



CAHIERS DE L'ASSOCIATION INTERNATIONALE DU DROIT DE LA MER
PAPERS OF THE INTERNATIONAL ASSOCIATION OF THE LAW OF THE SEA



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GOVERNANCE OF THE ADRIATIC AND IONIAN MARINE SPACE

Edited by
ANDREA CALIGIURI

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Preface

At the dawn of the third millennium governance of the seas and oceans is changing. This is especially attributable to the growing role of regional economic integration organizations. The EU, with its integrated maritime policy, the African Union, through its “*Integrated African Strategy for the Seas and the Oceans – Horizon 2050*”, ASEAN, through the creation of the *Maritime Forum*, are the principal examples of the current tendencies on this issue.

The International Association of the Law of the Sea (AssIDMer) has been focusing on this particular topic for some time. The Proceedings of the fifth ordinary meeting of the Association, held in Venice on 20 and 21 November 2014, have just been published, under the title: “*International Law and Maritime Governance. Current Issues and Challenges for Regional Economic Integration Organizations*” (A. Del Vecchio, F. Marrella (eds), Editoriale Scientifica, 2016). The authors of this book place special focus on the impact that regional economic integration organizations have on the exploitation of natural resources, the relationship between human rights and the law of the sea and on what is known as the “Blue Economy”.

These issues were raised once again in this *Volume* in a context that is much more limited from the geographic perspective, that of the Adriatic and the Ionian Region, but extremely thorough from the scientific viewpoint. Indeed, the analysis is not limited simply to the economic and juridical aspects but also deeply covers historical backgrounds, as well as Governance of Biological Resources and Offshore Oil and Gas Exploration and Exploitation.

It is no coincidence that Art. 123 UNCLOS envisages a “reinforced” duty of cooperation for coastal States bordering enclosed and semi-enclosed seas. The characteristic of the Mediterranean (the largest of the seas that may be defined as “semi-enclosed” according to Art. 122 UNCLOS) is that it also comprises within itself marine spaces that are also considered as enclosed or semi-enclosed, and that consequently have aspects of greater “sensitivity” compared to the rest of the Mediterranean. The Adriatic and the Ionian seas are among them and are to be considered as “semi-enclosed seas in a semi-enclosed sea”. The Adriatic especially as it links together the territory of seven States: Italy, Slovenia, Croatia and Greece, member States of the EU; two nations that are candidate States, Montenegro and Albania; and a potential candidate, Bosnia-Herzegovina, with a part of its territorial sea surrounded by the waters of Croatia.

The absence of cooperation among the coastal States of the Mediterranean, which has led to unilateral initiatives extending coastal jurisdiction, certainly has not spared the Adriatic and the Ionian. The more limited the extension of water compared to the number of States bordering the basin, the more difficult is cooperation and the more complex are questions of delimitation of marine spaces. Maritime borders are therefore particularly fragile as it is difficult for a delimitation made bilaterally to escape challenges from third States that are, by necessity, located close to the delimited zone. Added to this are the technical difficulties caused by the presence of islands and islets and the conformation of generally highly indented coastlines. Even more problematic are the unilateral initiatives to extend jurisdiction in this marine space, a crucial factor given the need for close cooperation among coastal States. The Adriatic, a good part of which consists of high seas, has furthermore been constantly the subject of exploitation of its fishing resources by non Adriatic and non Mediterranean ships, often equipped for

industrial fishing. The absence of control and of enforceable measures to manage resources has fueled Illegal, Unregulated and Unreported (IUU) fishing. In addition, we have recently witnessed, in both the Adriatic and the Ionian, an acceleration of exploration activities and exploitation of off shore hydrocarbon and gas deposits, especially in light of the ongoing political crisis between Russia and the Ukraine, with consequent repercussions throughout Europe. These activities also require new regulations and especially greater cooperation among the States involved. As has happened in the past concerning the exploitation of fishing and environmental governance, in this area also coastal States proceeded unilaterally, using national laws and regulations and granting rights of exploration, exploitation and construction of offshore platforms. Several countries, such as Croatia, have initiated this “tendency”, while others, Italy for one, have adopted a “wait and see” approach, deciding to act only when it became inevitable in light of decisions made by other countries. Recent developments point to a rethinking concerning these decisions. It is clear that there exists an immediate issue of the sustainability, by a fragile ecosystem such as the Adriatic and the Ionian (and in more general terms perhaps the Mediterranean itself), of the activities currently being carried out and especially those anticipated over the next few years in order to access new energy sources.

These concerns are part of a more general framework of management of the environment in enclosed and semi-enclosed seas. The Adriatic is already suffering from anthropic activities, it requires a century for the complete exchange of its waters. How can we possibly ignore the impact that an incident as serious as what happened in the Gulf of Mexico in 2010 would have in such a circumscribed space!

The problem is that the legal instruments in effect, on an international level and within the European Union, at times seem inadequate and obsolete. The general legal framework of reference doubtless remains the UNCLOS, ratified by all States bordering on this sea, but this Charter has now been in effect for more than twenty years and was originally drafted over thirty years ago, with many of its provisions applying to ocean spaces. Many other “regional” or “sub-regional” agreements regarding protection of the marine environment were later ratified by Adriatic States. Of these regional agreements we take particular note of the 1995 Barcelona Convention on protecting the Mediterranean from pollution, and its Protocols providing the general principles and institutional framework for protection of the marine environment. Recourse to the general principles of precaution, prevention and environmental sustainability nonetheless remain a constant, proof of the lack of any truly effective and comprehensive international laws.

All these issues are thoroughly analyzed in this volume. A sincere thanks to the editor and to the individual authors for their contributions and for the completeness of information as well as the stimuli they provide to the progress and development of the scientific debate on governance of the seas in general and the Adriatic and Ionian Region in particular.

GIUSEPPE CATALDI

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Finally, I am grateful to the partners of the Project: Adriatic and Ionian Initiative (AII), Association Internationale du Droit de la Mer (AssIDMer), Augeo S.r.l. and ECON S.r.l.

I trust this *Volume* will be a valuable contribution to the ongoing debate on the implementation of the European Union Strategy for the Adriatic and Ionian Region (EUSAIR).

ANDREA CALIGIURI

Abbreviations

AII	Adriatic and Ionian Initiative
CIESM	Commission for the Scientific Exploration of the Mediterranean Sea
CMI	Comité Maritime International
CPUCH	Convention on the Protection of the Underwater Cultural Heritage
EEA	European Economic Area
EEZ	Exclusive Economic Zone
EFPZ	Ecological and Fisheries Protection Zone
EPZ	Ecological Protection Zone
ESA	European Space Agency
EU	European Union
EUSAIR	European Union Strategy for the Adriatic and Ionian Region
EUSALP	European Union Strategy for the Alpine Region
EUSBSR	European Union Strategy for the Baltic Sea Region
EUSDR	European Union Strategy for the Danube Region
FAO	Food and Agriculture Organization
GES	Good Environmental Status
GFCM	General Fisheries Commission for the Mediterranean
ICJ	International Court of Justice
ICZM	Integrated Coastal Zone Management
ITLOS	International Tribunal of the Law of the Sea
IHO	International Hydrographic Organization
IMO	International Maritime Organization
IDI	Institut de Droit International
MARPOL	International Convention for the Prevention of Pollution from Ships
MPA	Marine Protected Area
MSP	Maritime Spatial Planning
NGOs	Non-Governmental Organizations
PSSA	Particularly Sensitive Sea Area
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
SFRY	Socialist Federal Republic of Yugoslavia
TAP	Trans-Adriatic Pipeline
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation

INTRODUCTION

THE MARITIME BOUNDARIES IN THE ADRIATIC AND IONIAN SEAS

SUMMARY: 1. Geographic delimitation of the Adriatic and Ionian seas. – 2. Maritime delimitation in a semi-enclosed sea. – 2.1. Maritime delimitations between former Yugoslav States. – 2.2. Maritime Delimitation between Montenegro and Albania. – 2.3. Maritime Delimitation between Albania and Greece. – 3. Delimitation of sui generis maritime zones. – 4. Maritime disputes and governance of offshore shared natural resources.

1. Geographic delimitation of the Adriatic and Ionian seas

The Adriatic Sea forms a long but relatively narrow gulf, generally aligned from northwest to southeast, toward its only access, the Strait of Otranto. The International Hydrographic Organization (IHO) defines the boundary of the Adriatic sea on the *South* as a line running from the Butrinto River's mouth (39°44'N) in Albania to the Karagol Cape in Corfu, through this island to the Kephali Cape (these two capes are in latitude 39°45'N), and on to the Santa Maria di Leuca Cape (39°48'N).¹

The Adriatic Sea connects the territories of seven States: Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania and Greece. The Adriatic Sea is undoubtedly a semi-enclosed sea under Article 122 UNCLOS.²

The IHO defines the limits of the Ionian Sea as follows: on the *North*, a line running from the mouth of the Butrinto River (39°44'N) in Albania, to Cape Karagol in Corfu (39°45'N), along the North Coast of Corfu to Cape Kephali (39°45'N) and from thence to Cape Santa Maria di Leuca in Italy; on the *East*, from the mouth of the Butrinto River in Albania down the coast of the mainland to Cape Matapan; on the *South*, a line from Cape Matapan to Cape Passero, the Southern point of Sicily; and on the *West*, the East coast of Sicily and the Southeast coast of Italy to Cape Santa Maria di Leuca”.³

The Ionian Sea connects the territories of three States: Italy, Greece, and Albania. Under Article 122 UNCLOS, the Ionian Sea could also be regarded as a semi-enclosed sea when its coastal States – Albania, Greece and Italy – will proclaim their exclusive economic zones; indeed, a semi-enclosed sea may consist “entirely or primarily” of the territorial seas and exclusive economic zones of two or more States.

2. Maritime delimitation in a semi-enclosed sea

Six coastal States of Adriatic and Ionian seas claim 12 nm breadth of territorial seas, which is consistent with UNCLOS. Bosnia and Herzegovina exercises its sovereignty

¹ See IHO, *Limits of Oceans and Seas (Special Publication No. 28)*, 3rd Ed., 1953, 17. On the limits of the Adriatic Sea accepted by the International Maritime Organization (IMO), see in this *Volume*, M. Grbec, ‘The Adriatic-Ionian Marine Region as a Space of Connectivity: Transport and Protection of the Marine Environment’, para 1. For information about physical characteristics of the Adriatic Sea, see B. Cushman-Roisin, M. Gacic, P.-M. Poulain, A. Artegiani (eds), *Physical Oceanography of the Adriatic Sea. Past, Present and Future* (Springer, 2001).

² Under Article 122 UNCLOS, “enclosed or semi-enclosed sea” means “a gulf, basin or sea surrounded by two or more States and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States”.

³ See IHO, *Limits of Oceans and Seas (Special Publication No. 28)*, III Ed., 1953, 17.

over the waters of the Bay of Neum and around Klek peninsula, enclosed within the Croatian system of straight baselines.⁴

Two treaties define the delimitation of territorial sea⁵ and continental shelf⁶ boundaries between Italy and the former SFRY. The delimitation was mostly based on the median line between the basic lines from which the territorial sea of former SFRY and Italy was measured. The delimitation line was 353 nm long, joining 43 points. The maritime delimitation line between Italy and former SFRY has been inherited by the post-Yugoslavia successor States; thus, sections of the Italy-Yugoslavia maritime boundary line now exist as boundaries between Italy and Slovenia, Italy and Croatia⁷ and Italy and Montenegro.

Greece and Italy concluded a continental shelf delimitation agreement in 1977.⁸ A continental shelf delimitation agreement was also concluded between Italy and Albania in 1992 which extends southwards of the Strait of Otranto and into the Mediterranean Sea.⁹ However, maritime delimitation in the Eastern Adriatic, among the former Yugoslav Republics, between Albania and Montenegro and between Albania and Greece still remains a largely unresolved issue.

All these disputes should be solved according to UNCLOS' general rules concerning delimitation between States with adjacent coasts.¹⁰ In particular, it must be emphasized that the law of the sea does not recognize special rules on the delimitation of marine spaces in enclosed or semi-enclosed seas. Recently, in a dispute with Ukraine over the maritime delimitation in the Black Sea, before the International Court of Justice (ICJ), Romania had suggested that "the enclosed nature of the Black Sea is also a relevant circumstance as part of the wider requirement to take account of the geographical

⁴ Maritime boundaries between Croatia and Bosnia and Herzegovina are established in the Treaty on State Frontier of 30 July 1999 (this Treaty is not ratified by Croatia, but it has been provisionally applied since the day of its signature). Article 4(3) states: "The state border on the sea stretches along the central line of the sea between the territories of the Republic of Croatia and Bosnia and Herzegovina in accordance with the 1982 UN Convention on Sea Rights. [...]". Although the legal regime of the waters in the Bay of Neum and around the Klek peninsula has not been defined in the Treaty, it is reasonable to assert that the waters inside the Bay of Neum are "internal waters" and waters around the Klek peninsula are territorial waters of the Bosnia and Herzegovina (see B. Vukas, 'Maritime Delimitation in a Semi-enclosed Sea: The Case of the Adriatic Sea' in R. Lagoni, D. Vignes (eds), *Maritime Delimitation*, Leiden / Boston, 2006, 205 ff., 215). It should also be noted that the enclosure of the maritime area of Bosnia and Herzegovina within the Croatian system of straight baselines is not in accordance with Article 7(6) UNCLOS, which states: "The system of straight baselines may not be applied by a State in such a manner as to cut off the territorial sea of another State from the high seas or an exclusive economic zone". However, Bosnia and Herzegovina did not protest against such enclosure (see M. Grbec, *Extension of Coastal State Jurisdiction in Enclosed and Semi-enclosed Seas. A Mediterranean and Adriatic Perspective* (Routledge, 2014) 155-157).

⁵ *Treaty on the delimitation of the frontier for the part not indicated as such in the Peace Treaty of 10 February 1947* (so-called Osimo Treaty), 10 November 1975.

⁶ *Agreement between Italy and Yugoslavia concerning the delimitation of the continental shelf between the two countries in the Adriatic Sea*, 8 January 1968. See Map 1, *infra*, at 243.

⁷ Within the frame of the 1968 Agreement, Italy and Croatia signed the Technical Agreement in 2005 adopting the use of WGS 84 allowing an accurate determination of the delimitation lines of the Italian and Croatian continental shelves which were reviewed and the Technical Agreement in 2009 guaranteeing the exploitation of the Annamaria Gas Field in the Adriatic Sea which lies on both sides of the delimitation line between the continental shelves of the two States.

⁸ *Agreement between the Hellenic Republic and the Italian Republic on the delimitation of the respective continental shelf areas of the two States*, 24 May 1977. See Map 2, *infra*, at 244.

⁹ *Agreement between the Republic of Albania and the Republic of Italy for the determination of the continental shelf of each of the two countries*, 18 December 1992. See Map 3, *infra*, at 245.

¹⁰ See Article 15, concerning the delimitation of territorial sea, Article 74 concerning the delimitation of the Economic Exclusive Zone, and Article 83 concerning the delimitation of continental shelf. In UNCLOS there is no rule on the delimitation of the contiguous zone of States with adjacent or opposite coasts.

context of the area to be delimited”.¹¹ According to Romania, “in considering the equitable nature of an equidistance line, the ‘general maritime geography’ of the Black Sea must be assessed. In Romania’s view, this geographical factor is to be considered together with any pre-existing delimitation agreements so that any new delimitation should not dramatically depart from the method previously used in the same sea between other riparian States in order not to produce an inequitable result”.¹² On this specific point, however, the ICJ, which had established a provisional equidistance line between these two States, stated the irrelevance of these arguments.¹³

Thus, in a case of maritime dispute between two or more States, delimitation of a single maritime boundary is defined according to the so-called three-stage approach. The first stage is to trace a provisional line of equidistance. As the second stage, all the relevant circumstances are to be examined, if any, for adjusting the provisional equidistance line in order to achieve an equitable result. As final stage, it is necessary to verify whether the delimitation line does not lead to an inequitable result by applying the test of disproportionality.

2.1. Maritime delimitations between former Yugoslav States

The current borders between Slovenia, Croatia, Bosnia and Herzegovina and Montenegro were set in 1992 by the Arbitration Commission of the Peace Conference on Yugoslavia (the so-called Badinter Arbitration Committee). In its Opinion No. 3, this Commission stated that “Except where otherwise is agreed, the former boundaries [between adjacent former SFRY’s Republics] become frontiers protected by international law. This conclusion follows from the principle of respect for the territorial *status quo* and, in particular, from the principle of *uti possideti iuris*. [...]”.¹⁴

However, proclamation of this principle was not applicable on the issue of maritime delimitation. Indeed, the former SFRY has never introduced formal administrative maritime boundaries between its federal Republics.¹⁵ For this reason, at the moment of independence, it was unclear which Republic exercised *de facto* jurisdiction over a portion of the “federal territorial sea”.

Although the problem was regulated by the principle each coastal Republic exercised jurisdiction over the waters in front of its coasts, claims have been made by each former Yugoslav Republic against neighbors. These maritime disputes concern Croatia and Slovenia over maritime delimitation in the Bay of Piran, Croatia and Montenegro concerning the maritime delimitation in the Bay of Bota Kotorska, and Croatia and Bosnia and Herzegovina concerning the access of Bosnia and Herzegovina from the Klek-Neum waters to the high seas.

¹¹ International Court of Justice, *Maritime delimitation in the Black Sea (Romania v. Ukraine)*, judgment of 3 February 2009, para 169.

¹² *Ibid.*

¹³ *Ibid.*, para 174.

¹⁴ See ‘Opinion No. 3’ in A. PELLET, ‘The Opinions of the Badinter Arbitration Committee. A Second Breath for the Self-Determination of Peoples’, (1992) 3 *European Journal of International Law* 178, 185.

¹⁵ Opinion No. 3 makes an express reference to Article 5 of the SFRY’s Constitution to assert the respect of the principle of *uti possideti*. However, Article 5.

a) Croatia - Slovenia

The dispute between Slovenia and Croatia concerns the demarcation of the territorial waters of the two countries as far as the Italian waters and the question of Slovenian access to the high seas.

Since 1993 Slovenia has claimed sovereignty and jurisdiction over the entire Bay of Piran on the basis of historic title and other special circumstances.¹⁶ In particular, this country affirms to have exercised effective control and jurisdiction over the entire Bay of Piran during the times of the former SFRY. In the words of the Slovenian Constitutional Court, Slovenia bases its arguments on the doctrine of *uti possidetis de facto*.¹⁷ According to Slovenia, furthermore, this country has always had territorial access to the high seas. The Osimo Treaty should be crucial in this regard, since it would define the border between Italy and Slovenia up to point T5, which is the point of Slovenia's territorial access to the high seas. The Slovenian continental shelf would also start at point T5, as set out in the Agreement of the delimitation of the continental shelf between the former SFRY and Italy in 1968.¹⁸

Croatia rejects the Slovenian position.¹⁹ According to Croatia, the border between the two countries runs along the median line in the Bay of Piran and then perpendicular to the middle of the line closing the Bay of Piran and up to the Osimo border. The result of this would be locking Slovenian territorial waters between Croatian and Italian territorial waters. However, this solution would not affect the right of innocent passage of Slovenian vessels through the Croatian territorial sea. Furthermore, Croatia denies that Slovenia has territorial access to the high seas.

The dispute appeared to have been solved with the negotiation of a Treaty on the Common State Border, the so-called Drnovšek-Račan Treaty, initialed on 20 July 2001 and afterwards not supported by Croatia.²⁰

The turning point in the dispute is only reached with the involvement of the European Union²¹ and the signature, on 4 November 2009, of the Arbitral Agreement between the Governments of Slovenia and Croatia. In particular, Article 3(1) of the Arbitration Agreement provides: “The Arbitral Tribunal shall determine: (a) the course of the maritime and land boundary between the Republic of Slovenia and the Republic of Croatia; (b) Slovenia’s junction to the High Sea; (c) the regime for the use of the relevant maritime areas”.

According to Article 7(2) of the Arbitration Agreement, the “award of the Arbitral Tribunal shall be binding on the Parties and shall constitute a definitive settlement of the dispute”.

However, in July 2015, the Croatian media published telephonic conversations between the arbitrator of Slovenian nationality and the Slovenian agent, which related to the deliberations of the Tribunal. This scandal could have serious repercussions for the

¹⁶ On 7 April 1993, the Slovenian Parliament adopted a *Memorandum on the Bay of Piran*, which indicated the goals of Slovenia in the negotiation with Croatia.

¹⁷ Slovenian Constitutional Court, *Opinion*, Rm-1/09-26, 18 March 2010.

¹⁸ Although Italy does not have an official position of the Slovenian-Croatian dispute, it is significant to note that it considers Slovenia as a successor State in the 1968 Agreement between Italy and Yugoslavia concerning the delimitation of the continental shelf between the two countries in the Adriatic Sea.

¹⁹ See House of Representatives of the Croatian Parliament, *Declaration on the State of Inter-state Relations between the Republic of Croatia and the Republic of Slovenia*, 26 March 199, File No. 018-01/99-01/05.

²⁰ For more details on the solutions contained in this agreement, see Grbec (n 4) 174-177.

²¹ A. UILENREEF, *Bilateral Barriers or Good Neighbourliness?: The Role of Bilateral Disputes in the EU Enlargement. Process*, Clingendael European Papers, The Hague, 2010, <www.clingendael.nl/sites/default/files/20100600_cesp_paper_uilenreef.pdf>, 15-22.

termination of the arbitration,²² but the Tribunal, in its Partial Award of 30 June 2016, stated there is no obstacle to the continuation of the proceedings under the Arbitration Agreement.²³

b) Croatia – Montenegro

The maritime delimitation between Croatia and Montenegro is complicated by unresolved territorial disputes concerning the Prevlaka Peninsula, the resolution of which is an essential precondition to define the maritime boundary between the two countries in the Bay of Boka Kotorska. Thus, it is necessary to determine the terminus of the Croatia-Montenegrin land boundary on the coast and thus the starting point of any maritime delimitation.

²² Following the revelation, the arbitrator of Slovenian nationality, Dr. Sekolec (23 July), the arbitrator of Croatian nationality, Professor Vukas (31 July), and the Judge Abraham (2 August) resigned from the Tribunal. By letter of 31 July 2015, the Republic of Croatia informed the Arbitral Tribunal that Croatia “cannot further continue the process [of the present arbitration] in good faith”. Accordingly, Croatia stated that, “[i]n accordance with the relevant provisions of the Vienna Convention on the Law of Treaties,” it “informed the other Signatory to the Agreement of its intention to terminate” the Arbitration Agreement between the Government of the Republic of Croatia and the Government of the Republic of Slovenia signed on 4 November 2009, noting that “as of the date of the notification it ceased to apply the Arbitration Agreement”. However, on 13 August 2015, in its observations on the Croatian letter dated 31 July 2015, Slovenia informs the Tribunal that “Slovenia has objected to Croatia’s purported unilateral termination of the Arbitration Agreement”. In Slovenia’s view, the Tribunal “has the power and the duty to continue the proceedings” as it would otherwise be open to any party wishing to delay or prevent the making of an arbitral award to frustrate an arbitration agreement. Slovenia also argues that “Croatia has achieved its vital interest and joined the EU through the operation of Article 9 of the Arbitration Agreement it now wishes to terminate”. Finally, Slovenia states “it is a general principle of international law governing arbitration proceedings that any tribunal has the power to determine the scope of its own competence (*Kompetenz-Kompetenz* principle)”, a principle that is in Slovenia’s view confirmed by Article 3(4) and Article 6(4) of the Arbitration Agreement and Article 34(2) of the PCA Optional Rules for Arbitrating Disputes between Two States. Finally, on 25 September 2015, in accordance with Article 2(2) of the Arbitration Agreement, the President of the Tribunal has appointed two new arbitrators. After Tribunal reconstitution, the Tribunal decided “to consider the Parties’ positions carefully, including in respect of the effect of Croatia’s stated intention to terminate the Arbitration Agreement and in respect of the possible implications for the present proceedings of the events reportedly underlying Croatia’s decision” (see *PCA Press Release* of 25 September 2015, www.pcacases.com/web/sendAttach/1468). On the question of the Tribunal’s competence to decide on the validity of Croatia’s purported termination of the Arbitration, a part of scholars assert that “whilst the Tribunal is empowered to decide procedural matters of the *arbitration* (Articles 3(4) and 6(4) of the Agreement) it is not empowered to decide the validity of termination of the *Arbitration Agreement*. As termination of the arbitral proceedings is a procedural matter, the Tribunal is therefore competent to decide on the termination of the *arbitration* per its general power” (A. Sarvarian, ‘Arbitration between Croatia and Slovenia: Leaks, Wiretaps, Scandal (Part 4)’, *EJIL: Talk!*, 3 May 2016, <www.ejiltalk.org/arbitration-between-croatia-and-slovenia-leaks-wiretaps-scandal-part-4>).

²³ See Arbitral Tribunal, *Arbitration between Croatia and Slovenia*, Partial Award, 30 June 2016. In particular, the Tribunal, referring to decisions of the International Court of Justice, clarified that termination of a treaty due to a material breach under Article 60(1) of the Vienna Convention “is warranted only if the breach defeats the object and purpose of the treaty”. Thus, the decisive question was whether the violations of the Arbitration Agreement by Slovenia rendered the accomplishment of its object and purpose impossible. The Tribunal noted that, since Dr. Sekolec has resigned as arbitrator, the views expressed by him in prior deliberation meetings were of no relevance for the work of the Tribunal in its current composition. Furthermore, in any event, the Tribunal would be ready, after consultation with the Parties, to consider reopening the oral phase of the case and to give each Party a further opportunity to express its views concerning what it regards as the most important facts and arguments. In view of this, the Tribunal determined that the breaches of the Arbitration Agreement by Slovenia did not render the continuation of the proceedings impossible and, therefore, did not defeat the object and purpose of the Agreement. In his reaction to the decision of the Arbitral Tribunal, Croatian Ministry of Foreign and European Affairs issued a press release stating that it “considers the Arbitral Tribunal’s Partial Award as a missed opportunity for the Arbitral Tribunal to restore confidence in independence and impartiality of its own work, as well as confidence in international arbitration as such”. The Ministry added that Croatia is no longer a party to the arbitration process and that it shall not comment on the intentions or decisions of the Arbitral Tribunal, nor shall it consider itself bound by them (see *Press release on Arbitral Tribunal’s decision 30 June 2016*, <www.mvep.hr/en/info-servis/press-releases/press-release-on-arbitral-tribunal%E2%80%99s-decision-,25852.html>).

The legal regime of the disputed territory and the provisional delimitation in the Bay of Boka Kotorska are defined according to the Protocol between Croatia and FRY on temporary border regime along the southern border between the two counties of 10 December 2002. After its independence, Montenegro accepted the succession in this treaty.

The Protocol is applicable only to an area of internal waters and territorial sea and does not apply to the continental shelf, the exclusive economic zone, or *sui generis* maritime zones. However, Article 1 of the Protocol provides that its legal regime is “just provisional pending the conclusion of a final delimitation agreement” and that its provisions “shall be without prejudice to the final delimitation”.

The temporary solution adopted in the Bay of Boka Kotorska is that the entrance to the bay, as at the time of the former SFRY, is closed with a straight baseline linking Cape Oštro on the southernmost part of the Prevlaka Peninsula with Cape Veslo in Montenegro. Thus, the waters within the bay have the status of “internal waters” and the breadth of the territorial sea is measured from the straight baseline closing the Bay.²⁴ Within the Bay of Boka Kotorska, the Protocol draws a regime according which the bay is divided by these two States in such a way as to create on one side a ‘Zone’ formally under Croatian jurisdiction, but with strong limitations,²⁵ while the other part of the bay is under the exclusive sovereignty of Montenegro.

With regard to the lateral delimitation of continental shelf of these two adjacent states, it is noteworthy that from the period when the two States were federal Republics of the former SFRY, the line delimiting the jurisdiction of Montenegro and Croatia followed the line of azimuth of 231°. Consequently, their respective continental shelves should be separated by that line. This position is claimed by Montenegro, absent subsequent contrary agreement between the two States.²⁶ Nevertheless, a number of unilateral acts and activities have been conducted or authorized by Croatia in the maritime area of the Adriatic Sea south of the line of azimuth of 231°.²⁷

c) Croatia – Bosnia and Herzegovina

Bosnia and Herzegovina and Croatia concluded a Treaty on the State Border in 1999 which included the delimitation of their maritime boundary. However, this agreement is not been ratified by Croatia and it is temporarily in force since the date of its signature.²⁸ According to Article 22(3) of the Treaty each party can cancel it at any time

²⁴ Article 6 (1) of 2002 Protocol: “The temporary delimitation of the territorial sea shall proceed from the point three cables away from Cape Oštro at the junction Cape Oštro - Cape Veslo in a straight line of 12 nautical miles along the azimuth of 206 degrees to the high seas”.

²⁵ See Articles 5 (prohibition to enter into the Zone to police and naval forces of both States), 7 (patrolling of the Zone is in charge of a mixed police boats, with a Croatian-Montenegrin crew and without flag), 8 (prohibition of commercial fishing, including artisanal fishing and aquaculture, while recreational fishing is allowed on a basis of specific licenses issued by competent authorities of one of the two States), 24 (both States are charged with the protection and preservation of the marine environment) and 15 (prohibition to enter into the Zone to Croatian naval forces, while only obligations for Montenegro are not to hold naval exercises between the line Cape Kobila – Cape Durov Kam and the straight baseline closing the Bay and for its submarines to sail in the Zone on the surface and flying the national flag) of 2002 Protocol.

²⁶ Montenegro’s position is synthesized in *Communication from the Government of Montenegro, dated 18 May 2015 concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia*, available on www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/communications/MNG_note20150619en.pdf.

²⁷ See para. 3 concerning the Croatia’s ecological and fisheries protection zone and para 4 concerning the licence for hydrocarbon exploration and exploitation in Blocks 23, 26, 27, and 28.

²⁸ Article 22(1) of the Border Treaty.

with prior written notice to the other party. Thus, the maritime boundary between Bosnia and Herzegovina and Croatia is a “provisional” delimitation.

However, this maritime delimitation is geographically a peculiar case. Indeed, the Treaty does not regulate the regime of navigation for Bosnia and Herzegovina through waters qualified by Croatia as “internal waters”.²⁹ Thus, Bosnia and Herzegovina’s vessels should be subject to the authorization of the Croatian authorities to proceed along the Croatian internal waters³⁰.

Some scholars³¹ argue that Bosnia and Herzegovina could claim a right of innocent passage on the basis of two provisions of the UNCLOS:

- Article 8(2) UNCLOS: “Where the establishment of a straight baseline in accordance with the method set forth in Article 7 has the effect of enclosing as internal waters areas which had not previously been considered as such, a right of innocent passage as provided in this Convention shall exist in those waters”;

- Article 45(1) UNCLOS: “1. The regime of innocent passage, in accordance with Part II, section 3, shall apply in straits used for international navigation: [...] (b) between a part of the high seas or an exclusive economic zone and the territorial sea of a foreign State”.

The first provision should be applicable because the dissolution of the SFRY would have to invalidate the system of straight baselines and consequently Bosnia and Herzegovina would have a direct access to the high seas. In this case, this corridor through the Croatian waters could also be qualified as “strait used for international navigation”, even in spite of the absence of a strong international shipping.

There is another part of the doctrine that accepts the maritime delimitation inside the internal waters of Croatia as a consequence of the agreement between the two States.³²

2.2. Maritime Delimitation between Montenegro and Albania

The only agreement concerning maritime delimitation between the two States is the Protocol concerning the frontier between Albania and the Kingdom of Serbs, Croats and Slovenes of 26 July 1926.³³ This agreement states: “the boundary [between Albania and Yugoslavia] starting from the limit of the territorial waters in the Adriatic Sea follows first a straight line perpendicular to the general direction of the coast and ends up at the mouth of the principle arm of the Boyana”.

Since then, no agreement between the two States was signed concerning the delimitation of their continental shelf. However, it should be noted that Albania has

²⁹ See 1994 Maritime Code of Croatia.

³⁰ A dispute between Bosnia and Herzegovina and Croatia concerned also the Pelješac Bridge, a bridge projected to connect two parts of Croatian coastline, across the Channel of Mali Ston between the village of Klek and the Pelješac peninsula, the construction of which had started in 2007. The construction of the bridge was opposed by Bosnia and Herzegovina, because it would complicate its access to high seas. In particular, the bridge, originally planned to be only 35 meters high, would have made it impossible for large ships to enter in the harbor of Neum. Although said harbor was not fit for commercial traffic, the Bosnian government declared that a new one might be built in the future, and that the construction of the bridge would compromise this ambition. Following the concerns of Bosnia and Herzegovina, the Croatian Government changed the design of the bridge, but the project was stopped in 2012.

³¹ See Grbec (n 4) 160-162.

³² T. Scovazzi, ‘Les zones côtières en Méditerranée: évolution et confusion’, (2001) 6 *Annuaire du Droit de la Mer* 2000 95, 102 and n 27.

³³ The existence of this Protocol is called into question by some international lawyers; see C.R. Symmons, ‘Albania and the Law of the Sea: An Analysis of Recent Practice’, (1996) 11 *International Journal of Marine and Coastal Law* 69, 72.

defined the northern limit of its offshore oil and gas exploration block system on the basis of equidistance. This system seems to be accepted by Montenegro.³⁴

2.3. *Maritime Delimitation between Albania and Greece*

The regime and water borders between Albania and Greece was defined by an instrument signed by the Great Powers, under the jurisdiction of the Paris Peace Conference, in 1926.³⁵

Article 10 of this Protocol says: “various issues will arise for determining the boundary line, which are not provided for by this Protocol shall be the subject of direct agreements between governments”. However, only on 19 March 2009, in Tirana, an “Agreement between Greece and Albania on the delimitation of continental shelf and other maritime areas belonging, according to the International Law” was initialized.

Since its introduction, the agreement states that “the maritime borders between Albania and Greece, will be determined on the basis of equity distance expressed by the medium line”. This agreement was ratified by the Albanian parliament, but was unapproved by the Albanian Constitutional Court, arguing it conflicted with the Constitution of Albania and the UNCLOS. In particular, the Court considered “the failure to apply the basic principles of international law for the division of the maritime areas between the two countries for the purpose of reaching a fair and honourable result” and agreement did not take into account “islands as special circumstances in the delimitation of the maritime areas”.³⁶

At this stage, it is possible to underline some relevant aspects concerning the delimitation of territorial waters of two countries:

- in Corfu Channel case, the International Court of Justice made the point that “One fact of importance is that the north Corfu Channel constitutes a frontier between Albania and Greece, that a part of it is wholly within the territorial waters of these states [...]”;

- the Albanian Decree No. 7366 of 1990 indicates that a mid-channel line constitutes the Albanian claim as it proclaims that Albania's “territorial waters” to the south proceed “between the Albanian shore and the Greek islands up to the middle of the Corfu Channel”.³⁷

Concerning the delimitation of continental shelf of the two adjacent states, it is important to note that Italian-Greek and Italian-Albanian agreements on continental

³⁴ See Map in *Annex I of the Decision on Defining Blocks for Exploration and Production of Hydrocarbons*, Official Gazette of Montenegro 17/11 of 28 March 2011.

³⁵ Under the Treaty of London of 30 May 1913, ending the First Balkan War, the settlement of the status of the new Albania and the delineation of its boundaries were reserved for future decisions of the Great Powers. These boundaries were determined by the Protocol of Florence of 17 December 1913. After the First World War, the Conference of Ambassadors on 9 November 1921, under the jurisdiction of the Paris Peace Conference, confirmed, with certain modifications, the boundaries of 1913. The *Commission internationale de delimitation des frontieres de l'Albanie* composed of France, Great Britain, and Italy commenced demarcation in 1922, completing its work in Florence on 27 January 1925. The *Act final* of demarcation was signed by Great Britain, France, Italy, Greece, and Kingdom of Serbs, Croats and Slovenes in Paris on 30 July 1926.

³⁶ See Constitutional Court of Albania, *Decision No. 15*, 15 April 2010, para 113. For a commentary of this decision, see K. NOUSSIA, ‘The Decision of the Albanian Supreme Court Annulling the 2009 Maritime Delimitation Agreement between Albania and Greece’, (2010) 25 *The International Journal of Marine and Coastal Law* 601; K. CENAJ, ‘Albania - Greece Agreement on Setting Maritime Boundaries, According to International Law’, (2015) 4 *Academic Journal of Interdisciplinary Studies* 143.

³⁷ *Decree No. 4650, as amended by Decree No. 7366, dated 9 March 1990, on the State Border of the People's Socialist Republic of Albania*, Article 1.

shelf made provisions to take into account the accommodation of interests respectively of Albania and Greece:

- in Italian-Greek agreement of 1974, according to Article 1(3), the Contracting Parties agreed that, for the present, the determination of the border should not extend beyond point 16 of division line (latitude North: 35° 34' 2", longitude East: 18° 20' 7"). The completion of the determination in the north beyond point 16 remains to be accomplished by later agreements respectively with the respective interested parties;

- in Italian-Albanian agreement of 1992, according to Article 1(2), the Contracting Parties agreed that, for the present, the determination of the border should not extend beyond point 17 of division line (latitude North: 40° 07' 55", longitude East: 18° 58' 38"). The completion of the determination in the south beyond point 17 remains to be accomplished by later agreements respectively with the respective interested parties.

Thus, there presently remain two segments to fill in the Italian / Eastern Adriatic continental shelf line, that could be defined in the future on a trilateral, rather than bilateral, basis.

3. Delimitation of *sui generis* maritime zones

While coastal States of the Adriatic and Ionian region did not proclaim an exclusive economic zone (EEZ),³⁸ some of them have established maritime spaces not defined in the UNCLOS, the so-called ecological protection zones (EPZs). An ecological protection zone can be described as an area aimed at protecting and preserving the biodiversity and fishery resources and / or the environment.³⁹

In Adriatic sea, three coastal States, Croatia, Slovenia and Italy, have adopted specific laws for establishing these EPZs. The analysis of these laws is only finalized to describe the boundaries of these zones and the criteria used to draw them.

Croatia was the first coastal State to introduce a law on this issue. On 3 October 2003, the Croatian Parliament adopted the Decision on the Extension of the Jurisdiction of the Republic of Croatia in the Adriatic Sea.⁴⁰ In accordance with para. 6 of this act, the coordinates of the outer limit of the Ecological and Fisheries Protection Zone (EFPZ) of Croatia are provisional, pending the conclusion of the delimitation agreements with the States whose coasts are opposite or adjacent to the Croatian coast, once they extend their jurisdiction beyond their territorial sea in accordance with

³⁸ Note that Croatia (see *Decision on the Extension of the Jurisdiction of the Republic of Croatia in the Adriatic Sea*, 3 October 2003, Article 1, and *Croatian Maritime Code*, Articles 32-41) and Montenegro (see *Law on Sea* of 2008, Article 26) have legislation in place that provides for the establishment of EEZs, but they did not implement those.

³⁹ G. Cataldi, G. Andreone, 'Sui generis zones', in D.J. Attard, M. Fitzmaurice, N.A. Martínez Gutiérrez (eds), *The IMLI Manual on International Maritime Law*, vol I: The Law of the Sea (Oxford, 2014) 217 ff.

⁴⁰ *Decision on the Extension of the Jurisdiction of the Republic of Croatia in the Adriatic Sea*, 3 October 2003, in *Official Gazette of the Republic of Croatia "Narodne novine"*, no. 157/03. For a commentary of this decision, see D. Vidas, 'Global Trends in Use of the Seas and the Legitimacy of Croatia's Extension of Jurisdiction in the Adriatic Sea', (2003) *Croatian International Relations Review* 32, 8 ff. The establishment of EFPZ also affected the negotiation for Croatia accession's to the EU; for this reason, on 3 June 2004, the Croatian Parliament adopted a *Decision on Amending the Decision on the Extension of the Jurisdiction of the Republic of Croatia in the Adriatic Sea of 3 October 2003* (in *Law of the Sea Bulletin* No. 55/2004, 31), where para 3 states: "With regard to the member states of the European Union, the implementation of the legal regime of the Ecological and Fisheries Protection zone of the Republic of Croatia shall commence after the conclusion of the fisheries partnership agreement between the European Community and the Republic of Croatia". For more details on this point, see European Parliament, *The Ecological and Fisheries Protection Zones (EFPZ) in Croatia*, February 2008, <www.europarl.europa.eu/RegData/etudes/note/join/2008/397233/IPOL-PECH_NT%282008%29397233_EN.pdf>.

international law. Pending the conclusion of these delimitation agreements, the limits of the EFPZ temporarily follow the delimitation line of the continental shelf between Croatia and Italy, and, in adjacent delimitation, the line following the direction of and continuing on the provisional delimitation line of the territorial seas between the Croatia and Montenegro.⁴¹

Croatia emphasizes that the said proclamation is without prejudice to the yet to be delimited sea border with Slovenia. Indeed, according Croatia, the maritime area in question is beyond the area where the border at the sea between the two States should be determined, because Slovenia, neither as a part of the former SFRY nor as a sovereign State, has never had a direct territorial exit to the high seas nor has it acquired one since the dissolution of the former SFRY. Consequently, Slovenia has never had its own continental shelf nor has acquired the right to declare its own exclusive economic zone.

Thus, the question of the EFPZ is directly linked to the maritime border dispute between Croatia and Slovenia in the Bay of Piran and to the accession of Slovenia to the high seas.

The 2003 Croatian decision has met with the reaction by Slovenia.⁴² It is also important to note that by decree of 5 January 2006,⁴³ this country established its own EPZ. Article 4 draws the provisional external border of the EPZ towards Italy following the delimitation line on the continental shelf as defined by the Agreement between SFRY and Italy on the delimitation of the continental shelf of 1968 (along the delimitation line on the continental shelf to the south of T5 point) and the provisional external border of the EPZ in the south running along the parallel 45°10'N latitude. However the final delimitation of the EPZ, according to Article 5(1), shall be effected by agreement with the neighbouring states in compliance with international law.

Subsequently, Slovenia designated a 'sea fishing area' under its Marine Fisheries Act in 2006, consisting of three zones, one of which is defined as encompassing the EPZ and the high seas in the Adriatic Sea. Nevertheless, according to this definition, it is not clear if Slovenia claims a fisheries protection zone within its EPZ.⁴⁴

Italy also reacted to Croatian decision.⁴⁵ In particular, in its note of 16 April 2004, Italian Government clearly argued against a single maritime boundary in the Adriatic Sea, affirming that "[...] the automatic extension of the delimitation of the seabed, agreed in [the 1968 Agreement concluded between Italy and the Socialist Federal Republic of Yugoslavia], is not legally well founded because that limit was agreed on the basis of special circumstances that differ from the circumstances to be considered in the determination of superjacent waters. Furthermore, the 1968 delimitation was agreed in a moment in which the notion of exclusive economic zone was not well defined in the international law of the sea. That automatic extension is against Italian interests

⁴¹ See *List of geographical coordinates defining the outer limit of the Ecological and Fisheries Protection Zone*, Text transmitted through Note verbale (No. 841/05) dated 2 September 2005 from the Permanent Mission of the Republic of Croatia to the United Nations addressed to the Secretary-General of the United Nations, in *Law of the Sea Bulletin* No. 59/2005, 28.

