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Delimitation of Maritime Zones and Prospects for their Development in the Eastern Mediterranean

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ABSTRACT

The developments in the Mediterranean regarding the economic activities of many countries have led to more investigations so as to safeguard their natural resources and to delimitate their maritime zones. The recent discovery of oil reserves in the basin of the southeastern Mediterranean region, has brought on consecutive discussions in order to determine the Exclusive Economic Zone of Greece.

The Exclusive Economic Zone (EEZ) as a concept was established at the Third UN Conference: The Law of the Sea and the rules that govern it were included in the new Convention in the Law of the Sea of 1982. Its establishment institutionalized a new maritime zone of great economic importance. This enabled coastal States the right to utilize-exploit marine and submarine resources in a maritime zone of up to two hundred (200) nautical miles from the coast.

As Greece has common sea borders with six (6) other States, the delimitation of maritime zones should be done following agreements. This study will attempt to analyze the international jurisprudence delimitation of marine areas between neighboring States based on the decisions of international courts.

The purpose of this research paper is to document the developments of international law delimiting maritime areas, whereby considering the prospects of proclamation AOZ (EEZ) Greece and its economic importance. Finally, this study will attempt to estimate the potential economic benefits for the state of Greece in the proclamation AOZ(EEZ).

Keywords: Exclusive Economic Zone, Continental Shelf, Territorial Sea, Baselines, Courts, Equidistance, Equity Principles, Delimitation of Maritime Zones, Aegean Sea, Islands, Kastelorizo, Fisheries, Hydrocarbons, Natural Resources.

MAIN ABBREVIATIONS

EEZ: Exclusive Economic Zone

IGC: International Court of Justice in The Hague

ICTY: International Court of Maritime Law UN: United Nations

KATDD: Statute of the International Court of Justice NM: Naval Mile = 1852 meters

UN: United Nations

1982 Convention on the Law of the Sea 1982 United Nations Convention on the Law of the Sea

see: see

AJIL: American Journal of International Law

BYIL: British Yearbook of International Law

ICLQ: International and Comparative Law Quarterly

ILR: International Law Reports

RHDI: Hellenic Review of Droit International

VJIL: Virginia Journal of International Law

GJICL: Georgia Journal of International and Comparative Law

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INTRODUCTION

Maritime law is a subsystem of public international law.

Public international law (Jus inter gentes) is the distinct branch of law, which incorporates a system of rules that characterize the relations between the subjects of the international community, (ie primarily States) but also other entities endowed with international legal personality, such as international transnational organizations[1].

From the above definition, it is evident that there is a strong promotional character that has governed public international law for about a century. This has mainly been the case since the founding of the League of Nations in 1919. While in the past the only regulatory factor in the legal relations of the international community were the States, now the international transnational organizations (InterGovernmental Organizations) have entered the equation dynamically,(e.g. the UN). These entities today seem to largely shape the policy makers of public international law and now have a dominant influence in shaping the policies of individual nation States.

This fact, however, is beginning to slowly but steadily shake the cornerstone of the edifice of public international law, forseen in article 2.1 of the UN Charter, (ie the concept of sovereign equality).

As far as the law of the sea is concerned, this is primarily public international law and concerns the powers of the State over the sea, that is, the water zones, the seabed and partly the airspace[2].

It is worth noting that the powers of State are broken down into sovereignty and sovereign rights. In the first case, the coastal State is the absolute authority, as it can fully exercise its three powers (legislative-executive-judicial), without being subject to any kind of restriction. The exact opposite is true in the second case, where the State enjoys limited and less intense rights, of an economic nature, for the most part.

Perhaps the most important phrase of the above definition is "at the bottom of the seas". The law of the sea, as a part of public international law, is also fatally in a phase of evolution, following along with the second "parallel lives". This is because, for several decades, there has been a rapid evolution of technology, which has allowed, on the one hand the detection of the presence of hydrocarbons at the bottom of the seas, while on the other hand their extraction, the so-called ‘confirmed recoverable reserves’.

In addition, the following should be taken into account:

A) The available hydrocarbon reserves are on the verge of extinction because the discovery of new deposits is taking place at a slower rate than their consumption. This is due to the increase in energy demand, as a result of industrialization.

B) Since we are at the beginning of the era of the 4th industrial revolution, man can now detect and extract increased amounts of hydrocarbons, from greater depths and at a shorter time span.

From the above mentioned there seems to be a need for a meaningful legal framework, which will delimit the appropriate maritime zones, in order to enable the efficient exploitation/utilization of the State's wealth-producing resources, both the seabed and the subsoil, as well as the above-ground waters. For the first two cases, the institution of the legal continental shelf is sufficient, while for the latter, the declaration of an Exclusive Economic Zone (AOZ) is additionally required.

The political, economic and social activity of people associated with the concept of the sea since ancient times is linked to maritime societies[3].

The Law of the Sea has evolved over the centuries around the concept of freedom of navigation. The sea has always been both a place of communication between peoples and a source of wealth.

As water travel was more convenient than land, people in ancient times preferred organized urban concentration of their populations near the sea. By fishing the inhabitants could secure their food and at the same time exchange the fish with other products useful for their well being. By ship they could easily transport their goods to distant areas and come in contact with other cultures. For these reasons, coastal cities had great economic growth.

Elements of the law of the sea, in the form of simple regulations concerning rules of conduct, were founded since Egyptian times.

The Greeks in turn were considered pioneers regarding the principle of freedom of the seas. Great sailors explored the Mediterranean beaches, for the development of maritime trade, through the transport of goods between the numerous islands of the Mediterranean basin.

The Romans, despite their dominance stretched along the shores of the claimed Mediterranean mare nostrum, but never attempted to turn it into a Roman lake thereby exercising complete sovereignty. Their role was more defensive in dealing with pirate raids; aiming for the general protection of the area, in order to maintain its free use for all.

The concept of the freedom of the seas, therefore, combined with the freedom to be recognized in the air - "maris communie obnibus et aer" - was the cornerstone of a policy that went beyond the simple instinct of sovereignty and rights, but also expropriated countries that were considered to be effectively controlled by any deterrent of force.

The conclusion is that the sea belonged to everyone, while being an object of joint ownership4. Things have changed since the States became interested in governing the maritime space[5].

From the late Middle Ages, the Republic of Venice, which claimed to be considered by other naval powers; the ruler of the entire Adriatic. England, demanded its licenses for fishing throughout the North Sea. The practice of Spain and Portugal after the discovery of America to ban the navigation of third ships in vast sea areas that were adjacent to the new territories[6], all opened a new era for State-sea relations.

The object of the legal regulation on the above issue was now the establishment of State sovereignty. The new arrangements had two goals that coincided in the 17th century. Firstly, to extend State sovereignty to the sea, with the formation of content and boundaries - thanks to the introduction of the concept of the coastal zone (otherwise territorial waters-Territorial Sea, Waters) and secondly to ensure the right of navigation in areas outside the jurisdiction of the coast States with the proclamation of the high seas (High Seas) [7]

The official definition of the term "territorial waters" was based on the above two factors, each of which is independent, but due to technical developments, the promotion of the need to accept and adopt control in a narrow strip of sea, at the same time with the coasts, secured the interests of the coastal populations.

These reasons were both defensive and economic, essentially referring to the possibility of using marine waters by coastal populations.

The end of World War II marks the abandonment of the prevailing pre-war notion that the basic use of the seas coincides with navigation and, with fishing. This view had given priority to the principle of freedom of the seas, limiting coastal States to coastal zones extending a few miles from the coast and within which they exercised sovereignty, almost equivalent to that of land, serving mainly the feeling of security and the exclusive use of maritime wealth.

The finding, however, through scientific and technical developments, that the sea hides resources at its bottom and subsoil, combined with the technological advances

that have made it possible to exploit/utilize them gradually led to a revision of this priority, and to the creation of new legal regimes. Regimes investigating the jurisdiction of States at sea, beyond the coastal zone, providing opportunities for coastal States and in some cases the international community itself to legitimize the exclusive exploration and utilization of their seabed and subsoil resources beyond the coastal zone. Regimes that seeked to reconcile the maintenance of free navigation with the new rights of use of the seas. The first zone formed by these new perceptions is the continental shelf that first appeared in 1945 with the so-called "Truman Doctrine" [8].

[1]*See K. Economidis, 1990, pp. 15-16, in the work of K. Antonopoulos & K. Maglivera, The Law of the International Society, 3rd revised edition, Law Library Publications, 2017, p. 9*

[2] *See E. Roukouna, Public International Law, 2nd edition, Law Library Publications, 2015, p. 245.*

[3] *Krateros Ioannou, Anastasia Strati Law of the Sea, Athens 2013, p. 3*

[4] *Grigoris I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans, Athens 200, pp. 75-76*

[5] *Emmanuel Roukounas, Public International Law, Athens 2019, p.231*

[6] *Krateros Ioannou, Anastasia Strati, Law of the Sea, Athens 2013, p.3*

[7]*Emmanuel Roukounas, Public International Law, Athens 2019, p.231*

[8]*Christos Rozakis, The Exclusive Economic Zone and International Law, Athens 2013, p.14*

1.1 Maritime Zones-Zones of National Jurisdiction

Since the 17th century, International Law has operated with two maritime zones, the seashore and the high seas. By the middle of the 20th century the regime of two

zones, and more specifically since 1958, the two zones became four and the 21st century has entered with eight (or even nine) zones[9].

The approach of the evolution of the zones of national jurisdiction, after the development of the area through the adoption of the enlarged Exclusive Economic Zone (EEZ), has led to the creation of four functional zones and leads us to the conclusion that the coastal State has always wanted to exploit / utilize its immediate functional dependence that developed between adjacent marine zones and coastal areas [10].

The principle of areas adjacent to the mainland was based on three important elements.

The first concerns the extension of the territorial sovereignty of the coastal State to the adjacent sea based on the surface safety and is related to the development of navigation.

The second element is related to the initial safeguarding of the coastal State's economic rights of the resources in the maritime area concerning both fishery and the natural resources of the seabed.

The third element is the adoption of the principle of the maritime zone bordering on the coast, which is related to the protection of specific and strictly defined interests of the coastal state[11].

Starting from the coast we meet a series of sea zones, each of which is governed by a different regime:

The first zone which international conventions of maritime law (1958 and 1982) usually do not refer to is called the Internal Waters. It is followed by the coastal zone or

otherwise known as territorial waters (Territorial Waters) and then the High sea (High Seas).

States are also entitled to declare a Contiguous Zone and an Exclusive Economic Zone. They have sovereign rights in a certain area of the seabed, the continental shelf, sovereignty in the air over the coastal zone (National Air Space) and rights in the international airspace (International Air Space) over the high seas.

Some States meet the special requirements to join the Archipelagic States, in addition to the seabed which falls under the jurisdiction of the coastal States and thus the International Seabed Area (Area) is established by the 1982 Convention. Overall, the Convention provides for the protection of cultural property at the bottom (archaeological zone).

In short, maritime zones are characterized as maritime zones of coastal State sovereignty and in maritime zones of coastal State jurisdiction.

Dominant maritime zones include Inland waters, the coastal zone or territorial waters (Territorial Waters) and the straits of International Navigation. The maritime areas of jurisdiction of the coastal State include the border zone, the protection of archaeological and historical objects under the Convention (Archaeological zone), the continental shelf (Continental Shelf) and the Exclusive Economic Zone (EEZ). Finally, there are the sea areas beyond the national zones sovereignty or jurisdiction. These areas are the high seas and the international seabed.

Historical background to the delineation of marine zones

The first attempt by the international community to codify maritime zones and their delimitation methods in the 20th century (The Hague Conference 1930) did not yield

significant results. On the contrary, the next attempt at the first United Nations Conference in Geneva (1958) resulted in four separate circumstances. At the 2nd UN Conference held in Geneva (1960), the States tried to resolve the issues of territorial waters and the fishing zone, respecting the maximum width of the zones. However, this effort was unsuccessful, as the States did not reach an agreement. On the contrary, after ten sessions (1973 - 1982), the 3rd Conference of the United Nations Conference led to public international law of the sea as it stands to this day[12].

The first UN Conference on the Law of the Sea was held in 1958 in Geneva. Four multilateral conventions covering various aspects of maritime law were adopted at this conference: 1) the Convention on Territorial Sea and Border Areas, 2) the Convention on the High Seas, 3) The Convention on Fisheries and Conservation natural resources and 4) The Continental Shelf Convention[13].

All of the above conventions apply, although in many respects they have been replaced by the 1982 UN Convention on the Law of the Sea, which is of general application,(ie not limited to a specific aspect of the law of the sea). For the parties whereby the 1982 Convention is not tacit, the 1958 Conventions will continue to govern the relations of the ratifying States. For States that are not parties to either the 1982 Convention or the 1958 Conventions, the law is based on res judicata.

[9]K. Ioannou, Anastasia Strati, Law of the Sea, Athens 2013

[10] Grigoris I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans, p.165

[11] Grigoris I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans, p.166

[12]. K.Ioannou, A.Strati, Law of the Sea, Law Library 2013, pp. 43-55

[13] D. Mylonopoulos, Law of the Sea, Law Library 2012, pp. 53-54

1.2 High Sea

The term high seas is not a geographical term, but a legal one. That is, it determines the legal status of a specific maritime zone. Traditionally, the high seas were the seas that were located beyond the coastal zone.

The concept of the high seas was defined by all the sea areas, including the waters, the seabed, the subsoil, as well as the upstream air where it was beyond the outer limit of the seashores. That is, it was not a coastal zone, it was the high sea. The Geneva Convention of 1958, in article 1, contained a clear definition of the high seas: "The term high seas means all parts of the sea which do not include the coastal zone and the inland waters of a State" [14].

Thus the high seas are the sea area that lies beyond the coastal zone. It is in short that part of the sea which is not included in the exclusive economic zone, in the territorial or inland waters of a State, or in the archipelago waters of an archipelago State[15]. The legal status of the high seas has a long history. The Romans equated the sea with the air and proclaimed that everyone could enjoy it without any restrictions. In the Middle Ages, however, things changed and various feudal lords or kings began to claim sovereign rights in the seas that encircled their kingdoms and up to a distance of 100 nautical miles. Over time, however, one country after another began to accept the principle of freedom of the seas.

The high seas are ineligible for any right of possession or sovereignty because it was understood from the outset that this freedom was necessary for the development of international trade, communications and shipping.

The high seas in the Aegean, is that part of the sea that is beyond the coastal zone of Greece and Turkey and is free a) for international navigation, b) freedom of fishing, c) freedom of laying communication cables or pipelines and d) the freedom of flight above it. Of course, when we talk about the freedom of the open seas, we do not

mean impunity, but the observance of certain rules, which are provided by the various conventions signed by the UN and aim at preserving their animal wealth, preventing all kinds of pollution and complying with a set of rules that have been deemed necessary for its ecological conservation (eg. avoiding precipitation in oceans of radioactive waste) prevention of collisions, assistance to ships in distress, etc.

Regarding the high sea of the Aegean Sea, we must emphasize that it is very limited and lies mainly in the central and northern Aegean, which is enclosed by the mainland and island coasts of Greece, it exercises its dominance over a large part of the Aegean, about 36% of it, which can reach 64% with the expansion of its coastal zone, while Turkey exercises sovereignty at 1% and if it extends its coastal zone to 12 nautical miles it can rise at 10%.

However, with the introduction of the institution of the Exclusive Economic Zone, the status of the archipelago waters and the international seabed, the high seas began to shrink significantly, while at the same time its meaning was differentiated. This concept, with the 1982 Convention, is now limited to the maritime areas which are beyond the outer limit of the coastal zones or beyond the outer boundary of the exclusive economic zones, provided of course that the States have established EEZs.

According to article 86 of Convention No. 16: *“The provisions of Part VII for the high seas shall apply to all maritime areas not included in the exclusive economic zone, the coastal zone or the inland waters of a coastal State as well as to the archipelago waters of an archipelago State ".* The wording of article 86 is clear.

Although the definition of the high seas is not included, the geographical scope of its status is specified. As stipulated in the TC Convention, the provisions related to the high seas apply to marine areas which do not belong to the inland waters, the coastal

zone, the exclusive economic zone of a coastal State, or to the archipelago waters of an archipelago State.

The legal status

The legal nature of the high seas is not explicitly stated in the contractual texts. The only thing explicitly stated is that States cannot subordinate any part of the open seas to their sovereignty. This rule is explicitly stated in the provision of Article 89 of the ICC Convention: *"No State may legally claim the subordination of any part of the high seas to its sovereignty"* [17]

Since the high seas do not belong to any State, what is their legal nature? There was discrepancy on this issue. On the one hand, some lawyers have argued that the high seas are res nullius, that is, that they do not belong to any State, and on the other hand, others have argued that the high seas are res communis, in other words, that they belong to all States of the international community - in the sense of Co-ownership, which favors international shipping and trade[18]. Nikolaos Politis was also a supporter of this view, who argued that the concept of ownership is in line with the concept of solidarity, on which all modern international relations are based[19]. Nevertheless, the tested approach regarding the legal nature of the high seas through the Roman quotes is this: the high seas are res communis usus, which is a common use that is found more in freedom of navigation and less in other freedoms: which are also components of the concept of the open seas[20].

The absence of sovereignty over the high seas is mainly related to its capital use, for free shipping, and suggests that the right to freedom of navigation belongs equally to all States, coastal and enclosed[21].

As for the other freedoms of the high seas, there was in principle an absence of State sovereignty, but as Professor Chr. Rozakis, pointed out it is not excluded to spread or to differentiate with actions that may be legitimate but, on the other hand, this could also lead to restrictions on the exercise of freedoms[22]

[14] *See Siousoura P., Petros, Notes on Maritime Law and the Law of the Sea, University Traditions, Chios 2003, p. 50, p. 48*

[15] *G.I.Tsaltas, -M.K. Efstathopoulou, The International Regime of the Seas and Oceans, INTERNATIONAL POLICY, INTERNATIONAL LAW, INTERNATIONAL ORGANIZATION, Volume A ', International Politics and the Law of the Sea - the Areas of National Jurisdiction, Athens 2003, p.*

[16] *E. Roukounas, SERIES OF INTERNATIONAL LAW AND FOREIGN POLICY, LA Sisilianos, F.Pazartzi, M. Tavouneli, INTERNATIONAL LAW, texts, ANT.N.SAKKOULA Publications, Athens - Komotini 2007, p. 131*

[17] *E. Roukounas, SERIES OF INTERNATIONAL LAW AND FOREIGN POLICY, LA Sisilianos, F.Pazartzi, M. Tavouneli, INTERNATIONAL LAW, texts, ANT.N.SAKKOULA Publications, Athens - Komotini, 2007, p. 132*

[18]*G.I Tsaltas, -M.K. Efstathopoulou, The international regime of the seas and oceans, INTERNATIONAL POLICY, INTERNATIONAL LAW, INTERNATIONAL ORGANIZATION, volume A ', International politics and law of the sea - the zones of national jurisdiction, Athens 2003, p.*

[19] *CHA Rozakis, THE LAW OF THE SEA and its formation by the claims of the coastal states, Athens 1976, PAPAZISI publications, p. 23*

[20] *Em. Roukounas, International Law II, The State and the Land-Law of the Sea, published by Ant. N. Sakkoula, Athens, 1982, p. 173*

[21] *G.I. Tsaltas, M. Kladi-Efstathopoulou, International Law of the Sea, Zones of National Jurisdiction, University Traditions, Athens 1986, pp. 60-61.*

[22] *CHA Rozakis, THE LAW OF THE SEA and its formation from the claims of the coastal states, Athens 1976, PAPAZISI publications, p. 26*

1.3 Territorial Waters

The territorial waters zone is the marine zone which is defined between the inland waters and the high sea. It is the sea area that surrounds the coasts of a coastal State and extends beyond the mainland and inland waters. It includes the surface of the water, the sea column, the seabed and its subsoil, as well as the overhead airspace. In the territorial waters, the coastal State exercises sovereignty, in accordance with the ICC and the rules of international law (article 2, paragraphs 1, 2, 3). International law recognizes a territorial waters in any coastal State, whether it is continental or insular or both.[23]

From antiquity, the rulers sought the legal security of parts of the coast near fortified places. Obtaining legal titles in the sea area was vital for the defense of these forts. Another reason for the subordination of the sea to the power of the land was the need for the exclusive fishing of the coastal populations.

For the first time Hugo Grotius, in his book "De iure belli ac pacis" (1625), referred to the beginning of the sovereignty of the coastal State in the adjacent maritime zone. He considered that sovereignty is acquired like sovereignty on land
He clarified, however, that it weakens when the sea area is "too far" from the land. Today, it is generally accepted (article 2 of the 1982 Convention) that the coastal state exercises complete sovereignty over the adjacent to the dry sea area called the coastal zone or territorial waters or territorial sea.

The delineation of the boundaries of the coastal zone, based on the interpretation of the International Court of Justice in The Hague Tribunal in the Fisheries case between Great Britain and Norway (1951) (Anglo Norwegian Fisheries Case) has always had

an international character. Although delimitation is a unilateral legal act, whereby its validity in third countries depends on international law.

The sovereignty recognized in the coastal zone has as a valid justification the "security" of the State and this explains the special legal status of the coastal zone:

(A) The security and defense of the State relating to full sovereignty over the maritime areas surrounding its coasts, so that any approach to them can be controlled.

