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## Marine Aggregates extraction regulations in Greece in accordance to European Practices

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#### **Abstract**

Marine aggregate (MA) related operations need to be governed by clear regulations and policies in order MA extraction licenses to be granted and sustainable mining operations to be ensured. In Europe, the existing legislation encompasses a number of Conventions and EU Directives, most of which have been ratified by Greece. Therefore, in order to ensure a sustainable MA deposits exploitation at a National level, a strict regulatory framework has to be established by adopting and adjusting all the existing European legislation and practices.

Keywords: legislation, EU Directives, Conventions, licensing

#### 1. Introduction

Marine Aggregates (MA) exploitation and extraction have substantial effect on the seabed morphology, the adjacent marine environment as well as shore zone morphodynamics (Brampton et al., 1998; Bonne, 2010; Radjevicius et al., 2010), taking into account that the mining activity of MA extraction is generally carried out in the shallow marine areas of 45-50 m depth. Therefore, MA exploitation should be determined by clear regulations and policies ensuring sustainable mining operations. Currently, the regulatory framework relevant to the extraction of marine aggregates is multi-level and comprises a combination of commitments to international conventions and European Directives coupled with national legislation administered at a central, regional or local level.

The present contribution aims to overview a number of legal regulatory requirements governing MA extraction in Europe, taking into consideration existing relative works (i.e. BMAPA, 1995; EUMARSAND, 2005; O'Mahony et al., 2008; Radjevicius et al., 2010) and to investigate the current situation in Greece.

#### 2. International conventions

The management and regulation of MA exploitation is controlled by a number of Conventions. However, Greece has not ratified all of them. Key legislative instruments and conventions relevant to the authorisation of marine aggregate operations in Greece include the following.

2.1 UNCLOS 1982 (The United Nations Convention on the Law of the Sea)

According to 1982 UNCLOS the maritime zones of each country is delimitated and the international legal framework of rights and obligations on respect of usage, development and preservation is defined. In this Convention the zone of 12 nautical miles is introduced, within which Coastal States enjoy full sovereignty. Accordingly, the Exclusive Economic Zone (EEZ) of 200 nautical miles is presented as the limit where States may explore and exploit natural, living or not living, resources and have authority over marine scientific research and marine environment protection. Under UNCLOS countries are obligated to adopt and apply effective regulations for the Marine Environment protection and preservation. Hereby, it has to be noted that Greece has not exercised its rights under the Convention due to political dissents with Turkey.

2.2 Barcelona Convention, Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (1995) amending Convention for the Protection of the Mediterranean Sea Against Pollution (1976)

In 1976, 16 Mediterranean countries, Greece being among them, and the European Community adopted the Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention). Barcelona Convention rules for the prevention and control of the pollution coming from exploration and exploitation activities in the seabed and its subsoil of the Contracting Countries. Seven Protocols addressing specific aspects of Mediterranean environmental conservation complete the MAP legal framework; the Dumping Protocol (from ships and aircraft), the Prevention and Emergency Protocol (pollution from ships and emergency situations), the Land-based Sources and Activities Protocol, the Specially Protected Areas and Biological Diversity Protocol, the Offshore Protocol (pollution from exploration and exploitation), the Hazardous Wastes Protocol and the Protocol on Integrated Coastal Zone Management (ICZM). In 1995, the Action Plan for the Protection of the Marine Environment and the Sustainable Development of the Coastal Areas of the Mediterranean (MAP Phase II) was adopted by the Contracting Parties to replace the Mediterranean Action Plan of 1975 and amended the Barcelona Convention of 1976 as Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean. (www.unepmap.org/index.php?module=content2&catid=001001004)

2.3 ESPOO Convention 1991 (The Convention on Environmental Impact Assessment in a Transboundary Context)

According to ESPOO Convention, Contracting Countries are prescribed to early assess the environmental impact of certain activities (eg. mining, on-site extraction and processing of metal ores or coal). The case of transboundary activities has been taken into consideration and Countries are imposed to consult each other during activities as it is possible to have negative environmental effects across boundaries.

#### 3. EU and national legislation

Relative to MA operations, there are a number of EU Directives which Member States have to implement after transposing them in national legislation. Most of them aim at the protection and sustainability of the Marine environment.