⁴² *Note verbale dated 3 October 2005 from the Permanent Mission of the Republic of Slovenia to the United Nations addressed to the Secretary-General of the United Nations with reference to the note from the Permanent Mission of the Republic of Croatia to the United Nations dated 2 September 2005*, in *Law of the Sea Bulletin* No. 59/2005, 33.

⁴³ *Ecological Protection Zone and Continental Shelf of the Republic of Slovenia Act*, 22 October 2005, in *Law of the Sea Bulletin*, No. 60/2006, 56 ff.

⁴⁴ *Decree on designation of the sea fishing area of the Republic of Slovenia*, in *Official Gazette of the Republic of Slovenia*, No. 2/06, 5 January 2006.

⁴⁵ *Note No. 1681 by Italy, dated 16 April 2004, concerning the declaration of an ecological and fisheries protection zone in the Adriatic Sea by the Republic of Croatia of 3 October 2003*, in *Law of the Sea Bulletin*, No. 54/2004, 129-130.

because it does not take into account the change of relevant geographical circumstances that took place after the conclusion of the 1968 Agreement, which implies a consequential change of the objective parameter of the median line”.

However, it is strange to note Italy does not refer to Article 4 of 1968 Agreement, which expressly provides that “[t]he agreement does not influence the juridical state of the waters or air space over the continental shelf”.

In a note of 2006, Italy denounced Croatia for violation of Article 74 UNCLOS; indeed Croatia did not involve Italy in the setting of the provisional limit of EFPZ, despite the provision on the need for cooperation contained in the aforementioned article. It also specified its opinion with the following arguments:

- First, it recalled that the 1968 Agreement was concluded when the Italian system of baselines on the territorial sea was profoundly different from today, since it did not contemplate the then new method of straight baselines;

- Second, consideration should be given to the fact that the flow of detritus from the Po River from 1968 to today has led to a further lengthening toward the open sea of the Italian coastline;

- Third, the constant jurisprudence of the International Court of Justice has consistently recognized that the delimitation of sea areas invokes “special circumstances” that differ by continental shelf and by superjacent waters which lead to different delimitation methods. In addition, international jurisprudence has always considered necessary the consent of the concerned States to the automatic extension of the seabed line of delimitation to superjacent waters.⁴⁶

On 8 February 2006, Italy also adopted a law on the EPZ beyond the outer limit of its territorial sea;⁴⁷ however, for the present, it is not applied to the Adriatic Sea. Indeed, according to the Italian position, for coastal states bordering on enclosed or semi-enclosed seas, there is the specific obligation to cooperate in determining the limits of the zone of functional jurisdiction.

Finally, the question of Croatian EFPZ is also directly linked to the border dispute between Croatia and Montenegro.⁴⁸

4. Maritime disputes and governance of offshore shared natural resources

It has long been recognized that the Adriatic and the Ionian are seas under stress; in particular, the Adriatic Sea especially in light of its semi-enclosed character with limited water exchange with the Mediterranean Sea. The marine environment of the Adriatic

⁴⁶ Note verbale dated 15 March 2006 from the Permanent Mission of Italy to the United Nations addressed to the Secretary-General in reference to note verbale 840/05 of 2 September 2005 from the Permanent Mission of the Republic of Croatia to the United Nations containing the list of geographical coordinates defining the outer limit of the Ecological and Fisheries Protection Zone of the Republic of Croatia, in *Law of the Sea Bulletin*, No. 60/2006, 127-128.

⁴⁷ Law 61 on the Establishment of an ecological protection zone beyond the outer limit of the territorial sea, 8 February 2006. According to Article 1 this law, outer limits of the EPZ are established through delimitation agreements with states whose territory is adjacent to or facing Italian territory (para. 2). Until the date when said agreements enter into effect, the outer limits of the EPZ follow the outline of the *median line*, each point of which is equidistant from the closest points on the baselines of the Italian territorial sea and of the states involved (para 3). For a commentary of Italian law, see T. Scovazzi, ‘La zone de protection écologique italienne dans le contexte confus de zones côtières méditerranéennes’, (2005) 10 *Annuaire du droit de la mer* 204-209; G. Andreone, ‘La zona ecologica italiana’, (2007) 109 *Il Diritto marittimo* 3.

⁴⁸ See *Communication from the Government of Montenegro, dated 18 May 2015 concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia* (n 25).

and Ionian is mainly vulnerable for a worrying combination of factors: pollution from land sources and ships, litter, impact on biodiversity, overfishing and coastal degradation.

Article 123 UNCLOS states “States bordering an enclosed or semi-enclosed sea should cooperate with each other in the exercise of their rights and in the performance of their duties under this Convention. [...]”.⁴⁹

One of the most recent problems in the Adriatic and Ionian cooperation is related to exploration and exploitation activities of oil and gas by coastal States. There are two main reasons that make these activities a matter of direct confrontation rather than cooperation: the absence of delimitation agreements of the continental shelf between the States of the former Yugoslavia and the presence of oil and gas fields that are shared, because of geological and geomorphologic configuration of seabed and subsoil in the Adriatic Sea.

In relation to the first element, an example of rivalry between States is a consequence of the decision of the Government of Croatia to give to some foreign leaseholders the right to explore and exploit the hydrocarbons in blocks 27, 28 and 29 of the Adriatic Sea, which are located in whole or in part in the maritime area claimed by Montenegro. The unilateral action of Croatia was stigmatized by the Government of Montenegro with two diplomatic notes in 2014.⁵⁰ Montenegro asserted that the unilateral action of Croatia is in violation of the 2002 Protocol establishing an interim regime along the southern border between the two States, which, in its Preamble’s fourth paragraph, reads: “Departing from principles of respect for reciprocal obligations, non-acceptability of unilateral acts and bona fide implementation of the Protocol”; and it is in violation of the UNCLOS Preamble’s first paragraph which underlines that the Contracting States are “prompt by the desire to settle, in a spirit of mutual understanding and cooperation, all issues relating to the law of the sea and aware of the historic significance of this Convention as an important contribution of the maintenance of peace, justice and progress for all peoples of the world”. Montenegro also stressed that “the Republic of Croatia should not establish any valid concessionary contract on exploration and exploitation of hydrocarbonates with any company in the world over disputed territory before the definitive delimitation and demarcation of the joint state border with Montenegro, or before two states reach a mutually acceptable agreement, based on equitable and just instruments that have been already applied in resolving similar disputes”.⁵¹

Problems concerning the exploration and exploitation of oil and gas shared deposits could also arise between Italy and the States that face it, primarily with Croatia.

⁴⁹ The peculiarity of closed and semi-enclosed seas is also taken into account by the 1995 *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*. See Article 15 (Enclosed and semi-enclosed seas): “In implementing this Agreement in an enclosed or semi-enclosed sea, States shall take into account the natural characteristics of that sea and shall also act in a manner consistent with Part IX of the Convention and other relevant provisions thereof”.

⁵⁰ See *Communication from the Government of Montenegro, dated 2 July 2014, concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia*; *Communication from the Government of Montenegro, dated 1 December 2014, concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia*. Both documents are available on <www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/MNG.htm>. See also *Communication from the Government of Montenegro, dated 18 May 2015 concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia*, cit.

⁵¹ See *Communication from the Government of Montenegro, dated 2 July 2014, concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia*, cit.

It must be observed that the solution to this problem is not in the UNCLOS. This convention only states that “The coastal State exercise over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources” (Article 77(1)).⁵² Therefore, the solution can only be through bilateral negotiations between concerned States.

The 1968 Agreement between Italy and former SFRY concerning the delimitation of the continental shelf between the two Countries includes a provision establishing an obligation to cooperate to resolve disputes concerning the exploitation of shared resources. Article 2 states: “In case it is ascertained that natural resources of the sea bottom or under the sea bottom extend on both sides of the demarcation line of the continental shelf with the consequence that the resources of the shelf belonging to one of the contracting parties can be in whole or in part exploited from the part of the shelf belonging to the other contracting party, the competent authorities of the contracting parties will themselves be in contact with one another with the intention of reaching an understanding of the manner in which the aforesaid resources shall be exploited previous to consultations by the holders of any eventual concessions”.⁵³ A similar provision is contained in the 1979 Agreement between Italy and Greece on the delimitation of the continental shelf.⁵⁴

Article 2 found application in the case of the exploitation of the Annamaria gas field, in the Northern Adriatic. This field is straddling the demarcation of the continental shelf of Italy and Croatia. With a technical agreement,⁵⁵ the Governments of both countries agreed on the programs of gas exploitation signed between the two leaseholders (ENI,

⁵² The Secretariat of the Commission of International Law in the *Memorandum on the Regime of the High Seas* (UN Doc. A/CN.4/32 (1950), para 339) proposed “*le principe de l'unité du gisement*” on the bases of which the rules concerning the delimitation of the continental shelf should be supplemented by special agreements to take into consideration that the deposits of natural resources does not coincide with the limits of the continental shelf. An obligation to cooperate is also affirmed by the United Nations General Assembly in resolution 3129 (XXVIII) “Cooperation in the field of the environment concerning natural resources shared by two or more States” of 13 December 1973 and in resolution 3281 (XXIX) “Charter of Economic Rights and Duties of States” of 17 December 1974. Finally, see UNEP, *Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States in Report of the Fifth Session of the Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States* (UN Doc. UNEP/GC.6/17 (1978)) and *Cooperation in the field of the environment concerning natural resources shared by two or more States*, decision 6/14 of the Governing Council of UNEP (19 May 1978) (approving the principles). For an analysis on the legal implications of the exploitation of shared natural resources, see M. R. Mario, ‘The Exploitation of Offshore Transboundary Marine Resources or those in Disputed Areas: Joint Development Agreements’ in A. Del Vecchio (ed), *International Law of the Sea. Current Trends and Controversial Issues*, The Hague, 2014, 281-316.

⁵³ Article 3 of the 1968 Agreement highlights that in case of controversy concerning the position of any installation or equipment with reference to the line of demarcation of the continental shelf, the competent authorities of the contracting parties shall determine by mutual agreement in which part of the continental shelf such installations or equipment may be actually situated.

⁵⁴ Article 2 of the 1979 Agreement: “Si un gisement de substance minérale, y compris les sables et graviers, est partagé par la ligne de séparation, et si la part du gisement qui est située d’un des côtés de la ligne de séparation est exploitable en tout ou en partie à partir d’installations situées de l’autre côté de celle-ci, les deux Gouvernements chercheront, en liaison avec les titulaires des titres miniers, s’il y en a, à se mettre d’accord sur les conditions de mise en exploitation du gisement, afin que cette exploitation soit la plus rentable possible et de telle sorte que chacune des Parties conserve l’ensemble de ses droits sur les ressources minérales du sol et du sous-sol de son plateau continental. / Dans le cas où auraient été exploitées des ressources naturelles d’un gisement situé d’un côté et de l’autre de la ligne de séparation, les Parties contractantes mettront tout en œuvre, après avoir consulté les titulaires de titres d’exploitation, s’il y en a, afin de parvenir à un accord sur une indemnisation équitable”.

⁵⁵ *Technical Agreement between the Ministry of Economic Development of the Italian Republic (Directorate General for Energy and Mineral Resources) and the Ministry of Economy, Labour and Entrepreneurship of the Republic of Croatia (Directorate for Mining) on the Joint Exploitation of the Annamaria Gas Field in the Adriatic Sea*, 1 July 2009.

for Italy, an INA, for Croatia);⁵⁶ however, they have indicated some conditions for applying this arrangement. In particular, the yearly gas exploitation programs shall be approved by the competent authorities of both Italy and Croatia; any possible suspension of activities imposed by the competent authorities of one side shall be shared with the other side; the competent authorities of both sides will jointly approve measurement systems on both platforms; the competent authorities of both sides will periodically verify the functioning of measurement systems on both platforms and certify every three months production and withdrawal from both platforms in cross-examination of ENI and INA. Finally, the two Governments have expected that modifications of the allocation of reserves and compensation plans on past production shall be approved by the Ministry of Economic Development of the Italian Republic and by the Ministry of Economy, Labour and Entrepreneurship of the Republic of Croatia, each side referencing in its own acts the quantities to be compensated for past years.

However, Article 2 of the 1968 Agreement establishes a basic cooperation mechanism, as the Annamaria gas field case shows; success in bilateral cooperation is based, *de facto*, on an arrangement between companies that have exploitation licenses for that deposit.

Rather, it must be emphasized that, in practice, the bilateral agreements between States that have the same problem of shared resources in the Persian Gulf, the North Sea, the Caribbean Sea and the Gulf of Mexico lay down rules more detailed which will condition the conclusion of an agreement between the companies that have exploitation licenses.

In particular, the US-Mexico Transboundary Hydrocarbons Agreement, signed in 2012, facilitates the formation of voluntary arrangements – “unitization agreements” – between U.S. leaseholders and Petróleos Mexicanos for the joint exploration and development of transboundary reservoirs. It also provides appropriate incentives to encourage the formation of such arrangements if a reservoir is proven to be transboundary and a unitization agreement is not formed. The agreement also provides that development may proceed in an equitable manner that protects each nation’s interests. Finally, the agreement provides for ongoing cooperation between the two Governments related to safety and the environment, and also provides for joint inspection teams to ensure compliance with applicable laws and regulations. Both Governments will review and approve all unitization agreements governing the exploration and development of transboundary reservoirs under the agreement, providing for approval of all safety and environmental measures.

The US-Mexico Agreement “can potentially generate the same normative impact as the 1945 Truman proclamation on the continental shelf”;⁵⁷ and it can certainly be an applicable model in Adriatic and Ionian region.

⁵⁶ *Annamaria Integrated Development and Operating Agreement*, 19 December 2006.

⁵⁷ M. H. Loja, ‘Who Owns the Oil that Traverses a Boundary on the Continental shelf in an Enclosed Sea? Seeking Answers in Natural Law through Grotius and Selden’, (2014) 27 *Leiden Journal of International Law* 839, 909.

PART 1

**THE ADRIATIC-IONIAN SPACE FROM THE VENETIAN DOMINATION
TO THE EUROPEAN INTEGRATION MODEL**

GIOVANNI BRANCACCIO

**THE ADRIATIC-IONIAN SPACE
FROM THE DOMINATION OF VENICE TO THE BIRTH OF NATIONS**

SUMMARY: 1. The formation of the inter-Adriatic “economic system” in which Venice long wielded an undisputed primacy. – 2. The geopolitical role of the Ionian and Adriatic seas in the Great Napoleonic Empire. – 3. The formation of the nation in Giuseppe Mazzini’s *Lettere slave*.

1. The formation of the inter-Adriatic “economic system” in which Venice long wielded an undisputed primacy

“After such long and bitter wars, Venice finally found herself in harmony with the Turks, and in friendly correspondence with all Princes, and with all nations. The Lady of Istria and Dalmatia, Queen of Cyprus and Candia, she dictated laws from the Soča to the Adda, from the Alps to the Metauro. Within this period of peace she however maintained a flourishing trade”.¹ These are the words used by Vittorio Barzoni in his work *Rivoluzioni della Repubblica veneta*, when describing the conditions of the Venetian Republic on the eve of the formation of the League of Cambrai promoted by Pope Julius II in the anti-Venetian function. The centuries-old tradition of trade between the coastal towns of both shores of the Ionian and Adriatic Seas had in fact created a dense network of commercial relations, an original “economic system”, in which Venice had always played a dominant role.² With the Kingdom of Naples Venice boasted a long tradition of business relations, which dated back to the origins of the Kingdom itself, having been established during the Swabian, Angevin and Aragonese period.³ In the coastal towns of Abruzzo (Lanciano and Vasto), Apulia (Termoli,

¹ V. Barzoni, ‘Rivoluzioni della Repubblica veneta’ in Ibid, *I Romani nella Grecia e altri scritti antinapoleonici* (G. Brancaccio ed, Millennium Editrice, 2005) 65-67.

² B. Doumerc, ‘L’Adriatique du XIIIe au XVIIe siècle’ in P. Cabanes (ed), *Histoire de l’Adriatique* (Seuil, 2001) 201-312; “La politica adriatica di Venezia” in P. Sarpi, *Il dominio del mare Adriatico* (Tolomei, 1945) VII-XL; R. Cessi, *La Repubblica di Venezia e il problema adriatico* (Edizioni Scientifiche Italiane, 1953); R. Cessi, *Storia della Repubblica di Venezia* (Giunti-Martello, 1981); G. Luzzatto, *Studi di storia economica veneziana* (Cedam, 1954); G. Luzzatto, *Storia economica di Venezia dall’XI al XVI secolo* (Marsilio, 1995); G. Acuaviva, T. Scovazzi, *Il dominio di Venezia sul mare Adriatico nelle opere di Paolo Sarpi e Giulio Pace* (Giuffrè, 2007); E. Ivetic, ‘L’Adriatico nella venezianistica di Roberto Cessi’, (2013) X *Mediterranea – ricerche storiche* 231; E. Ivetic, ‘L’Adriatico come spazio storico transnazionale’, (2015) XII *Mediterranea – ricerche storiche* 483.

³ R. Cessi, ‘Venezia, la Puglia e l’Adriatico’, (1955) VIII *Archivio Storico Pugliese* 53; A. Leone, ‘Il versante adriatico del Regno nell’ultimo quarto del secolo XV: Trani, 1484-1488’, (1981) XCIX *Archivio Storico per le Province Napoletane* 221; A. Leone, ‘Caratteri dell’economia mercantile pugliese’ in A. Leone, *Mezzogiorno e Mediterraneo. Credito e mercato internazionale nel secolo XV*, (Edizioni Athena, 1988) 83-105; M. Popovic-Radenkovic, ‘Le relazioni commerciali fra Dubrovnik (Ragusa) e la Puglia nel periodo angioino (1266-1442) (cont.)’, (1957) XXXVII *Archivio Storico per le Province Napoletane* 5; M. Popovic-Radenkovic, ‘Le relazioni commerciali fra Dubrovnik (Ragusa) e la Puglia nel periodo angioino (1266-1442) (continuazione e fine)’, (1958) XXXVIII *Archivio Storico per le Province Napoletane* 153; F. Pall, ‘I rapporti italo-albanesi intorno alla metà del secolo XV’, (1966) LXXXIII *Archivio Storico per le Province Napoletane* 123; F. Melis, ‘Napoli e il suo Regno nelle fonti aziendali toscane del XIV-XV secolo’ in L. Frangioini (ed), *I mercanti italiani nell’Europa medievale e rinascimentale* (Le Monnier, 1990) 367 ss.; M. Del Treppo, ‘Stranieri nel Regno di Napoli. Le élites finanziarie e la strutturazione dello spazio economico e politico’ in G. Rossetti, *Dentro la città. Stranieri e realtà urbane nell’Europa dei secoli XII-XVI*, (Liguori, 1989) 193-251; M. Del Treppo, ‘Il Regno aragonese’ in G. Galasso, R. Romeo (eds), *Storia del Mezzogiorno*, vol IV, tome 2 (Edizioni del Sole, 1986) 87-201; M. Del Treppo, *I mercanti catalani e l’espansione della Corona d’Aragona nel secolo XV* (L’Arte Tipografica, 1972); N. Nicolini, ‘Il consolato generale veneto nel Regno di Napoli’, (1927) XIII *Archivio storico per le Province napoletane* 59; G. M. Monti, ‘Privilegi e

Barletta and Trani) and southern Calabria (Crotona) there came to be in fact a large number of Venetian merchants, who founded colonies ruled by consuls under the jurisdiction of the Republic.⁴ In 1475, the consul Filippo Severino, who was appointed head of the Venetian *natio* active in Crotona, was the guarantor of the deals made by his countrymen in Calabria.⁵ The heavy defeat suffered by the Venetian Republic at Agnadello (14 May 1509) seemed to put an end to the unequal “economic system”, but the recovery of lost territories and the Bologna Declaration of 1529 meant that Venice, by regaining her maritime dominance in her Gulf, could regain again in a short time a propulsive function in the movement of commercial traffic.⁶ It is important to note that the coastal towns of Apulia and Abruzzo enjoyed in that period a renewed phase of economic vitality, thanks to a policy to revitalize the export of the excess agricultural products directed towards the Adriatic markets of central and northern Italy, but also to those of East Adriatic coast.⁷ Although the military ambitions of Venice had changed, the Dominant continued to exert a direct control on Istria, Dalmatia and Albania, which also acted as strategic bases of support for the maritime convoys headed out of the Gulf to the Levant and to the West, and a form of indirect supervision of the ports in south-central Italy, essentially not involved in the big traffic in the Mediterranean, through the renewal of bilateral agreements and through a mercantilist policy based on a favourable customs regime towards her partners, the adoption of a series of measures to reduce the

consolati di fiorentini e lombardi sotto Ferrante I d'Aragona' in *Dagli Aragonesi agli Austriaci. Studi di storia meridionale* (Vecchi, 1936) 3-24; T. Pedio, 'Il consolato veneto a Molfetta dal XV al XVIII secolo', (1981) *I Studi storici meridionali* 31.

⁴ G. Luzzatto, 'Studi sulle relazioni commerciali tra Venezia e la Puglia', (1904) *7 Nuovo Archivio Veneto* 174; P. Preto, 'Politica e commercio dei Veneziani in Puglia' in *Atti del Convegno di Studi "La presa di Gallipoli del 1484 ed i rapporti tra Venezia e Terra d'Otranto (Gallipoli, 22-23 settembre 1984)* (Società di Storia Patria per la Puglia, 1986) 11-20; M. Costantini, 'Sottovento. L'Abruzzo e i traffici veneziani' in M. Costantini, C. Felice (eds), *Abruzzo. Economia e territorio in una prospettiva storica* (Cannarsa, 1998) 9-76; A. Spagnoletti, *Un mare stretto e amaro. L'Adriatico, la Puglia e l'Albania (secc. XV-XVII)* (Viella, 2014); F. Carabellese, A. Zambler, *Le relazioni commerciali fra la Puglia e la Repubblica di Venezia dal secolo X al XV* (Vecchi, 1898, reprint: Forni, 1991); F. Carabellese, *La Puglia nel secolo XV* (Vecchi, 1901); F. Gabotto, 'Il commercio e la dominazione dei Veneziani a Trani fino all'anno 1530', (1898) *XXIII Archivio Storico per le Province Napoletane* 304; B. Figliuolo, 'I Veneziani a Gallipoli (maggio-settembre 1484)' in *La Serenissima e il Regno nel V centenario dell'Arcadia di Iacopo Sannazzaro* (Cacucci, 2006) 285-311; C. Marciani, 'Consolati veneti in Abruzzo' in C. Marciani, *Scritti di Storia*, vol II (R. Carabba, 1974) 52-67; F. Carabba, *Lanciano. Un profilo storico dalle origini al 1860* (Banca Popolare di Lanciano e Sulmona, 1995); A. Bulgarelli Lukacs, 'Mercati e mercanti in Abruzzo (secoli XV-XVIII)' in M. Costantini, C. Felice (eds), *Abruzzo. Economia e territorio in una prospettiva storica* (Cannarsa, 1998) 225-336; P. Pierucci, 'Il commercio dello zafferano nei principali mercati abruzzesi (secoli XV-XVI)' in M. Costantini, C. Felice (eds), *Abruzzo. Economia e territorio in una prospettiva storica* (Cannarsa, 1998) 161-224; C. Marciani, 'Il commercio dello zafferano a Lanciano nel 1550' in (1963) *LXXXII Archivio Storico per le Province Napoletane* 139; G. Piccioli, *La raccolta dello zafferano ne l'Aquila degli Abruzzi* (Cellamare, 1932); G. Degli Spinosa, *Lo zafferano. Coltivazione e commercio* (Tipografia Aternina, 1904); G. Brasacchio, *Storia economica della Calabria*, vol III-IV (EffeEmme, 1977); A. Placanica, *La Calabria nell'Età moderna, I, Uomini, strutture ed economia* (Edizioni Scientifiche Italiane, 1985); G. Caridi, *La Calabria nella storia del Mezzogiorno. Secoli XI-XIX. Testi e documenti* (Città del Sole, 2013).

⁵ E. Pontieri, *La Calabria a metà del secolo XV e le rivolte di Antonio Centelles* (Fiorentino, 1963); G. Galasso, *Economia e società nella Calabria del Cinquecento* (Feltrinelli, 1975); M. V. Mafri, 'Calabria Ulteriore (1266-1860)' in G. Galasso, R. Romeo (eds), *Storia del Mezzogiorno*, vol VII (Edizioni del Sole, 1986).

⁶ Costantini (n 4).

⁷ G. Poli, 'Le città costiere pugliesi nel sistema del commercio adriatico in Età moderna. Linee di tendenza e ipotesi di ricerca' in H. Houben, K. Toomaspoeg (eds), *Towns and communication*, vol 2 (Congedo Editore, 2011), 313-344; P. Preto, 'Il commercio: Venezia e Terra d'Otranto' in B. Pellegrino (ed), *Storia di Lecce dagli Spagnoli all'Unità*, vol 2 (Laterza, 1995) 375-416; M. A. Visceglia, *Territorio, feudo e potere locale. Terra d'Otranto tra Medioevo ed Età moderna* (Guida, 1988) 143-163; M. Iinfelise, 'Consoli e mercanti veneti a Monopoli e sui litorali pugliesi tra Cinque e Seicento' in D. Cofano, *Atti del Convegno di Studi "Monopoli nell'età del Rinascimento"* (Fasano, 1988) 765-775; F. S. Perillo, 'Schiavoni e Ragusei in Puglia nella seconda metà del Quattrocento' in A. Di Vittorio, *Ragusa e il Mediterraneo. Ruolo e funzioni di una Repubblica Marinara tra Medioevo ed Età Moderna*, a (Cacucci, 1990) 360 ff.

tax burden (the composite rate, for example, facilitated the import-export of goods by Lee-side).⁸ Prompted by demand and supported by the customs measures taken by Venice, the Italian ports and piers of the Adriatic and Ionian Seas then became the protagonists of a considerable coastal trade, which, practiced mainly on small boats (tartans, marcilianas, luggers, and feluccas), constituted a significant share of the commercial movement of the Republic.⁹ The ports of the Kingdom of Naples that were stationed along the Tronto at intervals down to Crotone, served as inland or limited terminals, such as those of Abruzzo, because of the physical conformation of the territory and the lack of modern road conditions. Some of the particularly large ports in Apulia were specialized in the export of certain goods, supplying the Venetian market with agricultural products (wheat, oil, wine, saffron, almonds and dried fruit) and natural products (salt and sulphur), but also with wool, skins, raw silk, animals, in exchange for manufactured goods (fabrics in wool, silk, linen and cotton), crude iron, hardware, glassworks, paper and book.¹⁰ The dysfunctions of the Venetian “leeward transit”, which by law conveyed all goods (“*tutte le robbe*”) from abroad (mainly from Germany) and production canters on the mainland to the Venetian market only; the failed attempt to move the goods terminal and the customs office of “leeward transit” to Chioggia; the heavy financial losses arising from the continued existence of the system of privileges enjoyed by the Adriatic canters of the West, while those of Levant were subject to much more demanding duty charges, and above all the strong circumvention of measures were all elements that led to an increased competition in the circuits of inter-Adriatic trade, which was moreover supported by the smuggling, and a marked

⁸ Costantini (n 4) 26-59; A. Bulgarelli Lukacs, ‘Alla fiera di Lanciano che dura un anno e tre dì. Caratteri e dinamica di un emporio adriatico’, (1995) 35 *Proposte e ricerche* 116.

⁹ F. Braudel, *Civiltà e imperi del Mediterraneo nell’età di Filippo II* (tr, Einaudi, 1953) 123-133.

¹⁰ J. A. Marino, *L’economia pastorale nel Regno di Napoli*, (tr, Guida, 1992); M. Aymard, ‘Commerce et consommation des draps en Sicile et en Italie méridionale (XVe-XVIIIe siècles’ in M. Spallanzani (ed), *Produzione commercio e consumi dei panni di lana (secc. XII-XVIII)* (Olschki, 1976) 127-139; G. Cirillo, ‘Le vicende dell’industria laniera nel Regno di Napoli tra iniziativa feudale e politica statale’ in F. Barra (ed), *Manifatture e sviluppo economico nel Mezzogiorno dal Rinascimento all’Unità* (Annali del Centro di Ricerca “Guido Dorso” 1993-1996, Edizioni del Centro Dorso, 2000) 167-210; G. Cirillo, *La trama sottile. Protoindustria e baronaggi del Mezzogiorno d’Italia (secoli XVI-XIX)* (Sellino, 2002); G. Cirillo, *Il vello d’oro. Modelli mediterranei di società pastorali: il Mezzogiorno d’Italia (secc. XVI-XIX)* (Lacaita, 2003); G. Cirillo, *Verso la trama sottile. Feudo e protoindustria nel Regno di Napoli (secc. XVI-XIX)* (Ministero per i Beni e le Attività culturali. Direzione generale per gli Archivi, 2012); G. Cirillo, *Alle origini di Minerva trionfante. Protoindustrie mediterranee: città e verlagssystem nel Regno di Napoli nell’Età moderna* (Ministero per i Beni e le Attività culturali. Direzione generale per gli Archivi, 2012); R. Rossi, *La lana nel Regno di Napoli nel XVII secolo. Produzione e commercio*, (Giappichelli, 2007); M. Aymard, *Venise, Raguse et le commerce du blé pendant la seconde moitié du XVIe siècle* (SEVPEN, 1966); E. PAPAGNA, *Grano e mercanti nella Puglia del Seicento* (Edipuglia, 1990); L. Palumbo, G. Rossiello, ‘I prezzi del grano a Bitonto nel secolo XVII’ in G. Poli, *Ricerche su Terra di Bari tra Sei e Settecento* (Mezzina, 1986) 9-19; L. Palumbo, G. Rossiello, ‘Mercati in Terra di Bari a fine Seicento’, (1984) XXXVII *Archivio Storico Pugliese* 139; R. Romano, ‘Il Regno di Napoli e la vita commerciale nell’Adriatico’ in R. Romano, *Napoli: dal Vicereame al Regno. Storia economica* (Einaudi, 1976) 123-160; P. Macry, *Mercato e società nel Regno di Napoli. Commercio del grano e politica economica del ’700* (Guida, 1974); P. Chorley, *Oil, Silk and Enlightenment, Economic Problems in XVIIIth Century Naples* (Giannini, 1965); A. Montaudo, *L’olio nel Regno di Napoli nel XVIII secolo. Commercio, annona e emendamenti* (Edizioni Scientifiche Italiane, 2005); L. Molà, R. C. Mueller, C. Zanier (eds), *La seta in Italia dal Medioevo al Seicento* (Marsilio, 2000); V. Cataldo, *Contratti e rapporti di produzione nella Calabria del XVIII secolo* (Edizioni Scientifiche Italiane, 2012); D. Ciccolella, *La seta nel Regno di Napoli nel XVIII secolo* (Edizioni Scientifiche Italiane, 2003); A. Clementi, ‘La produzione ed il commercio dello zafferano nel contesto della fioritura mercantile del basso Medioevo all’Aquila’, (1994) XXXIV *Rivista di Storia dell’Agricoltura* 29; M. A. Visceglia, ‘Commercio estero e commercio peninsulare’ in L. De Rosa, L. M. Enciso Recio, *Spagna e Mezzogiorno d’Italia nell’età della transizione. Stato, finanza ed economia (1650-1760)* (Edizioni Scientifiche Italiane, 1997) 73-125; I. Zilli, ‘L’industria e il suo rinnovamento’ in L. De Rosa, L. M. Enciso Recio, *Spagna e Mezzogiorno d’Italia nell’età della transizione. Stato, finanza ed economia (1650-1760)* (Edizioni Scientifiche Italiane, 1997) 47-72.

diversion of trajectories and the movement of traffic.¹¹ It was in this new context and under the relentless Ottoman advance that the first signs of crisis in Venetian dominance of the Adriatic began to be glimpsed. Other factors which contributed to this slow decline were the war against the fugitives (*uscocchi*) and the growing pressure exerted by the Habsburgs by demanding discussions on the issue of freedom of navigation thereby calling the maritime primacy of Venice into question. It was in this context that the conditions ripened for the setting on motion of an “integrated market system” that would allow the main Adriatic ports to free themselves from the conditioning rule of Venice while continuing to interact in its trading business. Taking advantage of the difficult political and economic moment that the Dominant was passing through, the coastal canters of both shores of the Adriatic Sea proposed, in short, to establish themselves as prime actors in Venetian trade and not mere ‘silent partners’ any longer.¹² The contemporary documentary sources (cadastral, notarial deeds), albeit in a fragmentary way, confirm the increase in the volume of trade between the two shores of the Adriatic Sea, also evidenced by the massive presence in the main Italian maritime canters of the middle and lower Adriatic Coast of the Dalmatian, Ragusan, Albanian, Greek and Slav merchants alongside of merchants from Lombardy, Venice, Florence, Lucca and especially from Genoa.¹³ This increase in the commercial dynamism of the Adriatic ports of the Kingdom helped in the realization of the plan for the construction of defensive coastal towers completed in 1569. From the report prepared in the last decade of the 16th century by the Marquis of Celenza, Carlo Gambacorta, governor of Abruzzo and Capitanata, we learn that in those years stocks of goods and warehouses were built or expanded at the expense of local and foreign merchants as well as of the universities; numerous places of sale, taverns and inns were opened and temporary shelters for seasonal workers were erected.¹⁴ It is interesting to note, moreover, that

¹¹ Costantini (n 4) 15-26.

¹² Ibid, 13-14; C. Marciani, ‘Le relazioni tra l’Adriatico orientale e l’Abruzzo nei secoli XV, XVI e XVII’ in Marciani, *Scritti di Storia*, vol II (n 4) 7-42.

¹³ H. Hoshino, *Sulmona e l’Abruzzo nella mercatura fiorentina del basso-Medioevo* (Pioda, 1981); P. Pierucci, Il mercato aquilano della lana metà del ‘500’ in *Mercati e consumi. Organizzazione e qualificazione del commercio in Italia dal XII al XX secolo, Atti del I Convegno Nazionale di Storia del Commercio in Italia (Reggio Emilia - Modena 6-9 giugno 1984)*, (I.F.O.A., 1985) 161-171; A. Bulgarelli Lukacs, *Mercanti bergamaschi nel Regno di Napoli: l’area dell’Adriatico centro-meridionale* (Quaderni del Dipartimento di Teoria e Storia dell’Economia Pubblica, 1996); R. Colapetra, ‘Genovesi in Puglia nel Cinque e Seicento’, (1982) XXXV *Archivio Storico Pugliese* 21; A. Musi, *Mercanti genovesi nel Regno di Napoli* (Edizioni Scientifiche Italiane, 1996); G. Brancaccio, “*Nazione genovese*”. *Consoli e colonia nella Napoli moderna* (Guida, 2001); G. Brancaccio, ‘Consoli, colonia genovese ed attività mercantili nella Napoli moderna’ in M. Mafrici (ed), *Rapporti diplomatici e scambi commerciali nel Mediterraneo modern* (Rubbettino, 2004), 197-206; A. Calabria, ‘Finanzieri nel Regno di Napoli nel Cinquecento’, (1989) 101 *Rivista Storica Italiana* 585; A. Calabria, *The costo f Empire. The finances of the Kingdom of Naples in the time of Spanish rule* (Cambridge University Press, 1991); G. Muto, ‘Strutture sociali e congiuntura economica nell’Italia spagnola’ in A. Musi (ed), *Nel sistema imperiale. L’Italia spagnola* (Edizioni Scientifiche Italiane, 1994) 175-195; M. Sirago, ‘Attività economiche e diritti feudali nei porti, caricatoi ed approdi meridionali tra XVI e XVIII secolo’ in G. Simoncini (ed) *Sopra i porti di mare*, vol II: Il Regno di Napoli (Olschki, 1993) 329-389; G. Fenicia, *Politica economica e realtà mercantile nel Regno di Napoli nella prima metà del secolo XVI (1503-1556)* (Cacucci, 1996).

¹⁴ Cf C. Gambacorta, *Visita delle torri di Capitanata nel mese di dicembre 1594 e di quelle d’Abruzzo nel mese di ottobre 1598* (Bibliothèque National Paris, ms. ital. 470); A. Gambacorta, ‘Città fortificate e torri costiere della Puglia e dell’Abruzzo nelle relazioni di Carlo Gambacorta’, (1965) 2 *Castellum* 109; M. Mafrici, ‘I mari del Mezzogiorno d’Italia tra cristiani e musulmani’ in W. Barberis (ed), *Storia d’Italia, Annali 18, Guerra e pace* (Einaudi, 2002) 71-121; O. Pasanisi, ‘La costruzione generale delle torri marittime ordinate dalla R. Corte di Napoli nel secolo XVI’ in *Studi di storia napoletana in onore di Michelangelo Schipa* (I.T.E.A., 1926) 395 ff.; R. Cisternino, *Torri costiere e torrieri del Regno di Napoli. 1521-1806* (Istituto Italiano dei Castelli, 1977); M. Benengiamo, ‘Il ruolo commerciale delle torri costiere’ in P. Pierucci (ed), *Patrimonio industriale marittimo nell’Adriatico central* (Franco Angeli, 2013) 70-89; F. Russo, *La difesa costiera del Regno di Napoli dal XVI al XIX secolo* (Ufficio Storico dello Stato Maggiore

before the construction of the Spanish defense system numerous docks for the loading, unloading and storage of goods were actually mobile so that at the first sign of a Turkish incursion these locations were abandoned. With the construction of the coastal towers the merchants felt assured of safer landing piers, and they promoted the construction of a modern port system, which facilitated the expansion of trade, the increase in the transit of vessels and the influx of a growing number of traders, personnel employed in various capacities in the commercial activities of import and export, and workers (caulkers, carpenters and shipwrights) who, coming from the Venetian lagoon (Chioggia and Burano), from Ravenna and Ferrara (Comacchio), were specialized in the construction, repair and maintenance of vessels of small tonnage. Venetian and Ragusean workers were employed in the shipyard of Giulia, that in the mid-1570s was in full swing as was the dock located at the mouth of the Vomano, which the Acquaviva family of Atri had provided with warehouses that had an improved storage capacity. Venetian shipwrights and carpenters, Dalmatian carpenters from Šibenik, experts in the construction of ship hulls, worked in the shipyards of Vasto and Ortona.¹⁵ As for the increase in traffic between the ports of the Kingdom and the Adriatic Sea, it must be remembered that the Acquavivas exported large quantities of wine and oil and supplied wheat to the towns of Ascoli and Fermo. At regular intervals large quantities of ‘worked and prepared’ timber were dispatched to the shipyards of Chioggia and Ragusa for the construction of ships.¹⁶ Abruzzo, for the richness of its forest cover supplied other Adriatic ports with timber and boards for the planking of the boats. In the second half of the 16th century, Cesenatico and Rimini bought huge loads of very robust logs to be used in the construction of the piles of their basins. In 1589 the town of Rimini bought 8,000 trees from the University of Lanciano. The trees were from the Sant’Apollinare forest which was owned by the city of Lanciano.¹⁷ The existence of a circular system of exchange of people and goods is confirmed by the *Libri delle contumacie*, recently the object of an interesting study by Marco Moroni. The *Libri* that do not record all port movements, report the number of boats and ships that docked in the port of Ancona in the first half of the 17th century, their types and their origin. The number of dockings reached its highest point in 1633 when there were 308 ships that docked in Ancona. From the 1640s onward the ship traffic that arrived in the port of the Marche diminished; from 186 units in 1644 it declined to 94 ships registered in 1649. The economic crisis and the epidemic that hit the city in the fifties

dell’Esercito, 1989); G. Brancaccio, ‘La struttura viaria’ in G. Brancaccio, *Il governo del territorio nel Mezzogiorno moderno* (Itinerari, 1996) 1-49.

¹⁵ G. Brancaccio, *In Provincia. Strutture e dinamiche storiche di Abruzzo Citra in età moderna*, Edizioni Scientifiche Italiane, Napoli, 2001; G. Sodano, *Da baroni del Regno a Grandi di Spagna. Gli Acquaviva d’Atri: vita aristocratica e ambizioni politiche* (Guida, 2012); G. Sodano, ‘Beni burgensatici e cultura materiale di una grande famiglia feudale: gli Acquaviva d’Atri attraverso gli inventari della devoluzione (1760-1770)’ in G. Brancaccio (ed), *Il feudalesimo nel Mezzogiorno moderno. Gli Abruzzi e il Molise (secoli XV-XVIII)* (Biblion, 2011) 95-183; G. Brancaccio, ‘Il feudalesimo adriatico nell’Età moderna’ in R. Cancila, A. Musi (eds), *Feudalesimi nel Mediterraneo moderno* (Associazione no profit “Mediterranea”, 2015) 49-80.

¹⁶ L. Ciotti, ‘Le relazioni economiche tra Ascoli e l’Abruzzo tra medioevo ed età moderna nelle fonti archivistiche’, (2007) XXX *Proposte e ricerche* 30; M. L. De Nicolò, ‘Migrazioni di maestranze navali venete e romagnole verso le coste di Marche e Abruzzo. Mobilità di lavoro e dinastie dei mestieri (secoli XVI-XVIII)’, (2007) XXX *Proposte e ricerche* 91; S. Anselmi, *Adriatico. Studi di storia, secoli XIV-XIX* (Clua, 1991); S. Anselmi, *Storie di Adriatico* (Il Mulino, 1996); E. Ivetic, *Un confine nel Mediterraneo. L’Adriatico orientale tra Italia e Slavia (1300-1900)* (Viella, 2014).