(B) The promotion of the commercial, economic and political interests of the State presupposes the right to supervise all ships passing, mooring or approaching the coast of the State;

[23] *G. I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime* of the Seas and Oceans p.215

C) Exclusivity in the fields of research, utilization and protection of marine wealth in coastal areas is essential for the economic life and well-being of the state's population.

Article 2 of the 1982 Convention explicitly states that the sovereignty of the coastal State extends beyond its land and inland waters to an adjacent zone, the seashore, to the airspace above that zone and to the soil and subsoil of the seabed.

Limits of the territorial waters

When delineating the boundaries of territorial waters, the following shall be taken into account:, (a) the extent of the territorial waters or the extent to which the coastal State is entitled to oppose the boundary line of its maritime borders to other States (b) the delineation of the internal boundaries of the territorial waters, (ie the point where the measurement of the latter begins c) the delimitation of the external boundaries of the territorial waters, the delineation of the delimitation line of the sea borders when there are no neighboring States or when there are neighboring States in the delimitation area24.

[24.] *G. I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans p.221*

Width of the territorial waters

From the Renaissance until the first decades of the 20th century, the width of the territorial waters extended to three nautical miles. The documentation of this regulation is attributed to the Dutch jurist Cornelius Bynkershoek who linked the extent of the territorial waters with the action of the cannon shot. He argued that the power of land at sea ceases when the armed force of the land ceases.

This practice was adopted by the British and the French and thus was taken for granted for a long time. But in reality this practice was not uniform. In many cases the coastal States defined the relations of the territorial waters with the distance of naked eye visibility.

Attempts for general and commonly accepted interpretations of the cannon shot (cannon shot) until 3 nautical miles(nm) will find in agreement several States of the international community in the early 20th century. But then the unilateral behavior of States in this area will gradually lead to the belief that there is a customary assumption of 3 nautical miles as the commonly accepted limit for the range of the territorial waters.

However, all these unilateral statements, declarations, laws and decrees that follow, refute the claim for the formation of a customary establishment with a limit of 3 nautical miles. For example, the United States had already accepted 3 nautical miles

(Jefferson) by 1893, as did Great Britain in 1878. Other countries, however, believing that their interests could go further, argued for greater spatial sea (eg.Spain (1760), the French in 1792 favored the limit of 6 nautical miles, while at the same time the Scandinavians supported 4 nautical miles.

In conclusion, there was no rule of international law defining the maximum limit of the territorial waters. For this reason, the need to codify the law of the sea was considered imperative. A need that will be reinforced by the economic interests promoted by all States, both in relation to fisheries and navigation, in an effort to reconcile the fishing forces with the naval forces. Thus, from 1889, a first attempt at codification was made at The Hague, later in Havana in 1928, but without any result, during the Pan-American Conference[25].

The question of the width of the territorial waters was the subject of intense controversy between the States, especially during the Conference period in 1958 and the subsequent period until 1982. However, the strong urge of the Latin American States to expand their sovereignty over the sea and the safeguarding of marine wealth by the great powers, prevented the introduction of a single shoreline width for all States (1st Conference 1958). In 1960 at the 2nd Conference Canada and the United States proposed a compromise proposal for the establishment of a 6-nautical mile and an additional 6 nautical-mile fishing zone by all coastal States, but this proposal did not gain the required two-thirds majority of the conference members for a single vote.

In addition, the proposal of the Soviet Union to establish a single territorial water of 12 nautical miles was rejected by the committee in the same year. Despite the fact that in 1954 the Committee on International Law had concluded that, in the practice of States,

the length of three and six miles was unquestionable and allowed a maximum of 12 nautical miles.

The final solution to the issue was given by article 3 of the 1982 Convention which states that:

Each State shall have the right to determine the width of its coastal zone to the extent that it does not exceed 12 nautical miles measured by baselines determined in accordance with this Convention.

According to article 3, coastal States are entitled to delimit their territorial waters up to a maximum of twelve nautical miles. Extending up to twelve nautical miles is legal and permissible under international law.

The right to a twelve mile coastline derives from customary and conventional law. Also no State, even if bound by the ICC, has the right to go beyond the twelve-mile rule. It goes without saying that a State with territorial waters of less than twelve miles does not lose the above right, even if it is not bound by the ICC Convention[26].

Today all the States of the international community have adopted territorial waters of twelve nautical miles, while there are also States that maintain territorial waters of greater width.

• More than 148 States have adopted a 12 nautical mile coastline

• 4 countries (Netherlands, Japan, Belize, and Republic of Korea) have adopted a 12 nm territorial waters, but in some cases, due to narrow, estuaries or bays, they maintain a smaller range.

• 2 States (Togo, Syria) have adopted wider territorial waters(30 nm and 35 nm respectively)

• 8 States maintain territorial waters of 200 nm. (El Salvador, Ecuador, Democratic Republic of the Congo, Liberia, Benin, Nicaragua, Sierra Leone and Somalia

• 7 states (Greenland, Dominican Republic, Jordan, Norway, Palau, Singapore and Greece) maintain less than 12 nm territorial waters.

Greece maintains two territorial waters: territorial waters of 6 n.m. general law, established by law 230/1936 and territorial waters of 10 nm, special form, for aviation issues and its supervision , established in 193127. In contrast, all neighboring States in the region of the Mediterranean, with the sole exception of Turkey and Syria, have adopted coastal zones of twelve nautical miles[28].

[25]*Grigoris I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans p.84*

[26]*G. I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans p.227*

[27] *PD of 6/18 September "on determining the width of territorial waters as it relates to the issues of the Aviation and this Police" (Government Gazette A '325)*

[28] Turkey since 1964 has extended its coastal zone to 12 nm. in the Black Sea and the Mediterranean, while for reasons of expediency it maintains the 6 n.m. in the coastal areas of the Aegean. Syria, from 1981, has adopted a coastal zone of 35 nm.

Base lines for the establishment of the territorial waters

The determination of the extent of the territorial waters, but also of the maritime jurisdictions presupposes the determination of points along the coastline, from which the external boundaries of the zones will be measured. It follows from the ICC Convention that the measurement of the width of the territorial waters (Article 4) and the border zone (Article 33) will be made from the baselines while both the continental

shelf (Article 76) and the EEZ (Article 57) are defined by starting point baselines. The baselines (imaginary or physical) are those lines from which the territorial waters and the rest of the jurisdictions of the coastal states are measured.

The measurement of the territorial waters from certain points located between the sea and the coast. In particular, these points form a dividing line but its definition is not always safe, because the dividing lines vary according to the seasons, from the highest point of the wash (winter) to the lowest point of the shallow (summer).

The rule laid down in article 5 of the TC Convention is that the baseline is drawn on the natural shoreline. The natural coastline is defined as the low-water line along the coast. This line is called a normal baseline, especially when the shoreline is straight and does not have significant recesses. However, there are cases where the coastline has some peculiarities. When the differentiation is very important then the maximum shallowness is taken into account.

With the normal baseline (Normal Baseline), the territorial waters reflect a certain width of the coast through the sea. In many countries, it is difficult to draw the natural baseline of the territorial waters. The coasts have various recesses that prevent its application and for this reason the farther from the coasts the baseline is, the more sea area is contained in the inland waters and thus the width of the territorial waters is formed and expanded accordingly.

This discrepancy was examined at the International Court of Justice in The Hague during the examination of the Fisheries Case between Norway and Britain (1951). The coasts of Norway have peculiar formations with multiple recesses, while a chain of small islands called Skjaergaard complements the country's variety of coastal approaches. The Norwegian authorities, in order to draw the baselines of the territorial waters, it was impossible to clearly define the coastline on the sea, i.e. to use the natural baseline system.

For this reason, they significantly shifted the baseline for measuring the territorial waters , using straight baselines (Straight Baselines). This measure allowed Norway to refuse British fisheries to exploit the rich fishery resources near its shores. Britain then

challenged the validity of Norwegian energy, both in terms of the legality of drawing up baselines under customary law and by invoking historic fishing rights in the region. The adoption of straight baselines resulted in the extension to the high sea of the territorial waters and the fishing zone of 50 nm. of Norway.

The international court rejected Britains' positions. It acknowledged that special conditions allow for deviations from the natural baseline and stressed the need to protect the economic interests of coastal populations when drawing up the internal boundaries of the territorial waters.

This decision significantly influenced the Committee on International Law and later UNCLOS I (1958) which adopted verbatim (literally) the relevant dictum (saying). In areas where the coastline is interrupted by deep bays there is a cluster of islands along the coast in the immediate vicinity of it, the system of straight baselines can be used to draw straight baselines (article 7 par. 1).

This case law was incorporated into the 1958 Geneva Convention (UNCLOS I) on the territorial waters and article 5 of the 1982 Convention on the Law of the Sea.

However, in order for the court to mitigate the impunity that the criterion of financial interests could lead to, the International Court of Justice in The Hague set some conditions - rules regarding the drawing of baselines (Article 7).

• In areas where the coastline cuts sharply or penetrates deep into the ground or exists along numerous islands, the straight baseline method can be used to measure the onset of the territorial waters.

• The baselines can not deviate significantly from the general direction and geological configuration of the coast.

• Straight lines should not be drawn to and from the reefs, unless lighthouses or other installations are installed on them.

• The economic interests of the coastal population, such as fisheries, which are clearly emerging on the basis of long-term use, may be taken into account in the design.

• The system of straight baselines should not be applied by the States in such a way as to cut off the territorial waters of other States from the open seas. The waters inland of the straight bases are inland waters of the coastal State but

where the establishment of straight baselines results in the creation of inland waters, the coastal State is obliged to grant the right of safe passage[29].

Furthermore, according to article 16 the coastal State using straight baselines is obliged to clearly mark the baselines and give the appropriate publicity. This obligation also exists in case of delimitation of territorial waters, EEZ or continental shelf, based on the relevant provisions of the Convention of the IA. This ensures the safety of navigation as well as the rights of the coastal State through these zones.

Most countries have adopted straight baselines, but not every draft fully complies with the Convention, especially in the Pacific. When a straight baseline is manifestly contrary to international law, it will not be in force, in particular with regard to States which have objected to such drawing, even if a State has consented to it, it will not be entitled to object later. phase ('estoppel'). Although any such act is a unilateral act, its validity in relation to other States depends on its compatibility with international law.

Greece has not yet adopted the straight-line method, despite the fact that the terms of the ICC Convention are met in some parts of the country. According to the current legislation, the Compulsory Law 230/1936 "on the determination of territorial waters of Greece" (Government Gazette A'450), a regular baseline is used to measure the width of the territorial waters. However, a typical application of the straight baseline system will increase the Greek territorial waters from 2-3% to 7%.

[29]*Emmanuel Roukounas, Public International Law, Athens 2019, p.258*

Delimitation and delineation of territorial waters

The delimitation and delineation of the territorial waters are distinguished as follows:

• Delimitation of sea borders and delineation of external boundaries of territorial waters when there is no geographical narrowness in the delimitation area

These are cases where coastal States can unilaterally draw the boundary line of the maritime border, because there are no other neighboring states in the region or, if there are, the distance separating them allows them, if they wish, to adopt it as territorial waters with an upper limit of 12 nautical miles.

• Delimitation of maritime borders and drawing of external borders between neighboring states. These are cases involving more than one State. This means that there is a geographical narrowness in the delimitation area. The States concerned will express their views on the delineation but since they are more than one State, if they are opposed to each other, or they are adjacent to each other, their distance can not exceed twice the maximum permissible limit -24 nautical miles.- in order to have the right to engrave unilaterally, or adjacent to each other. so they must engrave, and for it to be acceptable by both[30].

[30] see. Judgment of the International Court of Justice in The Hague in the case of fisheries between Norway and Great Britain, 18 December 1951, I.C.J Reports, 1951, pp.128-130

Boundary of territorial waters when there is no geographical narrowness

The coastal State can define its maritime borders to the extent it wishes, in accordance with international law, if the internal boundaries of the territorial waters are defined - the baseline - the problem of external boundaries arises: that is, the method of drawing the boundary line. The external boundary of the seashore zone, according to contract law, is defined as "any point that is as far from the nearest point of the baseline as the width of the seashore zone".

The Convention of D.Th. does not provide for methods of delineating the boundary line. However, the application of a geometric method is considered necessary for the drawing of external boundaries, which are usually not straight.

The case law of the International Court of Justice mentions three main methods of dealing with the problem: a) the parallel notation b) the polygonal notation c) the semicircle method[31]. The parallel line is drawn parallel to the shorelines, in areas proportional to the width of the, ie territorial waters at a distance of 12 nautical miles. This method has some disadvantages because it does not reflect the true picture of the geomorphology and the fluctuations of the coasts in the sea, making it difficult to navigate. The polygonal alignment, outer boundary of the shoreline is a line defined by straight lines parallel to the baselines joining capes. Also, polygonal engraving has many disadvantages, because in order to apply this method you have to first drawn with straight baselines and the application of this method will result in large areas of the open seas falling into the coastal state, thereby risking arbitrariness. That is, in the case where the internal alignment follows a combination of the methods of natural alignment and the straight baseline, the polygonal alignment at the outer boundary follows only the straight lines, so that parts of the high seas will automatically fall into the territorial waters.

According to the semicircle method, the outer boundary of the territorial waters is a line drawn so that each point is away from the nearest points of the coast, a distance equal to the allowable width of the territorial waters. The nearest points of the shores are drawn in continuous semicircles,(ie radii), at a distance as far as the permissible limit, 12 nautical mles. The vertices of the semicircles define an imaginary line, which is the boundary line of the outer boundary.

This method has advantages over the previous two methods: first, it provides safety to a ship moving within the permissible range of the territorial waters and second, it

contains areas of the high seas within the territorial waters, but without creating risk arbitrariness. Particularly in the case of an excessively irregular shoreline, the delineation of the boundary line by this method results in an increase in the sea area within the territorial waters, whereas this is not the case with the parallel alignment, which follows every variation of the shore[32].

The semicircle method was also adopted by the Geneva Convention of 1958 (article 6) as well as in the 1982 Convention on the Rights of the Child (article 4) with the following wording:

"The outer boundary of the territorial waters consists of a line whose point is at a distance equal to the width of the coastal zone from the nearest point of the line" [33].

[31]G. I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans p.230

[32]G. I. Tsaltas, Marianthi Kladi-Efstathopoulou, The International Regime of the Seas and Oceans p.232

[33] The United Nations Convention on the Law of the Sea, Translation: George Assonitis, Athens 1995

Delimitation of the coastal zone between neighboring states

Each coastal State shall unilaterally determine, through its domestic law, the boundaries of the maritime zones surrounding it up to the limit laid down in international law. However, an issue arises with states that have opposite coasts or adjacent coasts.

The delimitation automatically acquires an international character, as in order to be considered legal and to be able to oppose third countries, it must be compatible with the international law.

The International delimitation law, as it has been shaped by international practice and international case law, is completed by the conclusion of international treaties, decisions of the International Court of Justice as well as arbitral tribunals, which set

the guidelines of the process of delimitation of maritime zones. The sources of law in this case are on the one hand the relevant provisions of the ICC Convention (articles 74, 83) and on the other the relevant customary law.

The basic rule of delimitation of the territorial waters is reflected in Article 15 of the Convention, which is done by agreement in principle and not unilaterally. In case such an agreement has not been reached, then the principle of equal distance / middle line must be applied, with some exceptions.

The practice of the States and the relevant case law have favored the following principles as far as delimitation is concerned:

(a) the equidistance principle / middle line method, the notion that the fairest distribution between two States in a maritime zone is the delimitation of the middle claimed area.

Article 15 of the Convention deals with the delimitation of the territorial waters and stipulates that in case the coasts of two States are parallel or bordering, neither of the two States is entitled, in the absence of an agreement, to extend the territorial waters beyond the midline, but all the points should be at equal distances from the points of the baselines, from which the width (length) of the territorial waters is measured for each State, except in special cases, where there is a need to delimit them differently. This provision repeats the regulation of article 12 par. 1 of the Geneva Convention of 1958 for the Aegean Zone and the Border Zone and incorporates customary law. This follows from the identical wording of the two contractual arrangements, but also from

the fact that, in the vast majority of them, bilateral delimitation agreements establish the principle of equal distance as the basic method of delimitation of the territorial waters. These rules have the advantage of simplicity and legal certainty, since it is a

geometric design. The customary rule of article 15 of the ICC was upheld by the International Court of Justice in its judgments of 16 March 2001 in the Qatar-Bahrain Maritime Boundary case of 10 October 2002 in the Land and Maritime Borders case between Cameroon and Nigeria and 2007 in the Nicaragua-Honduras Territorial and Maritime Difference.

Special Cases

The terms special circumstances and relevant circumstances have been widely used in international case law, although they appear in only two provisions in the ICC Convention, only one of which concerns delimitation issues. The two terms are not identical, but in recent years there has been a tendency to equate them. The reference to "circumstances" affecting the delimitation of the territorial waters was first made in the Geneva Conventions. In the DTH contract (1982) this reference is made explicitly in article 15 on the delimitation of the territorial waters where the term 'special circumstances' is used. The term "special circumstances" refers to Article 59, which refers to the settlement of disputes over rights and jurisdictions in the EEZ.

The historical title

Article 15 of the ICC considers the historical title as the main special case. "Historical title" means one over which the coastal State exercises sovereignty clearly, effectively and continuously for a long period of time, contrary to the rules of international law, but with the tolerance of the international community.

In case a bay is considered "historic", its entire surface is considered to belong to inland waters and the baseline can be drawn along the width of its mouth, regardless of its length.

The long-standing practice of the coastal State, which has been explicitly or implicitly accepted by other States, raises a claim for the territorial waters and what would result from the application of equal distance. This practice usually involves "Closing the bays" or the long-term drawing of straight baselines that change the ratio; that would result from the application of the principle of equal distance / middle line. Reference is often made to historical fishing rights.

b) the principle of equity; the application in the process of delimiting principles of equity or equitable principles, taking into account all the special circumstances in order to reach a fair solution.

Articles 74 (1) and 83 (1) of the IA Convention use the terms equitable solution and equity (Article 59).

The term equity is translated into Greek with the term "equity" and the term "equitable" as "fair". Regardless of the ICC Convention, international case law has reduced the notion of a "fair solution" to the quintessence of the delimitation process. Particular reference is made to the term equitable principles, which although widely used is not found in the Convention of the IA, but there is no Greek version. We use the term "principles of fairness", which best describes the regulatory framework.

The prevailing view today is in favor of the principle of equal distance, but the delimitation law cannot be considered completely crystallized, as it is by nature a "map exercise", which varies from case to case.

Closure of the bays

Greece has not adopted the application of straight baselines, nor the closure of bays with orifices up to 24 nautical miles. In contrast to other States which blatantly violate

the rule of closing the bays, Greece maintains a maximum opening for closing the bays at 10 nautical miles and by drawing straight baselines within inland waters, it is driven to lose part of its corresponding inland water area.

Criteria for legal bay closure under the new Maritime Law Convention

First of all, a bay is more than a recess of the shore, according to article 10 of the 1982 Convention. This concept refers to a well-formed shore pit whose penetration on land in relation to its width in the opening is such that the enclosed waters are surrounded by the shore.

In areas where there are bays, the straight line joining the mouth of the bay is the baseline for the measurement of territorial waters. However, the limit between article 10 § 4 of the above Convention for the legal closure of the bay is set as the distance between the traces of maximum shallowness at the natural points of entry of a bay not to exceed 24 nautical miles. While according to § 5 of the above article, in cases where the distance of the opening of the vagina exceeds 24 nautical miles, draw a straight 24 nautical mile base line inside the bay in such a way so as to enclose the largest possible surface of water and secondly to fit inside the line a semicircle with a diameter equal to the distance of the baseline.

The right of third countries to safe passage through the coastal zone coastal state

Safe passage is a right of the foreign ship[34] that must be provided by the coastal State in order not to violate the customary right of free navigation. The ICC Convention

sets out a series of measures aimed at ensuring the order and security of the coastal State from the exercise of the right of safe passage.

The concept of safe passage according to the Convention of the IA

Ships of all States, coastal or enclosed, enjoy the right of safe passage[35] from the (A territorial waters (article 17). Their passage must be continuous and rapid, crossing without entering inland waters or stopping at an anchorage or port facility outside inland waters or entering or leaving inland waters or stopping or departing from such an anchorage or port facility (article 18, §1). Allowed stopping and mooring, but only in the case of routine navigational incidents or due to force majeure or danger or the provision of assistance to persons, ships or aircraft in distress (article 18, §2).

The crossing is considered safe as long as it does not disturb the peace, order and security of the coastal State (article 19 §1). If the ship engages in any activity that gives it such character[36], as described in article 19 § 2. it disturbs the peace, order and security of the coastal State. In essence, the right of safe passage balances the image of the law of the sea, the freedom of the seas and the extent of the sovereignty of coastal States.

Rights and obligations of the coastal state for safe passage

According to article 24 of the ICC Convention, the coastal State is obliged :

1. Not to impede or restrict the safe passage of foreign ships through its territorial waters without discriminating against ships of a particular State or ships carrying goods from or to a particular State.

2. To indicate those areas in which the safe passage of foreign ships can be ensured.

According to article 26 of the Convention, the coastal State has no right to impose charges on foreign ships in the event of a simple passage through the territorial

waters, unless it is a fee for the provision of special services. Nevertheless, the coastal State has the right to designate sea lanes for the regulation of transit and to require foreign ships to pass through them (article 22), to define zones in which to temporarily prohibit transit for safety reasons (article 25 §3), to prevent any transit that is harmful (article 25 §1) and to request information on the nationality, tonnage, origin and destination of the passing foreign ships.

