivalve molluscs, which depends on a mix of physical and chemical factors with direct influence on the biological cycle. Particularities of hydrological conditions of the Romanian Black Sea coast are determined by the specific main meteorological factors- temperature and winds. For the Romanian Black Sea coast, to a depth that does not exceed 15 meters, in the area that we are interested in especially for installment of artificial reefs, the sea current regime is determined mostly by time, wind direction and speed.

Turkey: The following assumptions could be made:

Waste of resources if artificial reefs are not beneficial for the general ecosystem.

- Risk of pollution;
- Degradation of the natural bottom structure;
- Damage to fishing gear;
- Changes in natural biodiversity

Ukraine: There are no specific risks that have been identified for the establishment of artificial reefs. Full support to be rendered by the administrative institutions, there are procedures, announced for the authorization and construction of artificial reefs.

6. Recommendations by the National Legal Advisor / Country Assistant

Bulgaria:

- Improvement of the necessary communication; with stakeholders
- Establishment of more transparent rules and administrative procedures;
- Authorization of one competent authority;
- Clear terms - clear fees;
- Education and qualification of institutional staff;
- Marine /Artificial Reefs/ researches stimulation.

Georgia:

- To identify the gaps in the environmental field, in regard to the Sea;
- To develop recommendations for changes in law and to establish a new law, subordinate acts, etc., in which to be defined the establishment of artificial reefs e, and procedures, monitoring and protection of these;
- To identify responsible organizations, as well as to delineate the functions and responsibilities of all stakeholders;
- To develop a joint management plan, which will be also included in the strategic plan and to achieve a negotiated agreement, which further leads to consideration of this issue in the interests of the State;
- To identify and designate areas with different protection regimes, considering the importance of the coastal biodiversity and habitats and thus the artificial reefs deployment could be implemented as part of these activities;
- To develop a database regarding artificial reefs.

Romania:

- To fix a flexible time-table because the Romanian legislation and administrative procedures may cause delays;
- In order to establish a good case practice for Romania you have to involve closely all the state environmental entities;
- There might be some problems regarding the materials, that we can use for reefs - the Romanian authorities recommend concrete structures;
- The project brings an innovative idea for the Romanian Environment Administrative entities and corroborate with the lack of legislation and we might have some delays.

Turkey:

- There should not be kept great expectation for fisheries;
- Materials to cause risk of pollution as industrial waste should not be used;
- Stakeholder participation should be provided;
- It should be known that artificial reefs may not appear appropriate for all cases.

Ukraine:

- to specify the type of reef structures and materials, used for this purpose;
- to agree on the adoption of a single definition of artificial reef that is applicable for the territory of all Black Sea states;
- to speed up the process for administrative procedures implementation in order to have enough time to conduct research on the effects of deployed artificial reefs.

Conclusion:

Data in this report will contribute for the expert knowledge to be extended regarding the legislative and institutional framework of fishery management, in particular the knowledge about reefs development . The data will also contribute for the project input in the international, national, regional and local strategic papers. Increasing the knowledge of the legislation and reef installment procedures in various best-practice countries will extend the involvement of the authorities, which are in charge of fishery management in the participating countries and will stimulate positive legislative and administrative changes in all riparian Black Sea countries towards the artificial reefs installment as a practical active measure for supporting the self-restoration of the Black Sea ecosystem.

In particular, data in the present report will encourage the researchers and environmental activists to jointly promote on international, national and local level environmental-friendly innovations for construction and putting into operation procedures for artificial reefs as a common tool for sustainable and increasing fisheries.

The project is set up to make a number of marine scientific researches under the meaning of the Convention of the United Nations Law of the Sea. Therefore, assistance from institutions might be requested in order to be eliminated all administrative obstacles in obtaining the necessary documentation for installation of the relevant equipment, namely such appear the reef structures.

It should be emphasized that the facilities are not established for commercial purpose. Their role is only for the purpose of the project and related studies.

In the process of implementing the activities belonging to the project, specific findings are expected to be made, additional information to be obtained about the topics in this report and finally it is expected some recommendations to be made concerning the legislation improvement.

Based on the data presented in this report it can be substantiated the conclusion that despite the partial absence of appropriate legislation and administrative practice in different countries, there are no insurmountable legal obstacles to the construction of artificial reefs in the Black Sea.