¹⁷ G. Brancaccio, ‘Aspetti e problemi della feudalità abruzzese e molisana nell’età moderna (secoli XV-XVII)’ in G. Brancaccio (ed), *Il feudalesimo nel Mezzogiorno moderno*, cit., 15-94; F. D’Esposito, ‘Il mosaico mediterraneo. Centri e periferie in una prospettiva di lungo periodo’ in M. Fuschi (ed), *Il Mediterraneo. Geografia della complessità* (Franco Angeli, 2008) 19-52.

caused a further decline of the port movement. Surprisingly the largest number of registered vessels was coming from the small ports of Pescara and Termoli.¹⁸ The port of Abruzzo had become important for the export of a wide range of goods (wine, oil, ceramics and leather). From Termoli, instead came large loads of firewood. From the ports of Apulia came various goods. From Barletta, goods produced in the vast hinterland that stretched from northern Murgia until Melfese and Vulture, were shipped large quantities of grain and large loads of salt, transported on Ragusan ships.¹⁹ From Bari, where the port could count on a diversified agricultural hinterland that produced a wide variety of goods including wheat and other high value commodities such as oil, wine, vegetables, meat and dairy products. The routes of the ships that sailed from Bari were the result of intense negotiations between merchants from Venice, Lombardy and Florence and local producers.²⁰ It is said that the system of inter-Adriatic trade relied on ships of small tonnage, which with their shallow draught were able to approach the very low lying landing docks of the Adriatic Sea. The advantages of boats of this type, also used for long distance commerce, were multiple. Not only the construction costs were lower than those of ships of greater tonnage, which belonged to the navies of Venice and Ragusa and the Atlantic powers (Dutch, English and French) that were increasingly present in the Adriatic Sea, but also operating costs were lower, given that their crew consisted of a few sailors; furthermore, their flow capacity was considerable and also the loading and disembarking operations were faster.²¹ The *Libri delle contumacie* also provides about the owners of the boats. The number of owners from Bisceglie, Brindisi, Molfetta and Bari was now higher, confirming the new commercial classes and ship-owners and the changes in the economic hierarchy of the maritime cities of Apulia, where Trani now occupied a secondary role. The trade activity reported testifies to the fact that the goods exported from the ports of the Kingdom on the Adriatic Sea were typical of Mediterranean agriculture: wheat, oil, wine, wool, rice, barley, legumes, nuts, saffron, salt, vinegar, skins, salted meat and cheese.²² The increased demand for oil continued to come from the markets of Venice and Ferrara. At the end of the 16th century, the Venetian importation of oil from Puglia increased to about 100 thousand hectolitres, of which one half was placed on the market in the hinterland of the Po and in Germany, France and England, while the other half was used for lighting, soap factories, as a wool fabric softener and for lubricating machinery. Until the end of the 18th century oil was the main item imported by Venice from the Kingdom; but the monopoly of Venice was threatened by the massive haemorrhage of cash money needed to purchase the product and by the imposition of heavy duties on imports, as well by the difficulties related to the supply of Castilian wool and by the strong English competition, which took control of the exportation of the oil produced in the Terra

¹⁸ M. Moroni, 'Barche e paroni dell'area picena, aprutina e pugliese ad Ancona nel Seicento', (2007) XXX *Proposte e ricerche* 65; M. Moroni, *Tra le due sponde dell'Adriatico. Rapporti economici, culturali e devozionali in età moderna* (Edizioni Scientifiche Italiane, 2010).

¹⁹ J. F. Bergier, *Una storia del sale* (Marsilio, 1984); J. C. Hocquet, *Il sale e il potere. Dall'anno Mille alla rivoluzione francese* (ECIG, 1990); A. Di Vittorio (ed), *Sale e saline nell'Adriatico (secc. XV-XX)* (Giannini, 1981); F. Barra, *Le saline delle isole Ionie durante il dominio di Venezia (1386-1797)* in F. Barra, *Il Mediterraneo tra Ancien Régime ed età napoleonica. Studi e ricerche*, vol I (Sellino, 2005) 157-179.

²⁰ B. Salvemini, M. A. Visceglia, 'Bari e l'Adriatico' in F. Tateo (ed) *Storia di Bari nell'Antico Regime*, vol I (Laterza, 1991) 169-217; M. Aymard, 'Il Sud e i circuiti del grano' in P. Bevilacqua (ed), *Storia dell'agricoltura italiana in età contemporanea. Spazi e paesaggi* (Marsilio, 1989) 755-787.

²¹ S. Anselmi, *Venezia, Ragusa, Ancona tra Cinque e Seicento: un momento della storia mercantile del Medio Adriatico* (Tip. SITA, 1969).

²² Moroni (n 18).

d'Otranto and embarked from the port of Gallipoli.²³ The strong commercial momentum in the Ionian port had positive effects on the entire economy of Salento. Through English mediation, oil production, both peasant and that of the large baronial companies, then entered into an international commercial circuit, whose route, despite having London as terminal, touched the Tyrrhenian ports of Naples and Livorno.²⁴ In the Terra di Bari commercial traffic of olive oil preserved instead an essentially Adriatic physiognomy because of the emergence of a class of local autonomous operators, although the price of oil on the market of Molfetta, after having reached 19 ducats per *salma*, went down to 12 ducats during the war of Candia.²⁵ Despite the rationing and tax constraints, grain remained among the main export items of the Adriatic regions of the Kingdom both for its good quality and for the efficient storage and conservation system used to export it. Wheat, closed in sacks, was placed in “ditches” that served as underground; it was then covered with salt, clay and stones to protect it from alteration and it was guarded by public officials. The storage system also ensured a rapid embarkation, since the “ditches” were dug in dry soils not far from docks. Barletta was the port of the Kingdom which was most specialized in the trade of grains and in the thirty years from 1639 to 1668 around 6 million of *tomoli* of wheat were exported from Barletta with an average of 200 thousand *tomoli* per year. Manfredonia also played an important role in the export of large quantities of grain to Venice and Ragusa.²⁶ While the owners of the ships were Genoese or Neapolitans confirming the interest that operators from Liguria and Naples had for the Adriatic commercial trade, the monitoring of freight and the insurance market was instead concentrated in the hands of Ragusean merchants and agents.²⁷ The surplus grain from the vast feudal complex of the Di Capua family was exported from the ports of Termoli and Fortore to various Adriatic ports.²⁸ Not less relevant for the economic-mercantile system of the Adriatic Sea was the salt trade. The salterns of Barletta supplied almost all of the countries whose markets gravitated on the Adriatic Sea. Once again, it was thanks to Venice that

²³ M. Costantini, ‘L’olio della Serenissima dal commercio alla produzione. Per una storia dell’uso produttivo di un territorio d’oltremare in una strategia mercantile’ in M. Costantini, A. Nikiforou (eds), *Levante veneziano. Aspetti di storia delle Isole Ionie al tempo della Serenissima* (Bulzoni, 1996) 11-19; I. Mattozzi, *Crisi, stagnazione e mutamento nello Stato veneziano sei-settecentesco: il caso del commercio e della produzione olearia*, (1980) IV Studi veneziani 216; I. Mattozzi, ‘Olio pugliese e olio ionico nel commercio veneziano sei-settecentesco’ in *Mercati e consumi. Organizzazione e qualificazione del commercio in Italia dal XII al XX secolo, Atti del I Convegno Nazionale di Storia del Commercio in Italia (Reggio Emilia - Modena 6-9 giugno 1984)*, (I.F.O.A., 1985) 147-160; Preto (n 7); C. Massa, *Il prezzo e il commercio degli oli di oliva di Gallipoli e di Bari* (Vecchi, 1897); S. Ciriaco, *Olio ed ebrei nella Repubblica Veneta del Settecento* (Deputazione di storia patria per le Venezie, 1975); S. Barbagallo, *Un mercato subalterno. Economia e società a Gallipoli nel Settecento* (Congedo Editore, 1998); S. Barbagallo, *Società e patriziato a Gallipoli nel Settecento* (Congedo Editore, 2001); S. Barbagallo, *Agricoltura e società rurale in Terra d’Otranto tra XVIII e XIX secolo* (Congedo Editore, 2013); D. Sella, *Commerci e industrie a Venezia nel secolo XVII* (Istituto per la collaborazione culturale, 1961); D. Sella, ‘L’industria della lana in Venezia nei secoli XVI e XVII’ in C. M. Cipolla (ed), *Storia dell’economia italiana* (Einaudi, 1959) 533-556; W. Panciera, *L’arte matrice. I lanifici della Repubblica di Venezia nei secoli XVII e XVIII*, (Canova, 1996); R. T. Rapp, *Industry and Economic Decline in Seventeenth-century Venice* (Cambridge University Press, 1976).

²⁴ G. Pagano De Divitiis, *Mercanti inglesi nell’Italia dei Seicento. Navi, traffici, egemonie* (Marsilio, 1990); G. Pagano De Divitiis, *Il commercio inglese nel Mediterraneo dal Cinquecento al Settecento* (Guida, 1984).

²⁵ Poli (n 7) 329-335.

²⁶ S. Russo, ‘Il porto in età moderna tra opportunità e dipendenza’ in *Storia di Manfredonia*, vol II (Edipuglia, 2009) 85-108.

²⁷ P. Nardone, ‘L’economia delle comunità abruzzesi lungo la costa dell’Adriatico’ in S. Cavaciocchi (ed), *Ricchezza del mare, ricchezza dal mare secc. XIII-XVIII* (Le Monnier, 2006) 441-460; P. Nardone, *Portualità e navigazione in Abruzzo nella prima metà del XIX secolo* (Cacucci, 2008); C. Felice, *Porti e scafi. Politica ed economia sul litorale abruzzese-molisano (1000-1980)* (Cannarsa, 1993); C. Felice, *Vasto. Storia di una città* (Donzelli, 2011).

²⁸ G. Brancaccio, *Il Molise medievale e moderno. Storia di uno spazio regionale*, (Edizioni Scientifiche Italiane, 2005); C. Felice, A. Pasqualini, S. Sorella, *Termoli. Storia di una città* (Donzelli, 2009) 45-97.

the salt from Barletta became one of the most widely distributed goods in inter-Adriatic trade. The monopoly enjoyed by the Dalmatian salterns of Pag (district of Zadar), Split and Istria was challenged when Venice set up a salt market that was governed by a set of rules that would ensure the growing prosperity of the sector. Considerable tax revenues began to flow into Venetian treasury coffers while the economy of Dalmatia and Istria suffered from the change.²⁹ Although Ragusa possessed its own salterns it acquired large lots of salt from Barletta. Similarly the Papal States obtained supplies of salt from Barletta, delivered to the port of Ancona which became the main supply center of the Papal States.³⁰ The salt of Barletta was also exported in large quantities to the canters on the Croatian coast from where it was then sold in the Bosnian and Serbian hinterlands and in Trieste, where the salt trade became a strong point of the city economy.³¹ The wool trade, which reached its peak in the late 16th century, instead, suffered a sharp contraction when the production canters of Veneto and Lombardy entered a terrible crisis with no way out.³² Another characteristic feature of the “Adriatic system” was the increase in cash flow and the number of currencies, due to the increase in commercial transactions. Alongside of the Spanish currency (the *real de a ocho*) and the Venetian *scudo*, Ragusa issued its silver *grosso*; this coinage, however, was repeatedly suspended by the government of Ragusa due to the high price of silver on the international market. There is no doubt that the creation of its own currency, and the obligation that foreign merchants active on the Ragusan market change their money with the local currency were the basis for the economic momentum of the small Republic, which not only took advantage of the robust merchant relationships with Italian ports, but also played an important role in the transit and distribution of goods to and from the neighbouring Turkish provinces.³³ Nor should we ignore the role played by operators of Ragusa in the field of marine insurance. The main Adriatic routes were in fact almost all covered by insurance from Ragusa. The route that was most insured was Ragusa – Ancona.³⁴

We have attempted here to focus attention on just some of the many aspects of this complex “integrated maritime system” that was founded by the countries and the main Adriatic ports in the first centuries of the modern age, and that remained until the 18th century. But, it must also be stressed that in the early 18th century the Adriatic Sea was not a maritime area under the hegemony of Venice. The geopolitical picture had changed. The Venetian sphere of influence was dwindling and inter-Adriatic trade area, despite the emergence of new players (the Austrian monarchy had become a great European power and in 1719 during the reign of Charles VI had obtained Trieste which it maintained as a duty free port) had been reduced to a “provincial” or secondary space

²⁹ Di Vittorio (n 19).

³⁰ S. Anselmi, ‘La ‘politica del sale’ nei documenti pubblici dello Stato Pontificio. Appunti per una ricerca’ in Di Vittorio (n 19) 69-96.

³¹ T. Fanfani, ‘Il sale nel Litorale austriaco dal XV al XVIII secolo. Un problema nei rapporti tra Venezia e Trieste’ in Di Vittorio (n 19) 212-227.

³² Rossi (n 10) 233-282.

³³ P. Pierucci, *Una porta verso l’Oriente. La zecca di Ragusa (secc. XVII-XVIII)* (Giappichelli, 2000); A. Di Vittorio, *Tra mare e terra. Aspetti economici e finanziari della Repubblica di Ragusa in Età moderna* (Cacucci, 2001).

³⁴ P. Nardone, A. Di Nucci, ‘Before Pacioli. The use of double-entry Accounting method in the Mediterranean Area in the low Middle Ages’ in *III International Conference on Luca Pacioli in Accounting History, III Balkans and Middle East Countries Conference on Accounting and Accounting History*, vol I (Oheim Iletisim, 2014) 727-743; P. Quercia, ‘Le assicurazioni marittime a metà Cinquecento attraverso le fonti contabili ragusee’ in P. Pierucci (ed), *La contabilità nel bacino del Mediterraneo (secc. XIV-XIX)* (Franco Angeli, 2009) 109-122; D. Della Osa, ‘La contabilità dei mercanti ragusei nel XVI secolo’ in P. Pierucci (ed), *La contabilità nel bacino del Mediterraneo (secc. XIV-XIX)* (Franco Angeli, 2009), 123-142.

in comparison with the great volume of trade then flowing from the Atlantic and the Mediterranean.³⁵ The very geography of the Adriatic Sea seemed to have been diminished into a small and tight angle. However, the Adriatic was not relegated to oblivion nor did the distorting tradition that saw the Adriatic as the sea from which enemies arrived to plunder and devastate endure for long. The Adriatic was no mere theatre for the long war between the Ottoman Porte and the Catholic powers. It was instead a crucial space for trade encounters and relations despite the decline of Venice.

2. The geopolitical role of the Ionian and Adriatic seas in the Great Napoleonic Empire

The Adriatic Sea was a space of communication among peoples, of political complicity, cross alliances and of considerable geopolitical significance, as soon became obvious to Napoleon.³⁶ If you glance over the pages of the *Memoriale di Sant'Elena* dedicated to the “beautiful theatre of Italy” you can see what strategic role the emperor had assigned to the peninsula because of its international geopolitical configuration, particularly in the arena of the Mediterranean.³⁷ It is known that the Napoleonic expansionism was based on two intersecting trajectories: the first aimed at the consolidation of the landmass under French rule; the second aimed at strengthening the fleet and contending for English supremacy on the seas.³⁸ Napoleon, therefore, turned up on the international political scene not as a pure theorist of the land/sea opposition, or of the conflict between the continental powers and maritime powers, but as a supporter of continentalist theories, that he however combined at the same time with a maritime strategy, aimed at naval superiority, which was useful for the conquest of the seas.³⁹ It is in this context that the occupation of the Maltese archipelago and the expedition to Egypt can be understood, as a kind of exportation of the Anglo-French conflict to the seas and the lands of the East.⁴⁰ The development of the Mediterranean configuration of Napoleon, whose modern geopolitical vision placed great emphasis on naval bases and on their geographical and strategic location, identified its main stanchions in the port of Livorno and in those of Corsica to control the Tyrrhenian Sea; the ports in Malta and in the archipelago to insure hegemony in the heart of the

³⁵ J. Berenger, *Storia dell'Impero asburgico 1700-1918* (tr, Il Mulino, 2003) 35-56; J. Berenger, ‘A propos d’un ouvrage récent: les finances de l’Autriche à l’époque baroque (1650-1740)’, (1984) 3 *Histoires, Economies, Sociétés* 221.

³⁶ G. Brancaccio, ‘Geopolitica’ in L. Mascilli Miglorini (ed), *Italia napoleonica. Dizionario critico* (UTET, 2011) 251-266.

³⁷ E. de Las Cases, *Memoriale di Sant'Elena*, vol II (L. Mascilli Migliorini ed, tr, RCS Libri, 2004) 1477-1480; L. Bely, *La Méditerranée, un espace politique transformé au XVIIIe siècle?* in R. M. Delli Quadri (ed), *Storia e identità storica nello spazio euro mediterraneo* (Guida, 2015) 19-33.

³⁸ Brancaccio (n 36) 253-259.

³⁹ Ibid, 260-266; G. Bourgin, J. Godechot, *L'Italie et Napoléon (1796-1815)* (Recueil Sirey, 1936); C. Capra, *L'età rivoluzionaria e napoleonica in Italia (1796-1815)* (Loescher, 1978); A. De Francesco, *L'Italia di Bonaparte. Politica, statualità e nazione nella penisola tra due rivoluzioni, 1796-1821* (UTET, 2011); A. Fugier, *Napoleone e l'Italia* (Biblioteca di Storia Patria, 1970); *L'Italia giacobina e napoleonica. Atti del Colloquio internazionale sulla storia dell'Italia giacobina e napoleonica (Roma, 25-27 marzo 1974)* (Annuario dell'Istituto Storico Italiano per l'Età moderna e contemporanea XXIII-XXIV, 1975); *L'Italia nell'età napoleonica. Atti del LVIII Congresso di Storia del Risorgimento (Milano 1996)* (Istituto per la Storia del Risorgimento, 1997); L. Mascilli Migliorini, *Napoleone*, (Salerno, 2014); A. Pillepich, *Napoleone e gli Italiani* (Il Mulino, 2005); C. Zaghi, *Napoleone e l'Italia* (La Città del Sole, 2011).

⁴⁰ G. Brancaccio, ‘La questione di Malta’ in (2004) 27 *Rivista italiana di studi napoleonici* 127; J. Tulard, *Napoleone. Il mito del Salvatore* (tr, Bompiani, 2000) 111-119.

Mediterranean; and, finally, in the ports of Ancona and Corfu and in those of the other islands of Ionian Eptanese for control of the Adriatic Sea and the Balkans.⁴¹ The ratification of the Treaty of Tilsit (7 July 1807), formalizing the renunciation by Russia of the strategically situated Adriatic-Ionian islands, which were ceded to France, consolidated the French presence in the Adriatic and opened the Balkans to Napoleonic influence. Just two years later, in fact, with the Treaty of Schönbrunn (14 October 1809) Napoleon founded the Illyrian Provinces, which included Dalmatia, Istria, Ragusa and the Bay of Kotor, Carinthia and Croatia.⁴² This is not the place to retrace the continuous territorial adjustments carried out by Napoleon with the intention of giving the Ionian-Adriatic space a disposition towards greater equilibrium and a more complete submission to his policy, the exigencies of his wars and of the economic blockade. What matters here is to focus on the fact that the strategy followed by England, which aimed to reduce the vast maritime front of the war to a manageable size by dividing it into several sections, proved successful precisely in the Adriatic Sea. And it is significant that England, that emerged victorious from the militarily and economical conflict in which she opposed Napoleon, entrusted the *de facto* control of the northern Adriatic Sea to Austria, making sure, however, that the domain on the middle and lower Adriatic Sea and the Ionian Sea remained under British influence. According to the Treaties of Vienna, in fact, Corfu and the Ionian Islands formed an independent state, under the British protectorate, which lasted nearly fifty years.⁴³

3. The formation of the nation in Giuseppe Mazzini's *Lettere slave*

The disintegration of the Great Napoleonic Empire and the preponderance of Austria, with its direct and indirect holdings in the Italian peninsula and on the Adriatic-Balkan chessboard, favoured the spread of nationalist sentiment on both sides of the Adriatic Sea. The attention given by Mazzini to the idea of nation, and its centrality to his ideology is well known. Mazzini identified an inseparable bond between the principle of nationality and the aspiration to unity that led to the independence of the European peoples. For Mazzini every sovereign nation had the right, in the context of the “Spring of Nations”, to its existence, thus it had the right to its own natural resources, its own physical and spatial dimension, population and historical tradition. In assessing the importance of movements of the Slavs in the Austrian domains and territories subject to Ottoman rule, Mazzini advocated the dissolution of the two empires, and turned his gaze to the “Slavic question” as a whole, without circumscribing the issue of the Southern Slavs.⁴⁴ Mazzini's positions were expressed in the *Lettere slave* that appeared in the Genoese periodical “*L'Italia del Popolo*”, in a series of articles published between 15 and 22 June 1857, after the founding of the Pan-Slav Committee, created to relaunch

⁴¹ G. Brancaccio, ‘Corsica’ in Brancaccio (n 36) 267-268; M. Vergé-Franceschini, *Histoire de Corse* (Edition du Félin, 1996); M. Vergé-Franceschini, *La Corse et l'Angleterre XVI-XIX siècles* (Editions Alain Piazzolla, 2005); G. Brancaccio, ‘Toscana’ in Brancaccio (n 36) 285-287; G. Brancaccio, ‘Isole Ionie’ in Brancaccio (n 36) 268-270; J. Baeyens, *Les Français à Corfou (1797-1799 et 1807-1814)* (Institut Français d'Athènes, 1973); F. Barra, ‘Le Isole Ionie da Venezia a Bonaparte’ in F. Barra, *Il Mediterraneo tra Ancien Régime ed età napoleonica*, op. cit., 83-155.

⁴² F. Aagostini, *L'area alto-adriatica dal riformismo veneziano all'età napoleonica* (Marsilio, 1998); D. Visintin (ed), *L'Istria e le Province Illiriche nell'età napoleonica* (Società di Studi storici e geografici Pirano, 2010).

⁴³ P. Pisani, *La Dalmatie de 1797 à 1815* (A. Picard, 1893); G. Pauthier, *Les Iles Ioniennes pendant l'occupation française et le Protectorat anglais d'après les papiers du général Donzelot* (B. Duprat- Libraire de L'Institut de la Bibliothèque Impériale et du Senat, 1863).

⁴⁴ G. Mazzini, *Lettere slave e altri scritti*, (G. Brancaccio ed, Biblion, 2007).

the political agreement between Russia and the Slavic countries of Central Europe and the Balkans.⁴⁵ The *Lettere slave* were not the first evidence of the Genoese agitator's interest for the "Slavonic question"; Mazzini had dwelt in some of his earlier writings on this question and the *Lettere slave* were actually the result of extensive reworking of an earlier essay *On the Slavonian National Movement* which appeared, in 1847, in the "Lowe's Edinburgh Magazine". For the Southern Slavs, which he considered one of the four major groups of Slavic family together with the Poles, Russians and Czechs, Mazzini envisaged the formation of a political unity under an administrative federation, which would include Serbs, Montenegrins, Croats and Bulgarians. Mazzini placed a particular emphasis on the anomaly of the Habsburg Empire, in which the small German minority held political control over the entire country, crushing or relegating to a subordinate political position the majority of the population that was of Slavic origin. Nevertheless, the Slavic peoples of the Austrian Empire had become aware of their state and aspired to achieve independence and unity. In Mazzini's view the internal situation of the Turkish Empire was no different to that of the Habsburg Empire. In the area of European Turkey an army of 100 thousand men oppressed over 15 million people. The determining factor in creating this anomaly in both Empires had been the policy of *divide et impera* adopted by both states. However, the emancipation of Montenegro, the independence of Greece, the struggle supported by Serbia for more than two decades from 1804 to 1829, the recognition of its independence, the autonomy obtained by Moldo-Vlachs and the powerful "breath of freedom" which blew among the Slavs of Bosnia and the Bulgarians were clear signs of the impending breakup of the Turkish empire on the Balkan Peninsula, and the collapse of that empire would raise the concerns of the Slavs gathered in the Austrian Empire.⁴⁶ Mazzini was fascinated by the political movements of the great Illyria, which tended to form one big Balkan state and by the revival of national consciousness in the Southern Slavs to which Ljudevit Gaj had made a decisive contribution. What affected Mazzini the most was the prophetic-religious value of the national poetry, its significance in the formation of consciousness of national identity. It was the movement for the recovery of the literary production of the past, popular songs, the *pjesmas*, ethnic traditions, customs, habits and language systems, implemented by Croatian, Serbian, Dalmatian and Montenegrin intellectuals that gave impetus to the formation of national consciousness.⁴⁷ It should be remembered, however, that the sense of ethical-political solidarity, manifested by Mazzini for the Slavic peoples, was for him never separated from the "Italian question", the idea of national unity seen as "moral need and spiritual reality", by the civilizing mission entrusted by God to Italy, which should have been the natural ally of other nations then emerging from the struggle against the tyranny of the European powers. In the spring of 1871, just a year before his death, Mazzini published in "*Roma del Popolo*" an article entitled *Politica Internazionale*, in which he wanted to give his "political testament". The prophet of the new Italy returned to considerations of the Moral Law, which he believed should be the guiding principle of Italian politics, and once again contemplated the idea of the nation, "New Era soul", and emphasized the need to forge a "strong alliance with the Slavic family".⁴⁸ The New Era that Mazzini wished for Italy was configured a new foreign policy that saw the Adriatic Sea as the

⁴⁵ G. Brancaccio, 'Mazzini e la questione slava' in Mazzini (n 44) 7-41.

⁴⁶ Ibid, 41-48.

⁴⁷ Ibid, 48-55.

⁴⁸ Ibid, 55-57.

logistic base for the Italian support of the Slavs of the south and a strengthening of fraternal ties between the countries, promoting the ratification of profitable commercial treaties; Mazzini, in short, wished to be the theorist of an international policy of peace.⁴⁹ In the following years, Italy, shook off the influence of the French and was admitted among the great powers but was overwhelmed by the “vortex of the contrasts between European states over the division of the world”, and disregarded the invitation of Mazzini. This did not mean, however, that the idea of Mazzini, who looked to independence, unity, brotherhood and freedom of the people, had lost its powerful ethical charge and its strong capacity for modernity: values, these, which were the basis of national aspirations for independence both for Italy as well as for the Balkan peoples.⁵⁰

⁴⁹ Ibid, 58.

⁵⁰ F. Chabod, *Storia della politica estera italiana dal 1870 al 1896*, vol I, *Le premesse*, (Laterza, 1951); A. Riosa, *Adriatico irredento. Italiani e slavi sotto la lente francese, 1793-1918* (Guida, 2009); G. Prezolini, *La Dalmazia*, (G. Brancaccio ed, Biblion, 2010).

NINFA CONTIGIANI

**THE REPUBLIC OF VENICE:
COMMERCIAL AUTONOMY AND LAW POLITICS AS AN IDENTITY-MAKING SPACE**

SUMMARY: 1. *De facto* legitimacy. – 2. The Venetian legal system. – 3. Domination tools: law and politics. – 4. Towards maritime coding: the twilight of the Gulf's identity. – 4.1. The merchant navy code.

1. *De facto* legitimacy

Almost twenty years ago, the records of a convention dedicated to the *Homo adriaticus*, held in the Marche region were issued. As Alberto Tenenti pointed out at the time,¹ cultural identity and self-consciousness through the centuries being the convention's subject matter, one should have looked for what united rather than what divided the opinion. From this point of view, the dominant role of the Republic of Venice was decisive.

Following this suggestion, what we wish to do in these few pages is try to identify identification features of the Venetian law that could give us clues about modern circumstances, a free walk down a road that might be resumed. This is because we believe that, in order to imagine *governance* tools of the Adriatic-Ionian macro-region, one cannot ignore a conscious reconstruction of the historical founding elements of what can be symbolically seen as a sort of background. We, in fact, owe the identity representation of a common geographic space in our area of reference more to a past matrix (not even swept away by the tragedies of the Twentieth century) than to present needs.²

In what the lagoon city called “the Gulf of Venice”, at least until the Eighteenth century, the regulation of commercial transactions and the maritime movement of goods united the coast people on the Adriatic Sea, although they did not lead to a standardisation. The Venetian jurisdiction over the Adriatic Sea was different from the others by virtue of its exceptional continuity and duration.

Born from the median and intermediary role of Venice towards the Byzantine Empire, and then developed between the East and the West through the Mediterranean, its hegemony can be traced back to the Eleventh century. It was not, however, founded on any formal act of recognition, neither from the ecclesiastical power nor from the Byzantine government or the Western Empire. It was the heir of the Byzantine conquest of the West and joined its homeland defence right to the Byzantine maritime line, “the first, only and true essential feature of the undisputed control on the Adriatic”. This was

¹ A. Tenenti, ‘Il Cinquecento come snodo dei destini adriatici’ in *Homo Adriaticus. Identità culturale e autocoscienza attraverso i secoli* (Edizione Diabasis, 1998) 27-36.

² See G. De Vergottini, D. Rossi, G.F. Siboni (eds), *Fenomenologia di una macro regione: sviluppi economici, mutamenti giuridici ed evoluzioni istituzionali nell’alto Adriatico tra età moderna e contemporanea*, vol 2, tome II (Leone, 2012); M. Sivignon, *Les Balkans. Une géopolitique de la violence* (Solution Manual Books, 2009); “St. Mark's lions, carved in stone, frozen in their quiet strength, watch like timeless sentinels over the perennial mark that the original Venetian empire left on the shores of the Adriatic Sea”, see O. Chailine, J.-C. Dartoux, *Il Mare veneziano* (Jaca Book, 2015).

due to the spontaneous continuity with the luck of Constantinople, which kept ruling on the Eastern area.³

The situation was supported, de facto, by military politics and economic pressure:

“The system in question requires non-Venetian armed ships not to enter or travel through the Adriatic and sets rules and limits for merchant ships; it obligates ships carrying certain goods to use Venice as a port of call, report the cargo and the place of destination, pay customs duties, mooring and entry and exit duties, have transport and transit licenses and not change the route reported; ships and goods will be confiscated in case of violation and smuggling. The lagoon Republic will also be in charge of maritime police operations in the ‘Gulf’. Providing ‘protection’ for sailing people, the ‘freedom of the sea’ and coastal areas involved considerable financial and material efforts, for which Venice demanded a ‘contribution’: to varying degrees, Adriatic cities were subject to expensive taxes. In the second half of the Thirteenth century, a ‘Gulf squad’ was established and its tasks included, among other things, the suppression of smuggling and piracy (two particularly widespread plagues in the Adriatic)”.⁴

Inter-harbour activities were not completely forbidden. Stopovers and cargo loading were allowed and there were numerous exceptions. Goods could not be unloaded, because commercial transactions had to take place at the wholesale market of Rialto, in Venice. In this context, when smuggling and piracy occurred, Venice also took care of eliminating these two plagues.⁵

Historically, the point was to preserve the mediation role and control the economy of the entire area; today, the tools we are looking for must aim to maintain a functional space for trade and exchanges and protect peace, not only on an instrumental level, but also as an ideal that, according to us, cannot be overlooked.

The Fourteenth and Fifteenth centuries were moments of expansion for the lagoon, which controlled the Po valley hinterland and, consequently, the routes leading to Central and Eastern Europe (i.e. river traffic, as on the coast of northern Adriatic through direct domination on Friuli). However, the defeat of Julius II and his League of Cambrai (1509-1516), the Turks arriving from Albania through the Balkans, the new trade centre shifting to the Atlantic after the discovery of America inaugurated a difficult period for the Venetian jurisdiction over “its” Gulf.⁶ On the one hand, the ban and excommunication of Julius II set a precedent, whereas there was insistent pressure from the Hapsburg Empire for free navigation in the “Gulf”. In Trieste, in particular, goods dispatched to internal Hapsburg territories were handled and sorted and the

³ R. Cessi, *La Repubblica di Venezia e il problema adriatico* (Editoriale Scientifica Italiana, 1953) 10; E. Augusti, *Questioni d'oriente. Europa e Impero ottomano nel diritto internazionale dell'Ottocento* (Editoriale Scientifica Italiana, 2013).

⁴ A. Bin, “‘Mare clausum’ e ‘Mare liberum’: la giurisdizione veneziana sul mare Adriatico e la decadenza di Venezia’ in *Homo Adriaticus. Identità culturale e autocoscienza attraverso i secoli* (Edizione Diabasis, 1998) 425-436, 427.

⁵ In this way, Istria exported timber and construction material (also for ships), Trieste sent leather, Zadar sent food, from Dubrovnik (Croatia) came leather, wax, materials from the Balkan hinterland, from the Marche came wheat and wine, from Puglia came olive oil, cheese, meat and wool. Then there was salt, on which the Venetian Republic constantly attempted to gain production monopoly since it was essential to preserve food, Bin (n 4) 428.

⁶ G. Cozzi, M. Knapton, G. Scarabello, ‘La Repubblica di Venezia nell’età moderna. Dal 1517 alla fine della Repubblica’ in G. Galasso (ed.), *Storia d’Italia*, vol 12, tome II (UTET, 1995) 14 ff.

territories themselves, in turn, wanted access to the sea to facilitate the export of their products (minerals extracted from Styria and Carinthia).

The conflict with Imperial Austria broke out when it expanded to Trieste and Segna from the eastern lagoon border, where it had started in the first half of the Sixteenth century. The Archduke supporters demanded freedom of navigation for merchant and war ships, whereas the Venetians claimed their prescribed right of jurisdiction. In addition to that, of Friuli, various conferences were held to discuss the navigation problem⁷. The legal and political conflict was basically characterised by the contrast between the sea protection principle (in Venice's opinion, a jurisdiction foundation) and the future sea freedom natural-law principle supported by Austria⁸. The conflict insisted on a particularly delicate political-military situation for Venice, which, “although [...] maintaining its dominion over the Eastern coast [...], was seriously threatened and burdened not only by the general weakening of its position in the Mediterranean and the Aegean seas, but also by the immediate pressure of the opposed forces moving directly towards the Adriatic. The Austro-ducal threat descended from the North, whereas the Hispanic one came up from the South; the Turks were expanding more and more strongly from the East and, on the Western coast, the papal problem gave no respite”⁹.

At the beginning of the Eighteenth century, Emperor Charles VI of Austria proclaimed freedom of navigation and, de facto, put an end to the Venetian domination.¹⁰

This is why, after the decline of Charles V, the Venetian politics was forced to choose between cooperation with allied European powers. It chose a neutral role and left the leadership enjoyed so far in the control of the Adriatic military defence.

The economic picture was influenced by the new global balance that heavily transformed the exchange movement and the behaviour of foreign markets.¹¹ The powerful “governance” tool that had represented the long-standing power and prestige of “La Serenissima” was crumbling. That prestige that derived not only from its actual strength, but was also a result of the adaptation of its administration to the Adriatic environment and its order requirements focused on business development before land expansion. This was the direction chosen by the Lagoon's major regulatory policies, which, by virtue of their “effectiveness”, were able to guide and influence the actions of the other Adriatic coastal towns.

⁷ Cessi (n 3) 184; C. Povolo, ‘Particolarismo istituzionale e pluralismo giuridico nella Repubblica di Venezia: il Friuli e l'Istria nel '6-'700’, (1994) III Acta Histriae 21.

⁸ The dispute over sea sovereignty in its legal form started in the Seventeenth century. In that moment of great sea trade expansion, in fact, the British, claiming exclusive jurisdiction on the North Sea and supported by Selden, were opposed by Grotius, who, because of natural law, stated that owning the seas was impossible. Maritime police functions, which Great Britain claimed to have exercised for a long time, supported the former idea, whereas sea freedom was considered “necessary” in order to obtain trade and communication freedom; see Bin (n 4) 426; S. Mannoni, ‘Relazioni internazionali’ in M. Fioravanti (ed), *Lo Stato moderno in Europa. Istituzioni e diritto* (Laterza, 2002) 206-229, 215; see also M. Meccarelli, ‘La protezione giuridica come tutela dei diritti: riduzioni modern del problema della dimensione giuridica della giustizia’, (2014) 1 *Giornale di storia costituzionale / Jurnal of constitutional history* 67; in particular, for *ius peregrinandi* and *ius communicationis*, at 74-76.

⁹ Cessi (n 3) 190.

¹⁰ Bin (n 4) 433-435.

¹¹ Cessi (n 3) 190-191.

2. The Venetian legal system

The cultural and legal identity of the Republic was of medieval origin and had basically crossed the modern era almost unvaried until it reached the contemporary age.

Autonomy, the aristocratic republican government, the presence of the Podestà as the “State's” visibility element had gravitated towards the Lagoon's “commercial spirit” for years. A commercial spirit that constituted the concrete unifying pillar around which relations, *primarily intertwined* in coastal populations. A network of relations focused on *arbitrium iudicis* and equity, which we can assume went beyond “the Gulf” in the influence that “sea people” had on each other.

Somehow, the conclusion of the Republic came exactly when the reforms that would respond to the system's backwardness, especially the economic ones, stopped being implemented even though governors and citizens from Venice, Istria and Dalmatia demanded them. The space left to the individual and private merchant “genius” was no longer adequate.¹²

The State-forming push of the Sixteenth century had a special impact on Venice. It did not affect the institutional balance guaranteed by the “substantial continuity of aristocratic values, which, in that society, were placed at the top”. It supported the economic and social changes through the use of the “great courts of the dominant centre”¹³ made by emerging social forces. Thus, in the Eighteenth century, a substantial line of neutrality towards European borders and the preservation of internal, institutional and social structures were maintained. There were also attempts towards enlightened absolutism. Compared to the War of Austrian Succession (1742), the problems were but a few. In fact, Austria used to tolerate some piracy from Segna ships, but complained that “La Serenissima” had the same attitude towards the Neapolitan and Spanish ships in the Adriatic. “La Serenissima”, in the end, had to allow Austrian troops to travel towards Mantua and Austrian war cargoes to be sent to the port of Trieste¹⁴. Minor accidents occurred with French stops of Venetian ships suspected of smuggling. Some complications were brought by closed borders and health surveillance during the 1742 plague in Hungary and the 1743 plague in Messina.¹⁵

Territory conquest and the dominion over their “Gulf” had, in fact, brought Venetians to adopt the typical flexibility and adaptability of ancient regime systems. The Adriatic one had been a “*dominium*” in the medieval sense of the term. Its purpose was mercantile and commercial profit, not territorial expansion in itself. Napoleon's arrival in 1797 marked the end of the ancient splendour and the illusion of its recovery. It brought a vision of modernity that had nothing to do with the past and was not compatible with it at all. With the Restoration, Venice entered the Kingdom of Lombardy-Venetia, thus ending its parabola. A brief moment was dedicated to its

¹² Cozzi, Knapton, Scarabello (n 6) 649.

¹³ The phenomenon became particularly evident when several printed editions of Laws and Regulations of individual provinces appeared in the Mainland: particularly significant were those of 1658 (Friuli) and 1683 (Istria); Povoletto (n 7) 21-23.

¹⁴ In 1719 Charles VI of Austria created in Trieste a free port whose privileges were extended during the reign of his successor Maria Theresa. This condition ended with Napoleon and its occupations in 1797, 1805 and 1809 when Trieste was annexed to the Illyrian Provinces. In 1813 Trieste returned to the Habsburgs and it continued to grow. In the Nineteenth century became Austrian Littoral region capital and after it was the fourth urban reality Austro-Hungarian Empire, M. Flores (ed), *Il Friuli: storia e società* (Istituto friulano per la storia del movimento di liberazione, 1998); see also P. Dorsi, ‘La prima fase di ripristino dell’ordinamento austriaco nell’Istria già veneziana: i decreti Nugent del settembre 1813’, (1994) III Acta Histriae 209.

¹⁵ Cozzi, Knapton, Scarabello (n 6) 649.

participation in the Risorgimento fights and the uprising of 17 March 1848, when Venetian patriots rose up and freed Daniele Manin and Niccolò Tommaseo. Austrians were expelled and the Republic, headed by a triumvirate, was proclaimed once again, but Venice only resisted the Austrian siege of 1849 for four months because of a severe outbreak of cholera and famine. Starting from the third war of independence, its story followed that of the Kingdom of Italy until World War I.

The opposition to Austrian centralism was dull but determined in Friuli Venezia Giulia. The Resistance was definitely also, because Austrian taxation was very heavy, “the tax on consumption duty burdened the Hapsburgs' Italian subjects three times more than the Slavic and German subjects of the monarchy”. So, if most taxes were already affecting the less rich and the small owners, taxes on customs duties, stamped paper, tobacco, powders and nitrites, salt and other goods affected everyone, without distinction: the rich landowner, the labourer, the poor colonist.¹⁶ This was certainly not going in the direction of the traditional centrality of autonomy and maritime trade, but all Venetian subjects were also greatly affected by the Austrian Government Decree dated 16 April 1839, in accordance with which the city's lands (uncultivated ones for grazing first) were assigned to individuals.¹⁷

Marino Berengo saw the turning point for the Venetian countryside,¹⁸ i.e. the mainland, in this decree, with a much more general meaning and scope. Once again, the time had come to unswervingly break with medieval law, its customs, its uses, and its realistic ownership concept.¹⁹ Venice was entering a completely different era, and there would be no turning back.

3. Domination tools: law politics

The lagoon city's law politics followed a precise line ever since its medieval beginning. If, for centuries, Venice only had custom practices regulating the relations between individuals and civil life, the first written laws were instead issued during the first half of the Twelfth century. These concerned public law (on constitutional organs), procedural law, inheritance law, criminal law and what interests us most: maritime law.²⁰ The development of a statutory corpus, *the Statuta of Comune Veneciarum*, supported by Doge Jacopo Tiepolo, represented a real turning point. It was not a final law corpus, although it grew during the modern era, perhaps disorderly and by partly leaving maritime Statutes out, but it remained nonetheless the symbolic skeleton of Venetian law until the end of the Republic.

Just as symbolic was the exclusion of Roman or Imperial law from the hierarchy of reference sources to be used when the Statutes could not provide adequate solutions. It was a political choice, not a technical one, as pointed out by Enrico Besta. Roman law was certainly inherited by Venetian jurisprudence, but its formal exclusion was used to declare that it would not be accepted anymore. Meanwhile, justice was entrusted to the

¹⁶ Flores (n 14) 68-69.

¹⁷ Ibid, 70.

¹⁸ M. Berengo, *La società veneta alla fine del Settecento. Ricerche storiche* (Sansoni, 1956).

¹⁹ On the concept of divided domain linked to the medieval concept of property, see at least, among many others, P. Grossi, *L'Europa del diritto* (Laterza, 2007) 100; A.M. Hespanha, *La cultura giuridica europea* (Il Mulino, 2012) 149.

²⁰ G. Cozzi, *Repubblica di Venezia e Stati italiani: politica e giustizia dal Secolo XVI al secolo XVIII* (Einaudi, 1982) 219.

judge's *arbitrium* right. Aristocrats (who were becoming the city's ruling class) were entrusted with the centrality needed to protect the spirit, the traditions and the interests of the Municipality itself.²¹

Venetians, whose commercial power was strongly increasing in the Mediterranean, tried to expand into Istria and Zadar, Dalmatia. The general idea was that the City should not look like it was subject to any power except that of its own laws and customs, starting from the lagoon strip.²² «It would also have been possible to recognize the same Roman law as *ius proprium* through a sovereign act of the *City*; alternatively, while issuing its own law corresponding to the *City's* needs, Roman law could have been recognized as an alternative law to make up for the former's flaws; Venice, instead, preferred to ignore it completely» also affirmed the principle of law territoriality earlier than the rest of the continent.²³

We are in the middle of the Thirteenth century. The force that would continue to be present on a commercial level was, first of all, indisputable and undisputed independence and autonomy. Doges expressed the belief that that geographic area separate but inexorably joined by the same business, should have “a point of aggregation and cohesion around a unitary structure, the law”. It was an ideal principle and a founding one in its teleological purpose more than in its actual implementation.

Even for this, the Sixteenth century saw the need for a reform that would reduce the gap between the law of the Dominant and that of the Mainland.²⁴ The solution was, once again, strategic. The Signoria reserved the right to approve local Statutes, at least where they were modified, but did not formally impose the addition of its own ones in the sources. It believed in the functionality and authoritativeness of its Statutes, “[t]he Venetian law, therefore, could also be applied within the Domain and there were some who wanted to use it, having found some rule particularly suitable for his/her case, not only among Venetians with interests in the Mainland. And that was enough for the Republic”.²⁵

As we said, the exclusion of the Roman-imperial law was emblematic. Not using what had been considered the supplementary law by definition throughout Europe for centuries is one of the most characteristic data and, undoubtedly, the most striking of the entire Venetian system. Just as peculiar is the continuity, and what is more a peaceful one, guaranteed for nearly a millennium by that choice. The other distinctive features are the collegiality of functions and the magistrate character of public bodies, which derived from a deep mistrust that essentially forbade the individual nature of power. The *ius romanorum* influenced most of the country's institutions not by the will and authority of an emperor regarded as a stranger, but many of the traditions had Roman origins and were maintained valid thanks to local people's will.²⁶

²¹ Ibid, 220.