Safe passage of submarines, diving boats

As stipulated in article 20 of the ICC Convention, when submarines and other diving boats are located in the territorial waters, they are obliged to sail on the surface of the sea and to have their flag clearly visible.

Safe passage of warships (Articles 29 - 32)

The ICC Convention does not explicitly recognize the right of safe passage on warships. However, a number of articles set out the conditions for the safe passage of warships and shift the responsibility for any damage or loss caused by a warship or State ship to the flag State[37] (article 31).

In the event that a warship does not comply with the coastal State's regulations on crossing the territorial waters or in disregarding the recommendations made for compliance, the coastal State may require that vessel to leave its territorial waters without delay (Article 30).

[34] *Siousiouras P. (2015) course notes: Maritime Law*

[35] *The Corfu Channel Case (1949)*

[36] *article 40 of the Vienna Convention on Diplomatic Relations, 1961, Efstathiadis K. (1963) International Law p.21 & articles 17-19 of the Convention of the International Court of Justice.*

[37] 1) Threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State or in any other breach of the principles of international law contained in the Charter of the United Nations. 2) Exercise or gymnasiums using weapons. 3) Collection of information to the detriment of the defense or security of the coastal State. 4) Propaganda acts intended to infringe on the defense or security of the coastal State. 5) take-off, landing or loading of aircraft. 6) Launching, unloading or loading military machines. 7) Loading or unloading of goods, funds or persons in violation of the customs, tax, health or immigration laws and regulations of the coastal State. 8) Deliberate and serious pollution, in violation of the provisions of this Convention. 9) Fisheries, surveys and watercolor studies. 10) Obstruction of the operation of any communication system or any other equipment or installation of the coastal State or any other activity that is not directly related to the crossing (Article 19, §2).

1.4 Continental shelf

The institution of the continental shelf is one of the most important in terms of the law of the sea, due to its exceptional economic interest for the coastal States, but also in terms of the historical development of the legal regulation on the rights of the States over its resources.

The continental shelf is a geological phenomenon, which describes the natural extension of the land under the sea to the point where there is a steep slope towards the ocean abyss.

The various parts of the seabed, from the coast to the ocean abyss have in geology the following names: the whole area of the seabed from the shores to the

Ocean abyss is called the continental margin, which in turn is divided into three successive sections, the (geological) continental shelf, the continental slope and the continental rise.

However, as the International Court of Justice in the Tunisia-Libya Case aptly observes, "The continental shelf is an institution of international law which, although remains connected with a natural event, must not be equated with the phenomenon described by the same term in other sciences" [38].

It is a fact that in the case of the establishment of the continental shelf zone for the coastal States it had a positive effect during World War II; the consumption of oil, mainly by the Americans and their allies, was immense. The result was the immediate awareness on America's part- the need to find new oil fields in the geographical area of the USA. The same need drove the country's leaders in an effort to legally secure new explorations in the underwater area aiming to utilize / exploit potential new oil fields[39].

The historical starting point of the legal regulation is the Presidential Declaration No. 2667 of the President of the USA, H. Truman (1945).

This Declaration did not include a claim to full sovereignty, but referred to jurisdiction and control by the United States, establishing the relevant rights as the continental shelf is considered a natural extension of the mainland, while introducing the concept of principles of fairness regarding the delimitation of territories between States with opposite or adjacent coasts[40].

[38] CHA Rozakis, The Law of the Sea and its formation from the claims of the coastal states, Athens 1976, Papazisis publications, p.88

[39] A. Strati, Law of the Sea, 2nd Edition, Ant.N.Sakkoula Publications, Athens - Komotini 2000, p.156

[40] see. Th. Karyoti (2014). The EEZ of Greece pp.54-55

The Continental Shelf Convention (1958)

The first Conference on the Law of the Sea adopted the Continental Shelf Convention 29th April 1958 in Geneva. According to Article 1, *"continental shelf" means the seabed and the subsoil of submarine areas adjacent to the coast, but located beyond the limit of the territorial waters coastal, to a depth of 200 meters or beyond this limit to the point where the depth of the overlying waters allows the exploitation of the natural resources of these areas[41]. The coastal State exercises sovereign rights over the continental shelf for the purpose of exploring and exploiting its natural resources. The rights mentioned in the article are exclusive, in the sense that if the coastal State does not explore its continental shelf or does not exploit its natural resources, no one can claim the continental shelf without the consent of the coastal State "[42].*

From the above, it follows that the continental shelf extends over the entire natural extension of the land under the sea at a distance of 200 miles from the baselines and coincides with the EEZ.

The continental shelf is an area of reefs, mainland, mainland elevation and the ocean abyss. Geologically the continental shelf is the continuation of land under the sea, starting from the shore and ending where the sloping bottom becomes quite steep usually at 130 to 200 meters[43]. Around the world there are geographical areas favored by the width of the continental shelf such as Asia, Australia, the coasts of East America and areas with a steep slope in the ocean abyss, such as the Mediterranean.

At the Geneva Conference in 1958, two criteria were used to delimit the continental shelf: exploitation and the distance of the sea surface from that of the seabed.

To date in developed countries, the exploitation of the seabed takes place at a depth of much more than 200 meters and where this occurs, there is an extension of the

continental shelf to the exploitation area[44]. This criterion, however, raised questions about the continental shelf's exploitation rights, but also the reactions of developing countries; that of the Guatemalan representative, who aptly likened the continental shelf criterion to a driver with a fast or slow car. According to the Convention of the ICC, the continental shelf includes the seabed and its subsoil beyond its territorial waters, along the entire natural extension of land to the outer edge of the continental shelf or at a distance of 200 nautical miles from which the width of the seashore zone is measured where the outer edge of the shelf is at a shorter distance45.

In the areas where the continental shelf extends beyond 200 nautical miles. from the baselines, the outer limit of the continental shelf is set up to 350 nm. or at 100 nautical miles beyond the isobath of 250 meters or at 60 nautical miles from the base of the mainland elevation.

Following political compromises, a complex system of delimitation of the outer part of the continental shelf was created, according to which the TC Convention sets aside both the criterion of depth at 200 nautical miles and that of exploitation, while two new criteria are now introduced: distance and geological . As a result, every coastal State, regardless of the seabed slope of, is entitled to a continental shelf at least 200 nautical miles wide, from its baselines, with the difference that on the continental shelf the coastal state has no full sovereignty, but retains its exclusive sovereign rights, as defined in accordance with article 77 of the Convention 45.

[41] *E. Roukouna (2006). International Law II, p.37*

[42] *Convention of the IA Article 76 § 1*

[43] *ibid. Article 77 §2.*

The geological concept of the continental shelf

The continental shelf is a geological phenomenon. The land that we usually call dry, after its contact with the sea on the shores, continues below the surface of the sea, forming the seabed. The seabed, being the natural extension of the land under the sea, extends to various depths from the coast and has the characteristic of a slope, which continues to the point where there is a steep slope to the ocean abyss. The first part, which starts from the shore and continues to the point where the ground has a significant slope, is called in continental shelf geology.

The legal concept of the continental shelf

"The continental shelf is an institution of international law which, although remains linked to a natural event, should not be equated with the phenomenon described by the same term in other sciences."

The legal concept of the continental shelf now includes any area of the seabed that has a certain relationship with the coasts of a neighboring state.

With regard to the legal dimension of the term continental shelf, it should be noted that each State adopts a different approach to this concept, which differs significantly from the geological distinctions of the reef areas. In the case of coastal States, the importance of equal treatment is recognized, especially when there is no continental shelf or it is considered a narrow passage. The departure from its geological definition led to the determination of Article 1 of the Geneva Convention of 1958 that the continental shelf may extend to the point where the distance of the seabed from the sea surface reaches 200 meters. When the exploitation of the seabed exceeds the depth of 200 meters, then the corresponding displacement of the continental shelf

to this depth3 takes place. However, as early as 1958 it was understood that there was a tendency to establish the rights of coastal states and to define zones of national sovereignty between neighboring states. In particular, the Truman Declaration in September 1945 that addressed this issue provoked international debate. The development of the idea of a continental shelf in the 1950s and 1960s, as well as the idea of extensive fishing zones or exclusive economic zones in almost all coastal countries under the auspices of the Third Conference on the Law of the Sea reached the 1982 Convention, which contributed to the definition of analogus delimitations. The 1958 Geneva Convention, however, was the first important step towards delimiting and defining, first and foremost, the continental shelf.

According to article 1, the continental shelf is defined as the seabed and the subsoil of the submarine areas adjacent to the coast, but outside the territorial waters. Its depth is at 200 meters or even beyond this limit, to the point where the depth of the above water allows the exploitation of natural resources. Second, continental shelf is defined as the seabed and subsoil of similar submarine areas adjacent to the coasts of islands. Of course, this definition was the point of contention between States, as the exploitation of natural resources can reach a depth of 2,500 meters, as is the case today. In any case, the continental shelf cannot reach that point. The 1958 Convention, however, was concerned with the exploitation of natural resources. The appropriate solution would be to extend the continental shelf to all coastal States. Another question that arose was whether the exploitation/utilization should be economically viable or should it refer only to the operating conditions. The Convention replied that it was not possible to judge objectively whether the exploitation/utilization was profitable or not, since it is possible that an exploitation/utilization which is perfectly advantageous may not be ultimately suitable or even threaten the economy

of third countries, which may have the same product in their territory at higher prices. In this way, the criterion of exploitation should be taken into account without considering whether it is possible to extract significant quantities and whether the price of the product may be suitable for marketing on the international market.

Another crucial point of the 1958 Convention is the provisions of articles 4 and 5, which allow the exploitation of natural resources and the application of technology for such exploitation. Based on the above articles, it is possible to extend the continental shelf to a greater depth than defined, if applied to different technology in order to another natural product. The issue of delimitation, but also the price that countries have to "pay" for the expansion of their zones have contributed to important international announcements and decisions within the North Sea Continental Shelf of the International Court of Justice (ICJ) in 1969. In particular, however, the 1982 Convention on Civil Procedure was the one that changed the legal nature of the continental shelf, offering a new wording to its definition.

According to Article 76, the continental shelf consists of the seabed and the subsoil of the submarine areas, which extends beyond the territorial waters and is a whole natural extension of the land territory of a coastal State, the external deviation of the coast or up to 200 nautical miles in length from the baselines, from which the width of the seashore zone is measured, if the continental shelf does not reach the distance of 200 nautical miles. However, if the continental shelf extends beyond 200 nautical miles from the baselines, then the outer limit of the continental shelf reaches either 350 nautical miles, or 100 nautical miles beyond the 2,500-meter equator, or 60 nautical miles from the base of the mainland elevation.

[44] *M. Koulouris, The International Law of the Continental Shelf and the Trends in the Law of the Sea, published by Ant. N. Sakkoula, Athens 1976, pp. 41-43*

[45] *E. Roukounas, ibid., P. 179*

1.5 EEZ (Exclusive Economic Zone)

Definition

According to a. 55 of the 1982 Convention:

"The exclusive economic zone is defined as the area beyond and adjacent to the territorial sea, subject to the special legal regime established in this Part (ie Part V), under which the rights and jurisdictions of the coastal State and the rights and freedoms other States shall be governed by the relevant provisions of this Convention."

The legal framework of the EEZ

The legal status of the EEZ is established in Part 5 of the Convention, in particular articles 55 to 75). However, in other parts to the Convention there are articles concerning issues related to the EEZ, such as environmental protection, marine scientific research, dispute settlement, etc.

In particular, articles 55-59 "establish the legal status of the EEZ, define its territory, while at the same time providing rights and obligations for both the coastal and the other States", while also providing for a dispute settlement mechanism[46].

In addition, articles 61-73 describe in detail "the regime governing the conservation and exploitation of the living natural resources of the EEZ" (the fisheries regime) and cover most of the provisions related to the zone. The provisions of the above articles regulate the status of the natural resources of the water column that transcends the seabed, up to 200 nautical miles from the shore.

Furthermore, article 60 regulates "the status of artificial islands, structures and facilities in the EEZ" [47].

In addition, articles 74 and 75 define how the EEZ is delimited in cases of overlapping and how the geographical coordinates of the zone are determined[48].

The provisions of Part 6 on the continental shelf (articles 76-85) shall apply to the coastal State's rights to living (sedentary) and non-living natural resources on the seabed and subsoil of the EEZ.

A coastal State is entitled to designate an area of economic interest within 200 nautical miles of the main coastline, from which the width of the coastal zone is calculated whether it concerns continental territories or islands. This is particularly crucial for Greece, as it gives strong international legal foundations for the rights of the Greek islands. The Convention provides sovereign rights to States within 200 nautical milesm of their shores. In short, the concept of full sovereignty does not exist within the EEZ and rules on the high seas, such as free navigation[49].

EEZ exists only if a State establishes it. However, its adoption does not imply anything on a practical level since the State cannot delimit it due to a dispute with a neighboring state, whose consent is required for the delimitation. A typical example is the dispute between Greece and Turkey. If the EEZs of neighboring countries overlap, the drawing can be done by direct negotiation or recourse to IFRS50. For the formulation of the EEZs, the "principle of the middle line" is taken into account, without, however, excluding the possibility of taking into account other parameters[51].

As we have mentioned, the coastal State has the right to designate as an EEZ, a zone up to 200 nautical miles wide from its shores, in which the former exercises sovereign rights in matters relating to the exploration, exploitation, conservation and management of natural resources, resources of living or non-living, of surface waters, seabed and subsoil[52]. The above is subject to the condition that the coastal State will

not meet the EEZ of the opposite country, in which case the above limit is determined by the average distance or otherwise middle line. A coastal State acquires an EEZ with a unilateral declaration and then concludes delimitation agreements with neighboring States. In addition, in the event that a delimitation agreement is not possible, neighboring countries resolve their dispute by referring it to an international tribunal[53].

The provision that the coastal State determines its potential for the exploitation of living resources of the EEZ under article 62 of the Convention is of utmost importance. In the event that it does not have the capacity to fish the full authorized volume, it shall allow third countries to exploit the surplus of the authorized fishing. Two categories of States participate in this exploitation: the enclosed and the geographically disadvantaged States, under articles 70 and 69 of the Convention respectively[54].

The relationship of the EEZ with fisheries, which is directly related to the enclosed and geographically disadvantaged countries[56], is particularly important. The definition of enclosed or landlocked or Mediterranean States is introduced in article 69 of the Convention. According to paragraph 1a of the above article: "Enclosed State means the State that has no sea shores".

The definition of geographically disadvantaged States is introduced in Article 70 of the Convention. These definitions covers coastal States that may be wet even by closed or semi-closed seas and belong to one of the following categories:

(a) The first category includes "States which, by geographical morphology, are unable to meet the nutritional needs in part or all of their population and are therefore directly dependent on fishing in the exclusive economic zones" other states in the region or their sub-regions" [56].

(b) The second category includes those who cannot claim their own exclusive economic zones. Among them are Greece and Turkey. The borders of these two countries are at closed or semi-closed sea, so they are unable to make the most out of the provisions of the Convention, in other words to establish an EEZ with a maximum width of 200 nautical miles. According to the Turkish approach, the Aegean Sea is a semi-enclosed sea with specific geographical and geological features that justify a specific regime that is excluded from the regulations of the law of the sea (territorial waters, continental shelf, EEZ).

[46] *Karakostanoglou, The Exclusive Economic Zone, ibid., P.71.*

[47] *Ioannou - Strati, Law of the Sea, ibid., Pp. 196 -199.*

[48] *Karakostanoglou, The Exclusive Economic Zone, ibid., P.71.*

[49] *Ioannou - Strati, Law of the Sea, ibid., P. 28.*

[50] *K. Ioannou - K. Economidis - Ch. Rozakis - A. Fatouros, Public International Law. Theory of Sources, Athens - Komotini, Ed. Sakkoulas, 1988, p. 154.*

[51] *Karakostanoglou, The Exclusive Economic Zone, ibid., P. 77.*

[52] *Ioannou - Strati, Law of the Sea, op. Cit., P. 196.*

[53] *Ioannou - Economidis - Rozakis - Fatouros, Public International Law, ibid., P. 157.*

[54] *Ioannou - Strati, Law of the Sea, ibid., Pp. 205 - 207.*

[55] *E. Gounaris, The International Fisheries Law, Athens - Komotini, Ed. Sakkoulas, 1989, p. 46.*

[56] *Karakostanoglou, The Exclusive Economic Zone, ibid., P. 141.*

Rights and Obligations in the EEZ

The establishment of the EEZ is monitored by a network of jurisdictions and rights as well as obligations. The rights and jurisdictions of the coastal State concern the

exploitation of natural resources and various other economic or non-economic uses of the EEZ.

The types of exploitation are broken down as follows: (a) Natural Resources (living and non-living), (b) Other economic activities, (c) Artificial islands, facilities and structures, (d) Marine Scientific Research, (e)

Protection and conservation of the marine environment and (f) "Other rights and obligations" [57].

Concerning the natural resources, we must clarify that the seabed and its subsoil include mainly non-living resources (ores) and only a category of living resources, ie sedentary catches. All these resources are covered by the pre-existing EEZ status on the continental shelf (1958 Convention) and are already included in the EEZ seabed and subsoil status (which is identical to the continental shelf up to 200 nautical miles from the coast). Surface waters contain living natural resources (catches) and non-living ones (i.e. minerals dissolved in seawater) [58].

Non-living resources of the seabed, subsoil and overhead waters are subject to the provisions of article 56, paragraph 1, according to which the coastal state has "sovereign rights for the purpose of exploration and exploitation, conservation and management". with the exception of the provisions on "management and conservation" but also on "surface waters", the coastal State exercises rights under the 1958 Geneva Convention on the continental shelf.

The above article also defines "sovereign rights" granted to the coastal State for the "exploration and exploitation, conservation and management" of living resources on the seabed, subsoil and surface waters. According to the category ("Other economic activities"), the "Coastal State" is granted "sovereign rights" and other economic activities such as "energy production from water, currents and winds". This provision

enables the coastal State to take advantage of technology and opportunities it offers[59].

In addition to sovereign rights, the coastal State has exclusive jurisdiction[16]. These consist of the possibility of installing and using artificial islands, as well as other facilities and structures (article. 56, paragraph 1b).

More specifically, according to article 60, the State is granted "the exclusive right to construct, permit and regulate the construction, operation and use of: artificial islands, facilities and buildings for the purposes provided for in article 56 or for other purposes, facilities and buildings that may interfere with the exercise of the coastal State's rights in the zone ".

The "exclusive jurisdiction" of the coastal State extends to laws and regulations on customs, budgetary, health and immigration matters on artificial islands, facilities and buildings, as well as the establishment of safety zones around them with a maximum width of 500 meters60.

The coastal State also has jurisdiction over marine scientific research, protection and conservation of the marine environment. In accordance with article 56 paragraph 1b, the coastal State has "jurisdiction over marine scientific research", while under article 246 (paragraph 1) it is given "the right to regulate, authorize and conduct" marine scientific research. The consent of the coastal State is necessary if scientific research is carried out in its EEZ ("exclusively for peaceful purposes and with the aim of increasing the scientific knowledge of the marine environment for the benefit of humanity") by another State.

Furthermore, the State participates in the research program or in the institution that made the decision for the research, in accordance with the provisions of Article 253 of

the Convention. However, there may be a case where the coastal State does not consent, and it is not obliged to do so. The coastal State can still supervise the research program, and in the case whereby the necessary measures are not adhered to, it can stop it. In general, the powers governing the above type of exploitation are identical to those provided in the case of exploration of the continental shelf, in accordance with the 1958 Convention. *In comparison, in the case of the EEZ, the powers concern the seabed, the subsoil and the surface waters, while in the continental shelf only the seabed and the subsoil*[18].

With regard to the protection and conservation of the marine environment, the coastal State is obliged to deal with any form of pollution in its surface waters and seabed within its EEZ, in accordance with article 56 (1b) of the Convention. The coastal State also has "other rights and obligations" in the EEZ related to the border zone, such as the right to 'continuous persecution ". The border zone is also affected by the status of the EEZ, as the latter extends 12 nautical miles beyond the territorial sea within the EEZ. Within the borders of this region, the coastal State deals with customs, budget, immigration and health issues[61].

Notwithstanding the rights of the coastal State in the EEZ, the rights and obligations of third States in accordance with the Convention must not be disregarded[20]. Article 58 lists their rights and obligations of third countries within the EEZ. According to this article, States enjoy the right to free navigation, over flight, and the installation of submarine cables and pipelines. These rights were established on the high seas under the 1958 Convention. Under the 1982 Convention, they were incorporated into the EEZ with the exception of the right to freedom of fishing, which is given to the coastal State.

However, the Convention grants the right to fish to third countries under certain conditions, in accordance with Article 62. In addition, third countries recognize the right to marine scientific research and to establish artificial islands and structures, with the consent of the coastal State in each case[62]. As stated above, in the EEZ, enclosed and geographically disadvantaged States have the same fishing rights as defined in articles 69 and 70 of the Convention[63].

The main obligation of the coastal State is to determine the fishing capabilities in conjunction with the definition of the permitted catch limit. These two elements are necessary for the calculation of the surplus to which third States within the EEZ of each State will have access. Another obligation of this State is to implement measures for the safety of navigation after each construction project[64].

One of the most important objectives of the provisions for the conservation of biological resources is the protection of the environment from abusive overexploitation. The role of the coastal state in achieving this goal is particularly crucial when it comes to the access of the excluded, geographically disadvantaged and other States to its EEZ.