3.1 The Environmental Impact Assessment Directive (85/337/EEC amended by 97/11/EC, 2003/35/EC and 2009/31/EC, codified by Directive 2011/92/EU further amended by 2014/52/EU)

The EIA Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment and its three amendments (1997, 2003, 2009) have been codified by Directive 2011/92/EU. Directive 2011/92/EU has been amended in 2014 by Directive 2014/52/EU. This directive integrates environmental considerations into the preparation and adoption of plans and programmes liable to have significant effects on the environment, by subjecting them to an Environmental Impact Assessment (EIA). According to the EIA Directive some categories of projects are subjected to an EIA, whilst others are subjected to an EIA after the Member State regulation. EIA has to define environmental consequences of activities carried out before authorization is given, must include identification and assessment of a project's effects and prerequisites diffusion of relative information to the public. (www.ypeka.gr/Default.aspx?tabid=804&language=el-GR)

### 3.2 The Strategic Environmental Assessment Directive (SEA, 2001/42/EC)

The SEA Directive extends the need for EIA to any plan and programme which has been prepared for one of a number of listed sectors (such as industry, town and country planning and land use) and may have an effect on the environment. Mineral planning is, in principle, subject to the SEA Directive and authorities have to compose a report on the probable environmental effects, consult authorities with environmental responsibilities and the public and take the findings into account before taking a decision. At national level, the main legislative framework of the Strategic Environmental Assessment is set in the Joint Ministerial Decision (JMD) 107017/28-8-2006 "complying with the requirements of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment of the European Parliament and of the Council of 27 June 2001" (Official Journal of the Government (OJG) 1225/B/5-9-2006). (www.ypeka.gr/Default.aspx?tabid=524&language=el-GR)

#### 3.3 The Council Directive on Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EC)

The Habitats Directive and the Wild Birds Directive aim to ensure the preservation of biodiversity, in a common line from all Member States for rare, threatened or typical natural habitats or species, mainly through the designation of protected sites (Special Areas of Conservation, SACs), i.e. Natura 2000. The Council Directive 92/43/EEC was transposed in national legislation through JMD 33318/3028/11-12-1998 "Determination of measures and procedures for the conservation of natural habitats and wild flora and fauna" (OJG 1289/B/28-12-1998) and JMD 14849/853/E103/4-4-2008 "Amendment of the JMDs 33318/3028/1998 and 29459/1510/2005, complying with the requirements of the Council Directive 2006/105/EC of 20 November 2006" (OJG 645/B/11-4-2008). (www.ypeka.gr/Default.aspx?tabid=236&language=el-GR)

### 3.4 The Council Directive on Freedom of Access to Information on the Environment (2003/4/EC)

According to the Council Directive on Freedom of Access to Information on the Environment, pertinent public authorities of the Member States are obligated to provide any environmental information, when asked, within one month. Directive 2003/4/EC on public access to environmental information was transposed through JMD 11764/653/16-3-2006 (OJG 327/B/17-3-2006).

In addition, the Aarhous Convention, the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters was adopted on 25 June 1998 in the Danish city of Aarhus, and was transposed in the Greek Legislation with the Law 3422/12-12-2005 (OJG 303/A/13-12-2005). (<a href="www.ypeka.gr/Default.aspx?tabid=467&language=el-GR">www.ypeka.gr/Default.aspx?tabid=467&language=el-GR</a>)

## 3.5 The Marine Strategy Framework Directive (2008/56/EC)

The Marine Strategy Framework Directive establishes a framework for community action in the field of marine environmental policy aiming to achieve Good Environmental Status (GES) of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. It is the first EU legislative instrument related to the protection of marine biodiversity, as it contains the explicit regulatory objective that "biodiversity is maintained by 2020", as the cornerstone for achieving GES. The Directive enshrines in a legislative framework the ecosystem approach to the management of human activities having an impact on the marine environment, integrating the concepts of environmental protection and sustainable use. In order to achieve GES by 2020, each Member State is required to develop a strategy for its marine waters which must be kept up-to-date and reviewed every 6 years given the adaptive management approach followed by the Directive. The Marine Directive was adopted on 17 June 2008, and came into force on 15 June 2008. In Greece, it was transposed into national legislation in June 2011 with

the Law 3983/16-6-2011 (OGC 144/A/17-6-2011). (<u>ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index\_en.htm</u>)

3.6 Blue Growth

Finally, Blue Growth is the long term strategy to support sustainable growth in the marine and maritime sectors as a whole. Seas and oceans are drivers for the European economy and have great potential for innovation and growth. In this context, seabed mining is one of the sectors to be developed that have a high potential for sustainable jobs and growth.

#### 4. Conclusions

In Greece, the existing regulatory and legislative process referred to the exploitation of MA deposits is mainly defined by the Law 3022/18-6-2002 (OGC 144/A/19-6-2002) which transposes the amendment of the Barcelona Convention in the National Legislation, the Law 3983/16-6-2011 (OGC 144/A/17-6-2011) which transposes The Marine Strategy Framework Directive 2008/56/EC as well as the JMD 107017/28-8-2006 (OJG 1225/B/5-9-2006) complying with the requirements of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment. Although Greece as a Member State has prescribed on an Environmental Impact Assessment (EIA), it has not defined so far specific requirements on the content of an EIA related to MA operations, occasionally leading to lack of clarity and institutionalised procedures on potential marine aggregate extraction licensing.

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