²² Ibid, 222-224.

²³ E. Besta, *Il diritto e le leggi civili di Venezia fino al dogado di Enrico Dandolo* (Visantini Cav. Federico, 1900) 309; G. Astuti, ‘Personalità del diritto’, *Nuovissimo digesto italiano*, vol XII (UTET, 1965) 1088.

²⁴ Cozzi (n 20) 225.

²⁵ Ibid, 271.

²⁶ Even though it liked to appear as a principality, Venice had an *elective prince* who became more and more stranger to the exercise of power and, at the same time, magistrates who actually had huge powers, especially on investigations, and, in any case, subjects were never involved in public affairs management, their social class notwithstanding; furthermore, the magistrate-ruled public bodies were intended as an elective office with a fixed and basically mandatory duration; aristocracy then found basis in wealth but was essentially a functional aristocracy, acknowledged and accepted for the experience it was gaining and its 'due' devotion to the common good), G. Zordan, *L'ordinamento giuridico veneziano* (Imprimerie, 2005) 129-132 and 179.

Venice, in other words, did not change its *mind set* just because the State had expanded hugely, each local territorial problem had a proper solution through “formal legislation”; after all, “the Venetian government never required that the Dominant's legislation was adopted in case the Statutes of the various subject cities lacked statutory or traditional regulations [...] A triumph ... of local judges, who, given the ambiguity of the Statute and, later, the fact that Venice renounced the overall imposition of its own law as a supplementary tool, had wide discretion on [...] two common laws, the Roman and the Venetian”.²⁷

4. Towards maritime coding: the twilight of the Gulf's identity

Although it may seem otherwise, it is perhaps possible to say that the Venetian legal and institutional spirit never changed. The distinctive character of the Venetian system can be identified precisely in its legal continuity. Venice, in other words, did not change its *mind set* just because the State was expanding, each local territorial problem received adequate solution through “formal legislation”.²⁸

However, even before the Eighteenth century, the need arose for corpora to be used in forensic practice. Summaries of the regulatory material were dedicated to feudal jurisdictions and tax claims on the property of feudal lords. The so-called Feudal code was written, which behaved as a marked list of Venetian feudal laws until 1780. The only codification attempts occurred in civil and criminal law.²⁹

4.1. The merchant navy code

Unlike the Feudal code, the idea of reorganizing the current merchant navy legislation was almost accidentally stimulated by the growing crew indiscipline phenomenon, already in 1748. The task was entrusted to the most influential courts in the field: the *Five wise men*, who dealt with sea and land trade control, the *Directors of Armar* who investigated on plunders and wrecks of Venetian ships and were natural judges during disputes between sailors, captains and co-owners of merchant ships. The activity stagnated for a decade and started again in 1760. The task was assigned to a Board, which prepared a work plan provided with firm and modern features.

Private and public maritime law had, of course, to be modified “in order to enrich the Venetian law with the experiences acquired abroad, it was necessary to know the other States' laws thoroughly: the most famous Colbertine collection, the *Ordonnance touchant the marine du mois d'août 1681*, was therefore translated. Local residents were asked about the laws of the British navy, without overlooking those of Mediterranean ports, especially Pisa, Livorno, Ragusa. The opinions of particularly expert people

²⁷ Ibid, 197-198.

²⁸ Even though it liked to appear as a principality, Venice had an *elective princes* who became more and more stranger to the exercise of power and, at the same time, magistrates who actually had huge powers, especially on investigations, and, in any case, subjects were never involved in public affairs management, their social class notwithstanding; furthermore, the magistrate-ruled public bodies were intended as an elective office with a fixed and basically mandatory duration; aristocracy then found basis in wealth but was essentially a functional aristocracy, acknowledged and accepted for the experience it was gaining and its 'due' devotion to the common good; see Zordan (27) 129-132.

²⁹ Summaries of the regulatory material were dedicated to feudal jurisdictions and tax claims on the property of feudal lords; Zordan (n 27) 209.

(captains, ship-owners etc.) were heard. What is more, numerous parts of the Chapters of magistrates ruling the Arsenal were extracted, with particular regard to ship building, hawsers and sails making etc.”³⁰

There was some enthusiasm in the beginning, but works stagnated again for almost a decade, until 1768, then a 1775 provision dismissed all the Conferences that had not completed their works. On 28 December 1775, a board was formed whose task was to draft a Navy code, and this changed the whole course of events. The text should not be a simple collection of current laws, coordinated and integrated, but a real law *corpus* that would organize sea legislation: maritime police, duties and obligations of merchants, traders and seafarers.

The project was completed and made available for approval by the Venetian Senate already in 1777 and 1778. It was the *Venetian Merchant Navy Code*. In a very unusual way, the whole project was filed in the Records office and made available to all citizens who wished to examine and make changes to it. The aim was that of giving space to experience and practice on a subject that could not conveniently be governed by a theoretical approach only. Legal culture would have perhaps adopted the principles developed by Roman schools too deeply. There were criticisms on navigation licenses, evaluations, insurances and workers' wages.

The Code consisted of a unitary system of private and public law institutions according to the old statutory tradition, but with strong modernity criteria. The Code, as reported in the promulgation deed of the Five wise men, had to “be universally regarded [...] as the only law in all circumstances and transactions listed within it”³¹

This meant that everything opposing it should have been abrogated, but not explicitly, the other competing sources governing the cases not provided for by the Code. It was implicitly understood that the old legislation, customs, maritime uses and court arbitration should have been used. It was the most important moment in the whole compiling activity of the Eighteenth century, a code that would survive the Republic itself, albeit briefly. It was identified as a symbol of Italy during the Napoleonic era. It aroused the interest of various jurists, including Giuseppe Luosi,³² and influenced national attempts to prepare trading codes, and then the imperial authorities imposed French private maritime codes on the Italian Kingdom, the second book of the *Code du commerce*. After the Congress of Vienna, it was joined in the Kingdom of Lombardy-Venetia by the *Austrian political edict on mercantile navigation*, promulgated by Maria Theresa in 1774 for to promote the maritime commerce “of our coastline”, the Julian-Istria-Dalmatian coastline as it stated in the Preamble.³³

From shortly thereafter, the beginning of the clash between Austria and post-revolutionary France marked the dismemberment of the Venetian mainland territories. Then, with the Peace of the Campofornio, Venice and the lagoon were ceded to Austria.

³⁰ Ibid, 217.

³¹ See the date of promulgation, 26 September 1786, as shown at the bottom of the *Codice per la Veneta Mercantile Marina* (Per li Figliuoli del quondam Z. Antonio Pinelli, Stampatori ducali, 1786) 308.

³² E. Tavilla, *Giuseppe Luosi, giurista italiano ed europeo. Traduzioni, tradizioni e tradimenti della codificazione: a 200 anni dalla traduzione in italiano del Code Napoléon (1806-2006)* (Archivio storico, Comune di Modena, Assessorato alla cultura, 2009).

³³ Zordan (n 27) 222; E. Spagnesi, *Il codice della navigazione. Una vicenda giuridica speciale* (Il Campano, 2014) 40.

However, the arrival of the French found a tired patricians and “Venice, moving from the sea and trade to create new fortunes in the crops of the land, [lost] his invulnerability as a city between east and west off the coast of the continent”.³⁴

The disappearance of Venice opened in the Adriatic an emptiness that makes 'his' Gulf one of conquest space, but when Austria had the dominion of the Adriatic Sea, the coastal population began to claim a national and patriotic sentiment. It manifested itself strongly during the nineteenth century (with the myth Illyrian). Since 1866 the problem of inheritance Venice was blocked. Austria defended its unique sea and its also trades with a navy. Italy saw in this sea the symbol of incomplete unitary construction (with the “irredentist” claims). Finally, half century later, the First World War to come to establish who he was Adriatic Sea.

³⁴ P. Cabanes, *Storia dell'Adriatico* (Il Lavoro Editoriale, 2014) 337-378.

FRANCESCO MASTROBERTI

**THE *ORDINAMENTA* AND *STATUTA MARIS* OF TRANI AND
“MEDITERRANEAN COMMON LAW”**

SUMMARY: 1. The domain of the Adriatic Sea. – 2. The law of the Mediterranean Sea: the *Ordinamenta Maris* of Trani. – 3. The *Consolato del Mare* and the *Ordinamenta Maris*.

1. The domain of the Adriatic Sea

The history of Adriatic Sea has been long linked to Venice, called “Adriatic Queen”. Thanks to the political and military rise of the lagoon city, a distinctive phenomenon took place, representing a singular event after Western Roman Empire fall: Adriatic basin became a sort of political, economic and military community, whose head, “la Serenissima”, imposed its own currency, rules and power.

The influence of Venetians across whole Adriatic coast to Aegean islands and the power of their fleet set that sea the most safe in Mediterranean: that was during an age when the conflict against Islamic world made travelling and trading extremely hard. Venice, a city of traders and sailors, let trading ports and autonomous and rich cities, such as Bari and Trani in Puglia,¹ grow all across Adriatic Sea. In this contest, two important political and legal research and confrontation branches raised: the domain of the sea and the law of the sea.

The domain of the sea. The issue about taking control over the seas became relevant worldwide between Sixteenth and Seventeenth centuries, because of great geographical discoveries, new trade routes openings and large trade companies raised on a global scale. There were two main ways of thinking: the first one promoted the concept of *mare liberum*, based on Natural Law; the second one thought to be possible to retain a sort of property right over the sea, if it was completely under some Power control. Hugo Grotius proposed his idea of the freedom of the seas in some of his best dissertations, *mare liberum*². Anyway, many authors expressed adverse opinions. We obviously find out some Venetians across them, arguing that it was possible to own the seas just as a land on legal basis.³ For example, Giulio Pace de Beriga in *De dominio maris Hadriatici disceptatio*⁴ pushed on saying that the domain over the seas should not have been limited to coastal waters, because the range and extension of the occupation should have been exclusively depended on the control capability a country was able to get. Paolo Sarpi’s attitude was more or less the same,⁵ as he based Venice power over Adriatic Sea on the historical fact of having kept Adriatic safe from pirates, granting it prosperity and growth:

¹ Cf M. Costantini, *Una Repubblica nata sul mare: navigazione e commercio a Venezia* (Marsilio, 2006).

² H. Grotii, *Mare liberum sive de jure quod Batavis competit ad indicana commercia dissertatio*, Lugduni, Batauorum ex officina Ludovici Elzevirii (1609).

³ Cf G. Acquaviva, T. Scovazzi (eds), *Il dominio di Venezia sul mare Adriatico nelle opere di Paolo Sarpi e Giulio Pace* (Giuffrè, 2007).

⁴ G. Pace de Beriga, *De dominio maris Hadriatici disceptatio*, Lugduni sumptibus Bartholomei Vincenti (1619).

⁵ P. Sarpi, ‘Dominio del mare Adriatico della Serenissima Repubblica di Venezia’ in P. Sarpi, *Opere varie del molto reverendo padre F. Paolo Sarpi dell’Ordine dei Servi di Maria*, tome II (Helmstat, per Jacopo Muller, 1750).

“Ma mentre io dico che il Dominio del Mare sia naturale a questa Repubblica, creato insieme con lei, non voglio intendere, che tutto in un tempo abbia acquistata la padronanza di tutto l’Adriatico, perché le forse nel principio non erano tante di poterlo custodire e guardare tutto. Ma in progresso di tempo fatti gl’Imperadori un’altra volta deboli, cessarono di mandare Armata in Ravenna, ed abbandonata quella parte, che è dal fiume di Tronto in qua si ritirarono nella Puglia, il che mise in necessità questa Repubblica, la quale era cresciuta anche di forze a pigliar custodia più ampia del Mare, e tenerlo netto dà Corsari per mantener sicura la navigazione, incominciando dalla Riviera della Marca Anconitana, e dal Quarner fino a Venezia: il che le costava ogn’anno molto sangue de’ suoi Cittadini. Per lo che siccome si è detto, ch’il Dominio del Mare è naturale alla Repubblica, principiato insieme con lei nelle parti prossime a quest’inclita Città, così anche insieme si dee dire, che sia amplificato successivamente nell’altre parti di esso Mare, che sono abbandonate da quelli, che le possedevano prima, e prese in protezione, e custodia dalla Repubblica fin tanto ch’ella s’è fatta Padrona di tutto il Golfo, e perché ciò eccede sei centinaia d’anni, supera, e già di molto ha superato ogni memoria, sicché è confermato con la consuetudine immemorabile”.⁶

In Sarpi’s opinion, based on “*dottrina de’ giureconsulti*”, manifested exertions of public authority since immemorial times configured a usucaption and totally justified Venice sovereignty and domain over Adriatic Sea. Sarpi’s argument is particularly interesting because it opposed who supported the doctrine of natural law (especially Grotius) by juridical arguments: for Sarpi there was no reason to distinguish the seas from the lands or to assimilate the seas to the air and to the light. Anyway, Sarpi separated Adriatic Sea condition (admitting of property) from that of the oceans, on which it was impossible to dominate:

“Non è pari la controversia trà Spagnuoli e gli olandesi alla Causa delle Serenissima Repubblica: prima perché le pretensioni degl’Olandesi non sono sopra un Mare serrato, limitato, posseduto e custodito con fatiche, e spesa da tempo immemorabile, com’è questo di Venezia; trattano dell’Oceano, che per la sua immensità da niuna Potenza umana può essere guardato tutto. Più s’aggiunge, che ancora non eccede la memoria degli uomini il principio della navigazione degli Spagnuoli già meno di cent’anni principiata; laddove nell’Adriatico il Dominio è nato colla Repubblica, e stabilito da consuetudine immemorabile; perloché non si ha da fare alcuna comparazione di queste ragioni”.⁷

2. The law of the Mediterranean Sea: the *Ordinamenta Maris* of Trani

The law of the sea. In this contest, maritime law had a great relevance.⁸ It was a priority to merchants to rely on an undoubted law, acknowledged by each people across

⁶ Ibid, tome II, 328-329.

⁷ Ibid, tome II, 350-351.

⁸ Cf R. Zeno, *Storia del diritto marittimo italiano nel Mediterraneo* (Giuffrè, 1946); D. Gaeta, *Le fonti del diritto della navigazione* (Giuffrè, 1965); G. Di Martino, ‘Statuti e consuetudini marittime (Storia del Diritto)’, *Novissimo Digesto Italiano*, vol XVIII (1971) 399; U. Leanza, ‘La tradizione giuridico-marittima del Mediterraneo: la condizione degli spazi marini ed il regime della navigazione nel medioevo e nell’evo moderno’, U. La Torre, G.

Mediterranean Sea. Did this law exist? Roman Law, a secular, inexhaustible and suitable for every legal need source, ruled navigation both in *Digesto* and in *Codex*, even if (that was a volunteer choice) so not really deep (ancient Greek and Phoenician *consuetudes* were let to rule locally). During the Middle Ages, an important source from Roman-Bizantine Law seems to be used, *Nomos rodio nauticòn*, but from XI century particular kinds of sources appeared, geographically diversified.⁹ It seems that the first source of this kind might come from Trani and it might be *Ordinamenta et consuetudo maris edita per consules civitatis Trani*. We necessarily have to be cautious because the date of 1063 which appears in the document is dubious and caused many discussions across the historians. The historiographical vicissitude of this important collection, which remained unknown until 1839, means a lot about the poor attention always reserved even to relevant law sources from Southern Italy¹⁰. Italian *Mezzogiorno* and Puglia have been a people crossroad and a shape for different populations in centuries, especially thanks to their geographical position. Before Norman unification, coastal cities, submitted to a soft Byzantium domain, always enjoyed some autonomy, which let them develop traffics and trades as far as possible: during the whole Middle Ages, “*Mezzogiorno*” was an “unarmed frontier” against Muslim threat, but that did not affect southern people’s will to challenge the sea and its dangers in order to trade. Even before Norman unification, towns like Trani and Bari were important trading centres, where a consuetude-based maritime law represented the centre of communities’ juridical life. Because of these reasons it has to be remarked the need to focus attention on southern towns’ law sources (statutes, capitulations, privileges often collected in *Libri rossi* etc.), which were a product of the strong influence and autonomy of *Universitates*. It is necessary to keep away the concept of Norman Unification killing every sort of autonomy of *Mezzogiorno* towns, in order to pursuit the road traced by Francesco Calasso in *La legislazione statutaria dell’Italia meridionale*, where the great historian of *pugliese* law enlightened the importance of towns’ statutes.¹¹ Something seems to have been recently changed because there is some new attention on southern *Universitates* sources¹².

Moschella, F. Pellegrino, M.P. Rizzo, G. Vermiglio (eds), *Studi in memoria di Elio Fanara*, vol I (Giuffrè, 2006) 241-262; V. Piergiovanni, *Norme, scienza e pratica giuridica tra Genova e l’Occidente medievale e moderno*, (Società Ligure di Storia Patria, 2012); E. Spagnesi, *Il codice della navigazione. Una vicenda giuridica speciale* (Il Campano, 2014).

⁹ Spagnesi (n 8) 15.

¹⁰ R. Ajello, *Il problema storico del Mezzogiorno: l’anomalia socio istituzionale napoletana dal Cinquecento al Settecento* (Jovene, 1994).

¹¹ F. Calasso, *La legislazione statutaria dell’Italia meridionale: le basi storiche, le libertà cittadine dalla fondazione del Regno all’epoca degli statuti* (Centro Librario-Multigrafica, 1971).

¹² V. Caruso, *Gli statuti della Bagliva: Treviso nel 17° secolo* (Ed. La ginestra, 1997); R. Romano (ed), *Gli statuti di Alvignano del 1497 secondo un inedito del Settecento* (Ikona, 1998); C. Vetere, *Le Consuetudini di Napoli. Il testo e la tradizione* (Carlone, 1999); A. Didier, ‘Grazie e privilegi concessi dal marchese Merualdo Grimaldi al casale di San Giacomo nel 1582’, (1999) 32 *Rassegna Storica Salernitana* 237; C. Lepore, *Gli Statuti del 1203: coscienza civica e albori del diritto municipale in Benevento* (Ed. Eurocom, 2000); L.M. Cestaro, “‘Grazie’ e ‘Privilegi’ concessi all’Università di Postiglione nel 1731’, (2001) 12/14 *Il Postiglione* 50; M. Pucci, ‘Città, territorio e potere nel Mezzogiorno aragonese. I capitoli concessi a Salerno da Ferrante d’Aragona e Roberto Sanseverino nel 1462’, (2002) 37 *Rassegna Storica Salernitana* 327; G. Stanco, ‘Le libertà di Ariano: ordinamenti municipali e dialettica sociale in Ariano Irpino (secoli XV-XVII)’, (2002) CXX *Archivio Storico per le Province Napoletane* 1; A. Esposito, *L’infuedazione di Castellammare di Stabia a Giordano Colonna e i Capitoli del 1420*, (2003) CXXI *Archivio Storico per le Province Napoletane* 93; R. Caprara, F. Nocco, M. Pepe, O.V. Sapio (eds), *Libro Rosso di Taranto. Codice Archittiano (1330-1604)* (Società di Storia Patria per la Puglia, 2014); R. Delle Donne, ‘Bibliografia statutaria della Campania (1996-2005)’ in E. Angiolini, B. Borghi, A. Brighenti, A. Casamassima, R. Dondarini, R. Sernicola (eds), *Bibliografia Statutaria Italiana (1996-2005)* (Biblioteca del Senato della Repubblica, 2009) 35-42.

Let us back to *Ordinamenta Maris* from Trani. In 1507, the volume *Statuta terrae Appignani* was published in Venice. It contained Fermo statutes, documents from *marca Picena* and a not connected document: *Ordinamenta et Consuetudo Maris edita per consules civitatis. Trani. Al nome delo omnipotente dio Millesimo sexagesimo tertio prima indictione*. This was republished three times, in 1589, in 1688 and in 1691. No one cared about the importance of this document until 1839, when Pardessus, inside volume V of his monumental work *Collection de lois maritimes antérieures au XVIII siècle*, exalted this source, imposing that to the attention of historians and accepting the date of 1063 which appears in the document. It must be the first Italian collection of maritime law, preceding *Tabula de Amalphi* (1131), *Constitutum Usus Pisanae civitatis* (1160-1161), *Commentarii super consuetudini bus praeclarae civitatis Bari* (1204), *Statuta Tarretarum* di Venezia (1225), *Imposicio Officii Gazarie* di Genova (1313), *Breve Portus Kallaretani* (1318), *Statuti di Rimini* (1334), *Capitula consulatus maris Messane* (1339) and Ancona's *Statuto del Mare* (1397). Before Pardessus, Neapolitan experts on maritime law, from Nicola Fortunato to Michele de Jorio, did not mention within their works, and neither *Storie*, by Gregorio Grimaldi and Pietro Giannone, makes any reference to Trani's statutes. It is a fact that, after Pardessus had published this source, a debate on *Ordinamenta Maris* began, in which their dating had been questioned. Sclopis¹³ postponed the date at 1363, while Volpicella¹⁴ supposed they were published in Latin at the end of XII century, precisely in 1183. This it is still an unsolved issue. Anyway, it seems that a reflection over the publishing in Venice of *Statuti tranesi* in 1507, together with those from Fermo and some documents from *marca Picena*, is needed it has to be remarked that Trani was under Venetian yoke from 1496 to 1509 and it is probable that the publishing of the collection in Venice might have helped in collecting and organizing local sources of maritime law, which was something the Dominator thought to be useful in order to unify maritime law. In this perspective it should also be seen the second and better Italian edition of *Libro del Consolato del Mare* (Venice, 1539) which, as Spagnesi states, seems "to have constituted – thanks to distributing skills of the lagoon city's publishers – the starting point to the further European diffusion".¹⁵ During the first half of the XVI century, publishers in Venice aimed to provide ship-owners and sailors with the legal tools in order to face maritime ventures safely. On one side, the interest was focused on local *Statuti*; on the other side on *Libro del Consolato del Mare*, which gets used as general law of maritime trade in Mediterranean Sea, since the end of XV century.

3. The *Consolato del Mare* and the *Ordinamenta Maris*

It seems to be proper to investigate on the spread of *Consolato Del Mare*¹⁶ and on its link with local sources, such as Trani statutes, in order to understand how maritime law

¹³ F. Sclopis, *Storia della legislazione italiana*, vol I (Società editrice, 1840) 168-170.

¹⁴ G. Volpicella, *Gli antichi ordinamenti marittimi della città di Trani* (Potenza, 1852) 19.

¹⁵ Spagnesi (n 8) 22.

¹⁶ A. Solmi, *Un falso documento relativo al Consolato del mare* (Tip. Ditta Dessì, 1912); P. S. Leicht, 'Consolato del mare', *Enciclopedia Italiana*, vol 11 (1931); O. Sciolla, *Dell'edizione principe del Consolato del mare* (Associazione Italiana di Diritto Marittimo, 1934); R. Di Tucci, *Consuetudini marittime del Medio Evo italiano nella redazione del "Libro del Consolato del Mare"* (Associazione Italiana di Diritto Marittimo, 1934); C. Giardina, *Una traduzione italiana del Consolato del mare del 1479* (Società Editrice del Foro Italiano, 1936); M. Chiudano, *Il libro del Consolato del mare* (Unione Tipografica Torinese, 1959); S. Corrieri, *Il Consolato del mare: la tradizione giuridico-marittima del Mediterraneo attraverso un'edizione italiana del 1584 del testo originale catalano del 1484*

acted between XV and XVI century: that was a politically changing and complex period, in a Venice controlled area as Adriatic was.

Libre de Consolat de Mer's diffusion is strictly linked to the rise of House of Aragon, which extended its influence over the most part of Mediterranean basin countries (Castile, Catalonia, Sardinia, Sicily, Kingdom of Naples), between fourteenth and fifteenth century. In those years Barcelona, one of the most relevant ports for maritime trade, succeeded in imposing its own *consuetudes*, accepted by all the sailors. This was the way *Consolato Del Mare* born and its contents began being diffused all around Europe. As it has been underlined, the formation process of *Consolato Del Mare* and its actual text still remain both an enigma to historians. It is a fact that a first edition was published in Barcelona in 1494 and, as we said before, in *volgare* language in Rome, Italy, in 1519. This work circulated across Europe for at least two centuries, representing the common law of the people living on the coasts of Mediterranean Sea. Here is what Pier Silverio Leicht states about *Consolato del Mare*: “Il *Libre de Consolat de Mar* è un testo di consuetudini marittime del bacino del Mediterraneo, redatto a Barcellona nella seconda metà del sec. XIV. È opera d'un giurista privato, che raccolse gli usi formati un po' per volta fra la gente di mare che frequentava i porti di Spagna, d'Italia e di Francia. Particolarmente notevole è l'influsso del diritto marittimo italiano, e in primo luogo del diritto amalfitano e delle consuetudini di Pisa e di Genova. Il testo è scritto in un idioma di tipo catalano. Esso ha grande importanza per la storia del diritto marittimo, sia per la vastità delle materie che abbraccia, sia per l'estesa influenza che acquistò rapidamente”¹⁷

Giuseppe Lorenzo Maria Casaregi, who attended to the definitive edition of the text, published in Florence in 1719 (reprinted in Lucca in 1720, in Venice in 1737, in Livorno in 1738, in Venice in 1802 and in Turin in 1911), made some reference to 17 collections enacted in Rome, Acri, Majorca, Pisa, Marseilles, Almeira, Genoa, Brandi, Rhodes, Morea, Costantinopoli (3), Alamania, Messina, Paris and Majorca between 1075 and 1270. According to Casaregi – who produced a practice-oriented comment to *Consolato* – this was the real *Consolato Del Mare*, in which this is no presence of any added chapter exclusively dialing with Barcelona:

“Finalmente sappia il lettore, che il Consolato del mare consiste solamente in dugento novantaquattro Capitoli, che per l'appunto son que' medesimi, che qui vengono da me spiegati, e che, come dianzi si disse, quai leggi universali, accettati furono comunemente, poichè gli altri che a i suddetti vanno congiunti, non sono che disposizioni particolari di Barcellona, fatte ne' tempi appresso, le quali sendo stampate tutte in un libro, han data occasione a molti di crederle una continuazione del Consolato del Mare”.¹⁸

According to Casaregi, *Consolato Del Mare* got a universal relevance that distinguished it from other collections, which ruled at a local dimension only. “Queste leggi – Donato Donati says in 1720 *Consolato*'s Lucca edition preface - perché piene di

(Associazione Nazionale del Consolato del Mare, 2005); V. Piergiovanni, *La “Spiegazione” del Consolato del mare di Giuseppe Lorenzo Maria Casaregi* (Il Mulino, 2006); M. Bonomelli, *Il diritto di andar per mare: il Consolato del mare e le norme sulle assicurazioni* (Nova Charta, 2008).

¹⁷ Leicht (n 16).

¹⁸ *Il consolato del mare colla spiegazione di Giuseppe Maria Casaregi*, in Lucca per Sebastiano Domenico Cappurri e Antonio M. Santini a spese di Donato Donati (1720), *Dichiarazione necessaria dell'Opera*, IV.

equità ebbero forza di innamorare le nazioni più remote, e giunsero ad esercitare il loro impero anche sopra i popoli non soggetti alla potestà legislativa del loro compilatore”.¹⁹

Which was the relation between *Statuti tranesi* and *Consolato Del Mare*?²⁰ The first ones are not a “source” of *Consolato* and they might be older than the first collection composing *Libre*. Anyway, it is possible to suppose that there two documents hold common origins, related to very ancient Mediterranean Sea people’s traditions: “Queste raccolte – Saverio di Nisio states, especially referring to *Statuti Tranesi* - sono innestate sostanzialmente sul grande tronco della civiltà giuridica ellenico-romana con l’apporto, man mano del diritto bizantino, dei testi dell’oriente mediterraneo e degli usi formati nei secoli posteriori sino ad esse. Ma di tutto quell’immenso patrimonio ciascuna prende a sistemare una parte più o meno ampia, probabilmente quegli istituti che ricorrevano più frequenti nella pratica locale”.²¹ These collections were born with no intervention by the State (which means a lack or incompleteness of political power during the Middle Ages, as Grossi states, pointing out this element as the most identitary aspect of this period²²): that caused the birth of *consuetudes* which were considered as binding as law. The lack of the State’s political power lasted for more than one thousand years, precisely until 1681, when Louis XIV collected navigation laws in famous *Ordonnance de la Marine*. This one was partly constituted by Mediterranean collections and partly by Anseatic towns’ laws: thanks to that, Northern Law enters Mediterranean Sea. Afterwards, everything would have been merged into Napoleonic codes. As it has been recently said, there are relevant legal norms, especially in Trani’s Statutes, which one even more evolved than *Lex Rhodia*, the most diffused Roman source about maritime law.

We find the most interesting references just about the sailor’s Person: sailors were preserved from ship *Patrone*’s excessive power:²³

“IX. Propone dice et determina et diffinisce li dicti consuli de mare che veruno patrone non possa lassare nisino marinaro altro que non fosse per quatro casone et defecti de esso marinaro: prima per biastemare Dio, la secunda per esser meschiarolo, la terza per essere ladro, la quarta per lux uria. Et per queste quatro cose lo patrone possa lassare lo marinaro et condurlo in terra ferma et fare rasono loro in terra ferma”.

“X. Propone ed diffinisce li predicti consuli de mare, che se uno marinaro se partesse con la nave de la sua terra et admalasse ipso deve havere tutta la sua parte”.

“XVI. proponemo dicemo et sententiamo nui consuli predicti, che qualunqua patrone menasse scrivano, che qualunqua patrone, ello debia essere iurato del suo commune et de esser bono et leale. Et questo dicto patrone non possa fare scrivere nisuna cosa che habia con nissuno mercatante che non sia el marca tante de presente, overo altro testimonio. El somigliante caso et termine sia coli dicti marinari. Et se altro, overo el contrario de cio, facesse et scrivesse, che quello suo quaterno over libro non sia tenuto ad nulla rasono ne ad esso se deba dare fede alcuna. Et se questo scrivano reccuesse mercantantia dal mercatanti et

¹⁹ Ibid, 2-3.

²⁰ M. Filosa, ‘Lo scrivano degli *Ordinamenta Maris* di Trani al Consolato del mare’, (1979) XXXII Archivio Storico Pugliese 260.

²¹ S. Di Nisio, ‘Degli “*Ordinamenta et consuetudo maris*” di Trani’, (1963) XVI Archivio Storico Pugliese 5, 8.

²² P. Grossi, *L’Ordine giuridico medievale* (Laterza, 2014).

²³ *Ordinamenta et consuetudo maris edita per consules civitatis Trani* in Volpicella (n 14) 39-50.

manchasseli sia tenuto ad mendarlo esso scrivano; et lo discto quaterno si deve
esser coperto di carta pecudina”.

ROBERTO BELLONI

THE GEOPOLITICS OF THE ADRIATIC-IONIAN MACRO-REGION

SUMMARY: 1. Introduction. – 2. Italy as the regional hegemony. – 3. The European Union and the macro-region's geopolitical value. – 4. What kind of Europe? – 5. Conclusion.

1. Introduction

Macro-regions have developed as a response to the considerable challenges posed by the globalized economy on nation-states. Westphalian territoriality and nationally based governance institutions are blatantly unable to manage the complexities of transnational economic processes, with their related impact both on human communities and the environment. Macro-regions represent one of the possible answers to this inability. By “including territory from a number of different countries or regions associated with one or more common features or challenges,”¹ macro-regions contribute to a much needed rescaling and restructuring of state power and governance processes both above and below the nation-state.

This rescaling and restructuring have taken many different configurations. In the European context, the idea of a “Europe of regions” has affirmed itself as one of the most promising answers to the increasingly manifest impossibility to efficiently govern complex cross-border events through national programs. According to the European Commission,² a macro-regional strategy involves three components: 1) an integrated framework relating to Member States and third countries in the same geographical area; 2) the ability to address common challenges; 3) and the possibility to benefit from strengthened cooperation for economic, social and territorial cohesion. These elements combine to transcend traditional Westphalian statehood by involving sub-national and supra-national actors in a multi-level governance system.

Macro-regions may be based upon cultural or ethnic affinities, a common historical background, functional links or common interests – or a combination of all of these elements. In the case of the Adriatic-Ionian Macro-region, the maritime dimension is central. The macro-region revolves around its natural axis, the sea. Marine biodiversity is high, but a considerable number of species are endangered. While the Adriatic sea basin remains an important area for fishing, fish stocks have suffered from overfishing. Water discharges of industrial activities and urbanised areas, as well as intensive coastal tourism, have increased the level of pollution. Offshore oil and gas platforms and terminals involve further pressure on the environment. In such a context, research has identified a strong potential in maritime spatial planning in the region.³

Partly in response to these challenges, and partly in response to the difficulties in the European integration process (see below), the European Commission officially

¹ P. Samecki, *Macro-regional Strategies in the European Union*, Discussion Paper, Stockholm, 16 November 2009.

² European Commission, *Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions concerning the added value of macro-regional strategies*, 27 June 2013, COM (2013) 468 final, para 2.

³ European Commission (Directorate-General for Maritime Affairs and Fisheries), *The Potential of Maritime Spatial Planning in the Mediterranean Sea. Case Study Report: The Adriatic Sea*, Brussels, January 2011, <http://ec.europa.eu/maritimeaffairs/documentation/studies/documents/case_study_adriatic_sea_en.pdf>.

launched on 18 June 2014 a new EU Strategy for the Adriatic and Ionian Region in the form of a Communication and an Action Plan to help the region – which comprises 70 million residents – reap the benefits of closer cooperation in promoting the maritime economy, preserving the marine environment, completing transport and energy links, and boosting sustainable tourism. The Adriatic-Ionian macro-regional strategy replicates the underlying rationale and strategies adopted with the Baltic and Danube macro-regions, established respectively in 2009 and 2011, but it develops a region-specific approach based on four thematic pillars, which include: 1) Blue Growth; 2) Connecting the Region (transport and energy networks); 3) Environmental quality; 4) Sustainable tourism. In addition, two themes cut across these pillars: 1) Research and innovation; 2) Capacity-building.⁴ Overall, the objective is to combine environmental protection, with a focus on the Adriatic and Ionian seas, with the support of economic activities and the development of communication and energy infrastructures.

Needless to say, despite the connecting presence of the Adriatic and Ionian seas, the existence of a macro-region cannot be taken for granted, but represent the outcome of a process of construction, which is ongoing. Ultimately, the building of a macro-region will blur the distinction between the “international” and the “local” and, because of the involvement of both EU states (Croatia, Greece, Italy and Slovenia) and non-EU states (Albania, Bosnia-Herzegovina, Montenegro and Serbia), it will soften the distinction between “Europe” and “non-Europe”. Indeed, macro-regions are based on the presupposition that national boundaries are socially constructed and mutable elements artificially separating the borderlands where social interaction and exchange is frequent.⁵

Macro-regions are both actors operating across national borders and tools in the hands of European institutions and nation-states to pursue their strategic interests. While states’ strategic interests change from one macro-region to another, European institutions have endorsed all of them for at least three main reasons. First, they contribute to address local problems directly involving a relatively small number of states – and thus supposedly opening the way for better cohesion at the EU level; second, they support the Europeanization of local and regional governments – thus favouring the process of integration into the EU; third, the involvement of local actors in multi-level governance is supposed to provide concreteness and effectiveness in policy-formulation and implementation.⁶

These advantages constitute the so-called added value of macro-regions which, however, are expected to play out in context of the EU imposed “three no’s”: no new regulation, no new institutions and no additional funding. These strict limitations represent both a serious constraint and an opportunity for macro-regions. On the one hand, they may push macro-regions towards irrelevance by drastically reducing the chances of planning and implementing concrete initiatives. On the other hand, the effective integration of existing norms, institutions and funds in a transnational framework may constitute the real added value of macro-regional strategies.⁷

⁴ European Commission, *Communication concerning the European Union Strategy for the Adriatic and Ionian Region*, 17 June 2014, COM(2014) 357 final.

⁵ F. Celata, R. Coletti, *Soft, Mobile or Networked? Cross-Border Cooperation and the topology of the European Union Frontier*, EUBORDERREGIONS, Working Paper Series 2, April 2012.

⁶ European Parliament (Directorate-General for Internal Policies), *New Role of Macro-Regions in European Territorial Cooperation - Study*, Brussels, 2015.

⁷ A. Stocchiero, *A New European Turnaround? Geopolitical Effects of the EU Crisis on the Borders and the Cohesion Perspectives with the Neighbours* (CeSPI, January 2015) 35.

Against this background, this chapter discusses two main issues. First, it argues that the establishment of the Adriatic-Ionian Macro-region reflects the outcome of a process of convergence between Italian and EU's foreign policy interests. Second, it examines the development of a European geopolitical model based on multi-centred regionalism. On balance, while there exist considerable challenges in the process of implementation of the Adriatic-Ionian macro-regional strategy, nonetheless this initiative represents a further attempt to involve the South East European area within the European political and institutional space.

2. Italy as the regional hegemony

Italy has strong security, economic, and energy interests in developing an integrated area between the eastern and western sides of the Adriatic and Ionian seas, and more generally in stabilizing the western Balkans.⁸ These interests involve trade, investments, human mobility, tourism, and environmental protection.⁹ Italian presence and activism in the region is generally well received, since Italy is a key economic partner for most states in the area. Italian foreign direct investment (FDI) ranks among the ten major investors – with Serbia, Croatia and Albania attracting most investments. The Marche region accounts for about 12 % of Italian FDI in the western Balkan states.¹⁰ Unsurprisingly, this region has been strongly committed to the promotion of a macro-regional strategy.

The establishment of a macro-region represents the culmination of an Italian foreign policy effort, with limited contributions by other participating states. Little national-level debate has occurred in the process of formulating a strategy for the Adriatic-Ionian Macro-region, with only Croatia presenting a non-paper on its views and priorities.¹¹ In this context, Italy has been at the forefront in developing the idea and in asking the EU to establish a macro-region for the Adriatic-Ionian area.

At least since October 1999, when the Italian government presented at the Tampere EU Summit its Adriatic and Ionian Initiative, Italy has spent much political capital to draw the attention of European partners on the problems and challenges confronting the region. The Adriatic-Ionian Macro-region, and more generally the western Balkans, is one of the few areas where Italy can play an active and visible role. For decades, Italy has attempted to act as a “bridge” between Europe and North Africa/Middle East, but with little success. The deteriorating security situation on the Southern Mediterranean shores in the aftermath of the so-called “Arab spring,” as well as the worsening situation in Syria and the rise of the Islamic State, has further diminished Italian policy influence. In this geopolitical context, the Adriatic-Ionian area, and more broadly the western Balkans, represent an opportunity to raise the foreign policy profile of a weak and indecisive middle power such as Italy.¹²

⁸ A. Molnár, ‘Towards an EU Strategy for the Adriatic and Ionian Region’ in A. Ágh, T. Kaiser, B. Koller (eds), *Multi-level Governance and Differentiated Integration in the EU* (Blue Ribbon Research Centre, 2014).

⁹ A. Stocchiero, *The External Dimension of the European Union Macro-Regional Strategies in the Mediterranean*, CeSPI Working Paper 77/2011.

¹⁰ E. Cutrini, F. Spigarelli, ‘The Role of Italian FDI in Southeast Europe’s International Integration: A Focus on Investors from the Marche Region’, (2012) 9 *European Journal of Comparative Economics* 395.

¹¹ Stocchiero (n 9) 7.

¹² R. Belloni, ‘Italy in the Balkans: An Emerging Actor in Its Neighbourhood’ in M. Carbone (ed), *Italy in the Post-Cold War Order: Adaptation, Bipartisanship, Visibility* (Lexington Books, 2011)

While the establishment of an Adriatic-Ionian Macro-region constitutes a (minor) success for Italian foreign policy, within the Italian political-institutional environment there exist different interests and priorities, with some actors prone to consider the macro-region as a tool to sustain the European integration of the western Balkans, while others primarily concerned about the economic opportunities that it may offer. As Stocchiero aptly argues,¹³ the two interests are not necessarily in contradiction, although a balancing act needs to be found between these different concerns and priorities. The fact that since the early 2000s both centre-right and centre-left governments have expressed a keen interest in the initiative, and more generally in the western Balkan region, may testify to the presence of an unusual bipartisan support for the macro-region and its problems and opportunities. In particular, one of the issues that unite national level actors is energy. The region is strategically located in an ideal position to become the energy hub of Europe. In February 2013 Albania, Italy, and Greece signed an agreement on the construction and operation of a Trans-Adriatic Pipeline (TAP), whose construction is planned to begin in 2016.¹⁴ The TAP will transport Caspian natural gas to Europe and will cross Greece, Albania, the Adriatic sea and join the Italian natural gas network in the South of Puglia.¹⁵

In addition to state-level institutions and actors, both sub-national and civil society players have performed an important role in supporting the establishment of the Adriatic-Ionian Macro-region. Enduring bottom-up exchanges involving both economic and civil society actors have laid the groundwork for further cooperation. In particular, during the 1990s Italian civil society established a wide net of relationship involving all former Yugoslav states.¹⁶ With the end of the wars, regional links and networks flourished - involving, for example, Adriatic and Ionian cities and towns, chambers of commerce, ports, as well as universities. In this context, the Marche region has been actively engaged in promoting both the Adriatic and Ionian Initiative and the Adriatic-Ionian Macro-region. As mentioned above, the Marche region has strong economic interests in the western Balkans, but at the same time it has endorsed a broader geopolitical approach. In his opinion “Territorial cooperation in the Mediterranean through the Adriatic-Ionian Macroregion”, prepared for the Committee of the Regions in 2011, then President of the Marche Region (Gian Mario Spacca) identified the strategic value of the macro-region as a tool “to facilitate the entry of third countries into the European Union by drawing on the shared interests of the regions”.¹⁷ In sum, a number of national, regional, and local interests and activities converged in the assessment of the macro-region as a useful tool, and prepared the ground for its establishment.

¹³ A. Stocchiero, ‘La prospettiva della macroregione adriatico-ionica nella politica estera italiana’ in A. Stocchiero (ed.) *La strategia dell’Unione Europea per la regione adriatico-ionica e la politica estera italiana* (CeSPI/ISTRID, 2014) 33.

¹⁴ *Agreement among the Republic of Albania, the Hellenic Republic and the Italian Republic relating to the Trans Adriatic Pipeline Project*, 13 February 2013.

¹⁵ A. Prontera, ‘Italian Energy Security, the Southern Gas Corridor and the new Pipeline Politics in Western Europe: from the Partner State to the Catalytic State’, (2015) *Journal of International Relations and Development*, <www.palgrave-journals.com/jird/journal/vaop/ncurrent/full/jird201531a.html>.

¹⁶ L. Rastello, *La Guerra in Casa* (Einaudi, 1998).