The Convention gives enclosed and geographically disadvantaged States the right to participate, on an equal footing, in the exploitation of a part of the surplus of animal resources from the EEZs of the coastal States of the same sub-region or region. The operation specifically takes into account the economic and geographical conditions of the States concerned, based on the terms of the Convention itself[65]. However, the exercise of equal or privileged rights is not excluded, provided that it was in previous agreements. It was deemed necessary to introduce provisions securing rights under the Convention which had been granted by previous agreements, provided that their content creates a regime favorable or less favorable for the landlocked States[66].

The participation of geographically disadvantaged countries as well as those involved in the exploitation of the biological resources of the EEZ of the coastal Ctates is based on the provisions of the Convention, which are implemented after the conclusion of agreements between the interested parties for the determination of its terms and conditions[67].

The UN Conference was in favor of limiting the access of both the landlocked States and the geographically disadvantaged States only to the surplus of the EEZ catches. The basic position of the coastal States was that the reason for which the EEZ is established with the participation of third States in the exploitation of its resources could not go hand in hand. In any case, the situation that would be shaped in any other case would be unfair, as the rights of the landlocked states but also of the geographically disadvantaged States would be to the detriment of the rights of the coastal States[68].

As we have pointed out above, the Convention gives coastal States the opportunity to set the permissible catch limit in their EEZ, as well as the percentage allotted to them. In this way, the EEZ region with the new institution received a peculiar status, as it became exclusive to the coastal States, but at the same time provided some rights for third States. Without a doubt therefore the rights of the excluded and geographically disadvantaged States coexist with the "sovereign rights" of the coastal States regarding the exploitation and exploration of the biological resources of their EEZ[69].

According to Mr. V. Karakostanoglou, "the coastal State provides access to other States in the EEZ especially the developing ones only to the surplus that it cannot catch; while taking into account their rights," [70] .

Enclosed and geographically disadvantaged countries, however, are not equally involved in the exploitation of the EEZ. The distinction is clear under articles 69 + 70, paragraphs. 4, and 5 , of the Convention, where there is a tendency for States to surrender to fisheries. Developed countries have the right to participate only in the EEZs of the similarly developed coastal States of their region or sub-region. In addition, the possibility of causing adverse effects on the fishing activity of the coastal State should be taken into account by the State exploiting the EEZ of the coastal State.[71]

The Convention specifically mentions certain categories of catches in retrograde, cruise and migratory species. In this case, for retrospectives the responsibility for determining the volume of the catch is vested exclusively in the coastal State, whereas for cruisers the responsibility lies with the State in the region where the catch spends most of its life. Regarding migratory species, bearing in mind that the primary concern is the need to protect them, the determination of the area where their fishing will be allowed is done after continuous cooperation with regional and international organizations[72].

In view of the above, we conclude that the exclusive coastal fishing rights in the EEZ have absolute validity in only two cases: when its fishing capacity has reached the point where it is allowed to fish the entire catch and when its economy is largely dependent on the exploitation of the EEZ's living resources. Therefore, the definition of the EEZ does not change the position of the State with regard to the continental shelf,

Articles 69 (3) and 70 of the Convention refer directly to the case where the catch surplus is minimized. In other words, when "the coastal State's fishing capacity is approaching a point which allows it to catch the full permissible catch volume". In this case, the participation in exploitation of the EEZ includes only developing enclosed

and geographically disadvantaged States of the same region or sub regional fisheries in an area where, in accordance with the Convention, have certain rights.

[57] *Karakostanoglou, The Exclusive Economic Zone, ibid., P. 93*

[58] *Ioannou - Strati, Law of the Sea, ibid., P. 195*

[59] *Karakostanoglou, The Exclusive Economic Zone, ibid., Pp. 93 -94*

[60] *Karakostanoglou, The Exclusive Economic Zone, ibid., P. 95*

[61] *Ioannou - Strati, Law of the Sea, ibid., P. 205*

[62] *Karakostanoglou, The Exclusive Economic Zone, ibid., P. 102*

[63] *Ch. Rozakis, The Law of the Sea and its Formation from the Claims of the Coastal States, Athens, Ed. Papazisi, 1976, p. 49*

[64] *Ioannou - Strati, Law of the Sea, ibid., P. 206*

[65] *Rozakis, The Law of the Sea and its Formation, ibid., P. 54*

[66] *Citizen, The Legal Status of Enclosed States, op. Cit., P. 77*

[67] *Ioannou - Strati, Law of the Sea, op. Cit., P. 206*

[68] *Karakostanoglou, The Exclusive Economic Zone, 1998, ibid., P. 289*

[69] *Ch. Rozakis, The Law of the Sea and its Formation, ibid., P. 58*

[70] *Karakostanoglou, The Exclusive Economic Zone, 1998, ibid., P. 102*

[71] *Gounaris, International Fisheries Law, op. Cit., P. 51*

[72] *E. Roukounas, Public International Law, Athens, Ed. Law Library, 2011, pp. 310-311*

DETERMINATION OF THE LIMITS OF THE EEZ

The width of the EEZ

The width of the Exclusive Zone in accordance with article 57 of the 1982 Convention may extend up to two hundred nautical miles from the baselines, on the basis that the width of the territorial sea has been determined. Therefore, if the State has defined a

territorial sea of twelve nautical miles wide, then the EEZ will declare that it is up to one hundred and eighty-eight nautical miles wide. It is pointed out that the limit of two hundred nautical miles is not mandatory and that the State may declare a smaller EEZ of the excluded and geographically disadvantaged States referred to in articles 69 and 70 where the coastal State's economy depends solely on the exploitation of the biological resources of its EEZ. In addition, article 72 provides for restrictions on the transfer of coastal State rights to third States, and in any case the coastal State has the power to enforce the laws and regulations it has issued to protect exploration and exploitation, as well as resource management in the area in question (Article 73). This means that the coastal State can "pursue" ships that violate its laws and regulations that it has legislated for the EEZ (Article 111 (2)).

ECONOMIC IMPORTANCE OF THE EEZ DECLARATION

The economic benefits that Greece would reap in the event of an EEZ being declared in the surrounding seas, is estimated to significantly contribute to the improvement of the Greek economy, especially nowadays that the country has already appealed to the International Monetary Fund and the EU (since 2012), for financial support.132 These benefits could arise from the exploitation of fisheries, renewable energy sources (RES) and submarine hydrocarbon deposits.

Economic benefits of fishing

In articles 61-73, the 1982 Convention devotes a significant part to the exploitation and conservation of biological resources within the EEZ. In more detail, under article 61, the coastal State may determine the permissible catch limit in order to avoid overfishing / over-exploitation of the area of the defined EEZ. At the same time, article

62 lays down the conditions for the management of biological stocks, in the event that the coastal State does not have the capacity to fish in total. In addition, article 63 has included specific provisions on biological stocks located in the EEZs of two or more States, as well as within the EEZ and in an area adjacent to it, that provides for coordination of actions between States directly or through sub-regional or regional organizations to ensure the conservation and development of biological resources. We must point out that, in accordance with Article 71, the right to participate in fishing is to be revoked.

Finally, in the event of an EEZ being declared by Greece, only Greek or foreign fishing vessels will be fished in the EEZ area from now on, but only after being licensed by the Greek authorities. This will make it possible to develop policies for the sustainable exploitation of Greek catches, for the benefit of the Greek economy and the reduction of reckless and often illegal fishing, through the implementation of the Greek regulatory framework for fisheries. Especially in the case of the Greek seas, it seems that overfishing has led to a reduction in fish stocks, which consequently require that appropriate measures are taken.

Economic benefits from the utilization of Renewable Energy Sources

The announcement of the EEZ will allow Greece to install offshore wind farms and to exploit the high wind potential of the Aegean. These parks, however, will not hinder tourism development and will not face the rejection of local communities, as they will not be located near the coast. It should be emphasized that regarding the installation of offshore wind farms in the Aegean, opinions vary; are they economically advantageous in relation to the installation of respective onshore parks (eg on barren islands) [73].

[73]. Tsaltas, G., 1986, p. 54

Economic benefits from the exploitation of underwater natural resources

In recent years, we have observed that the region of the southeastern Mediterranean has become the "apple of contention", due to the high energy interest that has risen, based on research that has shown large deposits of exploitable hydrocarbons. Until July 1974, the Greek state had ceded parts of the NE Aegean to oil companies of international prestige: TEXACO, CHERON and CONOCO. The exploitation of the deposits of the Prinos basin is the only case of exploitation of hydrocarbons that has taken place to date and the yield is around 3000 barrels of oil per day. Exploitation began in 1974 and to date large quantities of oil and gas have been exported74.

In 2011 the Ministry of Environment, Energy and Climate Change announced an international public call for participation in seismic data acquisition surveys data would be used in Western and Southern Greece following the enactment of legislation, amending the provisions of the 1995 Law on Exploration of Hydrocarbons. In this invitation, a total of eight companies showed interest with Petroleum Geo-Services (PGS) from Norway prevailing. In 2014, the Greek State would announce the first round of licenses for the extraction of hydrocarbons in the mentioned areas. This process would not have any financial costs for the Greek State; on the contrary, the latter would receive a percentage of the Norwegian company's sales. Despite the government's announcements about the existence of marine wealth in these areas, the issue remains stagnant, as no drilling has been carried out to date.

In 2012, the Ministry of Environment announced an open call for interest and the granting of corresponding mining and exploration rights for hydrocarbons in the Gulf of Patras, Ioannina and Katakolo. In the end, eight proposals were submitted as follows: Four for the region of Ioannina, two for Katakolo and two for the Gulf of Patras. The land area of Ioannina was taken over by the company Energy oil and gas / petra

petroleum, its yield is estimated at 50 to 100 million barrels. The sea area of Patraikos was taken over by the company Hellenic Petroleum / Edison / Petroceltic, its yield is estimated at 200 million barrels. Finally, Katakolo was taken over by ENERGIAN OIL AND GAS / TRAJAN OIL & GAS LTD and its yield is estimated at between 3 and 5 million barrels. The revenues for the Greek State from the above areas were estimated at around 18 billion Euro[75]. However, the announcements that were announced did not go ahead, without the reasons being made public.

One area that will be of vital interest in the future is the extraction and exploitation of methane hydrates that are in large quantities in the south of Crete and Kastellorizo. Furthermore, the location of hydrocarbon deposits in the Nile Delta region gives hope that in the southeastern region of Crete to Egypt, which is a northern extension of the Herodotus basin, there will be huge hydrocarbon deposits. This estimate was reinforced by the professor of the Technical University of Crete, A. Foskolos, who estimates that the energy potential of southeastern Crete can exceed 20 billion barrels with a horizon of exploitation in the next 25 years.

Several areas in Greece to this day remain unexplored due to their non-delimitation. What needs to be done is to conduct surveys to determine the existence of deposits. The delimitation of the maritime zones of Greece will result in the exploitation / utilization of the underwater wealth that is likely to be located. Greece will benefit significantly from the above development, due to its geostrategic position so its troubled economy will improve. In the case that the Greek State secures about one percentage between 20-30% of the value of the quantity produced, then the economic benefit for the Greek state could amount to several billions of euros[76].

Systematic mapping of international institutes shows that in the region of Crete there are large reserves of hydrates that are probably methane molecules trapped

inside a crystalline structure that resembles that of ice. That is why they are also called "frozen" natural gas. Under normal circumstances one cubic meter of hydrate, when it comes to the surface, becomes 67 cubic meters. Within the oil industry, hydrates are called "deposits of the next 20 years". The oil company ExxonMobil is the largest and fourth in a row, multinational company operating in Greece. Total and Edison are already participating in the concessions made to ELPE, while a few months ago the Spanish Repsol77 took over a share from the concession of Ioannina to Energean. Other multinational companies such as ENI, Statoil and Shell took part in discussions with Greek companies. Representatives of the multinationals attended the Globa Oil and Gas Europe and Mediterranean conference held in Athens on September 26-28, 2017. The conference also hosted the regional conference of the American Geological Society, the largest petroleum geologists organization in the world, with 20,000 members active in the energy industry in 129 countries.

[74] *Manos, A., 'Utilizing our comparative advantages: Aeolian wind potential', From the NTUA Conference on: "On the path of vision", 09-04-2010 and Vassiliadis, I., 'How necessary and feasible is it the Marine Wind Parks in Greece? ', Capital.gr, 21-12-2011.*

[75] *www.protothema.gr/economy/article/378785/mauros-hrusos-eos-kai-18-dis-euro-se Ioannina-Patraiko- kai- katακolo.*

[76] *Nikolaou, K., 'Truths and lies about the research and production of hydrocarbons in Greece', Energypress, 21-03-2012.*

[77] *Nikolaou, K., 'Exploration for hydrocarbon deposits in marine zones of Greece and Cyprus and the policy of neighboring countries', Kathimerini, 28-02-2010, http://news.kathimerini.gr/4dcgi/_w_articles_economy_1_28/02/ 2010_392333*

CHAPTER 2

METHOD OF REGISTRATION RIGHTS

2.1 The relationship of the EEZ with the Continental Shelf

Most of the States that establish EEZs also have a separate legal status of the continental shelf, which pre-existed under the 1958 Continental Shelf Convention. According to article. 56 par.3 of the Convention, the seabed and subsoil of the EEZ are governed by the status of the continental shelf78.

The continental shelf exists by itself and does not need to be declared. The rights on the continental shelf exist regardless of whether the coastal State declares an EEZ. However, the State must make a declaration to be able to acquire the rights provided for its EEZ79. Therefore, the rights of EEZ depend on the explicit declaration and establishment of the zone and "a State may have a continental shelf without an EEZ, but the opposite is not possible". The main question that arises is whether the status of the EEZ has absorbed the corresponding status of the continental shelf. What applies is that these are "two autonomous regimes that are complementary and not exclusive". Therefore, the status of the continental shelf is maintained and covers the seabed and subsoil up to a distance of 200 nautical miles. [80]

According to article. 76 of the Convention, “the continental shelf extends beyond 200 nautical miles from the shore, to the outer limit of the reef, when it exceeds 200 nautical miles and in some cases reaches 350 nautical miles from the coast ". On the contrary, under no circumstances does the range of the EEZ exceed 200 nm. The two zones cover a seabed and subsoil area of 200 nm wide from the shore (or rather from the baselines). The difference is that *the EEZ covers the seabed, the subsoil and the surface waters while the continental shelf grants rights only to the seabed and the subsoil.* The relationship of the EEZ with the continental shelf presents many

peculiarities. The similarities and differences between the two regimes will be analyzed below.

Initially, both regimes "grant the coastal State identical rights over its seabed and subsoil, up to 200 nm". [81] The main difference of the EEZ from the continental shelf in fact is that by virtue of article. 56 of the Convention, the coastal State establishing the EEZ exercises special sovereign rights of exploration, exploitation, management, on its seabed, subsoil, but also in the above-mentioned sea waters ("sovereign rights aimed at the exploration of natural resources"). As a result, the rights cover not only non-living natural resources (ie minerals), but also living (mainly fisheries). On the other hand, the regime of the continental shelf mainly concerns non-living resources, with the exception of sedentary species, which as living resources are part of its status. Another difference is that according to article. 77 of the Convention, the rights to the continental shelf referred to as "sovereign rights for the purpose of its exploration" exist and are maintained regardless of whether the coastal State explores or exploits the continental shelf, while in the case of the EEZ it needs to be declared. That is, "the EEZ, as a legal right of a State, is wider than the continental shelf, but They overlap geographically ". In the EEZ "there is no reference to the 'natural extension' of the land and in general to the geophysical factors of the seabed" [82].

The special sovereign rights of coastal States with EEZs are to explore, exploit, manage, living and non-natural resources from the sea surface to the seabed and its subsoil. At the same time, the status of the EEZ includes (except for surface waters) the seabed and subsoil up to 200 nautical miles, thus, based on articles. 56+57 par. 1 and of the Convention it covers the same seabed and subsoil area, up to 200 nm. On the other hand, the rights related to the seabed and its subsoil,

(ie for oil and gas fields) there are no specified regulations within the EEZ, but the provisions for the continental shelf apply in accordance with article. 56 par.3 of the Convention[83].

According to article. 60 and 80 of the Convention, to exercise of rights of exploration and exploitation of natural resources is not subject to restrictions in the case of the continental shelf. In this sense, the rights of the coastal State are exclusive and absolute. Therefore, there may be a serious "comparative advantage" of the continental shelf over the EEZ, "as any activity of third parties, namely the State, companies or the respective research bodies, depends entirely on the consent of the coastal state", according to article. 77 par. 2 of the Convention.

In the continental shelf the rights of the State exist automatically, while in the EEZ the rights are exercised after the declaration of the zone[84]. The right to explore and exploit natural resources in the seabed and subsoil of a country, according to the Law of the Sea, is covered by the EEZ and the continental shelf, as defined by article. 246 of the Convention[85].

Both zones intend to economically exploit the marine of a State. Within the EEZ in the coastal State there is "exclusive competence for other activities that are primarily related to the economic exploitation of the zone (i.e. construction of artificial islands/ ,marine scientific research, protection from pollution), while on the continental shelf the responsibilities of the coastal State are limited only to the construction of artificial islands, facilities and structures related to the exploitation of the seabed and subsoil ".

Under the continental shelf regime, all States are legalized to lay pipelines on the continental shelf, but their actions are subject to the consent of the coastal States, according to section. 79 par.3 of the Convention. On the contrary, article 58 of the Convention does not explicitly state a requirement for such consent[86].

Undoubtedly, the most crucial point for both the continental shelf and the EEZ is the

issue of delimitation with neighboring countries[87]. The relevant provisions of article. 74 for the EEZ are identical to those of article 83 for the delimitation of the continental shelf based on the delimitation and delineation of the EEZ done under the same geographical conditions and with the same procedures that apply to the continental shelf. The delimitation is done on the basis of an agreement, which should lead to a fair solution. However, this does not mean that all cases are treated in the same way. A common border may be established for both zones, but the maritime borders may not coincide. Generally it is not considered practical to have different maritime borders, as this could create problems of jurisdiction and control between the two States. Most States delimit the EEZ and the Continental Shelf by applying the principles of the middle line and equal distance to establish a common boundary[88]. In addition, the EEZ boundary line would not differ from the continental shelf boundary line if it had preceded it. In the event of a dispute, the matter is addressed to the competent judicial body (i.e. the International Court of Justice) to decide on a common border for both zones. However, the court takes into account the special circumstances of each case impartially.

Additionally, the relationship of the EEZ with the other maritime zones will be described below in order to create a complete picture of their boundaries and the changes brought about by its establishment.

The EEZ is one of the zones established for the management of the seas by the international community. These zones are interconnected; creating relationships that influence States politically and economically.

[78] *Karakostanoglou, The Exclusive Economic Zone, ibid., P. 145*

[79] *Ioannou - Strati, Law of the Sea, ibid., Pp. 195-196*

[80] *ibid., P. 36*

[81] *Karakostanoglou, The Exclusive Economic Zone, 1998, p. 115*

[82] *ibid., Pp. 114 - 118*

[83] *ibid., P. 118*

[84] *ibid., Pp. 117-119*

[85] *ibid., P. 120*

[86] *With the exception of the rights to hydrocarbons which are fully and automatically secured only by the non-continental shelf.*

[87] *Karakostanoglou, The Exclusive Economic Zone, 1998, ibid., Pp. 118-119*

[88] *Between Greece which is a party to the Convention and Turkey as with any other state which is not a part, only the customary rules apply., Karakostanoglou, The Exclusive Economic Zone, 1998, ibid., pp. 76-77*

The criterion of distance as a customary rule

The decision of 3 July 1985 in the Libyan-Malta continental shelf case.

Following a series of considerations concerning the continental shelf and the EEZ, the International Court of Justice has ruled that: *"For legal and practical reasons, the distance criterion must now be applied to both the continental shelf and the exclusive economic zone, regardless of the provision for the distance in paragraph 1 of article 75 (Convention DT). This does not imply that the natural extension is reversed by distance. What is implied is that when the continental shelf does not extend up to 200 miles from the coast, despite its natural origins throughout its history, it has evolved into a complex and legal concept, and is defined in part by the distance from the shore, regardless of the physical nature of the intermediate seabed and subsoil. The concepts of natural extension and distance are not opposite but complementary. Both remain key factors for the legal concept of the continental shelf »*[89]. The International Court of Justice continued: *"Since the development of law enables a state to claim that*

its continental shelf extends up to 200 nautical miles from its coast," there is no reason to give any reason geological or geophysical factors within this distance either to verify the legal title of the States concerned, or to delimit (the area) on the basis of their claim for areas at the distance of 200 miles from the coast the (legal) title depends solely on the distance and the geological or geomorphological characteristics of these areas are completely irrelevant ".

Therefore for up to 200 miles from the coast, the geological criterion is not taken into account, while the criterion of distance was part of customary law, i.e. it is applied independently of the formal application of the Convention.

[89] *Libya-Malta Continental Shelf, Case, ICJ, Rep 1985, 13, Paragraph 34, http: // www.icj-icj.orgThe principle of equal distance in the Libyan-Malta continental shelf*

The principle of equal distance in the Libyan-Malta continental shelf

The International Court of Justice enacted that the rule of equal distance is not a customary one. In the Libya / Malta continental shelf delimitation case, more than 70 transnational mid-line delimitation agreements were submitted to the International Court of Justice. In its judgment, however, the International Court of Justice declared that:

"It does not approve of a rule that dictates the use of equal distance as compulsory" [90].