¹⁷ European Union, Committee of Regions, *Working Document of the Commission for Territorial Cohesion Policy on Territorial Cooperation in the Mediterranean through the Adriatic-Ionian Macroregion*, 19 May 2011, COTER-V-106, 2.

3. The European Union and the macro-region's geopolitical value

While Italy has promoted the macro-region and asked Brussels to establish it, EU policy-makers have initially demonstrated a limited interest for the initiative – possibly considering it as a distraction from the on going process of European integration. However, the experience with the enlargement to Central and Eastern European states, when the EU relied significantly on cross-border cooperation programmes (institutionalized in the form of Euroregions), demonstrated the useful role regional strategies can play in the enlargement process as a training ground for aspiring new members. With their focus on small projects affecting citizens' daily lives, Euroregions contributed to ease mutual suspicion, foster links across the border, support economic development, and provide opportunities to engage in multi-level governance.¹⁸ In practice, through the support of a number of funding schemes (such as INTERREG, TACIS, and PHARE) the “EU space” was extended across the border before any of the aspiring new EU members actually joined the Union.¹⁹

Building on this experience, the EU strategy explicitly affirms that the macro-region is expected to play an important role in promoting the European integration of the Western Balkans. The Adriatic-Ionian Macro-region, similarly to what happened in Central in Eastern Europe with the establishment of Euroregions, aims to contribute to the Europeanization of non-EU states at the time when the promise of future membership in return for reforms is hollow and largely off the agenda. Indeed, as it took office in November 2014, the European Commission President Jean-Claude Juncker suggested that no further enlargement is expected to take place within the timespan of the Commission mandate (that is, until 2019). While Juncker's statement largely expressed the obvious, since no western Balkan state will be ready to access the Union for several years to come, it nonetheless proved demoralizing for aspiring new members, and raised doubts about the EU's ultimate intentions vis-à-vis the region. The statement confirmed how politically and economically marginal the area has become, a sort of “periphery of the European periphery.”²⁰

The EU's apparent lack of enthusiasm for any further enlargements after the entry of Croatia on 1 July 2013 has contributed to strengthen in the western Balkans a latent Euroscepticism or, more precisely, a “EU-scepticism.”²¹ The outbreak of the economic and financial crisis in 2008, and the difficulty in finding seemingly efficient responses to it, had already eroded Europe's image as a land of prosperity and stability. The EU's tough stance on future memberships, together with the related application of strict conditionality vis-à-vis candidate countries, has further undermined the EU's appeal in the region. In this context, Russia has been playing a more assertive and influential role. From a Russian perspective, the western Balkans represents an important strategic area, at least for two reasons.²² First, the region is a valuable transit zone for Russian gas. Moscow plans to replace transit through Ukraine with a Balkan route before 2020. After the abandonment of the South Stream project, the current plan foresees the building of a

¹⁸ J.A. Yoder 'Bridging the European Union and Eastern Europe: Cross-Border Cooperation and the Euroregions', (2003) 13 *Regional and Federal Studies* 90.

¹⁹ G. Popescu, 'The Conflicting Logics of Cross-Border Reterritorialization: Geopolitics: Geopolitics of Euroregions in Eastern Europe', (2008) 27 *Political Geography* 418.

²⁰ D. Bechev, *The Periphery of the Periphery: the Western Balkans and the Euro Crisis* (European Council on Foreign Relations, 2012).

²¹ R. Belloni, 'L'euroscetticismo crescente dei Balcani occidentali', (2014) 6 *La Revue Nouvelle* 18, 23.

²² R. Belloni, 'Balcani, quell'assenza UE che lascia spazio alla Russia', *L'Unità*, 26 August 2015.

gas pipeline that, through the Black sea, will reach Turkey and from here Western Europe.

Second, while Russia is well aware that it is not able to provide the western Balkans with a realistic alternative to the development of closer ties with the EU, it nonetheless attempts to create obstacles to the (slow) process of European integration. For example, the outbreak of a (controlled) crisis in the region would shift international attention away from the situation in Ukraine, and contribute to bring to the surface European divisions. Unsurprisingly, the political crisis in Macedonia, which intensified in the course of 2015, has seen the direct involvement of Moscow, which tried to influence Macedonian politics for its own foreign policy interests.

In sum, membership prospects for South East European states have become intangible, a sense of EU-scepticism has been taking hold in the region, and other major powers – above all Russia – have been expanding their influence in contraposition to European interests. In this context, the Adriatic-Ionian Macro-region represents the attempt to keep the region on the enlargement agenda, while not explicitly engaging in enlargement politics. In other words, the macro-region constitutes both a way to avoid enlargement and to continue it by other means. It avoids enlargement because, by establishing a form of cross-border cooperation, it postpones answering demands for full membership. At the same time, the macro-region continues on a process of expansion of EU's norms and hegemony on its South East neighbours.

4. What kind of Europe?

The EU does not have a single strategy towards non-EU members. Since the establishment of the Baltic Sea Region in 2009, followed by a Danube Region in 2011 and by the Adriatic-Ionian one in 2014, the EU has demonstrated a growing interest in supporting cooperation in greater European regions. At the same time, however, the EU has developed another wide range of foreign policy tools towards states in its neighbourhood and beyond.²³ The lack of a single strategy towards non-EU members ultimately reflects the co-existence among European policy-makers of different political-institutional logics. In turn, this co-existence reflects the EU's own evolution from a rather limited political-economic institutional arrangement involving a few states, to a major actor composed by 28 members. Browning and Joenniemi have identified 3 different geopolitical models, widely employed in the literature, to describe this evolution.²⁴

First, the Westphalian model suggests that the EU is assuming the characteristics of modern statehood, with sovereignty shifting from national to supranational institutions in Brussels. From this perspective, the EU is seen as an empire in the making, which engages in a politics of difference and exclusion while imposing its norms and interests abroad.²⁵ However, the re-nationalization of foreign policy, which has followed the outbreak of the global economic and financial crisis in 2008, raises serious doubts about the current relevance of this model. European states have increasingly re-asserted their

²³ R.G. Whitman, S. Wolff (eds.), *The European Union as a Global Conflict Manager* (Routledge, 2012).

²⁴ C.S. Browning, P. Joenniemi, 'Geostrategies of the European Neighbourhood Policy', (2008) 14 *European Journal of International Relations* 519.

²⁵ B. Dimitrova, 'Imperial Re-bordering of Europe: The Case of the European Neighbourhood Policy', (2012) 25 *Cambridge Review of International Affairs* 249.

sovereign prerogatives in all policy-making fields, including foreign policy. In Southern Europe, Italy plays a hegemonic role in relations to its neighbours, and the establishment of an Adriatic-Ionian Macro-region testifies to (above all) Italian perseverance and influence.

Second, a Eurocentric or imperial model is arranged around a European core with various degrees of differentiation the further away from the centre. This model reflects a logic of “concentric circles” and interprets power as emanating from Brussels and moving outwards towards the periphery and beyond. As a geopolitical entity, the EU is thought to both insulate itself from external threats through impermeable borders and to promote peace and stability through various forms of association and cooperation agreements and partnerships. This kind of geopolitical approach is perhaps best described as a kind of “regulatory imperialism” with regard to the Union’s drive to extend its norms and values to the rest of the world – starting from its near abroad. Whether this imperial logic accurately reflects the evolution of the Union remains a matter of debate. However, it is indubitable that at time of instability (such as during the wars in the Balkans in the 1990s or in the aftermath of the “Arab spring” in North Africa), the EU tends to interpret its outside as a source of insecurity.

Third, the neo-medieval model conceives of the EU as a networked political space characterized by a polycentric system of government and fuzzy borders where multiple and overlapping jurisdictions oversee territories increasingly heterogeneous both culturally and economically.²⁶ Importantly, there is no one centre in this model but, as the metaphor of “Europe of Olympic Rings” nicely suggests, there exist various regional cores cutting across borders and levels of authority. While Browing and Joenniemi focus on Northern Europe and the Northern Dimension as the most significant empirical illustration for this model, all macro-regions, including the Adriatic-Ionian one, could actually be described as a ring in a rather decentralized Europe. Macro-regions suggest the existence of a European integration process which is not simply directed by a strong centre from where policies emanate, but evolves around multiple and diverse regional sites. In this context, the promotion of forms of cross-border cooperation focusing greatly on civil society development further suggests a departure from traditional state-centred geopolitics.²⁷

Above all, macro-regions provide an opportunity to move away from a Eurocentric “Europe of concentric circles” towards more equal and shared partnerships – even despite the material asymmetries between EU and non-EU states.²⁸ In a Europe of Olympic Rings, each ring should be seen as interconnected to the other ones. The Adriatic-Ionian Macro-region could primarily be linked to the Danube macro-region. Significantly, membership overlap to an extent, with Bosnia-Herzegovina, Croatia, Montenegro, Serbia and Slovenia belonging to both macro-regions, in a model of “open regionalism”²⁹ connecting the area to regional and wider networks. In a such a model, the macro-region is expected to be inclusive and open towards all of its neighbours, with a particular attention to Turkey and the Middle East, in order to deal constructively with common problems, including the management of growing migration flows and humanitarian needs emerging from instability in North African and the Middle East.

²⁶ J. Zielonka, *Europe as Empire: the Nature of the Enlarged European Union* (Oxford University Press, 2006).

²⁷ J. W. Scott ‘Reflections on EU Geopolitics: Consolidation, Neighbourhood and Civil Society in the Reordering of European Space’, (2011) 16 *Geopolitics* 146.

²⁸ Stocchiero (n 7) 28.

²⁹ P. Stubbs, C. Solioz (eds), *Towards Open Regionalism in South East Europe* (Nomos, 2012).

Drawing from Walters,³⁰ Browning and Joenniemi further illustrate how the Westphalian, imperial and neo-medieval models convert into four different geo-strategies with regard to the various ways border spaces are organized. First, the “networked (non) border” involves a partaking of responsibilities between EU and non-EU members and actors on the basis of shared liberal principles and values. Second, the “march strategy” envisages the creation of security areas, or buffer zones, along the border in order to keep disorder and instability at a distance. Third, the “colonial frontier” foresees the transformation of the outside in such a way to make it compatible with the inside, and thus easier to absorb/incorporate within the Union. Finally, the “limes” creates an enduring separation between the inside and the outside, without any attempt to incorporate the latter into the former.

While these geo-strategies are clearly overlapping in practice, and crucially influenced by the stance of external players (with Russia central in the geo-strategic assessments of the EU), they are useful in drawing attention to the existing diversity in EU foreign policy. According to Browning and Joenniemi, in the northern area networked borders reflect extensive regional cooperation; in the East, EU enlargement testifies to the combined influence of a “march” and “colonial” strategy; in the Mediterranean, the focus on the “limes” reflects a long-lasting divide between Europe and North Africa. Stocchiero takes the analysis further by explaining how different geo-strategies translate into a set of complex and composite policies: EU immigration policy, for example, reflects largely a “limes” strategy while, by contrast, trade policy suggests the emphasis on breaking down and networking borders.³¹

In sum, the EU’s external policy cannot easily be understood as a hegemonic, imperial project, but rather as a hodgepodge of different cross-border projections. With regard to South Eastern Europe, the creation of an Adriatic-Ionian Macro-region evolves from a broader evolution of the relationship between Europe and the western Balkans. Historically, the Balkans have been understood as a region external to European civilization, and thus to be kept at arm’s length. The “Balkans” has been the depository of negative perceptions and, in the aftermath of the violent process of Yugoslav dissolution, occasionally continues to be seen as a “problem” to be addressed, rather than a (perhaps dysfunctional) part of the European family. Unsurprisingly, to use Walter’s terminology, the “march strategy” and the “limes” have been the prevailing European geo-strategies vis-à-vis the region.

Since the early 2000s these perceptions have been slowly changing in the direction of less drastically negative views. Accordingly, the EU’s approach moved from a logic of exclusion to one of inclusion based on the promise of future membership of the Union. Ultimately the Balkans constitute a reflection of the European past, and thus a repository of troubling memories involving authoritarianism and war, rather than simply an instance of Europe’s Other.³² As a result, the Balkans, not unlike Western Europe, can reach a post-modern, Kantian condition of peace and stability. On this basis, a “colonial frontier” strategy aimed at the transformation of the region has taken ground. Significantly, the “western Balkans” has been devised in Brussels as a bureaucratic rather than geo-political category to describe, in a rather aseptic manner, all of those states involved in the EU integration process. The creation of an Adriatic-Ionian Macro-region, in particular with its civil society component, adds a “networked (non)border”

³⁰ W. Walters, ‘The Frontiers of the European Union: A Geostrategic Perspective’, (2004) 9 *Geopolitics* 674.

³¹ Stocchiero (n 7).

³² See M. Todorova, *Imagining the Balkans* (Oxford University Press, 2009).

element to the European approach, and signals a further shift in the way the “Balkans” are understood and interpreted in Europe. Put it differently, the macro-region constitutes another instance of a broader re-conceptualization of Europe where regional differences are recognized and promoted, where the presence of multiple centres is acknowledged, and where borders are fluid and not necessarily expressing opposition to “non-Europe”.

5. Conclusion

The achievements of any macro-region will ultimately depend on the political support it will receive from national and regional policy-makers and administrators. However, such a support cannot be taken for granted. Macro-regions are paradoxical entities, since they are based on conflicting logics: on the one hand, the territorial logic of the nation-state contributes to conceive of borders as sharp dividing lines. On the other hand, cross-border cooperation induces a border bridging territorial logic. These conflicting logics explain why national governments may simultaneously promote and undermine macro-regions. National governments may support the development of cross-border links, but their ultimate goal is to use macro-regions in order to tackle the limits of Westphalian sovereignty, rather than to create integrated territorial entities.³³

In a context dominated by perhaps contradictory priorities, the impact and effectiveness of macro-regional strategies can be easily overestimated. On paper, macro-regional strategies look like the most reasonable tool to address common issues and problems in a particular geographical space. In practice, effectiveness depends on several factors including, in addition to governments’ political will, administrative capacities, efficient multilevel governance mechanisms, and the availability of resources to turn general priority areas into concrete projects and programs. In this regard, the post-2008 Europe-wide economic and financial crisis may complicate the task, not least because the EU budget for the period 2014-2020 has been reduced compared to the previous 2007-2013 cycle. Seen from a cohesion perspective, the economic and financial crisis has had a visibly negative impact by increasing disparities of wealth between regions.³⁴ Macro-regional strategies could contribute to reverse this trend, crucially by involving EU and non-EU states, but it remains to be seen whether they will be able to use a diminishing pool of resources in synergic and more efficient ways. Ultimately, however, the macro-regions’ real added value may lie less in their practical achievements and more in the mental maps, or “geographical imaginaries”,³⁵ of common belonging and sharing that they could contribute to foster.

³³ G. Popescu, ‘The Conflicting Logics of Cross-Border Reterritorialization: Geopolitics: Geopolitics of Euroregions in Eastern Europe’, (2008) 27 *Political Geography* 418.

³⁴ P. Faucheur, *Cohesion Policy Facing the Crisis: What Effects for the EU’s Region?*, Policy Paper, Notre Europe, 15 January 2014.

³⁵ Celata, Coletti (n 5).

PIETRO GARGIULO

THE ROLE OF EUROPEAN MACRO-REGIONS IN THE GOVERNANCE OF THE SEAS. BALTIC AND ADRIATIC: COMPARING TWO MODELS

SUMMARY: 1. Introduction. – 2. Macro-regional strategies in the context of EU policies and law. – 3. Procedure for the establishment of a macro-region and for the elaboration and the gradual adaptation of a macro-regional strategy. – 4. The structure of the macro-regional strategy. – 5. The governance of the macro-regional strategy. – 6. The establishment of the strategy for the Baltic Sea Region and the following revisions. – 6.1. The structure of the Baltic strategy. – 6.2. The governance of the Baltic strategy. – 6.3. The governance of the objective “Save the sea”. – 7. The EU Strategy for the Adriatic and Ionian Region. – 8. Conclusions.

1. Introduction

The aim of this paper is to examine the role of macro-regional strategies in the governance of marine spaces, in particular comparing the model of the EU Strategy for the Baltic Sea Region (EUSBSR) with that of the EU Strategy for the Adriatic and Ionian Region (EUSAIR).¹

It is necessary to point out that it is a *sui generis* comparison as the Baltic macro-region is in an advanced stage of its development,² while the Adriatic and Ionian macro-region is taking its first steps.³ However, a comparison between the two macro-regional strategies is possible precisely because the management of marine spaces is a common objective of both.

The paper begins by briefly examining the role of macro-regions in the context of EU policies and law. Then, it examines the Baltic Strategy, in particular the objective “Save the sea” and the connected policy areas and flagship projects. After that, it carries out an analysis of the Adriatic and Ionian Strategy, paying particular attention to the architecture of the governance and objectives and initiatives concerning the marine area involved.

2. Macro-regional strategies in the context of EU policies and law

The “macro-region” and the “macro-regional strategy” have been recently set up as tools available to the EU to promote territorial cooperation and cohesion.⁴

¹ See the EUSAIR area on Map 4, *infra*, at 246.

² See the Conclusion of the European Council on 29-30 October 2009, 15265/09. The Strategy and its Action Plan were elaborated by the Commission in 2009, 10 June 2009, COM(2009) 248 final.

³ On the documents concerning the institution of the Adriatic and Ionian Strategy see *infra* para 7.

⁴ In general on macro-regional strategies see A. Dubois, S. Hedin, P. Schmitt, J. Sterling, *EU Macro-regions and macro-regional strategies. A scoping study*, Nordregio Working Paper, Stockholm, 2009, <www.nordregio.se>; A. Stocchiero, *Macro-regioni europee: del vino vecchio in una botte nuova?*, Working papers 65/2010, CeSPI, Rome, <www.cespi.it>; I. Katsarova, *EU macro-regional strategies: state of play*, Library Briefing, Library of the European Parliament, 28 February 2012, <[www.europarl.europa.eu/thinktank/it/document.html?reference=LDM_BRI\(2012\)120265](http://www.europarl.europa.eu/thinktank/it/document.html?reference=LDM_BRI(2012)120265)>; S. Gänzle, K. Kern, *‘Macro-regional Europe’- Paving the Ground for a New Form of European Governance?*, Paper of the 44th UACES Annual Conference, <www.uaces.org>; D. G. Bianchi, *Strategie macro-regionali dell’Unione europea e multi-level governance: innovazione reale o apparente?*, Paper of the SISP Conference, Perugia, 11-13 September 2014, <www.sisp.it>.

Indeed, the concepts above-mentioned have received great attention and interest inside the EU over the last few years. In October 2009, the European Council established the first macro-regional strategy, that related to the Baltic Sea, involving eight EU Member States (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden) and four Third States (Belarus, Iceland, Norway, Russia). In June 2011, the European Council established the EU Strategy for the Danube Region (EUSDR), with the involvement of nine EU Member States and five Third States (Bosnia and Herzegovina, Montenegro, Serbia, Moldova, and Ukraine).⁵ In June 2014 the European Council approved the EU Strategy for the Adriatic and Ionian Region that covers four EU Member States (Croatia, Greece, Italy, Slovenia) and four Third States (Albania, Bosnia and Herzegovina, Montenegro, Serbia). Finally, in July 2015, the European Commission adopted a Communication and an Action Plan on the EU Strategy for the Alpine Region (EUSALP), which involves five EU Member States (Austria, France, Germany, Italy, Slovenia) and two non-EU countries (Liechtenstein, Switzerland).⁶

It is no coincidence that the initiatives just cited are contemporary to the drawing up, signing and entry into force of the Lisbon Treaty. It is with the reform put in place in Lisbon that the territorial cohesion has been added to the economic and social one through the reformulation of Article 174 TFEU. This in coherence with the EU's aims established by Article 3 TEU that, among other things, gives to the Union the task to promote the economic, social and *territorial* cohesion (par 3, c. 3).⁷

Consequently, macro-regional strategies have been identified as a tool able to valorize the aims of the new EU cohesion policy.⁸

Confirmation of that can be found in the same definition of macro-region: “an integrated framework relating to Member States and third countries in the same geographical area” that “addresses common challenges” and “benefits from strengthened cooperation for economic, social and territorial cohesion”.⁹

3. Procedure for the establishment of a macro-region and for the elaboration and the gradual adaptation of a macro-regional strategy

There are different steps for the establishment of a macro-region and the development of the related strategy. First, several political, economic and social actors

⁵ See the Conclusion of the European Council on 23-24 June 2011, EUCO 23/1/11. The *European Union Strategy for the Danube Region* and its *Action Plan* were elaborated by the European Commission on 8 December 2010, COM(2010) 715 final.

⁶ See the Conclusion of the European Council on 19-20 December 2013, EUCO 217/13 and the Communication of the Commission, *European Union Strategy for the Alpine Region*, 28 July 2015, COM(2015) 366 final.

⁷ On Article 174 TFEU, see O. Porchia, ‘Art. 174’ in A. Tizzano (ed), *Trattati dell’Unione Europea* (II ed., Giuffrè, 2014) 1572 ff.; F. A. Cancilla, ‘Art. 174’ in C. Curti Gialdino (ed), *Codice dell’Unione europea operativo* (Edizioni Simone, 2012) 1401 ff. On Article 3 TEU, see L. Fumagalli, ‘Art. 3’ in A. Tizzano (ed), *Trattati dell’Unione Europea* (II ed., Giuffrè, 2014) 14 ff., T. Russo, ‘Art. 3’ in C. Curti Gialdino (ed), *Codice dell’Unione europea operativo* (Edizioni Simone, 2012) 61 ff. In general, also see S. Cimini, M. D’Orsogna, *Le politiche comunitarie di coesione economica e sociale. Nuovi strumenti di sviluppo territoriale in un approccio multidimensionale* (Editoriale Scientifica, 2011); M. Vellano, *La cooperazione regionale nell’Unione Europea* (Giappichelli Editore, 2013); A. Di Sciascio, *Le politiche europee di coesione sociale tra amministrazione comunitaria e il sistema degli enti territoriali. Un’introduzione critica* (Giappichelli Editore, 2014).

⁸ See the *Conclusions of the fifth report on economic, social and territorial cohesion: the future of cohesion policy*, 9 November 2010, COM(2010) 642 final, 8.

⁹ See *Report of the Commission concerning the added value of macro-regional strategies*, 27 June 2013, COM(2013) 468 final, 3.

such as Member States, private and public stakeholders and Members of the European Parliament should express their will of setting up a macro-region. Then, the European Council assesses whether the request is coherent, useful and strategic for the achievement of EU objectives. If the European Council considers the proposal worthy of attention, the Commission is asked to develop a strategy. Usually, before developing a macro-regional strategy, the Commission holds a consultation with Member States, third Countries involved in the initiative, regions, intergovernmental organizations and nongovernmental organizations, public and private stakeholders as well as citizens. Thereafter, taking into account the above activities, the Commission outlines the strategy in the form of a Communication to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions. Such a Communication describes both the challenges and the opportunities of the macro-region. It also draws up a plan of action which identifies precisely the objectives and the related activities necessary to reach them. Finally, the Commission proposal is approved by the European Council, usually by the means of a reference in the Conclusions of its meetings.

It is worth to underline, even though it could seem obvious from the above description, that both the Commission Communication and the European Council Presidency Conclusions are not binding but they represent political acts. The main advantage of using non-binding acts is that the framework of the macro-regional strategy is rather flexible. As a matter of fact, the relevant institutions could modify such a framework with acts of the same nature of those used for establishing the macro-region and, therefore, adapt it to the specific needs which occur during the implementation of the strategy.

4. The structure of the macro-regional strategy

From the above description, it is clear that the implementation of the strategy is inextricably linked with the original action plan and its revisions. These are aimed at updating the strategy through the operational configuration of objectives, policy areas, horizontal actions and flagship projects.

In relation to the various *objectives* within the context of a macro-regional strategy, it has to be underlined that they are closely connected to each other so that the achievements related to one objective could have positive impacts also on the others.

The *policy areas* are the prominent feature of a macro-regional strategy, as consequent projects and actions are determined on the basis of them.

With reference to the *actions*, those of horizontal nature are particularly relevant because they operate in mutual connection with the objectives in order to integrate with them.

Finally, the *flagship projects* play a crucial role in putting into effects the macro-regional strategy as they represent the primary projects to implement in each policy area.

5. The governance of the macro-regional strategy

The governance architecture is one of the essential features for the realization of the macro-regional strategy. From a general point of view, we could certainly consider the macro-regional strategy organization as a *multilevel governance* system.¹⁰ This is because many different kinds of actors – institutional, non-institutional, supranational, national and regional – are involved in the shaping and, specifically, in the implementation of the strategy. In particular, as for the implementation, all the actors involved have both equal position and equal importance. Therefore, the multilevel governance of the strategy determines a horizontal structure which is ruled by consensus so that cooperation, collaboration, supervision and assessment of implemented policies are significantly boosted.

More precisely, three different levels could be identified in the governance of a macro-regional strategy: a political level, a coordination level and an implementation level.

Regarding the political level, leading roles are occupied by the European Council, the Commission and the High-level group. This last-named is composed by representatives – National Contact Points or equivalents – of each Member States and third Countries involved in the strategy. The political level influences both the general strategy and the action plan and is in charge of the potential revision of the latter.

The coordination level bears the crucial responsibility of adopting measures related to the strategy in order to accomplish a successful implementation. Policy areas Coordinators, Horizontal Action Leaders and National Contact Points take part in this activity and play an essential role in coordinating them inside their respective governments.

The implementation level concerns the financial aspects of the strategy and is connected with programmes and funding instruments of the EU budget cycle.

6. The establishment of the strategy for the Baltic Sea Region and the following revisions

As mentioned above, the strategy for the Baltic Sea Region has been the first macro-regional strategy adopted within the EU.¹¹ From the very beginning, it has been considered an ideal experimentation of cooperation as the regions involved present a considerable amount of common issues so that the establishment of a common strategic

¹⁰ In general, on multilevel governance, see L. Hooghe, G. Marks, 'Types of Multi-Level Governance', (2011) 5 European Integration online Papers, <eiop.or.at/eiop/texte/2001-011a.htm>. On multilevel governance within the EU, see A. Simonato, 'Il rapporto tra Regioni, Stato, e UE alla luce della crisi economica, dell'attualità istituzionale, del dibattito sul paradigma della multilevel governance', (2013) 9 federalismi.it – Rivista di diritto pubblico italiano, comparato, europeo, <www.federalismi.it>; A. Papa, 'Il modello europeo di integrazione e la multilevel governance europea', report presented at the Conference "*Parlamenti nazionali ed Unione europea nella governance multilivello (Rome, 12-13 May 2015)*", <www.nomos-leattualitaneldiritto.it/wp-content/uploads/2015/07/Papa_convegnoprin12-13_5_2015.pdf>. On the governance of macro-regional strategies, see *Report of the Commission concerning the governance of macro-regional strategies* (n 9).

¹¹ On the strategy for the Baltic Sea Region, see P. Schmitt, A. Dubois, J. Toto, J. Sterling, C. Schürmann, 'Exploring the Baltic Sea Region – On territorial capital and spatial integration', (2008) 3 Nordregio Report, <www.nordregio.se>; R. Bengtson, *An EU Strategy for the Baltic Sea Region: Good Intentions Meet Complex Challenges*, Swedish Institute for European Policy Studies, European Policy Analysis, 9, 2009, <www.sieps.se>; M. Lehti, 'Baltic Region in Becoming: From the Council of the Baltic Sea States to the EU's Strategy for the Baltic Sea Area', (2009) 22 Lithuanian Foreign Policy Review 9.

framework is justified. It involves eight member States of the Union: Denmark, Germany, Poland, Sweden, Finland, Latvia, Lithuania, Estonia. In 2006, the EU Parliament, with a resolution aimed at supporting the northern Dimension of the EU, ask the Commission to develop a strategy for the Baltic Sea. In December 2007, also the European Council advanced this request to the Commission. For this reason, the Commission presented its proposal and the related action plan in June 2009. The strategy was approved by the European Council at the meeting on 29/30 October 2009.

The strategy and the action plan have been emended twice. In the first review, the Commission has proposed a reduction from four to three pillars: 1) protection of the marine environment; 2) interconnections in the region; 3) a prosperous region. In this context, the Commission assessed for the first time the implemented activities and the reached outcomes, developing new proposals for the implementation of the new strategic framework as well. In September 2015, the Commission adopted a second revision concerning mainly the action plan in order to ensure the alignment of the Baltic strategy with Europe 2020 strategy.

6.1. The structure of the Baltic strategy

Having been the first macro-regional strategy to be adopted, the Baltic strategy presents a structure that has been a model for the following ones and that, as noted above, is composed of objectives, sub-targets, policy areas, horizontal actions and flagship projects. As it is a very complex structure, we will focus just on the aspects directly related to the marine environment. From this standpoint, the most relevant feature of the strategy is the objective named “Save the sea”. This, in turn, is structured into four sub-targets which identify the main elements connected with the accomplishment of the overall objective: clean water; rich and healthy wildlife; clean and safety shipping; better cooperation.

As for the policy areas of the “Save the sea” objective, the strategy considers: *nutrients*, the reduction of an excessive input of nutrients to the sea to acceptable levels; *risks*, the reduction of the use and impact of hazardous substances; *bioeconomy*, the support of sustainable agriculture, forestry and fishing; *shipping*, promoting clean shipping; *safety and security*, both from the maritime perspective and in relation to the protection from disasters, accidents and cross border organized crimes.

There are also four horizontal actions – spatial planning, neighbourhood policy, capacity building and climate – which interact with the three overall objectives and policy areas.

In conclusion, it should be noted that, for the practical implementation of the strategy, flagship projects, linked to each objective and policy area, are developed.

6.2. The governance of the Baltic strategy

Similarly to other strategies, the governance of the Baltic macro-region is structured into three levels: political, coordination and implementation. These three levels are well represented by both the Member States that are part of the strategy and national coordinators, who are responsible for the coordination and the implementation of the strategy at national level. On the one hand, Member States are responsible for the fundamental task of ensuring the permanent commitment to the implementation and the accomplishment of the objectives of the macro-regional strategy. They also ensure that

strategic planning, relevant policies, programmes and national financial instruments are aligned with the needs of the Baltic strategy. On the other hand, national coordinators are in charge of many key tasks such as the political support of the implementation of the strategy at national level, the coordination with national coordinators of other Member States, even for the exchange of best practices, the participation to the revision of the action plan in partnership with the Commission and the other policy areas and horizontal actions coordinators, the promotion of the participation of all the stakeholders of the Baltic region.

With reference to the architecture of the Baltic governance, the European Council, the Commission and the High-level group are parts of the political level. EU institutions ensure both the political commitment and the general orientation for the realization of the strategy. Particularly, the Commission supports dialogue, participation and cooperation of every stakeholder and, above all, promotes the alignment of policies, programmes and financial resources of each level involved – supranational, national, regional – with the objectives of the strategy. The High-level group, composed of national coordinators, determines the strategic implementation and develops the different thematic aspects related to the strategy.

The coordination level is carried out by policy areas coordinators, the four horizontal actions coordinators and by the *focal points* of both policy areas and horizontal actions.

Coordinators of policy areas and horizontal actions are committed to fulfilling crucial tasks such as the participation to the elaboration of new action plans, the promotion of the development and the implementation of actions and flagship projects in each policy area, the enhancement of dialogue with entities responsible for programmes and financial instruments so that the alignment of available resources with policy areas objective is ensured, the supervision on the coherence of implemented actions in order to avoid overlapping and duplication.

Focal points connect at national level all those subjects concerning main policy areas and horizontal actions. Specifically, they deal with the dissemination of information to the public.

In order to provide a complete understanding of the Baltic strategy governance, it should be noted that the coordinators of both the policy areas and horizontal actions have established *direction committees*. These are composed of representatives of all States involved in the strategy and stakeholders in order to support coordinators in the fulfilment of their tasks and in the discussion of strategic issues in each thematic area. Direction committees serve also as fora for dialogue related to flagship projects.

At the implementation level, there are entities in charge of the realization and the provision of programmes, financial resources, flagship projects and their *leaders*. At this level, all the activities concerning the alignment of the available financial resources with the objectives of the strategy are ensured.

6.3. The governance of the objective “Save the sea”

As previously noted, the “Save the sea” objective is structured into four sub-targets and six policy areas which reveal not only the relevant issues for the accomplishment of objectives but also the actors involved in doing so. It is impossible to examine all the priority areas in this article. However, in order to briefly clarify how the governance related to the “Save the sea” objective works, we will focus our attention on one particular policy area, pertaining *nutrients*.

This area is essential because one of the main problems of the Baltic basin is represented by the eutrophication of water. This phenomenon is mostly due to the detrimental inputs of nitres and phosphates generated by unsustainable agriculture and industrial production techniques. The achievement of the overall objective “Save the sea” is indissolubly linked to the reduction of the input of nutrients to an acceptable level. The action plan, as reviewed in 2015, provides these actions: a more efficient management of nutrients, the improvement of wastewater treatment, the promotion of a cross-sectoral dialogue, the improvement of the accuracy of the collection of data related to the input of nutrients to the sea, the cooperation with third Countries as Russia and Belarus, the identification of more efficient mechanisms for the reduction of nutrients. Finland and Poland coordination is responsible for such a primary policy area and the direction committee includes the participation of representatives from: ministers of environment of Germany, Denmark, Estonia, Latvia, Finland; agencies for the protection of the environment of Germany and Lithuania; the National Authority for the management of water of Poland; the EU Commission (DG Regio); the Baltic marine environment protection commission, the so called Helsinki Commission; the Swedish Authority for the management of the marine environment and water resources. There are also seven flagship projects linked to the treatment of wastewater coming from different sources – urban, industrial and agricultural. For each of them a responsible authority (*leader*) is identified, which, as for nutrients, could be of various nature such as a territorial authority, a research centre, a university or a foundation.

7. The EU Strategy for the Adriatic and Ionian Region

Regional cooperation in the Adriatic and Ionian area has its precedent in the Adriatic and Ionian Initiative (AII). Established in May 2000 with the Ancona Declaration,¹² the AII has the objective of enhancing regional cooperation in order to promote political and economic stability and, in doing so, the European integration project as well. In order to achieve these objectives, the AII has an institutional architecture structured into a Presidency that rotates among Members each year; a Council, which is a decision-making body, composed of Foreign Ministers; a Committee of Senior officials, with executive responsibilities; a Permanent Secretariat, led by the Secretary General, with the task of promoting, selecting and coordinating the activities. These involve, specifically, cooperation in the fields of tourism, culture, small and medium enterprises, transport, marine sector and environment.¹³

With the experience of cooperation gained for several years through regional networks, cities, chambers of commerce, universities and civil society organizations, the AII has had a significant role in the promotion of the establishment of the Adriatic and Ionian strategy by the EU¹⁴.

¹² Declaration of the Adriatic Ionian Council on the support to the EU Strategy for the Adriatic Ionian Region, adopted in Ancona, 5 May 2010, <www.esteri.it/mae/it/politica_estera/aree_geografiche/europa>. The declaration was signed by Foreign affairs Ministers of Italy, Albania, Bosnia Herzegovina, Croatia, Greece and Slovenia. Later Serbia and Montenegro joined the initiative. On the AII, see V. Moretti, *L’Iniziativa Adriatico Ionica e la costituzione della Macroregione*, (2015) 3 *Sicurezza e scienze sociali* 85.

¹³ For more information on AII activities see <www.aii-ps.org>.

¹⁴ Declaration of the Adriatic Ionian Council on the Support to the EU Strategy for the Adriatic Ionian Region, adopted in Ancona, 5 May 2010, <www.esteri.it/mae/it/politica_estera/aree_geografiche/europa>.

Consequently, upon invitation of the European Council in December 2012,¹⁵ the Commission presented, in June 2014, the macro-regional strategy and an action plan for a smart, sustainable and inclusive growth in the Adriatic and Ionian region.¹⁶ The strategy was approved by the European Council on 24 October 2014.¹⁷ The general objective of the strategy is “to promote sustainable economic and social prosperity in the Region through growth and jobs creation, and by improving its attractiveness, competitiveness and connectivity, while preserving the environment and ensuring healthy and balanced marine and coastal ecosystems”. It is a very ambitious objective which engages eight Countries (Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Montenegro, Serbia, Slovenia) which already participated in the Adriatic and Ionian Initiative (AII).

The starting point of the Commission’s proposals, not differently from the already adopted macro-regional strategies, is the identification of common challenges and opportunities of the macro-regional area.

In relation to the challenges, briefly, these are connected mainly to great socio-economic disparities among engaged Countries in terms of GDP and unemployment and to the widespread inability of local companies to exploit the possibilities of cross-border trade, innovation and research, especially with regard to blue economy. Furthermore, there are many sectors to highlight: the lack of transport infrastructures, and, in particular, the deficiencies of road and rail network, the maritime traffic congestion and the little development of multi-modal transport; as for energy, the inadequacy of electricity grids that prevents the development of an integrated energy market, in relation to renewable energy sources as well; with respect to the environment, the proposal calls for actions regarding the protection of ecosystems, sustainable tourism, the fight against maritime pollution, sustainable fishery and ecological aquaculture, the treatment of wastewater and other materials from agricultural activities, the lowering of emissions that harms air quality, the fight against illegal hunting, the completion of protected areas, the promotion of strategies to neutralize risks such as rising sea levels, flooding, drought, soil erosion and forest fires; administrative and institutional limits generated by corruption, cross-border organized crime and migration pressure which may weaken the implementation of the strategy.

In relation to the opportunities that the macro-region could offer, the Commission stresses four aspects (blue economy, connectivity, cultural and natural heritage and biodiversity, tourism) that coincide with the four pillars of the proposed action plan for a gradual implementation of the strategy: blue growth; connecting the region; environmental quality; sustainable tourism. The responsibility of the coordination of each pillar rests with two Countries involved in the strategy.

I will just underline some features directly related to the issue of maritime spaces.

First of all, the “blue growth” pillar – coordinated by Greece and Montenegro – has the objective of promoting innovative marine and maritime growth through the development of blue technologies, supporting sustainability and business opportunities of fishery and aquaculture, enhancing governance and marine and maritime services. Basically, these are priority areas upon which the 2014 action plan provides several specific actions.

¹⁵ See Conclusions of the European Council, 12/13 December 2012, EUCO 205/12, 11.

¹⁶ See *Communication concerning the European Union Strategy for the Adriatic and Ionian Region*, 17 June 2014, COM(2014) 357 final.

¹⁷ See Conclusions of the European Council, 23/24 October 2014, EUCO 169/14, 15.

Another significant pillar is that of “environmental quality”. Coordinated by Slovenia and Bosnia Herzegovina, the pillar has the objective of contributing to improve environmental conditions of marine and coastal ecosystems, reducing marine pollution, limiting and compensating soil sealing, reducing air pollution and halting loss of biodiversity and degradation of ecosystems. On the relevant priority area “marine environment”, the strategy provides several actions linked to threats to marine and coastal biodiversity and marine pollution.

With regard to the governance architecture of the strategy, this is structured into three levels. The political level does not show any significant difference from that of the Baltic strategy. As for the coordination level, a *Governing Board* has been established, led by a Country that chairs *pro tempore* the Adriatic and Ionian Initiative and by the Directorate-General for Regional and Urban Policy of the EU Commission. Members of the *Governing Board* are: two national coordinators for each Country (usually, a foreign affair official and a governmental official responsible for EU funds); four-pillar coordinators; members of involved Commission Directorates; a representative of the EU Parliament; the Permanent Secretariat of the Adriatic and Ionian Initiative; a representative of the Committee of Regions; a representative of the Economic and Social Committee; a representative of the Direction Authority of ADRIION and one of the Facility Point of EUSAIR. The Governing Board works as a strategic guide for both the direction and the implementation of the strategy and its action plan. In relation to the coordination level, there are four Thematic Steering Groups which are chaired for three years, in rotation, by Countries which have the task of coordinating each thematic pillar. Finally, the implementation level deals with essentially the ADRIION programme that supports governance and the implementation of the strategy on the operational and administrative plan.

8. Conclusions

Beyond some terminological differences, it appears that the governance structures of the aforementioned strategies do not show any relevant divergences. In practice, the model developed with the establishment of the Baltic strategy has been used in the Adriatic and Ionian strategy, capitalising on the former experience in order to exploit the importance of the political presence of national governments in all the institutional aspects of the latter strategy.

A divergence between the Baltic strategy and the Adriatic and Ionian strategy concerns the circumstance that, while in the former only Member States are involved, the latter includes also non Member States, even though they are candidates or potential candidates for EU accession. This might lead to some difficulties in the achievement of the objective, implied in every strategy, of enhancing the relevant EU policies in the region, filling the gaps and dealing with challenges concerning particularly the management of the marine space and the environment. In relation to these issues, it is clear that the Union has a considerable volume of legislation that must be examined and assessed in order to support compliance with EU law and this could be more challenging for States that are not members of the Union.

Furthermore, EUSAIR's tourism is apparently more developed than EUSBSR's. Indeed, the former strategy shows a specific pillar, whereas the latter does not have it. Actually, Countries part of the Baltic Region have to elaborate and to implement several

flagship projects in this field, whereas in the Adriatic and Ionian Region there is still much to do. This is probably due to the fact that EUSAIR started only one year and half ago, but also that it is more difficult to coordinate both Countries with a different membership at EU level and stakeholders active in the tourism sector in a different way.

However, there are several similarities between the Baltic Sea Region and the Adriatic and Ionian Seas Region. In both cases, there are three closed or semi-closed basins, very traffic congestion, with a eutrophication phenomenon, and over time they developed same problems and therefore same challenges, but also same opportunities. Furthermore, both have acquired an international and geostrategic character over the last years. On the one hand, the Baltic Region could be crucial in order to promote cooperation programmes and strategic partnerships with others regional actors, including Norway, Iceland, Belarus, and especially the Russian Federation. On the other hand, the Adriatic and Ionian Region could represent an original and unusual way to accelerate integration processes of Western Balkans States, such as Albania, Bosnia Herzegovina, Montenegro and Serbia.

In general, questions are: a EU increasingly disunited can reorganize itself around several macro-regional strategies? In other words, in order to incentivize a new and effective cohesion policy at EU level, also to save the EU project as a whole, is it possible and realistic to launch a new territorial cohesion approach starting from macro-regional strategies? In the very near future, another five new regions could be established, thanks to the five strategies currently under consideration: strategies for the Atlantic Arc Region, for the Western and Eastern parts of the Mediterranean Sea Region, for the North Sea Region, for the Black Sea Region and for the Carpathian Region. In conclusion, a EU that in the future will strive for a practical and concrete implementation of several federated and inter-linked macro-regional strategies.

In this context, the Adriatic and Ionian Region becomes crucial for many reasons: fighting marine pollution and related prejudicial and dangerous phenomena, such as eutrophication, thus saving the two seas; developing “motorways of the sea” to create smart and efficient interconnections in order to promote intermodal transport; creating the conditions for sustainable fisheries in order to preserve fish stock and to keep clean the two seas; filling the “Western Balkans hole”; strengthening stability, peace and security in the Balkan area; supporting and speeding up EU integration process of the Western Balkans Countries, thus contributing to create appropriate economic, social, infrastructural, environmental conditions to withstand the impact of EU standards.

PART 2

THE LEGAL REGIME OF THE ADRIATIC AND IONIAN SEAS

THE LEGAL REGIME OF THE SEMI-ENCLOSED SEAS IN THE LIGHT OF THE UNCLOS AND THE EU ROLE IN THE GOVERNANCE OF ADRIATIC AND IONIAN MARINE SPACE

SUMMARY: 1. Introduction. – 2. The Adriatic and Ionian marine space. – 2.1. A short description of relevant facts. – 2.2. The role of the EU. – 3. The legal regime of enclosed or semi-enclosed seas in accordance with UNCLOS. – 3.1. Constitution of the concept of enclosed or semi-enclosed seas. – 3.2 “Regionalism at sea”. – 3.3. Elements of the legal regime. – 4. EU Strategy for the Adriatic and Ionian Region (EUSAIR). – 4.1. Maritime Strategy for the Adriatic and Ionian Seas. – 4.2. From a maritime strategy to a macro-regional strategy for the Adriatic and Ionian region. – 5. Conclusion.

1. Introduction

The establishment of a legal regime of enclosed or semi-enclosed seas is a development that happened during the Third UN Conference on the Law of the Sea (1974-1981).¹ In the past there have been references to bodies of sea water distinct geographically from the open oceans,² but there had been no conceptual elaboration of this geographical phenomenon or practical consequences at the legal point.³ None of the 1958 Geneva Conventions referred to enclosed or semi-enclosed seas. It is indicative, in this connection, to point also to the fact that older scholarship on this type of marine spaces is extremely scarce; even more, until recently (even after the entry into force of 1982 UNCLOS), treatises of international law and of international law of the sea did not devote a section to this institution.

The particular legal regime of enclosed or semi-enclosed seas finds its basis on UNCLOS, in particular its Part IX (Articles 122 and 123). Through these provisions the drafters of UNCLOS endeavoured to establish a legal regime for a primarily geographical notion, consisting to rather restricted bodies of sea water, as opposed to the vast oceans. I am not going to dwell on the characteristics of the Adriatic and the Ionian Seas that can classify them both as a unit and also separately as semi-enclosed seas from the geographical point of view. They are both part(s) of the wider Mediterranean, sharing the general characteristics of the latter. They also possess specific geographic, political and economic features that allow considering them as an entity in particular from the socio-political point of view.

2. The Adriatic and Ionian marine space

2.1. A short description of relevant facts

The Adriatic Sea forms a narrow sea body in the form of a large and deep gulf incised into the European mainland and stretching from the Gulf of Venice at its

¹ The initiative came from Italy, see M. Grbec, *The Extension of Coastal State Jurisdiction in Enclosed or Semi-Enclosed Seas: A Mediterranean and Adriatic Perspective* (Routledge, 2014) 19-20.

² G. Gidel, *Le droit international public de la mer: le temps de paix*, tome I (Mellottée, 1932) 41.

³ L. Lucchini, ‘La 3^{ème} Conférence des Nations Unies sur le droit de la mer face au phénomène des ‘Méditerranées’ ou le triomphe de l’Etat océanique’ in *Droit et libertés à la fin du XX^e siècle: Etudes offertes à Claude-Albert Colliard* (Editions A. Pédone, 1984) 289-310.

northernmost tip to the Strait of Otranto, separating thus the Italian from the Balkan peninsulas. The latter strait connects the Adriatic with the Ionian Sea which extends to the south, eastwards until the south-west coast of the Peloponnese and westwards to the island of Sicily. Unlike its northern sibling, the Ionian Sea has a wide opening to the rest of the Mediterranean, being thus less “isolated”.

Historically maritime transport has been one of the most important industries of the economy of the region: the Adriatic and Ionian Seas have long been a significant transport route from the Mediterranean, and through it from the world’s oceans, to the central European space, whose economy heavily depends on that maritime route. It is no surprise therefore that many medium-and large-sized seaports thrive at the shores of the Adriatic and Ionian Seas, including over a dozen of ports with capacity to handle each large volumes of cargoes and sizeable numbers of passengers (e.g. Trieste, the largest port in the basin, Ancona, Bar, Durres, Koper, Otranto, Patras, Split, etc.). Fisheries and tourism are also significant sources of income for the populations of the coastal States. Tourism is rapidly growing, while the fishing industry has been suffering from marine pollution and overfishing.

This marine space (Adriatic and Ionian) is comprised of waters along the costs of (in alphabetical order): Albania, Bosnia-Herzegovina, Croatia, Greece, Italy, Montenegro and Slovenia.

The western coast of the Adriatic and Ionian marine space is exclusively occupied by Italy, while all the other coastal States lay at the eastern coast of the Adriatic and Ionian Seas. Italy has the largest façade to the Adriatic and Ionian Seas, though the existence of a host of islands along the continental shore of Croatia, gives the latter a very long coastline of approximately 6200 kilometres. Slovenia and Bosnia and Herzegovina have the shortest coastlines with approximately 45 and 20 kilometres respectively.⁴ Italy has also the largest share of maritime traffic and trade in the region: Italian ports annually receive around 75 per cent of all commercial ship traffic in the Adriatic Sea. Also in some other economic aspects, such as fisheries, Italy is by far the biggest user of the Adriatic Sea.⁵ Italy has also delimited its continental shelf with all its neighbours in the Adriatic and Ionian marine space,⁶ while maritime disputes persist among the former Yugoslav Republics, between Albania and Montenegro and between Albania and Greece.⁷

2.2. *The role of the EU*

Out of the above seven coastal states four are EU Member States (Croatia, Greece, Italy, and Slovenia), while the remaining three (Albania, Bosnia and Herzegovina and

⁴ Bosnia and Herzegovina has maritime borders only with Croatia (coastline surrounding the city of Neum in the canton of Herzegovina-Neretva) and its territorial sea is entirely surrounded by internal waters of Croatia. Bosnia and Herzegovina itself indicates that its territorial sea includes the Neum-Klek bay and half of the Channel of Mali Ston; for more cf R. Davorin, ‘Hrvatsko tjesnaci između Bosne i Hercegovine i otvorenoga mora [Croatian Straits between Bosnia and Herzegovina and High Seas]’, (2007) 46 *Poredbeno Pomorsko Pravo* 113.

⁵ D. Vidas, *The UN Convention on the Law of the Sea, the European Union and the Rule of Law: What is going on in the Adriatic Sea*, Fridtjof Nansen Institute Report 12/2008, 4.

⁶ Agreement between Italy and Yugoslavia concerning the delimitation of the continental shelf between the two countries in the Adriatic Sea, 8 January 1968, which by virtue of succession of States is binding for Croatia, Montenegro and Slovenia; Agreement between the Hellenic Republic and the Italian Republic on the delimitation of the respective continental shelf areas of the two States, 24 May 1977; Agreement between the Republic of Albania and the Republic of Italy for the determination of the continental shelf of each of the two countries, 18 December 1992.

⁷ See in this *Volume*, A. Caligiuri, ‘The Maritime Boundaries in the Adriatic and Ionian Seas’.

Montenegro) have the perspective to become EU members, when the necessary conditions will be met (as described in the agreed 2003 *Thessaloniki Agenda for the Western Balkans*.⁸ In accordance with this document aiming at agreeing on ways and means to further strengthen the EU's stabilisation and association policy towards the Western Balkans, the regional States could be, rightly, qualified members-to-be or prospective members. Their actual and effective adhesion to the EU depends on the progress to be made by those States; when the objective criteria for accession will be met, the Western Balkan States will be accepted in the EU. The process may look, and it is actually, staled at this particular juncture in which the EU is more introverted due to the problems it is facing with the euro crisis and the sovereign debt predicament, and public support for EU is dropping in third countries.⁹ However, these combined phenomena do not, at present, at least, have led to abandoning the goal set in the *Thessaloniki Agenda for the Western Balkans*.¹⁰

Thus, in the medium, or the long-run, the Adriatic and Ionian marine space is destined to become an EU maritime space in the sense that all coastal States will be EU Member States¹¹ (“EU lake” is a term that overlooks the existence in this marine space of high seas or of parts of maritime zones in which coastal States have sovereign rights and/or jurisdiction). This fact places a particular responsibility to the EU, its institutions and its member states with regard to the governance of the of the Adriatic Ionian marine space. In this respect it should be noted that the EU already exerts a significant influence in the Adriatic-Ionian affairs and that there is no hint that this influence will diminish over the time.

3. The legal regime of enclosed or semi-enclosed seas in accordance with UNCLOS

UNCLOS devotes to “Enclosed or Semi-Enclosed Seas” one of its shortest parts, the Part IX comprised of mere two articles (122 and 123) (only the introduction (part I) and the regime of the islands (Part VIII) are shorter, with a single article each).

For the purposes of this paper, we are not going to dwell on the discussion on the existence of a distinction between enclosed and semi-enclosed sea.¹² Suffice here to say

⁸ *The Thessaloniki Agenda for the Western Balkans – Moving towards European integration*, General Affairs and External Relations Council, 2518th Council meeting. - External Relations -, Luxembourg, 16 June 2003; Thessaloniki Council Presidency Conclusions, 19-20 June 2003.

⁹ J.I. Torreblanca, M. Leonard, *The continent-wide rise of Euroscepticism*, Policy Memo, European Council on Foreign Relations 2013, <www.ecfr.eu/page/-/ECFR79_EUROSCEPTICISM_BRIEF_AW.pdf>.

¹⁰ Cf S. Stavridis, C. Tsardanidis, G Christou, ‘The Impact of the International Foreign Policies in the Mediterranean’, (2015) 23 Hellenic Studies 23.

¹¹ European Commission, *Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A Maritime Strategy for the Adriatic and Ionian Seas*, Brussels, 30 November 2012, COM(2012) 713 final (hereinafter: *A Maritime Strategy for the Adriatic and Ionian Seas*, COM(2012) 713 final).

¹² For an effort to distinguish between the two notions, cf Intervention by the delegation of URSS in the Third UN Conference on the Law of the Sea, A/CONF.62/C.2/SR.38, *Official Records of the Third United Nations Conference on the Law of the Sea*, vol II, 277: “a clear distinction must be made between enclosed and semi-enclosed seas. From a juridical point of view, enclosed seas were comparatively small, had no outlet to the ocean, and did not serve as international shipping routes in the broadest sense. In the case of such seas, the legal regime might include certain peculiarities on the basis of existing international agreements and international custom. Semi-enclosed seas, on the other hand, were large bodies of water with several outlets through which passed international waterways. They had never been subject to any special regime. Almost any sea could be called semi-enclosed, and to compare such seas with enclosed seas would be quite unjustified. His country could not accept the establishment of a special regime benefiting any given country in waters that had traditionally been used by all countries for international shipping on a basis of equality. The question of enclosed seas had both a geographical and a juridical aspect. Was the

that UNCLOS does not establish a legal difference between the two¹³ (use of the conjunction “or”).

3.1. Constitution of the concept of enclosed or semi-enclosed seas

An initial question raised by the acknowledgement by UNCLOS of a distinct and specific concept of enclosed or semi-enclosed seas, is whether this new category of marine space is primarily a geographical or a legal notion.

The geographical characteristics attached to the enclosed or semi-enclosed seas vary from water bodies like the Baltic Sea, the Black Sea or the Azov Sea (which have only a narrow outlet to other seas, the Danish straits, Bosphorus and Strait of Kerch respectively) to maritime spaces like the Gulf of Aden or the Behring Sea, which, in reality are smaller parts of vast oceanic areas. From that point of view, we must concede that geographically, almost every basin, gulf or sea arm, wherever located could be considered as a semi-enclosed sea (because of the existence of islands, peninsulas etc, justifying this qualification from the geographical point of view). Therefore, some early efforts to propose some quantifiable criteria for the definition of an enclosed or semi-enclosed sea (e.g. a “primary” sea, rather than an arm of a larger semi-enclosed water of body; a surface area of at least 50,000 nautical miles; at least fifty percent of its circumference had to be occupied by land; the width of the connector between the sea and the open ocean should not represent more than twenty percent of the enclosed or semi-enclosed sea’s total circumference¹⁴) failed to gain general approval and were quickly abandoned both in the negotiating and drafting process of the Third UN Conference on the Law of the Sea and in practice.

Many a time there exists an objective element of an enclosed or semi-enclosed sea, for instance geographical vicinity of coasts or other natural features or neighbourhood of the coastal States or natural complementarity, that occur with respect to a given marine space. As the International Court of Justice (ICJ) has underscored in another connection, law should not alter or completely refashion the geography;¹⁵ however what law cannot (or should not) do, international politics can and actually do on various occasions.¹⁶ The concept of enclosed or semi-enclosed sea is established by UNCLOS primarily as a political and legal one. It relies of course, on the particular geography of a marine space, but not without some (narrower or larger) degree of creative interpretation and application thereof. The EU concept of the Adriatic-Ionian marine space, which combines two bodies of seawater, each of which could be considered, from the geographical point of view, as a distinct enclosed or semi-enclosed sea, in order to form a single semi-enclosed sea bears testimony to such creation through politics of the legal concept.

Mediterranean, for example, an enclosed or semi-enclosed sea? He would say it was neither. It contained many other seas and could be compared to an ocean. It was an immense body of water used as a high sea by all countries for international shipping [...]”.

¹³ Cf L. Lucchini, M. Vœlckel, *Droit de la mer*, tome 1 (Editions A. Pédone, 1990) 436-437.

¹⁴ Criteria proposed by Lewis M. Alexander to be applied cumulatively, see L.M. Alexander, ‘Regionalism and the Law of the Sea: the Case of Semi-enclosed Seas’, (1974) 2 *Ocean Development & International Law Journal* 151. According to these criteria Professor Alexander had identified twenty-five semi-enclosed seas in the world.

¹⁵ International Court of Justice, *North Sea Continental Shelf*, Judgment of 20 February 1969, ICJ Reports 1969, 49, para 91.

¹⁶ Suffice here to refer to the composition of the so-called ‘Western European and Others Group (WEOG)’ in the context of the United Nations or other universal organizations.

At this point, and before going further into the examination of the political and legal parameters of the concept, we should add another dimension of its constitution, i.e. the historical aspect, which, at least occasionally, complements the legal and geographic elements of the notion of enclosed or semi-enclosed seas: the existence, along the shared geography, of a shared history demonstrated through closer relations, economic, political, commercial, human, etc., peaceful or conflictual, that have been weaved between and among the coastal populations and states of each enclosed or semi-enclosed sea¹⁷.

The above subjective elements coupled with *political will* for cooperation among neighbouring States bordering a given maritime space, based on shared interests and mutual advantage can create a favourable breeding ground for the formation of the concept of enclosed or semi-enclosed sea, as envisaged by the relevant provisions of UNCLOS, in particular its Article 123 (see *infra*).

3.2. “Regionalism at sea”

The cooperation among States bordering an enclosed or semi-enclosed, called for by Article 123 UNCLOS, is an aspect, or more accurately a consequence of the so-called “*sea regionalism*” or “*regionalism at sea*”. The studies of Lewis Alexander are seminal in this respect: he was, admittedly, the first international legal scholar to undertake defining the role of maritime regionalism and particularly its application to enclosed or semi-enclosed seas.¹⁸ However, despite these efforts, the scope of regionalism at sea has not yet been explored.¹⁹ This is largely due to the fact that this concept goes beyond the law of the sea: as in several other topics of the law of the sea, “the land dominates the sea”²⁰ also with respect to the potential regionalization at sea. Yet, the term “region” (let alone sub-region) lacks a generally accepted or acknowledged definition even on land. It is chiefly an empirical and pragmatic concept, rebellious to generalizations; regions are political constructs²¹ based on heterogeneous motivations and interests, explaining the variations of regionalism.

It is thus not surprising that UNCLOS does not provide a definition of a sea region. L. Alexander attempted a categorization of marine regions which provides a matrix for

¹⁷ Cf European Commission, *Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the governance of macro-regional strategies*, 20 May 2014, COM(2014) 284 final.

¹⁸ See L.M. Alexander, ‘Regionalism and the Law of the Sea: the Case of Semi-enclosed Seas’, (1974) 2 *Ocean Development & International Law Journal* 151; L.M. Alexander, ‘Special Circumstances-Semi-enclosed Seas’ in J.K. Gamble, G. Pontecorvo (eds), *Law of the sea: The emerging regime of the oceans, Proceedings: Eighth Law of the Sea Institute Annual Conference* (Ballinger, 1974) 201; L.M. Alexander, ‘Regional Arrangements in the Oceans’, (1977) 71 *American Journal of International Law* 84; L.M. Alexander, ‘Regionalism at Sea: Concept and reality in regionalization of the Law of the Sea’ in D.M. Johnston (ed) *Regionalization in the law of the sea, Proceedings: Eleventh Law of the Sea Institute Annual Conference* (Ballinger, 1978) 3.

¹⁹ Cf, *inter alia*, L. Lucchini, M. Vælcckel, *Droit de la mer*, tome 1 (Editions A. Pédone, 1990) 39-40; A. Vallega, ‘The regional approach to the ocean, the ocean regions, and ocean regionalisation – a post-modern dilemma’, (2002) 45 *Ocean & Coastal Management* 721; A. Vallega, ‘The Regional Scale of Ocean Management and Marine Region Building’, (1994) 24 *Ocean & Coastal Management* 17; M.E. Gonçalves, ‘Concepts of marine region and the new law of the sea’, (1979) 3 *Marine Policy* 255-263; B.A. Bozcek, ‘The Baltic Sea: A Study in Marine Regionalism’ (1980), 23 *German Yearbook of International Law* 196; B.A. Boczek, ‘Global and Regional Approaches to the Protection and Preservation of the Marine Environment’, (1984) 16 *Case Western Reserve Journal of International Law* 39.

²⁰ *North Sea Continental Shelf*, Judgment of 20 February 1969, ICJ Reports 1969, 51, para 96.

²¹ See D. Nolte, ‘Regional Governance from a Comparative Perspective’ in V.M. González-Sánchez (ed) *Economy, Politics and Governance Challenges* (Nova Science Publishers Inc., 2016) 1-15.

understanding of this notion. He identified three categories of marine regions:²² physical regions, management regions, and operational regions. The constituent aspects of the first type of marine regions (physical regions) are their geographic location and spatial proximity. Management (sea) regions are identified by the existence of common problems that render administrative action among the coastal States meaningful, useful or highly recommended. Geographic location or similar (physical) circumstances are not necessary elements of this, second type of marine regions. The operational (sea) regions are those in which regionalism sits on concrete agreements organizing regional governance regimes (e.g. fisheries agreements or agreements on the protection of the marine environment).

In any case, regionalism also in its marine expression pre-existed the legal acknowledgment of a specific concept of enclosed or semi-enclosed sea. In the field of fisheries regional management organizations or arrangements (RFMO/As) have been operating in the Mediterranean and some parts of the oceans already the late 1940s (e.g. General Fisheries Commission for the Mediterranean, International Commission of the Northwest Atlantic Fisheries, Inter-American Tropical Tuna. With regard to the protection of the marine environment, the most relevant international initiative, UNEP's Regional Seas Programme was launched in 1974 as a follow-up to the seminal Declaration of the United Nations Conference on the Human Environment, held in Stockholm from 5 to 16 June 1972;²³ the Convention for Protection of the Mediterranean Sea against Pollution (Barcelona Convention) was concluded in 1976, the year following the adoption Mediterranean Action Plan.²⁴ The 1972 Stockholm Declaration, adopted at the eve of the beginning of the Third UN Conference on the Law of the Sea, played also a very significant role in the elaboration of Part XII of UNCLOS and its other provisions relevant to the protection and preservation of the marine environment.²⁵ However, these antecedents were not enough to mobilize States participating in the Third UN Conference on the Law of the Sea to form a homogenous pressure group on enclosed or semi-enclosed seas.²⁶

The already imprecise notion of a marine region becomes more blurred, especially in the EU context, from the emergence of a new term pertaining to regional cooperation: *macro-region*. The term was popularized with regard to the Baltic Sea, which “is a good example of a macro-region – an area covering a number of administrative regions but

²² See, *supra*, n 19.

²³ J.P. Beurier, ‘La protection des mers régionales’, (2007) 7 *Neptunus*, <www.cdmo.univ-nantes.fr/servlet/com.univ.collaboratif.utils.LectureFichiergw?CODE_FICHER=1342428408714&ID_FICHE=835917>; C. Lefebvre, ‘Protection et préservation du milieu marin: Les apports des Conventions Régionales sur les mers aux dispositions de la Convention des Nations Unies sur le droit de la mer’, (2010) 8 *Vertigo* - la revue électronique en sciences de l'environnement, <hvertigo.revues.org/10288>; N. Oral, ‘Regional Co-operation in Enclosed and Semi-Enclosed Seas for Protection of the Marine Environment under Article 123 of the 1982 UN Law of the Sea Convention: An Assessment’ in M.C. Ribeiro (ed), *30 Years after the Signature of the United Nations Convention on the Law of the Sea: Proceedings of the International Conference, Faculty of Law, University of Porto, 15-17 November 2012* (Coimbra Editora, 2014) 423-424.

²⁴ Both instruments have been amended and supplemented after their inception.

²⁵ Cf Principle 7 of the Declaration of the United Nations Conference on the Human Environment: ‘States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.’

²⁶ Lucchini, Vœlckel (n 13) 435. The authors note in this connexion that “face aux états océaniques pour lesquelles les règles en gestation favoriseraient la réalisation d'une emprise maritime souvent considérable, les pays bordant mers fermées ou semi-fermées – ‘nouveaux pauvres’, riverains d'espaces contraints - éprouvaient un sentiment d'iniquité et de frustration dû au fait qu'ils ne bénéficiaient pas de gains ‘territoriaux’ aussi substantiels que les autres”, *ibid*.

with sufficient issues in common to justify a single strategic approach”.²⁷ A macro-region is thus not just the opposite of an (equally) not precisely defined “micro-region”, but a political (and social) construct encompassing actors at different layers, which have common or complementary assets, are facing common challenges and have common objectives.

From that point of view the EU concept of macro-region can be useful in order to promote co-operation in enclosed or semi-enclosed seas. The acknowledgement in the EU of the existence of a macro-region leads to the adoption of a respective “macro-regional strategy” (EU Strategy for the Baltic Sea Region, EU Strategy for the Danube Region, EU Strategy for the Adriatic and Ionian Region and EU Strategy for the Alpine Region).

A “macro-regional strategy” is an integrated framework endorsed by the European Council, which is usually supported by relevant funds and other financial instruments, to address common challenges faced by a defined area relating to EU Member States and third countries located in the respective geographical area. The objective of those strategies is to establish appropriate conditions for strengthened cooperation contributing to achievement of economic, social and territorial cohesion. More specifically, the EU macro-regional strategies, when devised for sea basins (Baltic Sea Region, Adriatic and Ionian Region) and have clearly identified maritime aspects, can eventually offer the possibility for enhancing cooperation among the coastal States of the enclosed or semi-enclosed sea in question.²⁸

The afore mentioned lack of a concrete and more or less shared understanding of the term “region” in international law (despite its abundant uses in the public discourse) should be the reason why the expression “enclosed or semi-enclosed seas” was preferred in UNCLOS; this term not being less open to multiple understandings and interpretations. However, when speaking about enclosed or semi-enclosed seas, the underlying notion of regionalism at sea provides a valuable criterion for avoiding the possible confusion between “enclosed” and “closed” sea (*mare clausum*), the latter term implying a marine space kept exclusively within the sovereignty or control of its coastal States. The temptation for such a conceptual leap cannot be underestimated, taking into account the sense of frustration and the feeling of unfairness of several States bordering regional basins participating in the Third UN Conference on the Law of the Sea due to the fact that the rules in gestation at this Conference benefitted mainly to States with ocean façade.²⁹ The example of the Black Sea, with its undeniable particularities, of course, bears a testimony to such a temptation.³⁰ The responsibility of the coastal States of enclosed or semi-enclosed seas, and their rights should not be understood as excluding third States from the rights and benefits they have by virtue of the law of the

²⁷ Commission of the European Communities, *Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the European Union Strategy for the Baltic Sea Region*, 10 June 2009, COM(2009) 248 final.

²⁸ Cf European Commission, *Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the added value of macro-regional strategies*, 27 June 2013, COM(2013) 468 final: “The macro-regional concept arose from a wish for a collective response to environmental deterioration of the Baltic Sea, and for concerted action on challenges and opportunities of that region”.

²⁹ Lucchini, Voelckel (n 13) 435.

³⁰ Cf I. Stribis, *Pooling Forces in Protecting the Black Sea Marine Environment: Actors and Actions*, ICBSS Policy Brief no. 17, 2009, 16 ff; I. Stribis, ‘Black Sea fisheries: the long search for an effective forum for international regulation’ in M.C. Ribeiro, E.J. Molenaar (eds), *Maritime Safety and Environmental Protection in Europe. Multiple Layers in Regulation and Compliance* (Gráfica Ediliber, 2015) 133-134.

sea.³¹ In this context, the English text of UNCLOS is the clearest using the term “enclosed”, as opposed to “closed”; other official versions of the text do not establish the distinction clearly, at the linguistic level, using the same term for “enclosed” and “closed” sea (the French version, for instance, reads “mer fermée ou semi-fermée”, the Spanish “mar cerrado o semicerrado”, the Russian one, “замкнутые и полузамкнутые моря”).

3.3. Elements of the legal regime

UNCLOS acknowledges a legal specificity to the concept of enclosed or semi-enclosed seas without, however, elaborating a specific normative status to such parts of the world’s seas.

i) Definition

Article 122 UNCLOS provides the definition of enclosed or semi-enclosed seas in the following terms:

“For the purposes of this Convention, ‘enclosed or semi-enclosed sea’ means a gulf, basin or sea surrounded by two or more States and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States”.

The provision contains four criteria, out of which the two first must be met in all cases of enclosed or semi-enclosed sea, while the two last are envisaged as alternatives.

The two first mandatory elements of the definition are of natural (quasi geographical) and political character. The geographical one requires for the concept of enclosed or semi-enclosed sea under the Convention the existence of a marine space in the form of gulf, basin or sea. The terms do not provide full clarity; they should be understood as denoting a marine space with various, undefined, geographical features (e.g. channels, islands, peninsulas, etc.) that can establish the basis for the coastal States to declare the given marine space as “enclosed or semi-enclosed sea”. In strict logic this first requirement does not add anything particular in the concept of enclosed or semi-enclosed sea, and its omission would not have had any influence to its definition: it goes without saying that any enclosed or semi-enclosed sea should be a marine space.

The political criterion requires for the existence of an enclosed or semi-enclosed sea that the given marine space should have more than one coastal State. In accordance with this criterion the Sea of Azov, for instance, qualifies as a semi-enclosed sea, after the dissolution of the URSS and the accession to independence of the Russian Federation and Ukraine. Before 1991 (during the existence of the Soviet Union and before it of the Russian Empire), the same marine space was an internal sea. The same goes also for the Sea of Marmara, whose coasts belong only to Turkey.

In addition to these two criteria, the existence of an enclosed or semi-enclosed sea requires that a given marine space be “connected to another sea or the ocean by a narrow outlet” *or* consist “entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States”. These requirements are directly or indirectly

³¹ Cf the reservations of France to the concept of enclosed and semi-enclosed seas underscoring that it was extraneous to international law and that creating special rules for these marine spaces would risk establishing a *mare clausum*, A/CONF.62/C.2/SR.38, *Official Records of the Third United Nations Conference on the Law of the Sea*, vol II, 276.

geographical. Therefore applies to both of them what has been already said on the malleability of geography by political considerations. With this caveat in mind, the first of these two requirements tends to identify a marine space that is enclosed in the geographical sense, through the existence of a “narrow outlet”; the dimensions of the outlet are to be considered on a case-by-case basis, taking into account the particularities of each marine space. By the second requirement the drafters of UNCLOS tried to exclude from the normative scope of Part IX vast oceanic spaces, which could not consist “entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States”. The extension of the State jurisdiction to the sea allows, however, to encompass into the concept of enclosed or semi-enclosed sea marine spaces that otherwise could not be considered as such. UNCLOS thus clearly envisages the right of coastal States to declare exclusive economic zones in enclosed and semi-enclosed seas, though it presupposes the narrowness of such marine spaces. Because of this last element it has been submitted that the coastal States of enclosed or semi-enclosed seas would probably abstain from declaring exclusive economic zones, preferring to establish contiguous zones.³² Though this suggestion appears reasonable taking into account the predicament that the implementation of extended maritime jurisdictions can create in constrained spaces,³³ it has not been confirmed in practice.

ii) Cooperation of States bordering enclosed or semi-enclosed seas

Having defined the concept, UNCLOS proceeds with trying to substantiate a specific legal regime of the enclosed or semi-enclosed seas. Article 123 provides:

“States bordering an enclosed or semi-enclosed sea should cooperate with each other in the exercise of their rights and in the performance of their duties under this Convention. To this end they shall endeavour, directly or through an appropriate regional organization:

³² Lucchini, Vœlckel (n 13) 435.

³³ Cf the conundrum concerning the establishment of EEZ-inspired zones (ecological protection and fisheries zones) in the Adriatic Sea by Croatia, Slovenia and Italy, the suspension of their implementation, the selective opposability of such zones, etc., cf *Decision on the Extension of Jurisdiction of the Republic of Croatia in the Adriatic Sea, adopted by the Croatian Parliament on 3 October 2003*, in *Law of the Sea Bulletin* No. 53/2004, 68–69; *Decision on Amending the Decision on the Extension of the Jurisdiction of the Republic of Croatia in the Adriatic Sea of 3 October 2003, adopted by the Croatian Parliament on 3 June 2004* (2005) 55 *Law of the Sea Bulletin* 31; *Decision Modifying the Decision on the Extension of the Jurisdiction of the Republic of Croatia in the Adriatic Sea, adopted by the Croatian Parliament on 13 March 2008*; *Act on the Proclamation of the Ecological Protection Zone and on the Continental Shelf, adopted by the Slovenian Parliament, in Law of the Sea Bulletin* No. 60/2006, 56–57; *Law 61 on the Establishment of an Ecological Protection Zone Beyond the Outer Limit of the Territorial Sea, adopted on 8 February 2006*, in *Law of the Sea Bulletin* No. 61/2006, 98; and the diplomatic correspondence contained in *Law of the Sea Bulletin*, Nos 56/2004, 139; 57/2005, 125; 58/2005, 20; 59/2005, 33; 60/2006, 127.

The relevant scholarship is abundant, see *inter alia*, D. Vidas, *The UN Convention on the Law of the Sea, the European Union and the Rule of Law: What is going on in the Adriatic Sea*, Fridtjof Nansen Institute Report 12/2008; M. Grbec, ‘Extension of Coastal State Jurisdiction in the Mediterranean: Quasi EEZs or Real “Sui Generis” Zones?’ in N.A. Martínez Gutiérrez (ed), *Serving the Rule of International Maritime Law: Essays in Honour of Professor David Joseph Attard* (Routledge, 2010) 191-201; U. Leanza, ‘L’Italia e la scelta di rafforzare la tutela dell’ambiente marino: l’istituzione di zone di protezione ecologica’, (2006) 89 *Rivista di diritto internazionale* 309; M. Petrak, ‘Should Croatia Declare an Exclusive Economic Zone?’, (2006) 83 *Pravnik* 132; Željko Dominis, ‘Nestanak instituta otvorenog mora u Jadranu [Disappearance of the Institute of the Open Sea in the Adriatic]’, (2006) 53 *Naše more* 228; G. Andreone, ‘La zona ecologica italiana’, (2007) 109 *Il diritto marittimo* 3; European Parliament, *The Ecological and Fisheries Protection Zone (ZERP) in Croatia*, <www.europarl.europa.eu/RegData/etudes/note/join/2008/397233/IPOL-PECH_NT%282008%29397233_EN.pdf>; A. Del Vecchio, ‘In maggiore stat minus: la ZEE e le zone di protezione ecologica nel Mediterraneo’ in *Studi in onore di Vincenzo Starace*, vol 1 (Editoriale Scientifica, 2008) 207-220.

- (a) to coordinate the management, conservation, exploration and exploitation of the living resources of the sea;
- (b) to coordinate the implementation of their rights and duties with respect to the protection and preservation of the marine environment;
- (c) to coordinate their scientific research policies and undertake where appropriate joint programmes of scientific research in the area;
- (d) to invite, as appropriate, other interested States or international organizations to cooperate with them in furtherance of the provisions of this article”.

The language used in this article raises from the outset the issue of the normative density of this provision, in other words to what the States parties commit to by becoming parties to UNCLOS?

The opening of the provision calls on the coastal States of an enclosed or semi-enclosed sea to cooperate; this call is couched in the conditional (“States ... should cooperate”). The indicative mood is used with the verb “endeavour” (“they shall endeavour”). Thus the duty to cooperate appears in this provision as contingent (or dependent) on some circumstances (or conditions) and is in fact limited to an effort by the coastal States. Of course such an effort to cooperate shall be earnest and in good faith; otherwise the provision would be without effect. In any case, the plain language of the provision indicates that we have, at best, a programmatic provision, a commitment to behave in a certain manner indicated by law – at worst, Article 123 would be a soft law provision; the above difference between the two moods in the same phrase *cannot be meaningless*: Article 123 addresses to States bordering an enclosed or semi-enclosed sea a strong recommendation and instigation to cooperate, to the extend possible. The duty to cooperate contained in this article is a soft one.

We may speak here for the so-called “pedagogical function” of the law, and, in particular of law-making, in the sense of articulating in an normative text an aim the legislator wants to achieve, in order to imprint it in the minds of the subjects and other users of the law and achieve thus in a gradual and incremental manner the passage from an inchoate commitment to a fully-fledged obligation. Article 123 UNCLOS, and in fact the whole Part IX, can be viewed from this viewpoint.

Furthermore, Article 123 did not codified pre-existing customary law – the discussions at the Third UN Conference on the Law of the Sea testify to that: the two provisions on the enclosed or semi-enclosed seas constitute progressive development of international law. Consequently in the process of becoming customary law after the signature and entry into force of UNCLOS, which is still in progress, only the contents of the agreed written text of Part IX can become a customary obligation, binding upon States bordering enclosed or semi-enclosed seas.

Consequently Article 123 UNCLOS addresses an entreaty to states bordering an enclosed or semi-enclosed sea to cooperate. However, the normative density of this soft obligation may increase, reading the Convention as a whole. In this respect the obligation provided for the protection of the marine environment (“coordinate the management, conservation, exploration and exploitation of the living resources of the sea”, Article 123 (b)) could be reinforced when read together with Part XII UNCLOS, in particular Articles 192 and more so 197, which provide, respectively, for the general obligation of States “to protect and preserve the marine environment”, and the more specific obligation for cooperation on a global or regional basis, in the latter case “taking into account characteristic regional features”, “for the protection and

preservation of the marine environment”.³⁴ Similarly Articles 242 and 243 UNCLOS are pertinent for the commitment relating to marine scientific research (Article 123(c)), while the provisions of Articles 61 ff and 117 ff UNCLOS may be invoked in order to strengthen the weak binding force of the clause relating to the living resources of the sea (Article 123(a)). The necessity however to turn to the general rule in order to give binding force to a specific one is a clear indication of the programmatic nature of the incitement addressed to States bordering enclosed or semi-enclosed by UNCLOS.

This conclusion is further supported by the concrete contents of the commitment contained in Article 123 UNCLOS. Not only is the call to cooperate formulated in programmatic terms, but it is also limited to “*coordination*” of national policies, rights and duties of the coastal States in the areas of fisheries and in general marine living resources, protection and preservation of the marine environment and scientific research. With respect to the scientific research Article 123(c) seems to go further than mere coordination as it contains also an encouragement to the coastal States to “undertake where appropriate joint programmes of scientific research in the area”. This additional step does not however warrant the conclusion of the existence of a binding obligation, as it is coupled with the qualification “where appropriate”, a standard term for “soft” obligations.

The fourth and last item of the call to States bordering enclosed or semi-enclosed seas to cooperate consists in an appeal for international cooperation that goes beyond the regional coastal States: Article 123(d) provides that the coastal States of an enclosed or semi-enclosed sea “shall endeavour [...] (d) to invite, as appropriate, other interested States or international organizations to cooperate with them in furtherance of the provisions of this article”. This is a further remainder of the fact that enclosed or semi-enclosed seas are not “closed” seas and that the issues within the scope of Article 123 UNCLOS (management, conservation, exploration and exploitation of the living resources of the sea; protection and preservation of the marine environment) commonly transcend the confined space of an enclosed or semi-enclosed and may require international cooperation not limited to the regional or sub-regional coastal States.

The established programmatic character of Article 123 UNCLOS does not however authorize the conclusion that this provision is devoid of any legal consequences. There is a good faith obligation of coastal States bordering an enclosed or semi-enclosed sea to cooperate in the fields provided for in Article 123 UNCLOS. This is an obligation of behaviour which may encompass various measures from consultations among the coastal States to the establishment of regional arrangements and the negotiation of agreed instruments for the coordination of their national policies concerning marine living resources, protection and preservation of the marine environment and marine scientific research.

Though Article 123 UNCLOS opens with the phrase that “States bordering an enclosed or semi-enclosed sea should cooperate with each other in the exercise of their rights and in the performance of their duties under this Convention”, it keeps silent with respect to the delimitation of zones under national jurisdiction. The *travaux préparatoires* of the Third UN Conference on the Law of the Sea reveal that in an the

³⁴ Unlike Article 123, Articles 192 and 197 are written in binding terms: Article 192, “States *have the obligation* to protect and preserve the marine environment”; Article 197, “States *shall cooperate* on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features” (emphasis added).

early stages of the Conference few states submitted proposals to include in the relevant provisions on enclosed or semi-enclosed seas some references to the delimitation in these marine spaces (in the form of an incitation to coastal states to cooperate also in this field, or a proposal to elaborate specific rules applicable to the delimitation in enclosed or semi-enclosed seas).³⁵ These efforts did not succeed and the text of Article 123 was finalized already in the Revised Single Negotiating Text of 1976,³⁶ and remained the same from this early state of the Third Conference on the Law of the Sea.³⁷

The case *Maritime delimitation in the Black Sea (Romania v. Ukraine)* confirmed the lack of specific rules pertaining to the delimitation in enclosed or semi-enclosed sea. The ICJ faced with opposite views by the parties on the issue whether the “Black Sea’s nature as an enclosed sea and its rather small size”³⁸ constitute a relevant circumstance which ought to be taken into account in the delimitation process of the maritime areas of Romania and of Ukraine,³⁹ did not in its Judgment of 3 February 2009 find any particular relevance of this circumstance in the delimitation process and considered “that, no adjustment to the equidistance line as provisionally drawn” in accordance with the general method the Court applies for any delimitation process “[wa]s called for”, due to the enclosed nature of the Black Sea.⁴⁰

There is here a weakness of the regime of the enclosed or semi-enclosed seas as envisaged in Part IX UNCLOS, because the lack of delimitation and the ensuing disputes in this respect between and among coastal states of an enclosed or semi-enclosed sea limit the effectiveness of the invitation for coordination in areas where the coastal states have (depending on the zone) sovereignty, sovereign rights or jurisdiction and control. This is an aspect that cannot be neglected when examining the state practice in regard to enclosed or semi-enclosed seas they border.

Be that as it may, coordination as envisaged by Article 123 UNCLOS has borne some fruits, in particular in the fields of marine living resources and of the protection and preservation of the marine environment: the strengthening of the UNEP Regional Seas Programme through regional conventions and action plans,⁴¹ and the establishment of several new regional fisheries management bodies (RFMOs) have been undeniably encouraged by the concept of enclosed or semi-enclosed seas and the feeling of solidarity that this concepts strives to instil in the relations among coastal states

³⁵ Cf A/CONF.62/C.2/SR.17, *Official Records of the Third United Nations Conference on the Law of the Sea*, vol II, 148; A/CONF.62/C.2/SR.28, *ibid.* 164; A/CONF.62/C.2/SR.38, *ibid.* 273, 274, 275, 277; A/CONF.62/C.2/L.8, *Official Records of the Third United Nations Conference on the Law of the Sea*, vol III, 188.

³⁶ See Article 130 of the Revised Single Negotiating Text of 6 May 1976, A/CONF.62/WP.8/REV.1/Part II, *Official Records of the Third United Nations Conference on the Law of the Sea*, vol V, 172.

³⁷ B. Vukas, ‘Enclosed and semi-enclosed seas’, (1978) 11-12 *Revue iranienne de relations internationales* 171; M. Bennouna, ‘La délimitation des espaces maritimes en Méditerranée’ in *The law and the sea: Essays in memory of Jean Carroz* (FAO, 1987) 13.

³⁸ International Court of Justice, *Maritime Delimitation in the Black Sea (Romania v. Ukraine)*, Judgment of 3 February 2009, ICJ Reports 2009, 118, para 171.

³⁹ *Ibid.*, 118-119, para 171 and 172.

⁴⁰ *Ibid.*, 120, para 178.

⁴¹ N. Oral, ‘Regional Co-operation in Enclosed and Semi-Enclosed Seas for Protection of the Marine Environment under Article 123 of the 1982 UN Law of the Sea Convention: An Assessment’ in M.C. Ribeiro (ed), *30 Years after the Signature of the United Nations Convention on the Law of the Sea: Proceedings of the International Conference, Faculty of Law, University of Porto, 15-17 November 2012* (Coimbra Editora, 2014) 434-438; Christophe Lefebvre, ‘Protection et préservation du milieu marin: Les apports des Conventions Régionales sur les mers aux dispositions de la Convention des Nations Unies sur le droit de la mer’, (2010) 8 *VertigO - la revue électronique en sciences de l’environnement*, <vertigo.revues.org/10288>; P.H. Sand, ‘The rise of regional agreements for marine environment protection in *The law and the sea: Essays in memory of Jean Carroz* (FAO, 1987) 223-232.

bordering such marine spaces. These developments have a direct bearing to the Mediterranean at large (Barcelona Convention system and General Fisheries Commission for the Mediterranean), including thus to the Adriatic and Ionian marine space.

4. EU Strategy for the Adriatic and Ionian Region (EUSAIR)⁴²

In addition to the above general regime applicable to the Adriatic and Ionian marine space as a sub-system of the Mediterranean Sea, the prospect of that marine area being in the medium- or longer-term bordered by EU Member States places, as it has been underscored *supra*, a particular responsibility to the EU and its institutions along its Member States.

The general EU primary and secondary law regarding maritime affairs is of course applicable in the Adriatic and Ionian marine space to the extent this space is under the sovereignty, sovereign rights, jurisdiction and control of EU member states. In the fields of the law of the sea where the EU has exclusive or concurrent competencies (e.g. conservation and management of marine fisheries, prevention of marine pollution, maritime transport, safety of shipping, promotion of cooperation with third countries and international organizations on marine research and technological development),⁴³ the EU itself is a coastal actor of the Adriatic and Ionian seas with rights and duties under the law of the sea and an actor to which the invitation to cooperate included in Article 123 UNCLOS is also addressed.