Finally, in the Libya / Malta case, the International Court of Justice ruled that when two coasts are opposite, applying the principle of equal distance ensures a prima facie fair result.

[90] *Par. 39 and 44*

Middle and lateral line

As early as the first Conference on the Law of the Sea in 1958, the so-called middle distance principle (middle and lateral line) was established as the established rule and method of delimitation, with the exception of some special circumstances. Driven by the Geneva Conventions, the middle line and equal distance are different methods. It is necessary to emphasize that in essence one is the principle, that of equal distance, it is simply translated and used differently in the case of neighboring States and differently in the case of opposing States. The median line is the line whose point has the same distance from the nearest points of the base lines, from which of course the territorial waters are measured. This concept concerns the coasts of countries facing each other and essentially the middle line defines the way of delimitation between the two respective states. By drawing the middle line, the countries in question share exactly the sea or submarine area between them. On the other hand, when two States do not have opposite but adjacent coasts, then there is talk of using and drawing the so-called lateral line (equidistance). In the case of the lateral line again the equal part of sea or submarine area that each of the adjacent States is entitled to, is measured from the nearest baseline points. The above arose from the belief that fair delimitation is the drawing of a line exactly in the middle of the relevant sea or submarine area.

However, the International Court of Justice, in its decision on the North Sea continental shelf, seems to have rejected the main allegations of the parties States.

It considered that the rule of equal distance is not a customary rule and hastened to clarify that ..: ".. .. it is true that no other method of delimitation has the same combination of practical convenience and certainty of application" [91].

Finally, it was decided that the delimitation should be based on: "..agreement, in accordance with lenient principles, taking into account all the relevant circumstances in such a way as to leave as much as possible to each party, those parts of the Continental Shelf that constitute a physical extension of its terrestrial territory, in and under the sea, without overlapping in the natural extension of the terrestrial territory of the other party .. ».

Summing up with the above judgment, the International Court of Justice, on the one hand, substantially reduced the principle of equal distance from its high pedestal to the delimitation of the continental shelf, while on the other hand, cut off the so-called "special circumstances" from their conventional application of the specific delimitation method. It is a fact, however, that initially the International Court of Justice, in order to deal with the concept of natural extension itself, arbitrarily renamed various parameters and elements into "relevant circumstances" and with their new name deemed it necessary to re-evaluate them in each case of delimitation. .

[91] *Ioannou K, Strati A., "Law of the Sea", ANT Publications. N. SAKKOULA, ATHENS - KOMOTINI, 1998, p. 307*

Subsequent international case law

Regarding the subsequent international case law, the International Court of Justice, in relation to the delimitation of the continental shelf, followed the delimitation method that was put into operation in the case of the North Sea Continental Shelf. With this move it did not accept the obligation of any specific formal method of delimitation in

customary law and considered the middle line and the line of equal distance as one of many possible delimitation methods. A typical example might be the drawing of a line perpendicular to the general direction of the coasts or the drawing of a boundary line extending to an existing division of territorial waters. A correct observation was: "The middle line is not a legal method, it is not, of course, a rule of law, it is simply a technical line superimposed on a legal method, the method of the principles of justice." Finally, the practice of States, indifferent to case law trends, seems to have reduced the equal distance to a primary rule of delimitation. A typical example is the delimitation of the Libyan-Malta continental shelf, during which more than 70 transnational delimitation agreements based on the midline were submitted to the International Court of Justice.

The same methodology was followed by the International Court of Justice in their decision for the delimitation of the sea area between Greenland and Jan Mayen, where it delineated the middle line as a temporary delimitation line, in order to then make the necessary adjustments. However, the latter decision was a milestone, as the International Court of Justice recognized the regulatory character of the mid-line method, declared it in principle and adopted it almost automatically at the preliminary stage of delimitation. The act was immediate without first resorting to criteria of fairness. This practice was applied in the case of Libyan-Malta continental shelf. Taking into account the assessments of the International Court of Justice, when the coasts of two States are facing each other, the application of the line of equal distance ensures a prima facie fair result[92].

[92] *Maritime Law Convention par. 23*

Special and relevant circumstances

The terms special circumstances or relevant circumstances have been widely used in international delimitation case law. These terms, although acoustically identical, are not identical.

Regarding the origin of these two concepts, reference was made to circumstances for the first time in the Conventions of the First UN Conference on the Law of the Sea and specifically in Article 12 (1) of the Convention on the Coastal Zone and the Border Zone in article 6 (1) and (2) of the Convention for the continental shelf.

The term specialist, which identifies the first category, was given in order to exclude the overall assessment of circumstances or any circumstances. More specifically, special circumstances are defined as geomorphological elements of the area to be delimitated, which are directly related to the area in question and are estimated in the delimitations as elements of the actual, ie geographical environment (factual matrix), where delimitation must be made. Essentially special are the circumstances where the application of the principle of equal distance may cause inequalities other than those that may be created by geography anyway. In essence, simple circumstances become special when the application of a particular delimitation method creates inequalities. In order to avoid an unequal result, the "special circumstances" are applied in order to set aside in a specific case the rule, that it is an independent method of delimitation. With this tactic, of course, in no way does it mean that the applicable rule will be set aside. Their operation essentially presupposes that, without their consideration, the result of the delimitation would be unequal and at the same time unfair. As it is typically mentioned the smoothing of the strict application of the middle line and the right of deviation from it in those points of the delimitation where the special circumstances apply has been the primary goal of the international

legislator. The delineation of the boundary line is simply adapted to the specific requirements of the space[93]. It is a fact, however, the application of special circumstances presents many difficulties and often leads to legal disputes and ambiguities.

On the other side of the coin are the relevant circumstances. As mentioned above, the terms relevant and special circumstances are not identical. The special circumstances in particular apply at the beginning of equal distance. In contrast to the special, the relevant circumstances are intertwined with a fair method of delimitation, that is, the application of a fairer solution and not just one that would function as an exception, for example a special circumstance. The term of the relevant circumstances was adopted in international case law with the decision of the International Court of Justice in the case of the North Sea Continent. It should be noted, of course, that the concept of fair principles and relevant circumstances is a creation of the International Court of Justice, without precedent in the practice of States. Speaking of modern international law, any attempt to define the concept of fairness or leniency would be in vain. According to the American internationalist Schachter, there is no institution in international law that resists a precise definition as the institution of leniency.

Regarding the legal status of fairness / leniency, which applies to the delimitation of maritime zones, the International Court of Justice in its judgment in the Libyan / Tunisian continental shelf case found that throughout the history of legal systems, the term "equity" was used to identify various legal concepts. The notion of leniency has often been contrasted with the rigid rules of positive law, in order for justice to be done. Of course, we must point out that the concept of leniency / fairness is not governed by the more general concept of justice that tends to characterize law. The institutionalization of the "fair solution" as a fundamental goal of the delimitation and the silence of the draft ICC as to the rule of the principle of equal distance seems

to have had a significant impact on the judicial interpretation of fairness and consequently the "fair / lenient principles". ». "There is no systematic definition of equitable criteria that can be taken into account for an international maritime delimitation. In any case, this would be difficult a priori, due highly variable adaptability in specific circumstances ", as the International Court of Justice characteristically states in its decision on the case of delimitation of the Maritime Border in the area of the Gulf of Maine[94]. The Court was led to believe that "lenient / fair criteria" are determined on the basis of the geographical features of the area[95]. Of course, the above, regardless of the names given to them by the International Court of Justice, are essential criteria that have nothing to do with the concept of fairness / leniency. The International court in its decision in the case of the delimitation of the Libyan / Malta Continental Shelf attempted a greater specification of the "equitable principles" with an indicative negative inventory of the principles that do not fall into the above category. This list is mainly contained in paragraphs 45 and 46 of the Convention and is as follows:

• The principle that there is no question of reconstructing geography or compensating for the "inequalities" caused by nature

• The principle of no encroachment from one part of the physical extension of the other

• The principle of respect for the relevant circumstances

• The principle that fairness does not necessarily imply equality, despite the fact that all states are considered equal before the law and are entitled to equal treatment

• The principle that justice does not seek to equate what is inherently unequal

• The principle that delimitation is not based on distributive justice.96

[93] *As characteristically mentioned by Mr. Rozakis*

[94] *Ioannou K, Strati A., "Law of the Sea", ANT Publications. N. SAKKOULA, ATHENS - KOMOTINI, 1998, pp. 312-313*

[95] *Contract Paragraph 157*

[96] *Contract Paragraph 59*

The concept of leniency in international law and its change through the Convention

The nature of international relations does not always make it possible to resolve cases on the basis of formal, absolute rules of law. This is addressed by the introduction of general clauses, which are characterized by a high degree of vagueness, in order to allow decision-making to be differentiated according to the peculiarity of the current situation, as well as the introduction of general principles of international law.
Logical axioms such as the principles of leniency, fairness and justice, despite their abstract form, find application in international court decisions.

According to Aristotle, because laws are set by the legislator in general, without providing for the existence of exceptional situations, the application of law should be done in order to achieve a fair result[97] and the principle of leniency should be used by judges in order to liberalize the application of the law and prevent injustices. Something that is achieved either with application of legislative leniency[98] or by application of judicial leniency[99].

In modern international practice, a new form of leniency is emerging that goes beyond the classical concept and is now synonymous with justice and equality between states with varying degrees of economic development. Reference to this new concept of leniency and its related concepts is made through Article 59 of the Convention of DTH100.

In cases where the Convention does not provide rights or jurisdiction offshore or in other States in the EEZ and there is a conflict of State interests article 59 of the Convention stipulates that this dispute should be settled on the basis of the principle of fairness, depending on the circumstances and taking into account the importance of these interests for the parties at dispute .

[97] *see. ICT case Nicaragua v. Colombia 2012, para 139: «The Court considers that the principles of maritime delimitation enshrined in Articles 74 and 83 and the legal regime of islands set out in UNCLOS Article 121 reflect customary international law»*

[98] *A fair result according to Aristotle is what the legislator would have sought if he had in mind the exceptional case.*

[99] *Legislative leniency: filling in gaps in the law, Judicial leniency: interpreting the law in such a way as to achieve either derogations from existing rules of law or mitigation of the strictness of the applicable rule, or adaptation of the rule to changing circumstances. 1988)*

[100] *Convention of the IA Article 59 "δια the dispute should be settled on the basis of the principle of fairness…"*

The principles of lenience

The principles of leniency relied on by the parties are general in nature, the most commonly stated are as follows:

• The delimitation should be done in accordance with International Law[101]

• The principle of non-encroachment by one party on the physical extension of the other[102]

• The principle of avoiding, as far as possible, any cut-off of sea access to the coasts of the parties[103]

The delimitation should be done applying the criteria of the principles of leniency and using methods that can ensure the correlations with the geology of the area and lead to a fair result[104]

• The principle of leniency is also the equal separation, between the areas that claim the Continental Shelf, but overlap

[101] *see. DC Convention 1982, Article 83 para. 1, North Sea Case, ICJ Reports 1969, pp. 46-48, para. 85-87, p. 53, para. 101, Maine Bay Boundary Case, ICJ Reports 1984 , pp. 292-3, para. 90, p. 299, para. 112, Libya-Malta Case (1985) ICJ Reports 1985, p. 39, para. 46*

[102] *see North Sea Case, ICJ Reports 1969, pp.46-47, para. 85, p. 53, para. 101, Maine Bay Boundary Case, ICJ Reports 1984, pp. 312-313, p. Libya-Malta 1985, ICJ Reports 1985, p. 39, par. 46*

[103] *Cf. DC Convention 1982, Article 83 para. 1, North Sea Case, ICJ Reports 1969, pp. 46-48, para. 85-87, p. 53, para. 101, Maine Bay Boundary Case, ICJ Reports 1984 , pp. 292-3, para. 90, p. 299, para. 110,pp312-313. Para.157,p.p.328, para196, p. 335, para. 219, Guinea and Guinea-Bissau case, 77 ILR p. 635-681, para.*

[104] *see Maine Bay Boundary Case, ICJ Reports 1984, pp. 299-300, para. 111; Libya-Malta Case 1985, pp. 38-39, para. 45, p.p.57 para.79*

The concept of non-encroachment

The notion of non-infringement has been introduced into the North Sea continental shelf law by the International Court of Justice and applies when there is a common continental shelf. In these cases the "natural extension" does not play a significant role, since the continental shelf is the natural extension of each of the parties. Therefore, the natural extension as the non-encroachment on the coast extension does not matter so much. The concept of non-encroachment or otherwise not cutting off part of the continental shelf is found in the case law of the International Court of

Justice, where it appears as a principle of leniency, but also as a relevant circumstance.

In the operative part of that judgment, the Court held that the delimitation should take place: “.. in such a way as to leave for each party more parts of the Continental Shelf that constitute the natural extension of its terrestrial territory, in and under the sea without encroaching on the natural extension of the terrestrial territory of the other .. ”[105]. In the Libya / Malta case, in fact, the DD ruled that the notion of non-encroachment by one party on the physical extension of the other: “.. is nothing more than a negative finding of a positive rule .. enjoys sovereign rights on the continental shelf off its coast to the full extent provided for by international law, under the relevant circumstances .. ”. [106]

A degree of cut-off effect of the coastal state by part of the natural continental shelf is possible if it is considered as inherent in any delimitation. The notion of "no cutting off" by the continental shelf, in the case law of the International Court of Justice, appears as a fair principle and as a special circumstance. Somehow in the case Tunisia-Libya continental shelf, the court ruled that the issue of cut-off effect is relevant only in the context of applying a geometric method of delimitation, such as that of equal distance. This function was not applied in the present case, therefore the Court held that the concept of non-cutting was not a relevant circumstance[107].

Furthermore, in the case of the delimitation of the frontier sea in the area of the Gulf of Maine, the Chamber of the Court rejected the designation of the above concept as a just principle[108]. It considered it merely as a fair criterion which offered some assistance, which can be used in the form of a correction in cases where the application of the main criterion leads to the cutting off of all or part of the coastline in the sea area. Nevertheless, these conditions may be fair / lenient criteria[109].

[105] *Article 46 of the Convention*

[106] *Article 76 of the Convention*

[107] *Article 196 of the Convention*

[108] *Article 110 of the Convention*

[109] *Ioannou K, Strati A., "Law of the Sea", ANT Publications. N. SAKKOULA, ATHENS* - KOMOTINI 1998, *pp. 327-328*

2.2. Delimitation of maritime zones

The process of determining the boundaries of the maritime zones of each coastal State must done in accordance with the rules of international law, otherwise the State will not be able to oppose its delimitation line to neighboring States. Due to the increasing complexity to define the outer boundaries of maritime zones in areas where the coasts of coastal States are close, in recent years we have seen rapid progress in arrangements for the delimitation of maritime zones between states. Difficulties in the process of determining the boundaries of maritime zones, which lead States to settlements or to the International Courts of Justice. These difficulties are encountered when defining boundaries between different categories of zones belong to the same State; zones of one State and non-sovereign zones and zones dominated by different States.

For the delimitation of maritime borders between States on opposite or adjacent coasts, there is a possibility that the negotiations will reach a positive result with the consent of the States and the possibility of a non-agreementt between them. In the event that after negotiations there is no internationally recognized agreement between the countries a de facto delimitation line is drawn.

The delineation of a boundary line is common after the increase of the claims of maritime zones beyond the seashore. Claims of the States have increased

significantly following the concept of Exclusive Economic Zones and the adoption of the Convention of the IA. To date, there are a number of cases that deal with the delimitation of EEZs of neighboring States, while the existence of islands located a short distance from the maritime border between two States is the main problem in the disputes between them. One observes from the commentary of the cases that reached the courtrooms (some of which we will see in the next section), that the majority of cases are solved with the principle of equal distance / middle line which makes this principle a commonly accepted practice of customary international law.

2.2.1 Concept and elements of maritime zoning

It is well known that every coastal State takes care to define the boundaries of the maritime zones that surround it, through its internal jurisprudence, up to the maximum limit that international law makes it possible and acceptable. Is this process is necessary? the answer is absolutely yes, since it is the most immediate and valid way for coastal States to validate and specify their responsibilities and, in addition, to notify third countries about the geographical boundaries , within the framework set by international law.

Unilateral delimitation by a coastal State does not create difficulties and disputes since the geographical location of each coastal State allows the exhaustion of the permissible ceiling widths of each marine or submarine zone, without overlapping the corresponding zones of other States. Of course, in most cases political geography has created neighboring States, which are obliged to share the sea areas they are entitled to. For example, each coastal state can define a border zone up to 24 nautical miles. However, if there is another coastal State on the opposite coast, then that sea area is

not enough for these two States to make the most out of their territorial waters, resulting in difficulties and disputes. The same, of course, applies to all other cases of maritime and submarine zones, where the coasts of the coastal States are at a distance less than the width of the maritime zone that each state is entitled to. For this reason, the delimitation of certain border lines, which will define the respective maritime zones of the neighboring coastal states, has become a necessary tool.

The delimitation of maritime zones is a particularly complex process in terms of land delimitation, because beyond land shores, islands, rocks and reefs (ie natural elements), which could be the starting points, there is no other reference point that could contribute to this effort. The process is therefore completed using geographical coordinates. In fact we have to take into account the fact that in some submarine areas it is not even possible to diagnose the geomorphology of the subsoil with the naked eye. So for all of the above, including the legal problems that arise, the delimitation process is by no means a simple process plan.

One point worth noting in the whole delimitation process is the fact that in the present case law, there is a tendency to associate jurisdiction in maritime zones with concepts specific to territorial sovereignty, such as the concept of maritime territory, which in any case applies to the definition of maritime boundary or maritime boundary 110.

In recent years, from approximately 35 cases adjudicated by the International Court of Justice, 17 concerned maritime law issues that were indirectly or directly related to delimitation issues. It is therefore easy to see the importance of the concept of maritime delimitation and its enactment around the legal framework.

[110] *Ioannou K-Strati A., "Law of the Sea", ANT Publications. N. SAKKOULA ATHENS - KOMOTINI 1998, p.303*

2.2.2 Delimitation as an international process

The main maritime delimitation process shall be carried out with the agreement of the States concerned. The fact that States may not reach an agreement does not necessarily mean that they are opposed to one. It is a very common phenomenon for States to consider certain parts of the sea their own and some geographical lines as de facto delimitation lines. In case the States fail to make a compromise, international disputes arise, which by definition tend to be considered legal and subject to a judicial settlement, as the International Court of Justice ruled in its decision on the Aegean Continent. From another point of view, the delimitation of maritime zones between states that have adjacent or opposite coasts is always an object of international character. The fact that the delimitation process is an act, albeit unilateral but directly intertwined with international law, was also noted by the International Court of Justice on 12 October 1984,in the case of the Marine Border Delimitation in the Maine Bay Area (paragraph. 112) [111].

[111] *According to the judgment of the International Court of Justice in the Fisheries Case of 18 December 1951: 'The delimitation of maritime zones has an international aspect and cannot depend solely on the will of the coastal State, as expressed in its domestic law . Although it is true that for a delimitation act a unilateral act is necessary, since only the coastal state has the competence to validate the delimitation of other states, depending on international law. " book "Law of the Sea", Ioannou K, Strati A., ANT Publications. N. SAKKOULA ATHENS - KOMOTINI 1998*

2.2.3 Delimitation method that basically prevails in the Eastern Mediterranean and some specific remarks

To a large extent, the agreements in the Eastern Mediterranean are settled on the principle of middle distance - middle line, either strictly or with deviations, depending

on the circumstance in which the question is addressed. There are, of course, cases where States, for reasons of expediency, follow a different method from what they have stated. A typical example is the agreement between Turkey and the Soviet Union on the delimitation of the Continental Shelf in 1978, where the the "principle of fairness" is outlined as the delimitation method, while in fact the delimitation line did not deviate from the middle distance line.

Tri-national points

It is a fact that the Contracting States have always avoided delimiting the continental shelf and the EEZ, that other States wished to claim or when in contact with the continental shelf / EEZ of third States. For this reason, it is a common phenomenon that the delimitations do not extend to tri-national points even if at each point there is no question of delimitation, claim or further relevant dispute. The agreement could be considered key examples for the delimitation agreement of the Greek-Italian continental shelf in 1977 and the delimitation agreement of Egypt-Cyprus and Cyprus-Lebanon in 2007 for an economic exclusive zone[112].

[112] *Anastasia G. Strati, "Greek maritime zones and delimitations with neighboring countries, LEGAL LIBRARY 2012, p. 91*

Factors taken into account when delimiting the Eastern Mediterranean

As in all regions of the Mediterranean, in the east, States are free to decide on the criteria and conditions to conclude a delimitation agreement. However, an attempt has been made to reconcile the key factors involved to conclude a delimitation agreement. The key factors are: geographical, geological and geophysical , submarine

oil and gas fields, fisheries, islands, safety issues, baselines, dispute resolution clauses.

2.2.4 Delimitation of the EEZ and the continental shelf between States

The addition of the exclusive economic zone as a new zone of jurisdiction outside the seashore, offers after its delimitation, the possibility of exploiting the marine wealth of the seabed and its subsoil. For fishing use, exploitation of natural energy generated by the movement of water and winds and exploitation of the seabed and subsoil as defined in Section VI of the 1982 Convention for the Continental Shelf (Article 56 §3). However, unlike the continental shelf which is a natural right of the coastal State, for the delimitation of the EEZ a State should express interest in creating it and provided that the sea level in the area has this possibility, coastal State 200 nautical miles from the baselines[113] as defined in Article 57 of the Convention as the exclusive economic zone[114].