However, the specific responsibility of the EU in the Adriatic and Ionian marine space is not limited to the above fields of exclusive or shared competencies. Conscious of the significance of its responsibilities in this marine space, EU institutions included the Adriatic and Ionian basin among their priorities in the new EU regional policy, marked by the concept of macro-region, already succinctly presented earlier in this paper. The European Ministers responsible for the Integrated Maritime Policy and the European Commission highlighted in the Limassol Declaration that sea basin cooperation is a milestone in the development and implementation of the EU's Integrated Maritime Policy.⁴⁴ In this context the European Commission has elaborated an *EU Strategy for the Adriatic and Ionian Region* and submitted it to the other institutions on 17 June 2014. This Strategy draws from the developments in other macro-regions (EU Strategy for the Baltic Sea Region, 2009; EU Strategy for the Danube Region, 2011). The starting point for the EUSAIR was the *Maritime Strategy for the Adriatic and Ionian Seas*, adopted by the Commission on 30 November 2012, which was envisaged by the Commission itself as a possible “first component of an EU macro-regional strategy covering additional fields”, should the EU Member States

⁴² See the EUSAIR area on Map 4, *infra*, at 246.

⁴³ For more details, see *Declaration concerning the competence of the European Community with regard to matters governed by the United Nations Convention on the Law of the Sea of 10 December 1982 and the Agreement of 28 July 1994 relating to the implementation of Part XI of the Convention*, 1 April 1998, <[www.un.org/depts/los/convention_agreements/convention_declarations.htm#European Community Declaration made upon formal confirmation](http://www.un.org/depts/los/convention_agreements/convention_declarations.htm#European_Community_Declaration_made_upon_formal_confirmation)>.

⁴⁴ *Declaration of the European Ministers responsible for the Integrated Maritime Policy and the European Commission on a Marine and Maritime Agenda for growth and jobs*, Limassol, 8 October 2012, para 3.

decided to ask the Commission to prepare such an EU Strategy for the Adriatic and Ionian region.⁴⁵

4.1. *Maritime Strategy for the Adriatic and Ionian Seas*

The Maritime Strategy for the Adriatic and Ionian Seas was aimed at assessing the needs and potential of sea-related activities in this marine space and setting out a framework for coordinated efforts by maritime stakeholders driving concrete cooperation in maritime affairs forward. The proposed framework for cooperation was devised in order “to adapt the [EU’s] Integrated Maritime Policy to the needs and potential of the natural resources and socio-economic fabric of the Adriatic and Ionian marine and coastal areas”, through promoting “long-term sustainable and responsible fishing activities, good environmental status of the marine environment and a safer and more secure maritime space” and horizontal issues, such as the “efficient adaptation to the impact of climate change”. The ultimate aim was to “foster smart, sustainable and inclusive growth of the maritime economy thus contributing to achieving the targets of the Europe 2020 Strategy”.⁴⁶

The Maritime Strategy for the Adriatic and Ionian Seas purported to set an agenda for achieving such smart, sustainable and inclusive growth from the sea. This agenda contained four pillars, which were elaborated through extensive stakeholder consultations held in 2012. These four priority areas are: 1) Maximising the potential of the blue economy; 2) Healthier marine environment; 3) A safer and more secure maritime space; and, 4) Sustainable and responsible fishing activities.

The first pillar of the Maritime Strategy envisages the creation of a thriving maritime economy that provides growth and job opportunities to the coastal populations. Its major aims are to set the conditions for innovation and competitiveness; to promote the development of Maritime Spatial Planning (MSP) and establishment of Integrated Coastal Zone Management (ICZM) at both at national and cross-border level, on the basis of the ecosystem approach; to enhance efficient and environmentally friendly maritime transport as well as intermodality, by integrating seaborne and land transport; to foster coastal and maritime tourism as one of the main and fast-growing maritime activities; to contribute to the development of a strong, high-quality European aquaculture sector that is environmentally and economically sustainable and has the potential to create jobs and to supply healthy food products.⁴⁷

The second pillar addresses the issue of a healthier marine environment, which is of crucial importance in the architecture of Article 123 UNCLOS. In this respect, the Maritime Strategy aims at ensuring that exploitation of the economic potential of the Adriatic and Ionian seas is consistent with a healthy and productive marine environment. The Maritime Strategy provides examples of priority areas to develop in the respective EU policies, as applicable to the Adriatic and Ionian marine space: ensure good environmental and ecological status of the marine and coastal environment by 2020 in line with the relevant EU *acquis* and the ecosystem approach; preserve biodiversity, ecosystems and their services by implementing the European ecological network Natura 2000 and managing it, considering also related work within the Barcelona Convention system; reduce marine litter, including through better waste

⁴⁵ *A Maritime Strategy for the Adriatic and Ionian Seas*, 30 November 2011, COM(2012) 713 final.

⁴⁶ *Ibid*, 3.

⁴⁷ *Ibid*, 4-7.

management in coastal areas; continue improving sub-regional cooperation and monitoring the existing mechanisms, particularly those set up by EMSA as regards prevention, preparedness and coordinated response to major oil spills and exploring how to make better use of available EU resources.⁴⁸

One of the specificities of the Adriatic and Ionian marine space is the high amount of ships' crossings, compared to most other sub-systems of the Mediterranean. In addition to the cargo crossings towards Central Europe, there is an increasing number of passenger ships sailing in this marine space; oil and gas transportation is also growing. Beyond commercial maritime traffic, the Adriatic and Ionian seas are used by criminal networks engaged in irregular migration and other illegal activities. In this conditions the third pillar consisting in making the Adriatic and Ionian marine space safer and more secure focuses on the enhancement of the capabilities of public authorities of the coastal States to monitor maritime traffic, respond to emergencies, save human lives, preserve the marine environment, control fisheries activities, and cope with security threats and illegal activities.⁴⁹

The fourth and last pillar, unsurprisingly, deals with sustainable and more responsible fisheries activities, a topic directly envisaged for coordination in Article 123 UNCLOS. The Maritime Strategy aims at elaborating regional policies to enhance efforts towards long-term sustainable and responsible fisheries which must provide an economic resource for the coastal areas and their inhabitants, based, in particular, on effective implementation of the principles of the reformed Common Fisheries Policy and cooperation on scientific issues for the fisheries management on the regional and sea-basin level, such as the General Fisheries Commission for the Mediterranean and FAO regional projects (Adriamed and Eastmed). The Maritime Strategy proposes the development of some indicative priority areas to develop: a) achieving the sustainable management of fisheries, including the development of multiannual plans and measures such as Marine Protected Areas in their wider sense; b) contributing to the profitability and sustainability of fisheries, by strengthening stakeholders' involvement in fisheries management and other actions; c) improving the culture of compliance, saving resources, facilitating the transfer of information and enhancing cooperation for the control of fishing activities; and, d) developing scientific cooperation on fisheries.⁵⁰

The above pillars involve not only coordination of the management, conservation, exploration and exploitation of the living resources of the sea (Article 123(a) UNCLOS), but also coordination of marine scientific policies, undertaking of joint scientific research programmes in this field, as well as invitation for cooperation to non-regional actors (or non-exclusively regional actors) (Article 123(c)-(d) UNCLOS). They further require coordination in concrete aspects of the protection and preservation of the marine environment in the Adriatic and Ionian marine space (Article 123(b) UNCLOS), which is a topic cross-cutting all four pillars of the Maritime Strategy.⁵¹

The reception of the Maritime Strategy by the concerned stakeholders confirmed their support for the direction taken and the concrete policy priorities it set. Nevertheless, it also raised expectations for the elaboration of a wider macro-regional strategy, including an action plan for the implementation of the policy priorities

⁴⁸ Ibid, 8-9.

⁴⁹ Ibid, 10.

⁵⁰ Ibid, 11.

⁵¹ Cf D. Vidas, 'Particularly Sensitive Sea Areas: The Need for Regional Cooperation in the Adriatic Sea' in K. Ott (ed), *Croatian Accession to the European Union: The Challenges of Participation* (Institute of Public Finance/Friedrich Ebert Stiftung, 2006) 354-358 and 361-363.

contained in the Maritime Strategy. One month after the presentation of the Maritime Strategy, the European Council requested the Commission to bring forward an EU Strategy for the Adriatic and Ionian Region before the end of 2014.⁵² The new Strategy would of course fully incorporate the thematic components of the Maritime Strategy for Adriatic and Ionian Seas; it would however have a wider scope and cover also issues not directly related to the sea.

4.2. From a maritime strategy to a macro-regional strategy for the Adriatic and Ionian region

The drafting of the EUSAIR reflects the developments in the regional policy of the EU by the emergence of the Adriatic Ionian macro-region.

The concept of macro-region originally arose from the need for a collective response to environmental deterioration of the Baltic Sea, and for concerted action on challenges and opportunities of that region.⁵³ The European Commission identified the basic elements providing the basis for macro-regional cooperation. These include a regional sense of identity, a wish for common strategic planning and a willingness to pool resources.⁵⁴ Furthermore, the macro-regional concept rests upon the principles of integration, coordination, cooperation, multi-level governance and partnership. Taken individually these guiding principles require that the objectives that a macro-regional policy seeks to achieve should be embedded in existing policy frameworks (EU, regional, national, local, pre-accession), programmes (EU, country-specific, territorial cooperation, sectoral), and financial instruments (integration); that the policies, strategies and funding resources should avoid compartmentalisation whether between sectoral policies, actors or different tiers of government (coordination); that regional actors (at the State or infra-State level) should cooperate across the region, changing the “mind-set” from inward to outward-looking regional development ideas (cooperation); that the creation of a macro-region should not create new tiers of decision-making, but function with various levels of policy-makers working better together (multi-level governance); and, that in the framework of a macro-region, EU and non-EU countries can work together on the basis of mutual interest and respect (partnership).⁵⁵

The conceptualisation of the macro-region lead to the next step, the elaboration of the concept of macro-regional strategy. A macro-regional strategy is a jointly agreed strategy on how to overcome challenges and benefit from identified within a macro-region. The idea of a macro-regional strategy is thus to coordinate projects and actions financed by a variety of sources regarding these macro-regional challenges and opportunities.⁵⁶ This type of strategy purports to bring together relevant stakeholders (institutions, thematic experts and financial instruments) existing on local, micro-

⁵² Conclusions of the European Council, 13-14 December 2012, EUCO 205/12, para 26.

⁵³ As said before this reflection resulted in the EU Strategy for the Baltic Sea Region (2009) and two years later to the EU Strategy for the Danube Region (2011); the EUSAIR followed in 2104, building on these experiences.

⁵⁴ European Commission, *Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the added value of macro-regional strategies*, 27 June 2013, COM(2013) 462 final.

⁵⁵ *Ibid.*

⁵⁶ A. Dubois, S. Hedin, P. Schmitt, J. Sterling, *EU macro-regions and macro-regional strategies – A scoping study* (Nordregio, 2009) 17-19; K.-E. Vogelsang, *Making Sense of Macro-Regional Strategies in the EU: Differentiated Integration and the Macro Regions' External Dimension* (Universiteit Twente and Westfälische Wilhelms-Universität Münster, 2014) 30-32.

regional,⁵⁷ national and macro-regional levels to implement the common objectives identified. Participants at each of these levels are expected to contribute to the common objectives with their own respective priorities, competences, experience and resources. In this connection it is important to underscore that macro-regional strategies do not create new political or administrative tiers, but strive to mobilise existent actors and align various existing policies and funds around the agreed objectives.⁵⁸

The EUSAIR has been public by the European Commission on 18 June 2014 and was endorsed by the Council on 29 September of the same year.⁵⁹ The general objective of the EUSAIR is to promote sustainable economic and social prosperity in the Adriatic and Ionian region. It proposes a rolling Action Plan with four pillars: 1/ Blue Growth; 2/ Connecting the Region; 3/ Environmental Quality; and 4/ Sustainable tourism.

The main objective of the “Blue Growth” pillar⁶⁰ is to drive innovative maritime and marine growth in the Adriatic and Ionian region, by promoting sustainable economic development and jobs, as well as business opportunities in the Blue economy.⁶¹ Priority fields of regional cooperation under this pillar include blue technologies, coordinated fishery management and maritime and marine governance and services.⁶² The second pillar of the Action Plan entitled “Connecting the Region (transport and energy networks)” aims to improve transport and energy connectivity in the Adriatic and Ionian region and with the rest of Europe, *inter alia*, through coordinated monitoring of maritime traffic and development of multimodal transport, interconnection of power grids and development of gas networks.⁶³ Under the pillar “Environmental Quality” the drafters of EUSAIR address in priority the marine environmental (threats to coastal and marine biodiversity, pollution of the sea) and set measurable milestones in the achievement of concrete goals (e.g. enhancement of the NATURA 2000 and Emerald networks and establishment of a coherent network of Marine Protected Areas under the Marine Strategy Framework Directive by 2020; 10% surface coverage by 2020 of the Adriatic and Ionian Seas by Marine Protected areas, in line with international commitments.)⁶⁴ Lastly, the fourth pillar, “Sustainable Tourism” pillar intends to

⁵⁷ Regional level with a State.

⁵⁸ E. Blais, B. Liepa, ‘What are macro-regions all about?’ (2011/2012) INTERACT Newsletter 4-6. For more cf K.-E. Vogelsang, *Making Sense of Macro-Regional Strategies in the EU: Differentiated Integration and the Macro Regions’ External Dimension* (Universiteit Twente and Westfälische Wilhelms-Universität Münster 2014) 27-37; A.e Dubois, Sigrid Hedin, Peter Schmitt and José Sterling, *EU macro-regions and macro-regional strategies – A scoping study* (Nordregio, 2009) 17-39.

⁵⁹ Conclusions of the European Council, 29 September 2014, para (A).

⁶⁰ For more on this concept, European Commission, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Region: Blue Growth: Opportunities for Marine and Maritime Sustainable Growth*, 13 September 2012, COM(2012) 494 final.

⁶¹ To support the elaboration of the Action Plan the Directorate-General for Maritime Affairs and Fisheries (DG MARE) of the European Commission commissioned two studies for the assessment of the blue growth potential of the Adriatic and Ionian seas and the analysis of the current status and potential development of maritime clusters in the sea-basins, a general one: *Studies to support the development of sea basin cooperation in the Mediterranean, Adriatic and Ionian, and Black Sea, Report 1: Analysis of blue growth needs and potential per country*, 24 January 2014, and a region-specific: *Studies to support the development of sea basin cooperation in the Mediterranean, Adriatic and Ionian, and Black Sea, Report 2: Analysis to support the elaboration of the Adriatic and Ionian maritime Action Plan*, March 2014.

⁶² European Commission, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Region concerning the European Union Strategy for the Adriatic and Ionian Region*, 17 June 2014, COM(2014) 357 final.

⁶³ *Ibid.*, 8.

⁶⁴ *Ibid.*, 9.

develop the full potential of the Adriatic and Ionian region in terms of innovative, sustainable, responsible and quality tourism.⁶⁵

In addition, capacity building, including communication, as well as research and innovation with a view to boosting employment, growth and competitiveness, are cross-cutting aspects of the rolling Action Plan. Climate change mitigation and adaptation as well as disaster risk management are horizontal principles relevant to all four pillars.⁶⁶

From the above very schematic presentation, it becomes clear that the four pillars of the Strategy (maritime and marine growth, including fisheries, transport and energy networks, environmental quality and sustainable tourism), and the targets proposed for the implementation of these priority pillars fully incorporate the relevant priorities set in the Maritime Strategy for the Adriatic and Ionian Seas. As it has been showed earlier in this paper these priorities are consonant with the invitation to cooperation and coordination Article 123 UNCLOS addresses to States bordering an enclosed or semi-enclosed sea. As confirmed and developed in the EUSAIR, the pillars of the Maritime Strategy cover and probably surpass the contents of the coordination in the fields of marine living resources, protection and preservation of the marine environment and marine scientific research, envisaged in the invitation to cooperate of Article 123 UNCLOS. In fact the EUSAIR could be seen as an example or a best practice as it provides valuable and detailed input to the manner through which the aims of Article 123 UNCLOS can be successfully met in other regional seas (independently from the participation of the EU).

5. Conclusion

The initiative of the EU to undertake to elaborate and then implement a distinct EU Strategy for the Adriatic and Ionian Region, though not primarily, and even not mainly, motivated by considerations relating to the *problématique* of enclosed or semi-enclosed seas, fulfils nonetheless the specific role that the EU has and will have in the future in the Adriatic and Ionian marine space, as a coastal actor, along its Member States and its prospective members. The real challenge, however as in every strategy and action plan lies in their implementation. Even so, the contribution of the EUSAIR from an institutional point of view, to the consolidation of a specific regime for enclosed and semi-enclosed seas, initiated in UNCLOS, and of the invitation to States bordering such marine spaces to cooperate is already perceptible.

⁶⁵ Ibid, 9-10.

⁶⁶ Ibid, 6.

MAURA MARCHEGIANI

MARITIME SPATIAL PLANNING AND INTEGRATED COASTAL ZONE MANAGEMENT IN THE ADRIATIC AND IONIAN REGION

SUMMARY: 1. Introduction. – 2. The inter-sectorial instruments and strategies for the Adriatic and Ionian Region. – 3. The objectives and aims of the Protocol to the Barcelona Convention on Integrated Coastal Zone Management: their relevance for the Adriatic and Ionian Region. – 4. Conclusion.

1. Introduction

The legal regime on Adriatic and Ionian basins results from various forms of international cooperation, which was developed, during the time, by autonomous policies, through the sector-specific rules, not always in a coordinated manner.

These factors evidently compromise a good degree of systemic coherence in the overall management of activities in this basin, concerning in particular transport, trade, port and coastal industry, fishing, aquaculture and, increasingly, marine research, renewable energy, technology, innovation and resource exploitation.

The continuous development of these activities, that are common to the majority of European seas and not only to Adriatic and Ionian Seas, led the EU to adopt the so called Integrated Maritime Policy, which was presented by the Commission in October 2007 by the Communication concerning “An Integrated Maritime Policy for the European Union”.¹ The Commission has in fact recently begun to warn of the need to develop and implement forms of maritime governance for integrated, coordinated and common management of water, in order to identify and exploit potential synergies between all EU policies affecting the oceans, seas, coastal regions and maritime sectors.

In this views, the Integrated Maritime Policy promotes a cross-sectoral approach to the maritime *governance*, based on the recognition that all matters relating to Europe’s oceans and seas are interlinked, and on the opportunity to develop and implement an integrated, coherent, and joined-up decision-making in relation to the oceans, seas, coastal regions and maritime sectors.²

This inter-sectoral approach justifies and founds an action at EU-level: actually, the EU’s Integrated Maritime Policy has no explicit legal basis in the Treaty. However, the Integrated Maritime Policy covers many EU sectorial policies with a bearing on the seas and coasts such as fisheries, freedom security and justice, transport, industry, territorial cohesion, research, environment, energy and tourism.³

¹ Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *An Integrated Maritime Policy for the European Union*, 10 July 2007, COM(2007) 575 final.

² For further references in this view, E. De Santo, ‘The Marine Strategy Framework Directive as a Catalyst for Maritime Spatial Planning: Internal Dimensions and Institutional Tensions’ in M. Gilek, K. Kern, *Governing Europe’s Marine Environment: Europeanization of Regional Seas or Regionalization of EU Policies?* (Farnham, 2015).

³ See European Commission, *Proposal for a Regulation of the European Parliament and of the Council establishing a Programme to support the further development of an Integrated Maritime Policy*, 29 September 2010, COM(2010) 494 final.

In this perspective, the European Commission has launched the European Strategy for the Adriatic and Ionian Region (EUSAIR),⁴ recently endorsed by the Council,⁵ following the model provided by the Baltic Sea Region.⁶ The starting point for this strategy was the Maritime Strategy for the Adriatic and Ionian Seas,⁷ now incorporated into the EUSAIR.

The EUSAIR builds upon already existing cooperation in this area, mainly through the Adriatic and Ionian Initiative, which started in 2000 with the signature of the Ancona Declaration.⁸

The total area of the eight participating countries to the EUSAIR covers more than 70 million people and plays a key role in strengthening geographical continuity in Europe. This Region enjoys a unique geographical position and specific coastline structure: its rich marine biodiversity represents an immense potential for the creation of innovative and sustainable “economic development and growth, including blue technologies, fisheries and aquaculture, and better maritime and marine governance and services”.⁹

The region presents heterogeneous levels of development and needs and the socio-economic differences between the countries are large, especially between EU Member States and non-Member States: in this perspective, EUSAIR represents an important instrument for creating the conditions for reducing socio-economic differences between the countries and for promoting sustainable development and territorial, social and economic cohesion.¹⁰

The impact of the financial crisis on the region is furthermore very serious and it requires a systematic exchange of knowledge, experience and practices in this context and a periodical evaluation of strategies planned to achieve economic reforms, especially in less developed countries. In this field, the EU institutions underline the close interdependence between smart, inclusive and sustainable growth of economic dynamics and the increase of cultural, scientific and educational cooperation.¹¹

Among the social issues affecting the Adriatic and Ionian Region, a priority is represented by migratory challenges: face of all the tragedies in the Mediterranean, a comprehensive and integrated approach to migration in the Region is essential among Member States and in cooperation with third countries, to realise solidarity and to encourage the exchange of good practices in receiving migrants and protecting asylum seekers. Indeed, after the Lisbon Treaty, the cohesion policy includes territorial dimension, as result both from the new Article 174 TFEU and also from Article 16

⁴ See Communication of the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Union Strategy for the Adriatic and Ionian Region*, 17 June 2014, (COM (2014)357 final). See also European Parliament (Committee on Regional Development) *Motion for a European Parliament Resolution on an EU Strategy for the Adriatic and Ionian Region* (2014/2214(INI)), Rapporteur: Ivan Jakovčić, 1 October 2015.

⁵ European Council, *Conclusions*, 24 October 2014, para 25.

⁶ See Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Union Strategy for the Baltic Sea Region*, 16 June 2009, COM(2009) 248 final.

⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Maritime Strategy for the Adriatic and Ionian Seas*, 30 November 2011, COM(2012) 713 final.

⁸ The Ancona Declaration was adopted at the Conference on Development and Security in the Adriatic and Ionian (Ancona, 19- 20 May 2000).

⁹ *Report Motion for a European Parliament Resolution on an EU Strategy for the Adriatic and Ionian Region* (n 4) General Considerations, point 30.

¹⁰ *Ibid*, point G.

¹¹ *Ibid*, points 15-16.

TEU, which refer, inter alia, to the promotion of social, economic and territorial cohesion and solidarity between States. In this context, EU Strategies for the creation of Macro Region represent particularly suitable tools to realise the EU cohesion policy.¹²

2. The inter-sectorial instruments and strategies for the Adriatic and Ionian Region

The absence of an expressed competence connotes and characterizes all the EU Integrated Maritime Policy and profoundly affect the definition of the articulation of the relationship between national policies and EU policies. The action at EU level stems from the cross-sectoral and trans-national nature of the activities involved and synergies among sectoral policies. The purpose is to develop a comprehensive strategy for growth and sustainability for the oceans, seas, coastal regions and cross-cutting elements of the maritime sectors.¹³

This feature involves in particular the principles of the Maritime Spatial Planning (MSP) and Integrated Coastal Zone Management (ICZM), that represent specific tools of the EU maritime policy, since they promote the integrated use all the potential offered by the sea, with the aim of composing and reconciling economic growth and environmental protection; national interests and the biological integrity of seas and oceans.

Actually, these processes have a significant impact in the context of Adriatic and Ionian Region: the renewed impulse to the exploration and exploitation of oil and gas offshore and on land involves a careful evaluation of the risks of disasters, involving the whole Region, with very serious consequences for the environment, economy, tourism and public health.¹⁴ These considerations are particularly important for the Adriatic Sea, which is a semi-enclosed, shallow sea, lacking the capacity to disperse pollutants and mainly founding its economic activities and tourism on its specific environmental features and ecosystems.

A proper joint governance of the maritime space provides, in this perspective, an important framework for the sustainable and transparent use of maritime and marine resources, to guarantee “that the interests of the sectors concerned are taken into account in an equitable way at every stage in the development of maritime activities, namely when designing maritime spatial planning and integrated coastal zone management”.¹⁵

In order to ensure consistency and legal clarity for MSP, in 2014, the European Parliament and the Council adopted the Directive 2014/89/EU.¹⁶ It is the result of

¹² On the refugees and migration challenges for the Adriatic-Ionian macro-region, see XIV Conference of Speakers of Parliaments of the Adriatic and Ionian Initiative (Split, 15-16 April 2016), *Joint Statement*, <http://www.aai-ps.org/index.php/news-events/news/item/download/398_17f301ae4e6e1c5a36915efe6e8c76c3>; Adriatic and Ionian Council / EUSAIR Ministerial Meeting, *Dubrovnik Declaration*, 12 May 2016, <http://www.aai-ps.org/index.php/news-events/news/item/download/400_fbf140c08ad75d0806b30eb74dac1401>.

¹³ See European Commission, *Proposal for a Regulation of the European Parliament and of the Council establishing a Programme to support the further development of an Integrated Maritime Policy* (n 3) para 3.

¹⁴ On the main trends of the marine economic growth in Adriatic Sea and the pressure on future environmental sustainability, see M. Randone, *MedTrends Project: Blue Growth Trends in the Adriatic Sea – the challenge of environmental protection* (WWF Mediterranean, 2015).

¹⁵ *Report Motion for a European Parliament Resolution on an EU Strategy for the Adriatic and Ionian Region* (n 4) Environmental quality, points 73-74.

¹⁶ *Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for Maritime Spatial Planning*, in *Official Journal of the European Union*, L 257, 28 August 2014, 135 ff. For a comment, C. Soria Rodriguez, ‘The Maritime Spatial Planning Directive, Its Environmental Dimension and Its

complex negotiations, characterized by widely divergent positions from the Member States.¹⁷

In the light of Article 3(2) of this directive, “maritime spatial planning” means “a process by which the relevant Member State’s authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives”.

This Directive recognizes in one hand that the Member States remain responsible and competent for designing and determining, within their marine waters, the format and content of such plans, including institutional arrangements and, where applicable, any apportionment of maritime space to different activities and uses respectively. Article 5(1), cites that “this Directive is without prejudice to the competence of Member States to determine how the different objectives are reflected and weighted in their maritime spatial plan or plans”.

At the same time and in the other hand, the Directive identifies the MSP as a cross-cutting policy tool enabling public authorities and stakeholders to apply a coordinated, integrated and trans-boundary approach. The application of an ecosystem-based approach will contribute to promoting the sustainable development and growth of the maritime and coastal economies and the sustainable use of marine and coastal resources”.¹⁸

In conformity with the subsidiarity principle set out in Article 5 TEU, the Commission explains that the added value of EU action is first of all to ensure and streamline Member State action on MSP and ICZM to guarantee consistent and coherent implementation across the EU, through to a common legal framework and uniform references and legal standards.

Secondly, the EU action in this field enable a better co-operation on MSP and ICZM between Member States that share marine regions and sub-regions, like Adriatic and Ionian Region. The cross border cooperation in this field is essential to safeguard of marine ecosystems, fishing grounds, marine protected areas as well as maritime infrastructures, such as cables, pipelines, shipping lanes, oil, gas and wind installations, running across national borders.¹⁹

Maritime spatial plans and integrated coastal management strategies also leads to apply, thirdly, an ecosystem-based approach to facilitate the co-existence and prevent conflicts between competing sector activities in marine waters and coastal zones.

The added values of a common approach at EU level take on a special importance in particular with specific reference to the Adriatic and Ionian basins, because all the coastal States of the region are full members of the EU (Croatia, Greece, Italy and Slovenia), or are still candidate Countries (Albania, Montenegro and Serbia) or have potential candidate membership status (Bosnia and Herzegovina).

Although the Commission has repeatedly stated that there will be no new enlargement in the near future, the creation of the macro-region “will enable the

Applicability to Ocean Renewables’ in P.A. Fernandez Sanchez, J.A. Azeredo Lopes (eds), *Seguridad medioambiental y orden internacional: IV Encuentro Luso-Español de Profesores de Derecho Internacional Público y Relaciones Internacionales* (Atelier, 2015).

¹⁷ See, in this light, the emblematic position of French Government, *Contribution des Autorités françaises dans le cadre de la consultation publique de la Commission européenne concernant la planification spatiale maritime et la gestion intégrée des zones côtières*, July 2011.

¹⁸ Directive establishing a framework for Maritime Spatial Planning (n 12) para 3.

¹⁹ See European Commission, *Proposal for a Directive of the European Parliament and of the Council establishing a framework for Maritime Spatial Planning and integrated coastal management*, 13 March 2013, COM(2013) 133 final.

candidate Countries to make a step closer to the EU by aligning their policies and working closely with Member States”,²⁰ with the Commission’s guidance.

Indeed, in view of their long-term future accession, policies relating to the management of the whole area would fall entirely within the scope of EU law and thus it is evident that the governance of this regional basin constitutes a strategic interest for the EU and it is in this context even more obvious the strong need to rely on a common framework at EU level to support the cooperation between States in the MSP.

In this perspective, the macro-regional strategy may be perceived “as a tool of European integration and increased territorial cohesion based on voluntary cooperation among Member States and neighbouring countries in addressing common challenges”.²¹

This is, indeed, also the perspective adopted by the Directive 2014/89/EU, which, in Article 11, encourages the cooperation in the framework of specific strategies for sea basins, such as the realisation of the EUSAIR.²²

The macro-regional strategies represent “a new model of multilevel governance”. The involvement of stakeholders representing the EU, national, regional and local levels, including economic and social partners and civil society organisations, important role in the promotion of democracy, decentralisation and greater local and regional autonomy, as well as the complementarity between different policies and programmes are actually essential for successful implementation and make tangible benefits for the regions involved.²³ Actually, the Baltic Sea strategy has confirmed the success of EU cooperation mechanisms and provided useful experience for developing new macro-regional strategies, particularly as a pioneer in MSP in Europe.²⁴ Thus, previous experiences of macro-regional strategies represent an important point of reference for the Adriatic and Ionian area, to use to exchange best practices, and to increase cross-border and trans-national cooperation under cohesion policy.

3. The objectives and aims of the Protocol to the Barcelona Convention on Integrated Coastal Zone Management: their relevance for the Adriatic and Ionian Region

The MSP acts on three different dimensions, involving activities concerning the seafloor, water space and water surface. A same part of marine space can consequently

²⁰ In these terms, *Report Motion for a European Parliament Resolution on an EU Strategy for the Adriatic and Ionian Region* (n 4) Explanatory Statement.

²¹ *Ibid*, point G.

²² Article 11: “1. As part of the planning and management process, Member States bordering marine waters shall cooperate with the aim of ensuring that maritime spatial plans are coherent and coordinated across the marine region concerned. Such cooperation shall take into account, in particular, issues of a transnational nature. / 2. The cooperation referred to in paragraph 1 shall be pursued through: (a) existing regional institutional cooperation structures such as Regional Sea Conventions; and/or (b) networks or structures of Member States’ competent authorities; and/or (c) any other method that meets the requirements of paragraph 1, for example in the context of sea-basin strategies”. In particular, the European Commission identifies the northern part of the Adriatic as having “more potential for the application of Maritime Spatial Planning than the other parts of the Adriatic”; on this point, see European Commission (Directorate-General for Maritime Affairs and Fisheries), *The Potential of Maritime Spatial Planning in the Mediterranean Sea. Case Study Report: The Adriatic Sea*, January 2011, <ec.europa.eu/maritimeaffairs/documentation/studies/documents/case_study_adriatic_sea_en.pdf>.

²³ *Report Motion for a European Parliament Resolution on an EU Strategy for the Adriatic and Ionian Region* (n 4) point A.

²⁴ See J. Zaucha, *The Key to Governing the Fragile Baltic Sea. Maritime Spatial Planning in the Baltic Sea Region and Way Forward* (VASAB Secretariat, 2014).

be used for different purposes, provided that they are compatible with each other. This three-dimensional character distinguishes the MSP from the territorial planning, because the conditions and methods of planning are clearly different.

In this perspective, it is also important to ensure a certain degree of consistency in planning terrestrial and maritime spaces, in particular for the management of that specific area of transition between land and sea which is represented by the coastal areas, which form the “hinge” between maritime and terrestrial development.

The instrument given by the ICZM, according to the principles and objectives of the *Protocol to the Barcelona Convention on Integrated Coastal Zone Management (ICZM Protocol)*,²⁵ assumes consequently a particular importance in this field.

Due to its semi-enclosed nature, the Adriatic Sea is especially vulnerable to pollution and has unusual hydrographic features such as the fact that the depth and coastline vary considerably between the north and south of the region; whereas fish stocks are shared among all the coastal countries, which puts regeneration of the stocks under sustained pressure.²⁶ These factors have to be taken into consideration, to ensure that the planned actions and technical measures are devised at the regional level and tailored to the specificities of this area and its marine resources and fisheries.²⁷

Objective of ICZM²⁸ is indeed to create a general framework to fully exploit the potential of the coastal zone as a whole, through the development of environmental governance and taking into account, in an integrated manner, natural, socio-economic and cultural elements that affect the coastal regions.

Although the specific object of reference is different (marine areas vs coastal areas), it is clear that there is profound interrelation between the MSP and ICZM policies. Hence the need to ensure coherence between the two instruments. The Commission had indeed initially proposed the adoption of a sole Directive on both institutions.²⁹ The proposed instrument required Member States, *inter alia*, to establish coastal management strategies to strengthen the implementation of those principles and elements set out in the *Council Recommendation on Integrated Coastal Zone Management* of 2002³⁰ and the ICZM Protocol. Actually the Directive 2014/89/EU, which refers exclusively to the MSP, contains two mere references to the ICZM, calling on Member States to promote coherence between the two processes³¹ and to use the

²⁵ The ICZM Protocol was signed in Madrid on 21 January 2008 and entered into force on 24 March 2011. This Protocol was ratified by the EU with the adoption of *2010/631/EU: Council Decision of 13 September 2010 concerning the conclusion, on behalf of the European Union, of the Protocol on Integrated Coastal Zone Management in the Mediterranean to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean* (in *Official Journal of the European Union*, L 279, 23 October 2010, 1 ff.). In the Adriatic and Ionian Region, the ICZM Protocol is currently in force in Slovenia, Croatia and Montenegro; Italy and Greece are signatories, but they have not ratified it; and Bosnia and Herzegovina has not signed it.

²⁶ Randone (n 14).

²⁷ *Report Motion for a European Parliament Resolution on an EU Strategy for the Adriatic and Ionian Region* (n 20) point H.

²⁸ According to Article 2(f) ICZM Protocol, ICZM means “a dynamic process for the sustainable management and use of coastal zones, taking into account at the same time the fragility of coastal ecosystems and landscapes, the diversity of activities and uses, their interactions, the maritime orientation of certain activities and uses and their impact on both the marine and land parts”.

²⁹ European Commission, *Proposal for a Directive of the European Parliament and of the Council establishing a framework for maritime spatial planning and integrated coastal management*, 12 March, 2013, COM(2013) 133 final.

³⁰ *Recommendation of the European Parliament and of the Council of 30 May 2002 concerning the implementation of Integrated Coastal Zone Management in Europe*, in *Official Journal of the European Communities*, L 148, 6 June 2002, 24 ff.

³¹ Cf. Article 6(2)(c), Directive 2014/89/EU.

ICZM to take into account land-sea interactions with MSP.³² However, it is important to note that the geographical scope of ICZM and MPS partially overlapped: while ICZM is focused on the sustainable management of areas of sovereignty (internal waters, territorial sea and/or coastal territory),³³ MPS deals with the sustainable management of maritime areas, including areas where coastal States exercise sovereign rights and/or jurisdiction (continental shelf, EEZ and/or *sui generis* zones of jurisdiction).³⁴

The ICZM Protocol offers tools for a potential cooperation in the Adriatic and Ionian region. Article 17 requires the Parties to “define [...] a common regional framework for integrated coastal zone management in the Mediterranean to be implemented by means of appropriate regional action plans and other operational instruments, as well as through their national strategies” and Article 18(1) provides that “Each Party shall further strengthen or formulate a national strategy for integrated coastal zone management and coastal implementation plans and programmes consistent with the common regional framework [...]”. In the light of this provisions, it is desirable for the coastal States of the region to cooperate in the elaboration of a common sub-regional framework for ICZM, on the basis of relevant EU guidelines and policies, even if outside the Union legal framework.

Moreover, the variety of features of sea basins, on which the EU faces, requires the adoption of a regional approach, specifically to implement the MSP at the level of individual basins, to the need to take into proper account the specific characteristics of each sea basin.

In this views, the regional approach to the Arctic³⁵ and to the Mediterranean³⁶ and, in particular, the establishment of the Macro-Region in the Baltic Sea³⁷ and in the Adriatic Ionic Basin³⁸ may be considered as instruments of European integration, based on voluntary cooperation among involving countries in addressing common challenges and finalized to increase territorial cohesion.

³² Cf. Article 7(1), Directive 2014/89/EU.

³³ Article 3(1), ICZM Protocol: “The area to which the Protocol applies shall be the Mediterranean Sea area as defined in Article 1 of the Convention. The area is also defined by: (a) the seaward limit of the coastal zone, which shall be the external limit of the territorial sea of Parties; and (b) the landward limit of the coastal zone, which shall be the limit of the competent coastal units as defined by the Parties”.

³⁴ The Directive 2014/89/EU is applied to the “marine waters” of the Member States. According to Article 3(4), “marine waters” means “the waters, the seabed and subsoil as defined in point (1)(a) of Article 3 of Directive 2008/56/EC and coastal waters as defined in point 7 of Article 2 of Directive 2000/60/EC and their seabed and their subsoil”.

³⁵ Communication from the Commission to the European Parliament and the Council, *The European Union and the Arctic Region*, 20 November 2008, COM(2008) 763 final.

³⁶ Communication from the Commission to the Council and the European Parliament, *Towards an Integrated Maritime Policy for better governance in the Mediterranean*, 11 September 2009, COM/2009/0466 final.

³⁷ See, in particular, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Union Strategy for the Baltic Sea Region*, 10 June 2009, COM(2009) 248 final; and Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Union Strategy for the Baltic Sea Region*, 23 March 2012, COM(2012) 128 final.

³⁸ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Union Strategy for the Adriatic and Ionian Region*, 17 June 2014, COM(2014) 357 final.

4. Conclusion

Among the pillars identified as a priority by the Commission in the Strategy for the Adriatic and Ionian Region in its Communication,³⁹ a pillar is specifically dedicated to “Blue Growth”:⁴⁰ it aims to improve the administrative and institutional capacities, services and governance, including the sharing of data, shared and coordinated planning of existing resources, by, among the others instruments, MSP and ICZM.

The States bordering the Adriatic and Ionian Seas are however already engaged in a varied dynamic cross-border cooperation, in part due to the EU, in part based on different and independent initiatives, as precisely the Adriatic and Ionian Initiative, in accordance with international obligations, in particular the UNCLOS, which requires to increasing of forms of cooperation between coastal States bordering on semi-enclosed basins.

The definition of a coordinated framework, at macro-regional level, responds to the need to facilitate cooperation and to harmonise initiatives, proposals and projects which concern the Adriatic and Ionian Region, including joint planning, alignment of funding opportunities and a bottom-up approach.

Actually, some important experiences of integration have been realized in various forms: through independent initiatives, or between regional and local administrations of different States, and they have realized a fine combination of public and private.⁴¹

These initiatives are characterized by a high degree of specialization, but are held on heterogeneous levels of cooperation, without any real coordination.⁴²

EU initiatives affecting the Adriatic and the Ionian, such as the recent Directive 2014/89/EU on the MSP and the EUSAIR, may contribute, in this perspective, to reduce the existing fragmentation and to ensure, even by the diversification of the available tools, a greater degree of coordination and convergence. In the light of principles of integration, coordination, cooperation and partnership, a place-based approach concerning the cooperation activities and a multi-level governance model, experimented at the local, national and EU level, should increase and strengthen the administrative capacity and pool resources in the macro-region, building on synergies resulting from the articulation of different EU policy instruments and interventions of national or local authorities or private sectors.⁴³

³⁹ Ibid.

⁴⁰ Ibid, para 3.1.

⁴¹ See, in this perspective, *Handbook on Integrated Maritime Spatial Planning, Experience Tools & Instruments Case Studies*, from the INTERREG III B CADSES PlanCoast Project, 2008.

⁴² See, *inter alia*, the Project in Emilia Romagna Region, concerning the Integrated Coastal Zone Management about river Po delta and its peculiar elements of vulnerability, or the D.A.M.A.C. Project, concerning the oil spills risks planning, promoted by Marche Region (I) and Greek District of Zadar (H).

⁴³ See, in this sense, *Report Motion for a European Parliament Resolution on an EU Strategy for the Adriatic and Ionian Region* (n 4) General Considerations, points 1 and 3. The document insists in particular on the need to include the local and regional authorities in the political managing bodies and in the operational, technical and implementing bodies of the strategy while maintaining the Commission's role in the coordination process (point 3).

**THE ADRIATIC-IONIAN MARINE REGION AS A SPACE OF CONNECTIVITY:
TRANSPORT AND PROTECTION OF THE MARINE ENVIRONMENT***

SUMMARY: 1. The Adriatic Sea (geography, transport and marine environment). – 2. Cooperative arrangements between Adriatic States. – 2.1. Agreements concluded within the AII framework. – 2.1.1. Safety of navigation. – 3. Adriatic PSSA: added value to the protection of the Adriatic marine environment? – 3.1. Work undertaken in relation to the proclamation of an Adriatic PSSA. – 4. Conclusions.

1. The Adriatic Sea (geography, transport and marine environment)

As described, ‘[t]he Adriatic is a narrow, shallow and temperature warm semi-enclosed sea, forming a distinct sub-region within the Mediterranean Sea Region [...]’.¹ The Adriatic Sea is nowadays surrounded by the following States: Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Albania. Of interest is that the geographical coordinates of the Adriatic Sea slightly differ depending on the purpose of the specific measurement. From the practical point of view of particular importance are coordinates contained in various IMO documents relating to safety of navigation in the Adriatic Sea. In the joint proposal submitted in 2003 by Albania, Croatia, Italy, Slovenia, Serbia and Montenegro on the establishment of new recommended Traffic Separation Schemes/Recommended Routes System and other new Routing Measures in the Adriatic Sea, endorsed by the IMO, the Adriatic is described as follows:

“The Adriatic Sea is the part of the Mediterranean sea situated between Balkan and Appenine peninsulas, on the geographical longitude between 012°15’ E and 019°45’ E and the geographical latitude between 39°45’ N and 45°45’ N. The south border includes the whole area of the Strait of Otranto and leads on joint line of the Cape of Santa Maria di Leuca [Italy] – the north coast of the island of Krf [Corfu-Greece] – the mouth of the river Butrinit [Albania]”.²

Greece is generally also considered as an Adriatic State. This is mostly a result of the geographical position of the Greek island of Corfu located at the entrance, and due to some smaller Greek islands located within the Strait of Otranto.

Due to its relatively long and narrow shape, the Adriatic is deeply indented into the European mainland and linked to the rest of the Mediterranean Sea (Ionian Sea) only through the Strait of Otranto. The surface of the Adriatic Sea amounts to 138,595 km², while the total length of the Adriatic coastline is around 7,912 km, more than half of

* This paper is based on sections 1.2 and 5.4-5.5 of the book *Extension of Coastal State Jurisdiction in Enclosed and Semi-enclosed Seas: A Mediterranean and Adriatic Perspective*, written by the author (Routledge, 2014).