[113] see Economidis K., Basic Regulations of the New Law of the Sea, 1985, pp.175-182

[114] see Articles 56-57 of the Convention of the TC

EEZ delimitation between adjacent or object states

The delimitation of the EEZ between two or more neighboring States

The delimitation of the EEZ between two or more neighboring States whose maritime borders are less than 400 nautical miles marks the declaration of an EEZ of 200 nautical miles impossible, Article 74 of the 1982. Convention. According to this article:

The delimitation of the EEZ between adjacent or opposite States is initially carried out in accordance with the established principle of International Law agreement between

the States, in accordance with Article 38 of the Statute of the International Court of Justice, so as to reach a fair solution.

- If the States concerned cannot reach an agreement within a reasonable time, then they should seek international jurisdiction either through the ICC or through a joint arbitral tribunal or conciliation panel, as provided for in the dispute settlement procedure in Part XV of Contract115.
- As long as an agreement under paragraph 1 is pending, the States concerned should make every effort of conciliation and cooperation to reach interim arrangements of a practical nature - during this period - so as not to jeopardize or prevent a final agreement from being reached. These arrangements do not affect the final delimitation
- When there is an agreement in force between neighboring States, the issues related to the delimitation of their EEZs will be determined on the basis of the provisions of this agreement.

It is noteworthy that the delimitation of overlapping EEZs is governed by the same provisions as the Convention for the delimitation of overlapping continental shelfs in article 83. However, we must emphasize that articles 74 and 83 of the 1982 Convention only specify the desired result, without specifying a specific method for delimiting overlapping continental shelf or EEZ. This was a compromise between the two prevailing views at the Third Conference on the Law of the Sea, where a group of States argued that delimitation should be based on the principles of fairness, where relevant circumstances can be invoked[116], while another group of States wanted the principle of mean / equal distance of special circumstances as a method of delimitation. This principle was enshrined in Article 6 of the 1958 Geneva Convention on the Continental Shelf, which states:

- Boundaries between opposite States are defined by the rule of the midline, each point is equal distant from the nearest points of the baselines from which the breadth of the territorial sea of each of these States is measured (Article 6 paragraph1).
- Boundaries between adjacent States are determined by applying the principle of equal distance from the nearest points of the baselines from which the width of the territorial sea of each of these States is measured (Article 6, paragraph 2).

According to the 1958 Geneva Convention for the Continental Shelf, the above rules apply only in the absence of an agreement between the States concerned and unless special circumstances justify a different definition of these limits. It is not mandatory, as it is not a rule of customary law for States to ratify the 1958 Geneva Convention on the Continental Shelf, the rule of equal distance referred to in Article 6 (2) (delimitation of a continental shelf between adjacent States). On the contrary, the rule of the average distance in paragraph 1 of Article 6 (delimitation of the continental shelf between States concerned) is now considered part of customary law, following the ruling of the International Court of Justice on the delimitation of the continental shelf and the EEZ between Greenland and the island of Jan Mayen Norway) 117. In addition, it is noted that in the 1982 Convention, the concept of special circumstances appears only in article 15, which deals with the delimitation of the territorial sea between neighboring States, without specifying which circumstances are considered special. The issue of recognizing the full right of territorial sea, border zone, continental shelf or EEZ in the islands has been treated in some cases as a special circumstance.

[115]*The principles of fairness / relevant circumstances first appear in the North Sea Continental Shelf Case, where the Court held that the principle of average / equal distance is not the preferred principle*

under customary law, but merely one of the methods of delimitation (North Sea Continental Shelf, Judgment, ICJ Reports 1969, p. 53, par. 101).

[116] According to Article 15: when the coasts of two States are adjacent or opposite each other, neither State shall be entitled to extend its coastal zone beyond the middle, unless there is an agreement of the contrary. Each point which is equal distant from the nearest points of the baseline, from which the width of the territorial waters of each of the two States is measured. This provision does not apply, however, in cases of historical titles or other special circumstances, which make it necessary to delimit the coastal zone of the two States in a different way.

[117] Venezuela - Netherlands Antilles, Limits in the Seas, No 105 Maritime Boundaries: Colombia-Dominican Republic & Neth. Antilles- Venezuela, 1986, pp. 4-5. The Netherlands Antilles was given a smaller sea area than the average distance principle.

The legal nature of the delimitation

The Exclusive Economic Zone (EEZ) is relatively new and an important development in the Law of the Sea mainly at a geopolitical and economic level, although several countries have not proceeded to delimit it.

According to the New Maritime Law Agreement (1982), each coastal state has the right to declare its EEZ, up to 200 nautical miles, if and when there is a free ocean, otherwise the EEZ, reaches the middle line or the middle distance of the opposite country, from the baseline - the point where the territorial waters begin.

Within the EEZ the coastal State can exercise extensive powers in principle for economic reasons, hence the name "exclusive economic zone". In these States, specific rights and freedoms are recognized at the same time.

The law of the sea basically refers to two fundamental zones in the maritime area as follows: the territorial waters, in which the coastal State exercises sovereignty and the high sea, which is freely accessible for use and no State has sovereignty therefore,

there is freedom of exploitation from the other countries, "res communis omnium". The area of national jurisdiction includes the inland waters of each State. Following another zone came to surface: the special fishing zone and a fourth submarine zone- the continental shelf.

With the recent establishment of the EEZ, the continental shelf changed its name and width and the international seabed is established, as a zone equivalent to the continental shelf which is now a common heritage of mankind[118]. Each coastal country may determine by law its maritime boundaries, but without exceeding the maximum boundaries allowed by International law. When its coastal country is allowed to exhaust the width limits of each of its marine or submarine zones, without at the same time overlapping any marine zone, then this delimitation does not cause problems. In order to avoid any friction, the extent of the seabed can be calculated and an imaginary adjacent State is marked. A typical example is the Fisheries Case between Norway and the United Kingdom in 1955. In this case, the International Court of Justice in The Hague noted that "the delimitation of maritime space is always of international character", that being the will of the coastal State as defined in domestic law. Unless there is any relevant agreement this process has no possibility to increase, abolish or reduce this right.

We must emphasize that the definitions of delimitation, distribution and separation differ from each other. Delimitation aims to activate a process of institutionalizing; a right in a maritime area and it differs from the distribution by which an isomeric distribution of a previously unbounded zone is granted. Due to the different goals of delimitation and distribution, the procedures followed are different. Separation is a clearer process, as it involves separating a border or identifying border lines by various means, a process that precedes delimitation.

The distinction between distribution and delimitation was dealt with by the International Court of Justice in the North Sea Continental Shelf Case (1969) and was a point of reference in the evolution of the continental shelf law[119].

Therefore, the delimitation of the maritime zone is very difficult due to lack of natural elements in the sea, which could be positive points. In fact, in the areas below the sea surface, the geomorphology of the soil is impossible to perceive with the naked eye. In matters concerning the delimitation of maritime zones of national sovereignty, on the one hand there is a prohibition by law, i.e. in those cases where States delimit rules of law and on the other hand there is a prohibition by the courts.

With delimitation, the sea limit is chosen through an imaginary line, where the sovereignty and jurisdiction of one State ends, the sovereignty of another begins. Regarding the delimitation of national or inland waters, the coastal and bordering / continuous zone, the continental shelf and the EEZ, the following problems have been observed:

1. The delimitation during the process of selecting a suitable maritime area, 2. Final determination of the imaginary line, 3.The marking and the final identification of the imaginary line. From the above it appears that the following cases can occur: a) delimitation of different categories of zones belonging to the same country, b) delimitation of the outer boundary of a maritime zone, i.e. declaration by a zone State national sovereignty (territorial waters) and then national jurisdiction, when the State is in such a geographical position that it can, under the law of the sea, claim the boundaries of its maritime zones to the fullest extent possible, (c) delimitation between States to clarify the boundaries between them, when they are in a geographical location where zones overlap, either because their coasts are opposite to each other or because their coasts are adjacent.

[118] Emmanuel Roukouna, International Law, issue two, second edition, published by Antonis Sakkoulas, Athens-Komotini 2006, pp.79-92

[119] *North Sea Continental Shelf Case (1969), ICJ Rep.*

EEZ delimitations of the countries of the southeastern Mediterranean basin

The Mediterranean belongs, according to article 122 of the ICC, to the category of semi-enclosed seas, which states the following: "closed or semi-enclosed sea is a bay, basin or sea, surrounded by two or more States and is connected to another sea or ocean by a narrow strip, or it consists wholly or exclusively of territorial waters and economic zones of two or more States'

As far as the southeastern Mediterranean is concerned, most of its States have declared EEZs. More specifically, similar legal action have been taken by: Cyprus, Syria, Lebanon, Israel and Egypt.[120]

It is worth noting that Turkey, as a State in the southeastern Mediterranean, has also declared an EEZ. in 1986, however, it is not in the Mediterranean, but in the Black Sea.

As far as bilateral delimitations in the Mediterranean are concerned, they show the following peculiarity: in practice, States do not delimitate unilaterally, but through negotiations; parts of the legal continental shelf concerning third countries, so as not to touch the delimitation of the triennial point[121]. This was applied both to the borders of Cyprus with Egypt (2003), avoiding the tri-national point between Cyprus - Greece - Turkey (the issue of influence or not of Kastelorizo), and between Cyprus and Lebanon (2007), avoiding the tri-national point Cyprus - Lebanon - Israel, while the southern end stops at 5 nautical miles south of the tri-national point Cyprus - Lebanon - Syria. In the bilateral delimitation between Cyprus and Israel (2010). The above practice was not observed, resulting in a reaction from Lebanon; having a legitimate interest. The following are the specific characteristics of energy in the southeastern Mediterranean.

[120] *A. Syrigos, «Exploration & exploitation activities in the Eastern Mediterranean, from the International Law point of view», Institute of Energy of South East Europe, p.10, available at https://www.iene.gr/workshop-for -hydrocarbon / articlefiles / session1 / Syrigos.pdf*

[121] *P. Liakoura, "Bilateral agreements for the delimitation of the continental shelf in the Mediterranean", in the work of G. Tsaltas & C. Anagnostou, ibid., Pp. 325, 339, 340*

History of the continental shelf delimitation between Greece and Turkey

History of the continental shelf delimitation between Greece and Turkey

The issue of delimitation of a continental shelf in the Aegean Sea between Greece and Turkey began in November 1973, when Turkey unilaterally published in the Government Gazette the map with 26 submarine areas of Greek archipelagos in the north eastern Aegean, for which it had issued a permit to the oil company TRAO to conduct exploration for hydrocarbon deposits. The tension peaked in 1974-1976, when the Turkish oceanographers Chandarli and Hora continued their research, despite the constant communications from Greece. Finally in August 1976, Greece appealed to the UN Security Council122. and in IFRS 123, in order to intervene. The Security Council, in its unanimous decision of 395/1976, considers that peace and security in the region are threatened and called on the two States to reduce tensions in order to facilitate the negotiation process. They appealed to the competent bodies and in particular to the IGC. to resolve legal issues that may arise while trying to resolve the dispute between them[124].

In its appeal to the ICC, Greece requested temporary protection measures and the cessation of research activities and the issuance of new licenses by both countries in the disputed areas, until the dispute between the two States was resolved. It also asked the Court to instruct the two countries not to take military action that could jeopardize their peaceful relations[125]. Finally, the ICC, in its decision on December 19,

1978 (par. 109), ruled that it had no jurisdiction to hear the case, however they acknowledged that there was a legal dispute over the Aegean Continent126. It is noted that Turkey did not participate in the hearings and did not submit counter-proposals regarding the Greek positions, considering the ICRC incompetent to trial the case127. To date, no agreement has been reached. However, according to the official positions of the Turkish Ministry of Foreign Affairs128, it seems that Turkey is delimitating the total area of the Aegean Sea beyond 6 nautical miles of the territorial sea of mainland Greece and the Aegean islands, a fact that could mean that it does not recognize the islands the right to a continental shelf.

Turkey is not a party member at the 1982 Convention, unlike Greece, but wants its maritime borders with neighboring States to be based on customary law and the principles of fairness / relevant circumstances. Greece, as a party member at the 1982 Convention, wants the delimitation to be based on the principle of average distance. In addition, Turkey considers the islands to be relevant circumstances without the right to a continental shelf / EEZ, which makes it difficult to bridge the differences between the two countries. For these reasons, Greece's future appeal to either the ICC or the International Court of Justice for the Law of the Sea, which is deemed to have more jurisdiction over this issue, is considered possible, if the negotiations between the two countries are fruitless.

Finally, we must emphasize the fact that Turkey has selectively declared an EEZ in the Black Sea, which is a closed sea, this invalidates all its arguments that the Aegean and the Mediterranean are special cases as semi-enclosed seas, where the equal distant method is not applicable. Finally, the prospect of Turkey's future accession to the European Union must not be forgotten. In this case, Turkey would have to ratify

the 1982 Convention, as the EU has ratified it since 10 December 2012 and it is now part of the acquistion , which must be complied with by all its Member States[129].

[122] *http://www.mfa.gr/zitimata-ellinotourkikon-sheseon/eidikotera-keimena/thalassia-sinora.html*

[123] *Verbal Communications S / 12167- 10/08/1976 and S / 12173-12-08-1976*

[124] *Application of 10th August 1976, ICJ Aegean Continental Shelf Case*

[125] *SC / UN Resolution 395/1976, http: // daccess-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/294/83/IMG/NR029483.pdf?OpenElement*

[126] *Application of 10th August 1976, pp. 63-66*

[127] *Decision of 19-12-1978, paras. 16-31, ICJ Aegean Continental Shelf Case*

[128] *Letter dated 26 August 1976 from Turkey to the ICC*

[129] *http://www.mfa.gov.tr/the-delimitation-of-the-aegean-continental-shelf.en.mfa*

The delimitation of the Aegean continental shelf

The issue of the continental shelf concerns the delimitation of exclusive jurisdiction between the two coastal countries in the Aegean Sea. The issue remains unresolved; it has not been resolved in the standard ways used between coastal countries, such as:

*by a transnational agreement following negotiations between the coastal countries which may require a third party involvement, i.e. mediation, conciliation or good services,

*by a court decision of the International Court of Justice in The Hague or an arbitray tribunal.

*by combining these two processes, namely the political and judicial forms of peaceful settlement of disputes.

Turkey, as the events have shown so far, is asking for almost half of the Aegean continental shelf, which is contrary to international conventions and customs. That is why this problem is controversial between the two countries, as it is associated with the exploitation of the natural resources of the Aegean. For Greece, the delimitation of the continental shelf can be done by referring it to the International Court of Justice in The Hague, after the so-called co-binding agreement is signed between the two countries, which will be simple, without terms and conditions and enabling the International Court of Justice to apply of the rules provided for in article 38 as recommended by the UN Security Council. However, in order for Turkey to accept the referral of the issue to The Hague, it has outrageous demands, which, Greece will never accept, (such as the waiver of the right to extend our territorial waters, the extension which it considers a casus belli and waiver of the right of the islands in their continental shelf.

The issue of the continental shelf appeared as a dispute in 1970, although it pre-existed as an unresolved dispute. According to Greece, the issue was first raised by Turkey in November 1973 when the Turkish government issued oil exploration permits for about half of the Aegean to a State-owned company. The Greek government (during the junta) responds with a verbal statement and states Greece's position on the basis of the international customary law.

Turkey in turn responds with its own statement and claims for the first time extension of the territorial area of Central Asia to the Aegean. In other words, it accepts the geological meaning of the continental shelf, but this does not adhere to the rights nor to the Geneva agreement.

In March 1976, Turkey begins new challenges and in September sends its exploration

vessel HORA (Seismic-I) to the Aegean. HORA violates the Greek continental shelf and the Greek government protests intensively. HORA continues its provocative investigations in disputed areas.

According to Turkey, the case started earlier, when research was carried out by Greece in the early 1970s in areas of the high seas. However, the kick-off belongs to the Greek side, with the research in the area of Thassos in 1970. In the early years of the change of government, it was accepted that there is a discrepancy- the main one in the Aegean - that can be resolved following the procedures and decisions of the International Court of Justice in The Hague.

Let us now turn to the arguments of both sides. Greece supports:

* that the islands have a continental shelf based on International Law

* that the most appropriate method for its delimitation is the middle line between the Greek islands of the eastern Aegean and the Turkish beaches

* that issues related to the continental shelf, as with other issues related to the law of the sea, where Turkey is not a State party to the corresponding treaties (Geneva Convention ; the continental shelf 1958 and Convention on the Law of the Sea, Montego Bay 1982), the relevant rules as part of general customary international law must apply.

Turkey opposes that the issue is mainly political, not because it has no legal aspect, but because the existing rules do not create the appropriate framework to resolve the dispute in a fair manner. In other words, a legal solution would be detriment of a fair solution. Instead, the negotiation process will take into account both the legal and political aspects of the dispute. Therefore, it would be possible to find a satisfactory

solution that would be more in line with justice for both sides. Turkey uses legal reasoning, and during the 1970s it did not seem to completely rule out a judicial settlement. Turkey's legal arguments are as follows:

* the islands of the eastern Aegean are a geological-natural extension of Anatolia, they are outcrops of the seabed on the natural extension of the Turkish territory and, therefore, are not entitled to a continental shelf

*Special circumstances": the islands of the eastern Aegean are so close to the Turkish coast that the middle line could not apply, because Turkey with a large front in sea, would be with no continental shelf, something manifestly unjust,

* under these special conditions the middle line, if implemented, should be the middle ground between the mainland territories of Greece and Turkey,

*the Aegean due to its configuration and its islands is a semi-enclosed sea that needs special regulations and the rules concerning continental shelf do not apply to it, since it is not a State party to the relevant international conventions.

Finally, Turkey argues that, in these circumstances, the applicable procedure must be based on the principle of fairness, which is not only accepted by the International Court of Justice as an alternative way of resolving disputes but has also been used in continental shelf cases (e.g. in the North Sea continental shelf) [130].

[130] *Mylona, Thalis, Turkey on the margins of international law, Papazisis publications, Athens, 1991, p.26*

The criterion of proportionality

Proportionality is also included in the "fair principles" (equitable principles) governing delimitations. An equitable solution cannot be understood when it causes disparities between the States concerned. The element of proportionality refers mainly to the

consideration of the factor "extent of the States of the respective States, in the area to be delimited". However, the question of whether an exact mathematical relationship between the total length of the shores and the final delimitation should be applied is debatable. Essentially the main use of the proportionality criterion is to assess whether the provisional result reached by a court is fair, in the sense of the comparability of the coast length. Its secondary use is an auxiliary criterion for the delimitation process.
The importance of proportionality was emphasized in the operative part of the judgment of the International Tribunal for the North Sea[131], as well as in the International Arbitration for the delimitation of the English Channel. Of course, it was discussed more in the case of the Libyan / Malta Continental Shelf.
In the latter judgment, the International Court of Justice did not accept the automatic mathematical function of proportionality[132] It did, however, refer to a "test of a reasonable degree of proportionality", to which any delimitation solution is submitted in order to establish, among other factors, its fairness. If we look at it from another angle, this reasonable degree of proportionality can also mean that it would be good to avoid a blatant disproportion. The delimitation of the sea area between Greenland and Jan Mayen, is another typical example in which the International Court of Justice did not embrace the automatic mathematical function of proportionality. In the present case, the International Court of Justice has adopted a solution in which the division of the maritime area between the opposing States was far from the proportion of the respective coastlines. In the case of Saint Pierre and Miquelon, on the other hand, the Arbitral Tribunal accepted the automatic mathematical function of proportionality as its solution[133].

[131] *Paragraph 101 / D / 3*

[132] *Paragraph 58*

[133] *Ioannou K, Strati A., "Law of the Sea", ANT Publications. N. SAKKOULA ATHENS - KOMOTINI 1998, p. 329*

2.4 COUNTRIES WITH GEOGRAPHICAL STRENGTH

In places where there is a geographical narrowness, and neighboring States are at a distance of less than 400 nautical miles, then the States concerned, irrespective if they have adopted the ICC Convention, on the basis of customary law and in accordance with Article 38 of the Charter, may request the Security Council to make recommendations with a view to achieve a peaceful settlement. In cases where a peaceful settlement is not reached within a reasonable time and both States have ratified the Convention, the States shall settle their dispute using Part XV of the 1982 Convention "for the settlement of disputes" (Article 74 §2). .The lack of rules in the 1982 Convention on the delimitation of the EEZ in cases of geographical narrowness leads States to seek an agreement, on the sole condition that an agreement between them is a fair solution. However, through the case law of the International Court of Justice in The Hague and the Court of the Law of the Sea of Hamburg, States have been establishing rules of international law.

According to Article 70 of the ICC Convention, geographically disadvantaged States have the right to participate, on an equal footing, in the exploitation of a proportionate share of the surplus living resources of the exclusive economic zones of the coastal States of the same sub-region or region, taking into account the relevant economic and geographical conditions of all the States concerned.

"Geographically disadvantaged States" are defined as coastal States, including coastal or semi-closed coastal States, whose geographical morphology makes them dependent on the exploitation of the living resources of the exclusive economic zones

of other States in the sub -region or region for the supply of fish - the food needs of their populations, as well as coastal States which cannot claim their own exclusive economic zones.

Geographically disadvantaged developed States shall be entitled to participate in the Utilization / exploitation of living resources, in accordance with the provisions of this article, only in the exclusive economic zones of the developed coastal States of the same sub-region or region. By granting other countries access to the living resources of its exclusive economic zone it has taken into account the need to minimize the harmful effects on fishing communities as well as the economic restructuring of the States whose nationals normally fish in the zone.

According to Article 87 of the Convention, the high seas are free for all States, even for landlocked countries. This freedom includes landlocked countries:

(a) freedom of navigation

b) freedom of overflight

c) the freedom to install submarine cables and pipelines

(d) the freedom to build artificial islands and other facilities permitted under international law

(e) freedom of fishing;

(f) freedom of scientific research

As stated in article 125 of the Convention in paragraph 1, the landlocked States shall have access to and by sea for the purpose of exercising the rights provided for in this Convention, including those relating to the freedom of the high seas and the common heritage of mankind. To this end, landlocked States shall enjoy freedom of passage through the territory of the States of transit by all means of transport.

Necessity of concluding an agreement

According to paragraph 2 of the above article, the conditions and ways of exercising free passage will be agreed between the landlocked States and the States of transit concerned, by bilateral, sub-regional or regional agreements.

Restrictions on freedom of passage

Finally, article 125 .3 3 stipulates that transit States, in exercising their full sovereignty over their territory, have the right to take all necessary measures to ensure that the rights and facilities provided for coastal States do not in any way infringe on their legitimate interests. [134]

Exemption from the application of the clause of the rather favored State

Pursuant to article 126, the provisions of the ICC Convention, as well as the special agreements relating to exercising of the right of access to and from the sea, which establish rights and facilities due to the special geographical location of the landlocked States, are excluded from application of the clause of the favored State.

Equal treatment in seaports

Under Article 131 of the Convention, ships flying the flag of landlocked States shall be treated in the same way as other foreign ships in seaports.

Access to the area

According to Article 140 of the ICC Convention, activities in the region are carried out for the benefit of humanity – amongst other reasons - for landlocked States, taking

into account the interests and needs of developing countries and people who have not gained full independence or any other self-governing status recognized by the United Nations.

The authority ensures the fair distribution of monetary and other financial benefits arising from activities in the area, through an appropriate mechanism and based on the principle of non-discrimination, as defined in paragraph 2 of the above article.

The area shall be used exclusively for peaceful purposes by all States, coastal or landlocked, without discrimination or prejudice in accordance with article 141 of the Convention.

Finally, according to article 148, substantial participation is encouraged in the activities of developing countries in the region, as expressly provided herein, taking into account their interests and needs, especially the special need of distant landlocked areas that have difficulties accessing and departing.

[134.] *K.Ioannou- A.Strati, Law of the Sea, 4th edition, Law Library, p.339 ff.*

The Practice of States

The nature and powers conferred on the EEZ have led States to declare their EEZ and to adapt their legislation to the provisions of the Convention, a practice which has established customary law. Despite the fact that the strategic and economic interests of the United States and the former Soviet Union were intertwined by the EEZ, the two superpowers declared that they decided to comply with their laws in accordance with the provisions of the Convention[135].

With the proclamation of President Reagan in 10/03/1983, the USA replaced the EEZ with its fishing conservation zone and a year later the former Soviet Union declares an EEZ. Many States followed the same path by establishing EEZs. After 1982, the need to harmonize the national laws of different States under the Convention grew, so the

majority of coastal States declared jurisdictions of 200 nautical miles, and replaced the fishing zones with the EEZ. The need for exclusive control of catches by coastal States has led to the common acceptance of the EEZ institution. However, there are still several countries that have not established EEZs. The main reason is the lack of technical and administrative capacity for its implementation, but also that the exploitation of marine resources is not a national priority for all States. Also, for several countries it becomes geographically impossible to claim an EEZ or it may create major delimitation problems- as is the case of Greece, where there is already a dispute with Turkey over the delimitation of a continental shelf[136].

The fact is that no State can prevent a coastal State from declaring an EEZ. The coastal State, respecting its existing international agreements, may establish an EEZ when it deems it necessary. As far as the Islands are concerned, according to article 121, par. 2 of the Convention, they have the same sovereign rights and jurisdiction, that is, they have EEZs, just like the mainland territories. The only exception is rocks that cannot sustain human or economic life. The rocks are not entitled to either an EEZ or a continental shelf (Article 121, paragraph 3). Therefore, the practice of States is legally modest, which is due to the legal nature sui generis of the EEZ137.

In summary, the practice of the States has been determined by international case law and specifically by the judgments of the permanent international courts, namely the International Court of Justice (The Hague) and the International Court of Justice (Maritime Law) (Hamburg). The recourse of the States to the above international courts resulted in the creation of rules of International Law governing the delimitation of the EEZ and the continental shelf. Firstly, international case law has accepted that the principles set out in Articles 74 and 83 produce customary international law.

Consequently, the party members are bound by the Convention and the third countries (non parts).

Additionally, the delimitation between EEZ and continental shelf is not differentiated. The tendency is to make a common delimitation of these zones, but without generalizing this framework. Finally, according to case law, the delimitation method consists of a qualifying stage and three main ones for its finalization. This means that the coasts related to the delimitation are initially sought, the projection at sea creates an overlap with the projection of the coasts of the opposite State. The length of the shores to be delimitated is of major importance because it determines the numerical relationship between the two shores, so it also determines the sea area bordering an EEZ or continental shelf.

After determining the relevant coasts and the relevant sea area, three main delimitation stages follow. First of all, the Court sets out a temporary line, including the islands. For the opposite States it is the middle line and for the neighboring ones it is the middle distance line. It is usually possible to define a middle line geographically, but in the Nicaragua-Honduras case, this was not possible and the International Court of Justice proceeded to another method of delimitation. Following, relevant circumstances are considered, and the middle line is adjusted temporarily in order to achieve fair delimitation.

Relevant circumstances are defined as: the length of the coasts of the States involved, their proportion, the geographical conditions of the region, the presence of islands in the delimitated area, etc., as well as various requests from States, such as safety and various navigation issues. As far as State practice is concerned, political factors play an important role in the delimitation process; the relationship between the States concerned, overflights and navigation interests, resource extraction activities, the

impact of the sea border on the establishment of a continental shelf, EEZ or fishing zone, environmental and geographical considerations such as the use of islands, cliffs and delimitation base points. Mainly safety reasons related to proximity, navigation and over flights lead States to equal boundary line delimitation.

International courts emphasize to apply of the idea of leniency to maritime delimitation abandoning economic circumstances, unless such a thing could have disastrous consequences for the survival and economic prosperity of the States involved. Political factors also play a key role when choosing the maritime border for negotiation. However, it is not documented that the courts are influenced by political factors during the delimitation.

In addition, the Court has emphasized that the delimitation criterion is the criterion of the distance of 200 nautical miles and not the natural land-sea relationship; which is why Nicaragua's claim that the Colombian islands were on its continental shelf was rejected.

The final stage of delimitation is that which verifies if a fair result could be achieved. The existence of islands in the delimitated area and their calculation in the delimitation process plays an important role in the delimitation process. In par. 2 of article 121 of the 1982 Convention it is stipulated that islands have the same right as the mainland in all maritime zones, with the exception of the rocky islets. In paragraph 3 of article 121 of the 1982 Convention it stipulates that the rocky islets, which are uninhabitable and have no economic life, do not have continental shelf and the EEZ, but are entitled territorial waters.

While the rights of the islands are unquestionable, it is usually the practice of the courts that damages them. Those islands on the wrong side of the provisional midfield were disregarded or wronged. Even islands that were part of the geographical

delimitation framework, such as Jan Mayen, were wronged, taking into account the disparity of coastline length as a relevant circumstance. It is worth noting that the vast majority of States have taken care and delimited EEZs. Those countries that have not yet delimited it, lack the necessary technical and administrative experience for its establishment, or their exploitation of marine resources is not of utmost importance. Also, claiming an EEZ may be geographically impossible and finally the fear of possible problems and conflicts from neighboring States could become a serious deterrent.

In conclusion, the practice of States has not led to a specific rule due to the numerous circumstances, geographical, etc., so no rule is inferred regarding the provision of a maritime border. Nevertheless, international case law based on the decisions of the courts has led to the creation of a customary law. Also, the existence of islands, rocks and islets are an important and multifaceted factor in delimitation. Even the courts deliberately avoided generalization in order to create a general rule but considered each case separately with respect to the circumstances and always with the aim of achieving a fair result for everyone.

The practice of the States proves that the principle of equal distance (middle line / lateral line) applies to the delimitations of the sea zones, which also applies to the islands and aims at a fair result of the delimitation through the application of the principles of leniency. Conventional practice of States favors the application of a single limit through the adoption of a common border for more than one maritime zone, a practice which is in accordance with Articles 74 and 83 of the 1982 Convention No. 139 of the Court of Justice in the case:

Nicaragua v. Colombia Territorial and Maritime Delimination between Nicaragua and the Honduras in the Carribean Sea, (Nicaragua v. Honduras) I.C.J Reports 2007138.

[135] *Cr. Ioannou, Anast. Strati, Law of the Sea, 4th edition, Law Library, pp. 168-169*

[136] *Karakostanoglou Benjamin, "Exclusive Economic Zone: International Institutional Framework and Applications through International Practice", in Grigoris I. Tsaltas- Christos L. Anagnostou (eds.), Aegean and Southeast Eastern Mediterranean , published by Sideris, Athens 2014, pp. 206-207*

[137] *Karakostanoglou, V., "Aegean and Exclusive Economic Zone, Perrakis, St., (ed.), International Law and International Politics, Volume 16, Paratiritis, Thessaloniki, 1989, pp. 121-153*

138 ibid., Pp. 206 – 209

CHAPTER 3

ENERGY SECURITY OF SEE COUNTRIES EUROPE

3.1 RESEARCH-MINING-EXPLOITATION

The energy pipelines of the countries of the southeastern Mediterranean

The European Council, in October 2014, during the debate on the 'Energy and Climate Package for the year 2030', mutually agreed on the implementation of Projects of Common Interest (PCI) projects in the gas sector, such as : [139]

1)The Southern Gas Corridor

2) the corridor that will connect the North with the South,

3) the promotion of a new gas hub in Eastern Europe, in order to ensure the diversification of energy suppliers, routes and the smooth operation of the market.

The term Southern Gas Corridor (SGC) is used by the European Commission to describe planned infrastructure projects aimed at promoting security and diversifying the EU's energy supply through the transport of natural gas from the Caspian region in Europe.

[139] *A. Dagoumas, "Key Priorities for the EU: Energy Security, Internal Energy Market and Climate Change - The Case of Greece", in the work of S. Kalantzakos & N. Farantouris, Energy & Environmental Transformations in a Globalizing World: An Interdisciplinary Dialogue, Nomiki Bibliothiki Publications, 2015, p.103*

EU Southern Gas Corridor: SCP, TANAP and TAP pipelines

As the first section of the Corridor, the SCP pipeline, does not concern Mediterranean countries, a study was conducted only the other two pipelines, TANAP and TAP.

The goal of the Anatolian Trans-Anatolian Pipeline (TANAP) is to transport gas from the Shah Deniz-2 field in Azerbaijan and other Caspian fields to Turkey and Europe[140]. The pipeline has a length of 1,850 km, with its route starting from the Turkish border with Georgia and ending at the border with Greece, in the Ipsala area of Edirne. There it is connected to TAP, in order to supply gas to Europe.

The Trans Adriatic Pipeline (TAP) is a gas pipeline project that will transport gas from the Caspian region to Europe, as follows: [141]

The TAP will be interconnected with the Anatolia TANAP gas pipeline at the Greek-Turkish border and will pass through Northern Greece, Albania and the Adriatic Sea, before reaching the coasts of Southern Italy, where it will be connected to the Italian natural gas network. More specifically, the TAP route will be 878 km long as follows:

1) Greece 550 km.

2) Albania 215 km.

3) Adriatic Sea 105 km and

4) Italy 8 km.

When its construction is completed, TAP will open the vital 4,000 km South Gas Corridor, which stretches from

the Caspian Sea to Europe. That is why it was selected by the European Commission as a Project of Common Interest (P.C.I.) in 2013, 2015 and 2017.

TAP's initial capacity of 10 billion cubic meters of gas per year is enough to cover the energy consumed by around seven million households in Europe. At the end of August 2019, the TAP project was 89.3% complete.

An additional way to ensure the diversification of energy suppliers and routes to the EU is the EastMed pipeline that follows.

[140] *view. https://www.tanap.com/tanap-project/why- tanap /*

[141] *view.https: //www.tap-ag.gr/%CE%9A%CE%B1%CF%84%CE%B1%CF%83%CE%BA%CE%B5%CF%8 5% CE% AE-% CF% 84% CE% BF% CF% 85-% CE% B1% CE% B3% CF% 89% CE% B3% CE% BF% CF% 8D /% CE% A0% CF% 81% CF % 8C% CE% BF% CE% B4% CE% BF% CF% 82-% CE% BA% CE% B1% CF% 84% CE% B1% CF% 83% CE% BA% CE% B5% CF% 85% CE% AE% CF% 82*

The EastMed pipeline

For the offshore exploitation of the seabed the following are used: [142]

(A) offshore storage facilities, including vessels used for this purpose (Floating Production Storage and Offloading Systems FPSO);

B) offshore loading stations and transport systems for the extracted products, such as offshore loading terminals and transport systems for the extracted products, such as submarine pipelines.

The Eastmed (EASTern MEDiterranean pipeline) is, for the most part, an underwater pipeline.

Submarine pipelines, and obviously their international legal treatment, are not

considered a subset of the energy infrastructure, but as a manifestation of ius communicationis (right of communication), which is one of the main pillars of the international system[143].

More specifically, 87 the project includes 1,300 km of sea pipelines and 600 km of land pipelines. In more detail:

A) 200 km of sea pipeline from the sources of the eastern Mediterranean to Cyprus

B) 700 km of sea pipeline connecting Cyprus with Crete

C) 400 km of sea pipeline from Crete to the Peloponnese

D) 600 km of land pipeline, which crosses the Peloponnese and Western Greece.

The EastMed project was designed to transport 10 bcm per year from the gas reserves of the Levantine Basin (Cyprus and Israel), initially to Greece and finally to Italy and other Southeastern European countries. In addition, the pipeline will allow the supply of Cyprus' internal consumption with an additional 1 bcm per year.

The pipeline is pre-designed so that it has exit points, among others, in Cyprus, Crete and Central Greece.

Indicative of the strong political support enjoyed by the pipeline, is the fact that on 07/08/2019 the inter-ministerial meeting of Greece - Cyprus - Israel - USA took place in Athens, regarding the cooperation in the field of energy, where the countries reaffirmed their support for the EastMed144 pipeline. The relevant Interministerial Agreement was finalized between Greece, Cyprus, Israel and Italy in December 2018, and received the approval of the European Commission in February 2019, while all the interested parties are expected to sign the agreement.

However, the project, although ambitious, is expected to face financial and political obstacles, as it is estimated that it will require a high capital investment of between $ 4-6 billion, due to technical challenges, such as crossing the pipeline from the very

deep 3 km of southern Crete, while Turkey is exerting diplomatic pressure on Israel, so that the energy of these deposits can pass through the existing Turkish pipelines[145]. The EU's energy dependence from the Arab-Muslim countries, which are in a particularly sensitive political and geostrategic transitions (Egypt, Algeria, Libya, Tunisia) and from countries such as Russia, with intense geostrategic competition with the United Kingdom-US it places pressure on the west and the Anglo-Saxon States to turn to the deposits of Cyprus, Greece and Israel[146].

As far as the legal status of submarine pipelines is concerned, under Article 87 of the ICC, "freedom of installation of submarine cables and pipelines" is one of the freedoms of the high seas, with only a restriction on the provisions on coastal powers. on the continental shelf in Part VI of the Convention. This provision practically means that the pipelines located on the outer continental shelf of States, after the end of the limit of 200 nautical miles, are regulated by the provisions of the continental shelf and not by those on the high seas (article 114 D.Th.).

The coastal State is obliged, under article 79.1 of the ICC, to allow third party pipelines to pass through its continental shelf. However, if the pipelines might be hampered by exploration and exploitation of the natural resources of the coastal continental shelf, the right of third parties is restricted. As these pipelines can cause pollution, the coastal State has the right to take reasonable measures to prevent and suppress any pollution caused by them (Article 79.2 of the ICC). The coastal State is entitled to give its approval in determining the exact course of the pipelines that cross its continental shelf (article 79.3 D.Th.). Finally, when laying submarine cables or pipelines, States should take into account the corresponding infrastructure that has already been installed (Article 79.5 of the ICC).

[143] *see V. Athanasopoulou, "Floating platforms for oil and gas extraction - The need for international legislation", edited by N. Farantouri, Energy: Networks & Infrastructure, Law Library Publications, 2014, p. 448*

[144] *see M. Gavouneli, Energy Facilities at Sea, Law Library Publications, 2016, p. 107*

[145] *see http://www.igi-poseidon.com/en/eastmed*

[146] *see. Hellenic Ministry of Environment, Energy and Climate Change (YPEKA), Joint Statement of the Energy Ministerial Conference Greece - Cyprus - Israel - USA, http://www.ypeka.gr/Default.aspx ? tabid = 389 & sni [524] = 6490 & language = el-GR*

The Russian pipeline South Stream

The South Stream project aims to build a 63 bcm pipeline along the Black Sea, to southern and central Europe, to diversify gas export routes and eliminate transit risks.

The pipeline is aimed at transporting Russian gas through the Black Sea, first to Bulgaria and then to several EU countries, following a number of different routes, as presented by the above figure. The case of interest in this study concerns the route Russia - Bulgaria - Greece - Italy. The total length of the gas transmission system will be approximately 2,506 km.

It is worth noting here that Russia has been criticized, that this pipeline is not commercially viable, due to its high cost and that it is an instrument of geo-economic strategy to achieve the following objectives: [147]

A) securing Russian influence in Ukraine, having the opportunity :

1.To deprive its transit revenue and 2.To reduce its role as a transit State between Russia and the EU market.

B) maintaining the dominant share of the Russian company Gazprom in the EU.

C) maintaining the Russian sphere of influence in the EU member States, which depend on Russian energy

D) undermining European unity and solidarity in the fields of energy and foreign policy.

Russia, in the past has consecutively used energy as a geopolitical "weapon". Typical examples are the energy crises of 2006, 2009 and 2014, between Russia and Ukraine, which had a direct impact on the EU in general. Ukraine is the transit hub of Russian gas, heading to central and southern Europe. In these cases, Russia has abused the fact that it has exercised (and continues to exercise) a dominant geopolitical influence in the EU, resulting in the latter suffering from severe energy shortages, thus hampering in this manner its smooth operation. Therefore, in these cases, energy can also be used as a means of "coercion" by any State that opposes the achievement of the geopolitical aspirations of the State that possesses its natural energy resources.

Having analyzed the individual major energy pipelines of the countries of the south-eastern Mediterranean, it would be useful to look at them in combination, in order to draw some useful conclusions.

[147] *see http://www.gazprom.com/press/news/2014/february/article184145/*

Energy pipelines of southeastern Mediterranean states: "the mother of battles" for the EU

Summarizing the main elements of the above energy pipelines, the following conclusions emerge:

1. The EU Southern Gas Corridor, through the three sub-pipelines SCP, TANAP and TAP, transports Azeri natural gas to Europe via the Azerbaijan-Turkey-Greece-Albania-Italy route.

2. EastMed transports Levantine gas, to Greece, Italy and possibly

Bulgaria and its owned by Cyprus and Israel.

3. South Stream transports Russian gas, following multiple routes, with different endings. The case that interests the study concerns the route Russia - Bulgaria - Greece - Italy.

At attempting a holistic approach to the above energy pipelines, the following is observed:

The SCP, TANAP and TAP pipelines are the southern corridor and supply gas to Europe, completely bypassing Russia and its States and the turbulent region of the Persian Gulf (mainly Iran and Iraq). The EU - USA dipole, their energy dependence on the energy reserves of Russia and the Persian Gulf is crucial. It is worth emphasizing here that both Greece and Turkey are winning, since they are becoming both regional transit hubs.

According to EastMed, what has been said about the southern gas corridor, regarding the energy independence of Brussels and America, from Russia and the Middle Eastern countries. The noticeable difference here is that, with the exception of Israel, it will be the only pipeline almost completely controlled by the EU, which significantly reduces its energy insecurity. However, in this pipeline, Greece will be a big winner, as it can become a transit hub. On the contrary, Turkey is completely bypassed, which has the following results:

1) Energy - burden on its energy security

2) Geopolitically - reduced influence in the EU special relationship - England - USA, as it moves away from its goal of becoming a regional ruler.

3) Financial - loss of royalties.

In the case of South Stream, yes, the EU does not depend on Middle East countries.

However, its energy dependence on Russia is growing even more. The good thing for Greece, of course, is that its geopolitical power in the EU is growing, while at the same time Turkey is receiving a triple blow, as mentioned above.

In summary, in two pipeline cases (EastMed and South Stream) only Greece benefits, while in the case of the southern gas corridor (SCP + TANAP + TAP), both Greece and Turkey benefit. Taking into account the fact that, as mentioned above, at the end of August 2019, the TAP project was completed by 89.3%, it is understood that in the near future Greece's power will strengthen on the geopolitical chessboard, as a prospective transit hub. This, provided, of course, that the previous sections of the pipeline, namely the SCP and Tanap pipelines, will be completed parallel

In addition, and especially in the case of energy pipelines, it is obvious why the eastern Mediterranean has the same characteristics of the phenomenon. And this, as mentioned above, is due to the large number of States that it is made up of,

their small geographical distance, the intensity of the interactions between them, but also the recognition of its uniqueness by big external players.

More specifically, with the exception of Turkey, which is large in size, all other States (Israel, Syria, Lebanon, Egypt, Cyprus and Greece) are relatively small in geographical area. This means that in a small coastal area, a fairly large number of States have been concentrated.

The intensity of the interrelationship between them now arises from years of unresolved issues such as those between Lebanon - Israel, Israel with the Palestinians in Gaza, the Greek - Turkish conflict, the Arab - Israeli conflict, the Cyprus issue and the Kurdish one.

In addition, the geopolitical importance of the pipelines of the Eastern Mediterranean is evident in the importance given to it by world-class forces, such as the United States and Russia.

In particular, it is not accidental that on 07/08/2019, the USA were part of the quadripartite inter-ministerial meeting between Greece - Cyprus - Israel, regarding energy cooperation, where the countries reaffirmed their support for the EastMed pipeline. This pipeline aims, to a large extent, to reduce the EU's energy dependence on Russian gas.

In addition, Russia's persistence in building the South Stream pipeline is remarkable, although it does not appear to be commercially viable. This is because, in this way, Russia is trying to further increase its political influence in the EU by exploiting the geopolitical energy game.

Finally, although the EU has made significant strides in strengthening its energy security through the growth of its alternative suppliers, it appears to remain largely vulnerable to Russia, as the latter continues to have a dominant geopolitical influence over it.

THE NEW ENERGY LANDSCAPE IN THE EASTERN MEDITERRANEAN

The role of the Eastern Mediterranean in international energy efficiency

The importance of the Eastern Mediterranean role globally and regionally has fluctuated over the last century: From the geostrategic importance of the Balkans and the Eastern Mediterranean during the Cold War, to their decline after the collapse of Soviet regimes, the parallel emergence of the geo-economic element, and finally in the modern return of the importance of the region, both from a geopolitical and from a geo-economic point of view, with the main axis being energy. Since the beginning of

the 20th century, global energy needs have constantly been increasing. This trend is due to a number of factors, such as the increase in world production, the industrialization of developing countries, the demands of the war industry, etc. Already after the oil crises in the 1970s, there is an increasing use of natural gas, enhanced by continuous technological advances, which contribute to the processes of deposit, extraction, processing, conversion, transport and distribution. With this shift, which has not yet allowed gas consumption to reach the level of oil consumption, although the gap is constantly shrinking, there is a redefinition of the energy geopolitical map. The importance of gas regions, such as Central Asia and the Eastern Mediterranean, is growing, while at the same time the form of gas supply, which is based in part on the construction of distribution pipelines, creates new interdependent relations, necessitating the exploitation of a a new form of diplomacy between the countries involved, pipeline diplomacy.

Currently, the main players in the Eastern Mediterranean are Cyprus, Egypt and Israel, as the disputed deposits of recent years have been discovered within the EEZs of these countries. The role of Turkey is also important, not only because of its foreign policy, which is characterized by revisionism, but also because of its emergence as an energy hub and an alternative supply artery for Europe, which is focused on diversifying resources. Libya and Syria are inactive due to political factors, while Lebanon is currently playing a small role in the developments. On the other side of Greece, between the West and East, The Mediterranean, the Adriatic Sea is also beginning to show activity, but there is no discovery similar to the Aphrodite, Zor, Tamar and Leviathan deposits, which put the Levantine Sea at the center of interest. Within this regional field, under the influence of the "Great Powers", the EU, the USA and Russia, Greece is also called to play the "big game of the 21st century", with a

difficult neighbor, to whom it adheres a firm foreign policy and several legal and diplomatic disputes.

3.2 The deposits of the Eastern Mediterranean

Tamar[148]

The discovery of natural gas in the Tamar field was announced on January 17, 2009. According to the description on the Delek Drilling site: "The Tamar field is located about 90 kilometers west of Haifa, at a total depth of about 5,000 meters below sea level. and in waters that have a depth of 1,700 meters. The field covers an area of 100 square kilometers, with the thickness of the tanks reaching 300 meters. The Tamar-1 exploration well, which reached a maximum depth of 4,875 meters below sea level, showed the presence of natural gas in a volume unprecedented in the Levantine and triggered the largest infrastructure project ever undertaken in Israel, with funding from the private sector."

The field provides more than 30 BCM per day, which has supplied Israel since 2013 with 50% of its electricity, including Israeli industry, electricity generation and drinking water desalination. Since 2017, Israel has been exporting Tamar gas to the Arab Potash Company and Jordan Bromine Company, via the Dead Sea, with a fifteen-year contract, while from 2018 there is export activity to the Egyptian company Dolphinus Holdings. In addition, Tamar gas is piped to Jordan and Egypt via the Pan-Arab pipeline, which crosses Jordan and connects Egyptian pipelines to the south.

Tamar Partners plan to drill three additional production wells, in addition to the existing five, in order to cover the growing demand of the Israeli economy and increase the export capacity of the sector.

[148] *see (https://www.delekdrilling.co.il/en/natural-gas/gas-fields/tamar, 2018)*

Leviathan

The Leviathan field is under construction and is estimated at 605 BCM, or two-thirds of the total gas resources discovered in the Israeli EEZ, and one of the largest finds in the world. Israel looks forward to Leviathan for significant economic benefits, economic growth and upgrading its geopolitical position, a position that is also confirmed by the size of the investment, which initially reaches $ 3.5 billion[149].

The original plan for the deposit aspires to allow the production of 21 BCM natural gas per year, i.e. twice Tamar's current production capacity. The facility will include four production wells, an offshore processing platform and an underwater pipeline, which will be connected to the INGL (Israeli Natural Gas Lines) pipelines to supply Israel and neighboring countries. The ultimate development goal is to increase the annual production capacity to 21 BCM, through the drilling of four additional production wells and the upgrading of the platform.

According to Delek Drilling, “The Leviathan deposit is expected to significantly increase its capacity to supply gas to the domestic market and to ensure energy sufficiency and security that cannot exist, as long as the economy depends on only one deposit (the Tamar deposit). "

In particular, when the Leviathan is connected to the INGL pipeline, the amount of natural gas available to the state of Israel for own consumption and export is expected to double, aiming for economic prosperity of the country and the wider region. Three sales agreements have already been signed with Israeli companies (Edeltech, IPM, Paz and Or Energies), as well as with the ICL (Israel Chemicals) group.

A sale agreement has also been signed with the Jordanian National Electricity Company (NEPCO) for the supply of approximately 45 BCM of gas over a 15-year period. With this agreement, Israel expects to improve bilateral relations with Jordan,

which is facing a serious energy crisis, after the cessation of gas flow from Egypt. However, there is also a contract with an Egyptian company, Dolphinus Holdings, which provides the supply of the Egyptian domestic market at 32 BCM per year for 12 years, with further agreements for the participation of Israeli companies in the Egyptian pipelines[150].

Leviathan can also supply gas to Cyprus, the Palestinian Authority and Turkey in the future. The ambition that the size of the deposit allows, in combination with the expectations of Cyprus for the development of the Aphrodite deposit, is the possibility of building a pipeline for Europe, a vision which takes the form of the so-called East Med at the moment. Although the vision of constructing such a pipeline is faced with various difficulties, such as the long distances of Cyprus-Crete-Mainland Greece (total length 1,900 km), the peculiarity of the seabed and the large depths (up to 3 km), Israel has stated that it is positive, under two conditions, the co-financing of the project by the EU and the "good communication" between Turkey and Cyprus.

Although the full potential of the field has not yet been calculated, it is estimated that at a depth of more than 7000 meters there is a 15% chance that 560 million barrels of oil will be found. In 2011 and 2012, drillings were made to locate him, but they have not yet succeeded.

[149] see (https://www.delekdrilling.co.il/en/natural-gas/gas-fields/leviathan, 2018)

[150] see (Https://www.naftemporiki.gr/finance/story/1290635/israil-duo-proupotheseis-gia-tin-kataskeui-tou-eastmed, 2017)

Aphrodite[151]

The Aphrodite gas field is located on the exploration plot 12 of the Cyprus EEZ, on the border with the Israeli EEZ (part of which belongs to it) and contains approximately

129 BCM of natural gas. More specifically, it is located 160 kilometers south of Limassol and 30 kilometers northwest of the Leviathan deposit, at a sea depth of about 1,700 meters. It was discovered after 116 days of drilling on plot A-1, which had started on September 20, 2011 and reached 5,860 meters. The discovery concerns an area of 120 sq.km., with a maximum stock density of 320 meters.

As this is the first discovery in the Cypriot EEZ, it is accompanied by a vision for economic growth, employment, ensuring energy self-sufficiency and independence, reducing air pollution and revenues for the Cypriot public sector.

Aphrodite owns 70% of American Noble Energy, and 15% each of Israel's Delek Drilling and Avner Oil and Gas. According to Delek Drilling "The development plan for the gas field is not yet final, but the most recent plan includes, in the first phase, five production wells with a high flow rate at a depth of 1,700 meters, which will reach different depths within the deposits a total depth of about 5,000 meters. "

The aim of the design is to allow the natural gas to be fed into the well, from the well to the seabed unit, which will be constructed at the seabed, and from the branch to the floating production unit, the processing, the storage and transport. Therefore, with an initial capacity of up to 800 BCM per day, it will be able to head to Cyprus and other export destinations.

The partners are interested in exporting Aphrodite gas, especially to Egypt. The Cypriot government has already signed a cooperation agreement with the Egyptian government. The aim is to export both to the Egyptian market and to the liquefaction facilities of private companies in the Egyptian territory, e.g. of Shell.

[151] *see. (Https://www.delekdrilling.co.il/en/natural-gas/gas- fields / aphrodite, 2018)*

Zor[152]

On August 30, 2015, the Italian energy company (EMI) announced the discovery of the Zor deposit in the EEZ of Egypt. The deposit was described as the largest ever discovered in the Mediterranean, as it covers an area of 100 sq.km. and is estimated to contain 30 trillion cubic feet of gas, which is more than Leviathan, which is estimated at 22 trillion cubic feet. It is located on the Sorouk plot, 190 km north of the coast of Egypt, on the line of the eastern border with the Cypriot EEZ and at a depth of 1,450 meters, near a significant hydrocarbon reserve.

EMI is 30% owned by the Italian government and is already active in Africa, where it is the largest oil and gas company. It has been active in Egypt since 1954, while in 1967 the IEOC subsidiary discovered the Abu Maadi deposit in the Nile Delta region. In addition, it has signed a $ 2 billion exploration agreement with the Egyptian Ministry of Energy for the Sinai, Gulf of Suez, Mediterranean and Nile Delta regions.

In addition, according to Stylianou, "the Zor deposit, after its full development, is enough to meet Egypt's domestic gas needs for several years. "Egypt consumed 1.7 trillion cubic feet of gas last year, and at the same rate of consumption, Zor alone could meet the country's gas demand for almost two decades." Therefore, the operation of EMI in Egypt and the exploitation of Zor may affect the development of exports from the other three deposits in the region to Egypt, especially as the deposit is enough to meet the energy needs of the populous country at least until 2020.

Today, Zor produces about 56 mcf per day, a production level that according to EMI, was achieved thanks to the start of the fifth production unit (T4), which was supported by 8 gas producers. The company also claims that by providing full energy autonomy to Egypt, it ensures stability in the Eastern Mediterranean.

[152] *see (https://www.eni.com/en_IT/operations/upstream/exploration-model/zohr-egypt.page, 2018)*

3.3 Renewable energy sources[153]

Renewable Energy Sources (RES) are defined as energy sources that are abundant in the natural environment. It is the first form of energy used by man before he turned strongly to the use of fossil fuels. RES are practically inexhaustible, their use does not pollute the environment while their utilization is limited only by the development of reliable and economically acceptable technologies. The interest in the development of these technologies first appeared after the first oil crisis of 1974 and consolidated after the realization of serious environmental problems in the last decade. For many countries, RES is a domestic source of energy with favorable prospects for contributing to their energy balance, helping to reduce dependence on expensive imported oil and enhance the security of their energy supply. At the same time, they contribute to the improvement of the environmental quality, as the energy sector is the sector that is primarily responsible for environmental pollution. It is characteristic that the the only possible way forward is for the European Union to be able to meet the ambitious goal set in 1992 at the Rio Conference on Environment and Development, which is to reduce carbon dioxide emissions to 1993 levels by the year 2000, by accelerating the development of RES.

The forms of renewable energy sources are:

• the sun - solar energy, subdivided into active solar systems, passive solar systems and photovoltaic conversion,

• the wind - wind energy

• waterfalls - hydraulic energy, with limitation to Small Hydroelectric, power less than 10 MW

• geothermal - geothermal energy: high and low enthalpy,

• biomass: thermal or chemical energy in the production of biofuels, the use of forest residues and the utilization of industrial agricultural (plant and animal) and municipal waste,

• the seas: wave energy, tidal energy and ocean energy from the difference in water temperature at the surface and at great depth.

The main advantages of RES:

They are practically inexhaustible sources of energy and contribute to the reduction of dependence on conventional energy resources which are depleted over time.

They are domestic energy sources and contribute to strengthening energy independence and security of energy supply at a national level.

They are geographically dispersed and lead to the decentralization of the energy system. Thus, you enable the energy needs to be met at a local and regional level, relieving the infrastructure systems while at the same time the energy transmission losses are reduced.

They enable the selection of the appropriate type of energy that is adapted to the needs of the user (eg solar energy for low temperature heat to wind energy for electricity generation), achieving a more rational use of energy resources.

They usually have low operating costs, which in addition is not affected by fluctuations in the international economy and in particular the prices of conventional fuels.

RES investments are labor intensive, creating many jobs especially at a local level. They can in many cases be the nucleus for the revitalization of economically and socially degraded areas and a pole for local development, by promoting investments based on the contribution of RES (eg greenhouse crops with geothermal energy).

They are environmentally and human friendly and their utilization is generally accepted by the public.

In addition to the above advantages, RES also present some characteristics that make their utilization and rapid development difficult:

Their dispersed potential is difficult to concentrate in large volumes of power to be transported and stored.

They have a low power and energy density and therefore large installations often require extensive installations.

They often have fluctuations in their availability that can be long lasting requiring the backup of other energy sources or generally expensive storage methods.

Their low availability usually leads to a low utilization rate of their facilities.

The investment cost per unit of installed capacity is still high compared to current conventional fuel prices.

Today's global energy consumption is 10 billion tones of oil equivalent, with fossil fuels being the predominant source of more than 80% of world energy consumption.

In the category "residues" it is mainly solar energy, wind and geothermal. Most of the energy corresponding to oil is consumed in all types of transport, while coal and natural gas in the production of electricity.

[153] *see www.allaboutenergy.gr*

3.4 Generation of electricity through sea currents

Marine energy is a form of marine energy derived from the exploitation of the kinetic energy of marine currents, such as the Gulf of Mexico current. Although not widely used today, offshore energy has significant potential for future electricity generation. Marine currents are more predictable than wind and solar[154].

Strong ocean currents are produced by a combination of temperature, wind, salinity, depth, and earth rotation. The sun acts as the primary driving force, causing winds and

temperature differences. Because there are only small fluctuations in current velocity and position of the current, without changes of direction, ocean currents may be suitable locations for the installation of power plants, generators. Other effects, such as peripheral differences in temperature, salinity, and the Coriolis effect due to earth rotation, are also significant influences. The kinetic energy of sea currents can be converted in the same way that a wind turbine generates energy from the wind, using different types of open flow rotors.

The potential for generating electricity from tidal currents is enormous. There are a number of factors that make offshore electricity generation very attractive compared to other renewable energy sources, such as:

* the high occupancy rates resulting from the fluid properties,

* the predictability of resources so that, unlike most other renewable energy sources, the future availability of energy becomes known and the potentially large resources that can be exploited, with little impact on the environment, thus offering one of the less harmful methods for large-scale electricity generation.

Power plants also provide electricity through marine currents when, from time to time, they are connected to it by compensating for peak flow.

[154] *see. www.tmltd.gr*

3.5 Marine Wind Turbines

Wind energy has been widely developed in recent years, making it an environmentally "clean" technology, and economically competitive in relation to fossil fuels. Much research has been done so far on land areas and only in recent years has there been particular interest in the development of offshore wind energy. Europe plans to install more wind turbines in the sea in order to exploit the highest prices. The technology

used does not differ in detail from that developed on land but only in the design of the foundations and the transmission of electricity on land by high voltage cables.

At present, the use of wind energy[155] at sea is more expensive than land or even fossil fuels. Costs are declining in areas with high tolerances. In the next decade, the cost is expected to be reduced by 50%, which will make it competitive with offshore wind turbines and natural gas.

[155] *see.* *www.physics4u.gr*

3.6 Purpose of operation of a wind turbine

The challenge for a wind turbine is to operate it throughout its life (approximately 20 years) with the least possible maintenance. The tower and the foundation of the wind turbines in the sea, must be strong constructions in order to withstand the power of the sea waves. On land the wind turbines are grounded in concrete, while at sea the construction consists of a cylindrical steel column that reaches the bottom. The steel towers are covered with a special paint that will be maintained for 20 years of operation of the wind turbine. Under sea level, the foundation is protected by devices-large metal plates of magnesium or zinc, which corrode and thus protect the foundation. The ventilation system that cools the gearbox and the electrical equipment inside the engine is designed to reduce the damage caused by seawater.

3.7 The wind turbines of the future

Given the enormous environmental value and supply of wind energy, scientists and engineers are preparing to welcome the new generation of wind turbines that will be nothing like the Machinery of the time - It is and once completed it will be a real construction marvel.

EPILOGUE

The Eastern Mediterranean has always been a region of delicate balance, as it is a crossroad between three continents and many cultures, which clash for their emergence as regional powers. With the importance of energy being fundamental in modern times and the discovery of new deposits in Israel, Egypt and Cyprus, the geo-economic importance of the region is being upgraded, the current power relations are being transformed and the new "big game" of the 21st century is emerging. Legal disputes over rights in the maritime zones, ongoing research to discover new hydrocarbons, developments in bilateral and multilateral relations between States and the role of the "great powers" compose the modern map of the Eastern Mediterranean.

The issue of delimitation of the EEZ in the Mediterranean has preoccupied its States throughout the 20th century, even after the signing of the Convention on the Law of the Sea in 1982. Since then, although the Convention provides a stable legal status with wide acceptance, even without the ratification of Libya and the participation of Turkey, the Mediterranean States have consciously failed to regulate the delimitation of their exclusive zones. Despite the existence of the middle line tool, most Mediterranean States consider that their delimitation rights are too limited. However, following the Cyprus agreements with Israel and Egypt, which launched energy research in the Mediterranean basin, the reluctance of other States to regulate their relations leaves behind the road race for energy sovereignty in an area that provides significant opportunities both for the exploitation of deposits and for the creation of energy nodes and networks.

At the same time, the discovery of new deposits has already begun to have positive consequences, as expected, in the economy and in politics. The three countries have strengthened their economic credibility, promoted their development policies and

gained more regional power. Cyprus, despite its difficult relations with Turkey, due to the occupation of Northern Cyprus and the presence of the Turkish army in the occupied part of the island, succeeded to exploit its deposits, due to the support of American and French interests in the region. Egypt now has the opportunity to gain energy autonomy, cater to its population and industrial needs and promote its economic growth, despite the fact that in recent years it has faced political instability, distancing itself from its relations with neighboring countries and competing with Turkey for the role of mediator between the West and Muslim States. In addition, Egypt is given the opportunity to become a transit center, due to the two LNG stations that have been built in it. Even Israel seems to have for the first time the opportunity to build a more cooperative relationship with its neighbors, through the energy economy, a valuable opportunity for a country located in a sensitive area and has so far failed to tap into economic alliances to achieve regional stability.

In conclusion, it seems that all three countries have benefited from the discovery of hydrocarbons in their EEZs and the process of building facilities is proceeding smoothly, despite initial fears of the contrary. This course of developments intensifies the need for the other States in the region to speed up the delimitation and research processes in their own EEZs. In view of the ongoing proposals for new pipeline networks, such as Nabucco, South Stream and East Med, the ability of each region State to manage its energy reserves will be crucial when choosing to implement the final project, given the cost of the pipelines. The countries that will be in the networks or will become nodes will gain an advantage over their neighbors.

As far as Greece is concerned, it will be in the country's interest to implement the provisions that provide for the conduct of exploration and the exploitation of hydrocarbons, at least for the plots that have been announced. Greece has the

opportunity to become a regional hub, through the TAP pipeline and the upgrade of Revythousa facilities. However, in the future it can benefit, both from the transit fees of other projects and from the exploitation of its own resources. To the extent that an EEZ delimitation agreement with Turkey would be possible, there would be economic benefits and even more important benefit at the political level. However such an agreement does not seem possible in the near future. Nevertheless, Greece can indirectly benefit from the climate of stability and economic interdependence that results from energy cooperation in the region. It is also noteworthy that these energy partnerships not only offer factors of stability, but also bring to the surface the disputes between Greece, Turkey and Cyprus, with the result that it is still unclear whether the positive or negative consequences will prevail in the end. of the new energy landscape.

In conclusion, the geopolitical and geostrategic balance in the Eastern Mediterranean is influenced by Europe 's energy policy and, above all, by the diversification of sources and the European energy mix. As both the importance of natural gas and that of a Southern Corridor increase, the current situation becomes even more critical for the promotion of actions that have not yet been taken by the states involved. And the States that have already moved in its direction exploiting their energy resources seem increasingly capable of promoting their interests through a new "energy marketing" as energy security becomes one of the main issues of international politics and a priority of State policy worldwide.