¹ D. Vidas, ‘Particularly Sensitive Sea Areas: The Need for Regional Cooperation in the Adriatic Sea’ in K. Ott (ed), *Croatian Accession to the European Union: Institutional Challenges* (Zagreb Institute of Public Finance, 2006) 347 ff., at 359.

² IMO, *Routing of Ships, Ship Reporting and Related Matters: Establishment of new recommended Traffic Separation Schemes and other new Routing Measures in the Adriatic Sea. Submitted by Albania, Croatia, Italy, Slovenia and Serbia and Montenegro*, NAV 49/3/7, 27 March 2003, 2. On the limits of the Adriatic Sea defined by the International Hydrographic Organization (IHO), see in this *Volume*, A. Caligiuri, ‘The Maritime Boundaries in the Adriatic and Ionian Seas’, para 1.

which composed of the coastline of the numerous islands fringing particularly the Eastern Adriatic coasts. The length of the Adriatic Sea from Venice and the mouth of the River Butrint in Albania amount to almost 475 nm. It is noteworthy that the average width of the Adriatic is only 85 nm.³

It is important to note that the Adriatic has been also an important route of international navigation. The main navigation route in the Adriatic Sea goes from the 'wider' Mediterranean Sea (Ionian) through the approximately 45 nm wide Strait of Otranto and towards one of the Northern Adriatic ports: Trieste (Italy), Koper (Slovenia) and Rijeka (Croatia). It has been suggested that an important characteristic of the 'Adriatic route' is the high and even increasing amount of oil (and other dangerous goods) transported particularly towards the Northern Adriatic ports of Trieste and Venice. The overall yearly amount of transported oil in 2005 on this route amounted to approximately 60 million tonnes while in the overall Adriatic the number rose to approximately 70 million tonnes. Vidas is in this regard of the opinion that a significant increase in the transport of oil and other dangerous cargoes, including LNG may be expected during the second decade of the 21st Century.⁴

The Adriatic marine environment is on the other hand extremely sensitive and represents an almost unique ecosystem.⁵ It has been alleged that its environmental conditions are mostly a result of the specific exchange of waters with the wider Mediterranean (Ionian Sea) through the Otranto Strait and the Palagruža threshold separating the shallower Northern Adriatic from the deeper Southern Adriatic, and furthermore by the inputs of freshwater from the mountains in the Eastern and the rivers in the Western part.⁶ Its living resources can be generally qualified as 'highly diversified, with numerous species but low abundance'⁷ which makes the Adriatic's ecosystem particularly vulnerable.

2. Cooperative arrangements between Adriatic States

Adriatic sub-regional cooperation has in the past been particularly accentuated in the field of protection and preservation of the marine environment. This had been, however, prior to 1990, particularly due to the isolationistic policy of Albania understood as a *de facto* cooperation between Italy and the SFRY.⁸ The two States took active part in the existing Mediterranean cooperative arrangements which included the Barcelona system, General Fisheries Commission for the Mediterranean (GFCM) and Commission for the Scientific Exploration of the Mediterranean Sea (CIESM), while specific sub-regional forms of cooperation were primarily aimed at supplementing those already existing at the regional (Mediterranean) level.

³ M. Grbec, *Delimitation of the Maritime Boundary between the Republic of Slovenia and the Republic of Croatia* (LL.M Thesis, IMO IMLI, 2001) 1-2.

⁴ Vidas (n 1) 362-363.

⁵ Joint Expert Group of the Adriatic States on the PSSA, 'Designation of the Adriatic Sea as a Particularly Sensitive Area', draft proposal, 2007, Copy on file with the author. See also Section 1.3.1.

⁶ Ibid.

⁷ The 'PSSA draft proposal' makes reference to the fact that more than 1.800 living species have been found only in the Slovenian part of the Gulf of Trieste, the northernmost and shallower part of the Adriatic. Furthermore, the biodiversity seems to be also high in front of the coast of Montenegro with almost 80% of Mediterranean fish species found there. The 'draft proposal' emphasizes, however, that high diversity is not supported by a high number of specimen. Ibid, p. 8.

⁸ Albania acceded to the *Barcelona Convention* in 1990.

An important milestone in the environmental protection of the Adriatic and which even preceded the adoption of MAP and/or the *Barcelona Convention* was the conclusion in 1974 of the Italy-SFRY *Agreement on cooperation and prevention of pollution of the Adriatic waters and its coastal zones (Belgrade Agreement)*.⁹ The latter however did not contain specific provisions regarding the protection of the Adriatic marine environment and it was more intended as a framework for the identification of various problems and conclusion of additional agreements in this field.¹⁰ Its main achievement was the establishment of a joint 'Italo-Yugoslav' Commission which did not have decision making powers and which goals were primarily to carry out research activities, and to advise the two governments on any question relating to marine pollution. It should be noted that the scope of application of the 1974 *Belgrade Agreement* extended to all Adriatic waters, including therefore the high seas.¹¹

It is, to a certain extent, ironic that the next important document relating to the environmental protection of the Adriatic Sea was signed less than three weeks after the proclamation of independence of Slovenia and Croatia (25 June 1991) and after the breaking up of the war on the territories of the former SFRY. Reference is made here to the *Declaration on the Adriatic Sea*, signed in Ancona on 13 July 1991.¹² The importance of the 1991 Declaration derives from the fact that it was the first multilateral document aimed at the protection of the Adriatic Sea, signed not just by Italy and the SFRY, but also by Albania, Greece and the European Commission. The adopted document was therefore a political declaration with however a strong wording and clear commitments. The signatories declared their firm intention to cooperate in the environmental protection of the Adriatic Sea and the preservation of its ecological balance and to undertake joint comprehensive regional programmes in this regard.¹³

The importance given to the close interrelation between the *Adriatic and the Ionian* can be clearly implied from the participation at the Conference and the signature of the Declaration also by Greece. Although the ranging war on the territories of the former SFRY stopped for almost ten years a comprehensive Adriatic multilateral (sub-regional) cooperation, trilateral cooperation continued during the 1990s between Italy, Slovenia and Croatia within the framework of the Commission for the protection of the Adriatic Sea and coastal area from pollution, usually referred to as the *Trilateral Commission*. The latter replaced the mixed Italo-Yugoslav Commission established on the basis of the *Belgrade Agreement* and achieved substantial results, also due to the work of its sub-commissions first among which the 'Working Group for environmentally safe-sea traffic'.¹⁴ The latter has been at the origin of the preparation of important agreements between the three States particularly in the field of *safety of navigation* and prevention of ship-source pollution, therefore in areas not directly addressed by existing regional cooperative arrangements (the Barcelona System).

⁹ OGRI of 22 February 1977. The Agreement entered into force on 20th April 1977.

¹⁰ M. Gestri, 'I rapporti di vicinato marittimo tra l'Italia e gli Stati nati dalla dissoluzione della Jugoslavia' in N. Ronzitti (ed), *I rapporti di vicinato dell'Italia con Croazia, Serbia-Montenegro e Slovenia* (Giuffrè, Luiss University Press, 2005) 177 ff., 207-208.

¹¹ See Article 1.

¹² At that time it was disputed whether the SFRY still represents also the Republic of Slovenia and the Republic of Croatia which formally proclaimed independence on 25 June 1991.

¹³ Scovazzi mentioned that the 'Adriatic Sea Declaration' has been listed as a Treaty by the official Italian publication on Treaties in force. See T. Scovazzi, 'Regional Cooperation in the Field of the Environment' in T. Scovazzi (ed), *Marine Specially Protected Areas*, (Kluwer Law International, 1999), 81 ff., 97.

¹⁴ Gestri (n 10) 208.

The next important milestone in the Adriatic sub-regional cooperation was the launching of the Adriatic and Ionian Initiative (AII)¹⁵ and the signature of the *Ancona Declaration* in 2000. The latter was adopted at the Conference on Development and Security in the Adriatic and Ionian; held on 19 and 20 May 2000 and signed by all Adriatic States (with the exclusion at that time of Serbia and Montenegro)¹⁶ and the EU. The AII is however formally a distinct cooperative arrangement from that of the Trilateral Commission. The *Ancona Declaration* builds on the structure and content of the already discussed (1991) ‘Adriatic Sea Declaration’ although it is broader in its scope of application. The aim of the *Ancona Declaration* (and of AII in general) is in fact not only to achieve the protection and preservation of the Adriatic Sea and its ecological balance, but instead

“[...] to foster peace and security in the Adriatic and Ionian Region by promoting sustainable economic growth and *environmental protection* and by *exploiting cultural heritage* that the countries in this region share [...]”.¹⁷

Areas of cooperation include, without prejudice to other areas of cooperation which may be selected in the future, economics, transport and tourism cooperation, *sustainable development and protection of the environment*, cooperation in the fields of culture, science and education; and cooperation in the fight against illegal activities.¹⁸ If transferred to the maritime context it would seem that the emphasis is placed on the protection and preservation of the marine environment, with additional emphasis on maritime safety and security, and impliedly also to the protection of underwater cultural heritage and the fight against illegal activities.

The second important difference between the two initiatives is represented by the geographical scope of application. The *Ancona Declaration* is not focused only on the Adriatic Sea, but on the *Adriatic and Ionian region*.¹⁹ An interesting question is accordingly whether the *Ancona Declaration* treats the Adriatic and Ionian as a separate marine region and/or sub-region of the wider Mediterranean Sea? It would seem however that the expression ‘Adriatic and Ionian region’ refers to the overall territories of all the signatories and not specifically to the Adriatic and Ionian seas. This can be implied from Article 1 of the Declaration where emphasis is placed on the Adriatic and Ionian as an ‘area of peace, stability and increasing prosperity’, while the ultimate answer seems to be provided by the Preamble to the *Ancona Declaration* according to which the aim of the Declaration is to foster ‘[...] synergies, coordination and complementarities between the Adriatic and the Ionian cooperation network launched at the Conference [...]’. The aim of the ‘*Ancona Process*’ is therefore to better coordinate and to foster synergies between two distinct cooperation networks, the Adriatic and Ionian. Such interpretation seems to find its confirmation also in the (2008) *Marine Strategy Directive* which defines the Adriatic and Ionian as two separate sub-regions of

¹⁵ Hereinafter ‘AII’.

¹⁶ Serbia and Montenegro joined the AII in 2002. After the dissolution of the Union in 2006, both Serbia and Montenegro retained their membership.

¹⁷ Emphasis added. Preamble, para 4.

¹⁸ *Ibid.*, para 3.

¹⁹ This can be nowadays, as suggested, interpreted as meaning the Adriatic-Ionian (Macro) Region. See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning the *European Union Strategy for the Adriatic and Ionian Region*, 17 June 2014, COM(2014) 357 final.

the Mediterranean Sea²⁰ and seems to be ultimately confirmed by the concluded agreements within the framework of the AII.

It is also noteworthy that the *Ancona Declaration* provides an express link to the *Barcelona Convention*. Article 5 of the Declaration in fact stresses ‘[...] the need to take into account the Adriatic and Ionian dimension within the Convention for the Protection of the Mediterranean Sea against pollution [...]’. This reinforces the assertion that cooperation undertaken within the framework of AII is not intended to conflict with that directly undertaken within the framework of the *Barcelona Convention*. Nonetheless, due to the expanding scope of application of the Barcelona system, there seems to be a need for a better coordination between the two and other cooperative arrangements in the Adriatic (e.g. Trilateral Commission).

2.1. Agreements concluded within the AII framework

It is important to emphasize that the majority of the agreements in the maritime field concluded within the framework of the AII, and particularly those from the field of safety of navigation in the Adriatic Sea, were prepared by the Trilateral Commission despite the fact that some were signed on the occasion of the launching of the AII in Ancona in 2000. The common characteristic of such agreements is that they apply either to the Adriatic (e.g. Northern Adriatic) or to the Ionian, and not to the Adriatic and Ionian basin. The goals of the *Ancona Declaration* have been therefore achieved through a coordinated network of bilateral and/or trilateral binding agreements on a certain topic and not, generally speaking, through a single multilateral convention involving all Adriatic States and/or the EU.

Such build up approach can be implied also from paragraph 7 of the Preamble, which provides that States build

“[...] upon a multifaceted network of bilateral relations that they intend to further strengthen by promoting new bilateral agreements, such as those signed in the framework of the present Conference, which can create a homogeneous, multilateral pattern of cooperation through shared content and objectives [...]”.

The organizational structure of the AII is therefore in many aspects similar to that of the Union for the Mediterranean²¹ and its predecessor Euro-Mediterranean Partnership (Barcelona process),²² with the notable difference that the process is not directly driven by the EU. There are also clear signs that the AII is, after the first decade of its existence, broadening its activities to other areas, of which particularly noteworthy is the protection and preservation of Adriatic underwater cultural heritage.²³ It is nonetheless suggested that the recently adopted Communication of the European

²⁰ See Article 4(2) of the Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (2008) OJ L164, 25.6.2008.

²¹ Hereinafter the ‘UFM’.

²² The UFM was launched (on a French initiative) on 13 July 2008 at the Paris Summit for the Mediterranean as a partnership of 27 EU States and 16 States located in the Southern Mediterranean and Middle East. It upgrades the previously existing Euro-Mediterranean Partnership (Barcelona Process).

²³ See *infra* in para 2.1.

Commission on “A Maritime Strategy for the Adriatic and Ionian Seas”²⁴ and of the already mentioned EU strategy for the Adriatic and Ionian Region (macro-region) represents additional evidence of the forthcoming leading role of the EU in the field of Adriatic (and Ionian) cooperation.

2.1.1. Safety of Navigation

Concluded agreements in the field of safety of navigation in the Adriatic may be broadly divided in three groups. The first group relates to the establishment of a *joint system of vessel traffic service (VTS) in the Adriatic Sea*. A network of bilateral agreements was concluded in the period 2000-2001 between Italy on one side and Slovenia, Croatia, Albania and (Serbia) Montenegro for the Adriatic and between Italy and Greece regarding the Ionian.²⁵

A second group of agreements, based obviously on the successful conclusion of the first group of agreements, related to the establishment of a *mandatory ship reporting system in the Adriatic (ADRIAREP)*. A trilateral Memorandum of Understanding was concluded between Italy, Slovenia and Croatia,²⁶ supplemented by two bilateral agreements concluded between Italy and Albania, and Italy and (Serbia) Montenegro.²⁷ In December 2002 the IMO, upon a joint proposal by all Adriatic States, also formally confirmed the ‘Adriatic Traffic’ with its entry into force as of 1 July 2003.²⁸ Since then, all oil tankers of 150 gross tonnage and above and all ships exceeding 300 gross tonnage and carrying dangerous or polluting goods as cargo, need to report to the designated Adriatic coastal authorities their entry into the Adriatic, their position at certain points and their departure from the Adriatic Sea. In the elaboration of a comprehensive ‘Adriatic system’ the Adriatic States opted therefore for a two-tier approach. The first step was a conclusion of a series of bilateral and trilateral binding agreements between themselves, while the second was the submission of a joint proposal to the IMO.

The same approach has been followed with the third group of agreements which relate to the establishment of a *common routeing system and traffic separation schemes in the Adriatic (Adriatic Traffic)*. A Memorandum of Understanding has been concluded between Italy, Croatia and Slovenia relating to the Northern Adriatic;²⁹ coupled with bilateral agreements between Italy and (Serbia) Montenegro and Albania regarding routeing measures in parts of the central and southern Adriatic.³⁰ Although the agreed ‘traffic separations schemes’ did not cover the entire Adriatic, in 2003 the Adriatic

²⁴ Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Maritime Strategy for the Adriatic and Ionian Seas*, 30 November 2012, COM(2012)713final.

²⁵ See Gestri (n 10) 209, n 117-119.

²⁶ See *Memorandum of Understanding between the Government of the Republic of Slovenia, the Government of the Republic of Croatia and the Government of the Italian Republic on Mandatory Ship Reporting System in the Adriatic Sea*, OGRS 96/2000, 19 October 2000.

²⁷ See Gestri (n 19) 210-211, n 120-123.

²⁸ Resolution MSC.139(76), *Mandatory Ship Reporting Systems*, 5 December 2002. See also ‘Establishment of a Mandatory Ship Reporting System in the Adriatic Sea known as “ADRIATIC TRAFFIC”’: Submitted by Albania, Croatia, Italy, Slovenia and Yugoslavia, NAV 47/3/4, 30 March 2001.

²⁹ *Memorandum of Understanding between the Government of the Republic of Slovenia, the Government of the Republic of Croatia and the Government of the Italian Republic on the Establishment of a Common Routeing System and Traffic Separation Scheme in the Northern Part of the Northern Adriatic*, OGRS No. 96/2000, 19 October 2000.

³⁰ See Gestri (n 10) 210, n 123-126.

States concerned jointly proposed to the IMO the adoption (confirmation) of the agreed measures.³¹ These measures were then confirmed on 28 May 2004.³²

In the light of the foregoing it is important to highlight that since 1 December 2004 there is in force a system of traffic separation schemes in the Northern Adriatic regulating navigation to and from the ports of Koper (Slovenia) and Trieste and Monfalcone (Italy) crossing the maritime areas of Croatia, Slovenia and Italy.

There seems to be an agreement among users and policymakers alike, that the (Northern) Adriatic is, particularly with regard to maritime safety and prevention of marine pollution, a 'high risk area'. This is not only due to the extremely dense traffic of cargo ships and tankers, but also to the increasing number of yachts and pleasure boats in the area.³³ It may be asserted that further (Northern) Adriatic cooperation in this field should focus on the upgrading and further integration of the already existing measures (VTS-ADRIAREP, Adriatic Traffic). The need for further standardisation and exchange of maritime traffic information between national maritime authorities, ensuring consistency with the applicable EU systems (e.g. SafeSeaNet), has been perceived by stakeholders and policymakers as the next area where Adriatic (Ionian) cooperation is needed.³⁴ Proposals have been also echoed for the extension of existing (compulsory) routing measures applicable to the Northern Adriatic to other parts of the Adriatic Sea.³⁵ It is suggested furthermore that the designation of an 'Adriatic PSSA', endorsed by IMO, would represent an appropriate framework for such upgrading and/or further integration of existing measures relating to ship safety and ship source pollution in the Adriatic Sea.³⁶

3. Adriatic PSSA: added value to the protection of the Adriatic marine environment?

Notwithstanding the Adriatic's 'Special Area' status under Annex I of MARPOL, as part of the wider Mediterranean, where all operational discharges of oily waters from ships are prohibited,³⁷ one of the main problems in the Adriatic Sea is still operational pollution, or in other words 'illegal discharges' from ships. It has been estimated that an annual average of 250 illegal oil spills occurred in the Adriatic in the early 2000 and there are indicators that the situation has not substantially improved since then.³⁸

³¹ See Albania, Croatia, Italy, Slovenia, (Serbia) Montenegro, 'Establishment of new recommended Traffic Separations Schemes and other new Routing Measures in the Adriatic Sea', IMO Doc. NAV 49/3/07, 23 March 2003.

³² See IMO, 'Report of the Maritime Safety Committee on its Seventy-Eight Session', MSC 78/26 of 28 May 2004, 86 and Annex 21 and 'New and Amended Traffic Separation Schemes', COLREG.2/Circ. 54 of 28 May 2004.

³³ Round Table organized by the European Commission on Competitive and Sustainable Transport and a Safer and More Secure Marine Space (Conclusions), Third Stakeholders Workshop on Maritime Affairs: Towards a strategy for the Adriatic Ionian Macro-Region (Roundtable on Healthier Marine Environment and Sustainable Fisheries), Portorož-Slovenia, 17 September 2012

³⁴ See also European Commission; High level stakeholders conference "Setting an Agenda for Smart, Sustainable and Inclusive Growth from the Adriatic and Ionian Seas", Zagreb Conclusions, Zagreb, 6 December 2012.

³⁵ Hrvoje Kačić, 'Traffic Separation Schemes in the Adriatic Sea', paper delivered at the round-table *EU Maritime Policy and the (Northern) Adriatic* (Maritime Law Association of Slovenia, 2011).

³⁶ See *infra* para. 3.1.

³⁷ Regulations for the Prevention of Pollution by Oil. The entire Mediterranean has also a 'Special Area Status' under Annex V of MARPOL (Regulations for the Prevention of Pollution from Garbage from Ships). Annex VI (Regulations for the Prevention of Air Pollution from Ships) on the other hand allows for the establishment of special emission control areas.

³⁸ See Vidas (n 1) 364-365.

Additionally, an increasingly important problem in the Adriatic Sea is the occurrence of discharges of ballast waters, particularly from ships having their port of departure outside the Mediterranean. The quantity of ballast waters released in 2003 in the Adriatic ports of Croatia, Italy and Slovenia amounted to 8 million tonnes, although less than 10 percent of the mentioned quantity originated outside the Mediterranean.³⁹ With the expected increase of the maritime traffic in the Adriatic, particularly after the completion of the envisaged new oil and LNG terminals in the Adriatic ports of Vlore, Ploče, Krk and Trieste which will open new 'export routes' of (Caspian) oil and gas,⁴⁰ it would seem that the quantity of discharged ballast water in the Adriatic Sea, particularly that originating outside the Mediterranean, may increase dramatically.

A logical consolidation of the existing measures in the field of safety of navigation and prevention of ship-source pollution could be the designation of the entire Adriatic waters (by the IMO) as a PSSA. Such course of action has been followed also by many other EU States, including those bordering the semi-enclosed Baltic Sea.⁴¹ Reference should be made to the fact that the possibility of the 'proclamation' of PSSAs in the Adriatic has already been made by the '2005 Agreement on the Sub-regional Contingency Plan' with which Slovenia, Croatia and Italy agreed to cooperate in the designation of PSSAs in the area covered by the Plan.⁴² It is important to note that the PSSA may be located within or beyond the limits of the territorial sea, and as pointed by Slim and Scovazzi it '[...] offers the opportunity to enable the development of common jurisdictional and enforcement regimes for environmentally significant marine areas [...]'.⁴³

At this point it may be useful to refer to the definition of a PSSA which can be defined as '[...] a marine area that needs special protection through action by the IMO because of its significance for recognized *ecological* or *socio-economic* or *scientific reasons*, and because it may be vulnerable to damage by international shipping activities'.⁴⁴ The three general requirements which are further elaborated in the *Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas*,⁴⁵ are however not cumulative, as one criteria must be fulfilled. Furthermore, as provided by Article 1.5 of the 2005 PSSA Guidelines:

"Identification and designation of any PSSA and the adoption of any associated protective measures requires consideration of three integral components: *the particular attributes of the proposed area [Adriatic], the vulnerability of such an area to damage by international shipping activities, and the availability of associated protective measures within the competences of IMO to prevent, reduce, or eliminate risks from these shipping activities*".⁴⁶

³⁹ *Ibid.*

⁴⁰ *Ibid.* 361-363.

⁴¹ In 2004 the IMO confirmed upon a joint proposal by Belgium, France, Ireland, Portugal, Spain and the UK, the *Western European Atlantic Waters* as a PSSA (IMO Doc. MEPC 49/8/1, 2003). The same occurred in 2005 with the *Baltic Sea area* (with the exception of Russian waters) based on the joint proposal by Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden (IMO Doc. MEPC 51/8/1, 2003).

⁴² Agreement on the Sub-Regional Contingency Plan for Prevention off, Preparedness for, and Response to Major Marine Pollution Incidents in the Adriatic Sea (OGRS 61/2008).

⁴³ S. Habib, T. Scovazzi, *Study of the current status of ratification, implementation and compliance with maritime agreements and conventions applicable to the Mediterranean Sea Basin: With a specific focus on the ENPI South Partner Countries* (AGRECO Consortium, 2009) Part 2, 36.

⁴⁴ Emphasis added. See Vidas (n 1) 349.

⁴⁵ IMO Assembly Resolution A. 982(24), 1 December 2005, para 4. Hereinafter the '2005 PSSA Guidelines'.

⁴⁶ Emphasis added.

Therefore, it follows that to the extent approved by the IMO, the PSSA status allows coastal State(s) to enforce specific associated measures (within the competence of IMO), e.g. compulsory reporting systems and/or pilotage, routeing measures, Special Area Status under MARPOL and/or application of discharge restrictions. Taking into account that three of the said protective measures are already in force in the Adriatic (the Special Area Status on the basis of Annexes I and V of MARPOL, the reporting system on the basis of SOLAS [Adriatic Traffic], and a system of routeing measures in the Northern Adriatic on the basis of COLREG), what would be the added value of proclaiming an Adriatic PSSA? It is important to note in this regard that the proposed associated measures may have ‘an identified legal basis’ also in IMO conventions and/or codes which are not in force yet. A clear example in this regard is represented by the *2004 Ballast Water Convention* which is unlikely to enter into force in the near future.⁴⁷

3.1. Work undertaken in relation to the proclamation of an Adriatic PSSA

The idea to proclaim an Adriatic PSSA originates from a Croatian proposal and was based on studies carried out in the period 2004-2006. In 2006, a *Joint Expert Group on the PSSA* comprising representatives of all Adriatic States (later replaced by the Correspondence Group) was established upon the Croatian initiative and held several meetings including the meetings in Opatija (April 2006) and Portorož (October 2006).⁴⁸ According to the prepared draft text of the Proposal⁴⁹ the associated protection measures applicable in the Adriatic PSSA would in addition to the strengthening of the already existing measures (e.g. the extension of the existing routeing measures to other parts of the Adriatic) include also some associated protective measures having its identifiable legal basis in the *2004 Ballast Water Convention*. That would include the designation of the Adriatic Sea as a No-Ballast-Water-arriving in the Adriatic in ships from other seas (including from the Mediterranean) and secondly on the extension of the existing mandatory ship reporting system also on ballast waters entering the Adriatic.⁵⁰ Other associated measures proposed in the future could include, for example, the ‘Special Area Status’ on the basis of Annexes II and VI of the MARPOL Convention and/or other measures embodied in present or potential future IMO Guidelines and Codes; and this even before their entry into force.

It is accordingly regrettable that despite an ambitious timetable for the submission of the joint proposal to the IMO (end of 2007) the work on the proposal stopped. It is just to be hoped that the proposal will be finalized and submitted to the IMO in due time and that the whole waters of the Adriatic will be, like those of the Western European

⁴⁷ See Slim, Scovazzi (n 43) Part 1, 120-122.

⁴⁸ Vidas (n 1) 370.

⁴⁹ Designation of the Adriatic Sea as a Particularly Sensitive Area (draft). On file with the author.

⁵⁰ See Vidas (n 1) 369. Noteworthy is the fact that the contracting parties to the Barcelona Convention adopted in 2011, through the assistance of REMPEC, a *Harmonized Voluntary Arrangements for Ballast Water Management in the Mediterranean Region*. The Guidelines provide guidance and options to vessels transiting the Mediterranean with regard to ballast water management and exchange, although presently only on a voluntary basis. The Guidelines are ‘in force’ since 1 January 2012 and will be applicable up to the time the 2004 Ballast Water Convention enters into force. See IMO, ‘International Convention for the Control and Management of Ship’s Ballast Water and Sediments. Communication received from the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea’, BWM.2/Circ.35, 15 August 2011, Annex 1.

Atlantic Waters (2004) and the Baltic in 2005 (without Russian waters),⁵¹ proclaimed as a PSSA. It is however encouraging that authorities and stakeholders from all Adriatic States (and the EU) participating at the ‘High level stakeholder conference “Setting an Agenda for Smart, Sustainable and Inclusive Growth from the Adriatic and Ionian Sea’ held in Zagreb on 6 December 2012, ‘[...] express readiness to continue the joint efforts towards the designation of the Adriatic Sea as a Particularly Sensitive Sea Area (PSSA), in accordance with the IMO Guidelines.’⁵²

4. Conclusions

It is suggested that an Adriatic PSSA would represent a flexible tool, a potential forum and a main incentive for Adriatic States for discussing the management of the risks posed by international shipping,⁵³ including by operational pollution. In that regard it seems possible to agree with Vidas that:

“[...] the designation of a PSSA in the Adriatic Sea can provide a significant regional cooperative framework, in line with the EU policy, and also highlight the awareness of the vulnerability of the Adriatic Sea environment”.⁵⁴

It seems possible to conclude that the proclamation of the Adriatic PSSA, in addition to the proclamation of (transboundary) marine protected areas over the most vulnerable Adriatic Sea areas, may substantially contribute to the protection of the Adriatic marine environment from shipping activities, including from operational pollution [inc. ballast water].⁵⁵ It is ultimately suggested that such proclamation sponsored by all Adriatic States may help achieving a further balance between navigation (transport) and protection of the marine environment in the Adriatic-Ionian Marine Region.

⁵¹ Cf n 36.

⁵² Ibid.

⁵³ See Vidas (n 1) 348.

⁵⁴ Ibid.

⁵⁵ See discussion in D. Vidas, M. Kostelac Markovčić, ‘Ballast Water and Alien Species: Regulating Global Transfers and Regional Consequences’ in D. Vidas, J.P. Schei (eds), *The World Ocean in Globalisation* (Brill, 2011) 371 ff., 390-392.

RECONSIDERING THE MARINE SCIENTIFIC RESEARCH IN THE ADRIATIC AND IONIAN SEAS: TAKING STOCK AND LOOKING AHEAD

SUMMARY: 1. Introduction.– 2. The MSR legal regime. – 2.1. From Geneva to Montego Bay: a brief legislative history. – 2.2. Current regime under UNCLOS: consent v. freedom. – 3. From theory to practice: implementing the MSR regime in the Adriatic and Ionian marine region. – 3.1 Where? The spatial dimension. – 3.2. Which activities fall under MSR? The functional dimension. – 3.3. Who is involved? The unexplored duty of cooperation. – 4. Conclusion.

1. Introduction

Since the Challenger expedition in the 1870s, which is considered as the advent of modern oceanography,¹ marine scientific research (hereafter: MSR) has considerably evolved. New methods of research covering a wide area of scientific interest such as biology, chemistry, geology and geophysics, as well as advanced technology stemming from simple techniques (dredging, sediment coring, towing of platforms carrying video recorders and echo sounding traverses) to very sophisticated and extremely expensive ones (such as Remotely Operated Vehicles, known as ROVs, capable of diving to great depths to carry out research and retrieve samples from the deep sea) have been put forward in order to enhance our knowledge on the marine environment.² This scientific (r)evolution has inevitably increased the interest of the coastal states in the potential economic exploitation of their offshore resources and has consequently grown their appetite for further expanding their jurisdiction in the oceans.

While scientific progress accomplished since the nineteenth century has been considerable, we still know very little of this huge, abyssal and often inaccessible, natural asset. Although oceans represent a very essential part of our planet, paradoxically, they are the least known and, thus, the least understood geographical and geomorphological areas. As one commentator has, quite eloquently, noticed: “until quite recently we did not know what was at the bottom of the oceans. Nor did we know what the bottom of the ocean was made of. In most areas, we did not even know where the bottom of the ocean actually was”.³ This is actually the case for the deep sea, where only 8% has been explored and mapped to this date, but also for smaller and more crowded marine areas such as the Adriatic and the contiguous Ionian marine region. Indeed, in the communication concerning the EU Maritime Strategy for the Adriatic and Ionian Seas, the European Commission has underlined that our understanding of the marine environment covering this area is still not complete.⁴ For instance, general information on deep-sea resources and issues of bio-security in this marine region is still missing. Furthermore, there is lack of marine

¹ The Challenger expedition, led by British naturalist John Murray and Scottish naturalist Charles Wyville Thompson between 1872-1876, is considered to be the first true oceanographic expedition organized to gather data on a wide range of ocean features, including ocean temperatures, currents, marine life and geology of the seafloor.

² For brief general background information on the nature of MSR conducted in the oceans see D. Kenneth Leary, *International law and the genetic resources of the deep sea* (Martinus Nijhoff, 2007), 183-188.

³ *Ibid.*, 8.

⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions concerning *the EU strategy for the Adriatic and Ionian Seas*, 17 February 2014, COM (2014) 357 final.

habitat maps and information on small-scale fisheries as well as a complete inventory of the biodiversity. Undoubtedly, there are other areas of concern, not mentioned in the European Commission's communication, such as the impact of more or less frequent seismic surveys on the marine and geological environment.

Consequently, there is a strong need to develop further knowledge of the marine environment covering the Adriatic and the contiguous Ionian seas. The interest, however, does not only lie in knowing and better understanding what actually occupies their hidden realm. A better knowledge of the marine environment could also have important practical applications. It could, for instance, grow the capacity of coastal states to combat climate change and respond to increasing anthropogenic pollution or promote sustainable policies and management of their resources, mineral or biological. Not to mention the role that some potentially valuable biological resources of the seabed, yet unexplored, may play in the future.

However, this need to develop further knowledge of the marine environment is being restricted by rules of law. The Adriatic and the contiguous Ionian marine region consist of a complex mosaic of different maritime zones, where different legal regimes apply. To enter these waters, researchers, being a State, an international organization or private institutions, should in some cases request and obtain the authorization to do so by following several procedures coming from different administrative services. So, the first question that arises is what potential controls could be held on research projects. In other words, how is MSR regulated in this area? Is the applicable legal framework suitable for the current emergent needs of the region? Does it encourage or not the conduct and promotion of marine scientific research?

This paper explores the international legal regime, which operates to regulate marine scientific research within the Adriatic and Ionian marine regions. The first part outlines the general characteristics of this regime. It begins with a brief legislative history to illustrate the factors that have influenced the shape of the current legal framework. It then gives a brief overview of the current regime. The second part then goes on to consider implementation concerns as well as some unsettled questions that could lead to potential confusion when the regime is being interpreted and applied in practice. It concludes with some general remarks on possible solutions.

2. The MSR legal regime

2.1. From Geneva to Montego Bay: a brief legislative history

The regulation of MSR is a relative latecomer to the law of the sea. Until the 1950s it was not perceived as necessary. MSR has been conducted more or less freely on the high seas.⁵ However, the gradual expansion of national jurisdictions on the continental shelf and the recognition of the increasing importance of its resources led to calls for the development of the legal framework in this area. Several coastal States wanted to protect their freshly accorded rights from potential unwanted researchers.

⁵ T. Treves, 'Marine Scientific Research' in R. Wolfrum (ed.), *Max Planck Encyclopedia of Public International Law* (Oxford University Press, 2012), para 5, <www.mpil.com> (accessed 15 October 2015).

The first attempt to develop MSR regulation arose during the first UN Conference on the Law of the Sea in 1958. However, among the four Conventions adopted,⁶ only the Convention on the Continental Shelf contained few provisions on MSR. In its Article 5, it recognized to the coastal State sovereign and exclusive rights for the purpose of exploring its continental shelf and exploiting its natural resources. Any research concerning the continental shelf was subject to limited control by the coastal State, especially where MSR might infringe upon these rights.⁷ Therefore, a distinction concerning the nature of the research activities between fundamental (undertaken only for scientific purposes carried out with the intention of open publication) and applied (resource-related) research was embodied in the relevant provisions.⁸ Research activities qualified as fundamental would normally be conducted without restrictions, while those qualified as applied research, were subject to the coastal States' consent.

MSR was neither specifically addressed in the case of the territorial sea nor in the case of the high seas. Regulation within the territorial sea was considered to be an act of sovereignty and, thus, under exclusive control of the coastal State.⁹ Within the high seas, although MSR was not expressly listed as a freedom, it was generally accepted as such.¹⁰ Thus, the legal framework set forth in Geneva would result in a simultaneous application of a different regime in the same maritime space. Whereas MSR on continental shelf was subject to the consent of the coastal State, it was nevertheless free when conducted on the superjacent waters (waters above), belonging to the high seas.

All these elements would form the basis of a more detailed MSR regime, adopted a few years later in Montego Bay within the framework of the UNCLOS. However, the way was not paved with nenuphars. During the negotiations, held from 1973 to 1982, MSR regulation proved to be one of the most delicate and difficult issues to resolve.¹¹ The major researching (and, of course, mostly developed and having the necessary funding) States crossed swords with the newly independent and developing coastal States on a number of conflicting issues: the distinction between fundamental or pure and applied research, the extent of the coastal States' control over MSR especially in the emerging Exclusive Economic Zone (EEZ), as well as dispute settlement.¹² Both sides put forward claims and arguments. Researching States claimed a liberal regime for MSR, without restrictions, and open publication of the results of benefit to all. On the other hand, coastal States had a special interest in research activities conducted within waters under their jurisdiction. Several, mostly developing, States strongly believed (rather understandably) that an unlimited right to conduct MSR would lead

⁶ The Convention on the High Seas, the Convention on the Territorial Sea and Contiguous Zone, the Convention on the Continental Shelf and the Convention on Fishing and Conservation of the Living Resources of the High Seas.

⁷ According to Article 5(8): "the consent of the coastal State shall be obtained in respect of any research concerning the continental shelf and undertaken there. Nevertheless the coastal State shall not normally withhold its consent if the request is submitted by a qualified institution with a view to pure scientific research into the physical or biological characteristics of the continental shelf, subject to the proviso that the coastal State shall have the right, if it so desires, to participate or to be represented in the research, and that in any event the results shall be published".

⁸ For a general discussion see L. Caflisch, J. Piccard, 'The Legal Regime of Marine Scientific Research and the Third United Nations Conference on the Law of the Sea' (1978) 38 *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht* 848.

⁹ For further analysis, *ibid.*, 855-856.

¹⁰ Kenneth Leary (n 2) 191.

¹¹ For a brief description see A. de Marffy, 'La recherche scientifique marine' in R.-J. Dupuy, D. Vignes (eds), *Traité du nouveau droit de la mer* (Economica, Bruylant, 1985), 957-973.

¹² UN, DOALOS (hereafter: DOALOS Guide), *Marine Scientific Research, A revised guide to the implementation of the relevant provisions of UNCLOS* (United Nations Publications, 2010), 3.

to abuses on the part of the researching States, because it would inevitably have some direct or indirect bearing on their natural resources or might serve as a disguise for other operations related to the exploration and exploitation of natural resources or even intelligence gathering activities.¹³ Some countries called for the establishment of an international body responsible for regulating MSR in all marine areas.¹⁴ While these arguments and proposals were not entirely convincing, it was nevertheless clear that some balance should be found between conflicting interests: the interest of researchers in facilitating the conduct and promotion of MSR and the interests of the coastal States in protecting their rights within the waters under their jurisdiction. Thus, the final result incorporated in the UNCLOS, signed in Montego Bay in 1982, was a product of compromise trying to accommodate concerns stemming from both sides.

2.2. *Current regime under UNCLOS: consent v. freedom*

The 1982 UNCLOS compensated the prior indigence by devoting an entire part, consisting of 28 articles, to the subject of marine scientific research. Part XIII (Articles 238-265) describes in detail the legal framework within which all research activities must be carried out in order to ‘promote the study of the marine environment’, proclaimed in the preamble of the Convention.

A simple lecture on the first articles gives the impression of a rather liberal regime. The general rule is that all states, coastal or not, and competent international organizations have the right to conduct MSR subject to rights and duties of other States.¹⁵ This right is directly associated with the obligation to promote and facilitate MSR,¹⁶ which has been convincingly described as a ‘principle of positive engagement’ for the purpose of increasing knowledge for the benefit of all mankind on what is its major natural environment: the ocean.¹⁷

Nevertheless, the general right to conduct MSR is not an absolute one as it is restrained by subsequent principles and rules. Some of them are justified by the due respect to other international rules or legitimate uses of the sea. Thus, marine scientific research shall be conducted exclusively for peaceful purposes, with appropriate scientific methods and means compatible with the Convention and in conformity with regulations under the Convention,¹⁸ including those for the protection and preservation of the marine environment.¹⁹

Other principles and rules, though not unjustified, seem to complicate the applicable regime and their implementation in practice might create great confusion to researchers when preparing, planning and conducting a research project. The need to balance the interests of the researching States and the interests of the coastal States resulted in an area-by-area approach to rights in connection with MSR. Thus, the rules vary in accordance to the legal status of the marine areas in which the research is being conducted. The general idea concerning MSR is that the closer to the shore of a coastal State, the greater its consent powers to control the research activities.

¹³ Cafflisch, Piccard (n 8) 850.

¹⁴ For a brief description of these proposals see D. Kenneth Leary, *op.cit.*, 191-193.

¹⁵ Article 238 UNCLOS.

¹⁶ Article 239 UNCLOS.

¹⁷ J.-P. Pancraccio, *Droit de la mer* (Daloz, 2010) 377.

¹⁸ Article 240 UNCLOS.

¹⁹ For further analysis see E. Kirk, ‘Science and the International Regulation of Marine Pollution’ in D. Rothwell, A. Elferink, K. Scott, T. Stephens (eds), *The Oxford Research Handbook on the Law of the Sea* (Oxford University Press, 2015) 516-535.

Therefore, within the territorial sea, the coastal State being full sovereign has complete control over marine scientific research activities.²⁰ It has the exclusive right to regulate, authorize and conduct MSR. This jurisdiction is not even limited by the right of innocent passage as it is expressly provided that conducting MSR during passage through territorial waters renders a passage non-innocent.²¹ Consequently, all research activities within the territorial sea require the coastal State's express consent through diplomatic channels.

UNCLOS extended the MSR regulation to the emerging EEZ. However, the regime governing MSR both in the EEZ and on the continental shelf is more complicated than the one governing the territorial sea because the coastal State's consent is subject to conditions.²² Within these maritime zones, the coastal State has jurisdiction over MSR and has the right to regulate, authorize and conduct research activities. Its consent for MSR activities conducted by third States or international organizations is also required, but, in this case, the coastal State does not have an unlimited discretion to withhold such consent. It can do so only in four cases, expressly enumerated in the Convention that concern projects: a) of direct significance for the exploration and exploitation of natural resources, whether living or non-living; b) that involve drilling into the continental shelf; c) that involve construction, operation or use of artificial islands and d) that contain incorrect information provided to the coastal State or if the researching State or competent international organization has outstanding obligations to the coastal State from a prior research project.²³ The coastal State is given further guarantees, as it has the right to require the suspension or cessation of any MSR activities if they are not conducted under the conditions set forth in Part XIII UNCLOS.²⁴

However, the consent has to be granted in normal circumstances,²⁵ provided that the research activities are carried out for peaceful purposes and undertaken in order to increase the knowledge of the marine environment for the benefit of mankind. The consent must be explicit, except for two cases, in which the Convention provides the possibility of a presumed²⁶ and an implied²⁷ consent, under specific conditions. However, these two possibilities have been ignored by State practice.

This constant give-and-take of guarantees between researching and coastal States attests the difficulties in balancing the conflicting interests of both sides. Researchers have also procedural obligations not only before undertaking a research activity (to provide the coastal State all necessary information at least six months before the starting date of the research activities),²⁸ but also after having been granted consent to conduct MSR: to ensure the right of the coastal State to participate, if it so desires, in

²⁰ Article 245 UNCLOS.

²¹ Article 19(2) UNCLOS.

²² Article 246 UNCLOS.

²³ Article 246(5) UNCLOS.

²⁴ Article 253 UNCLOS.

²⁵ Article 246(3) UNCLOS.

²⁶ According to Article 247 UNCLOS, the consent of the coastal State is presumed if that state is a member of or has a bilateral agreement with an international organization that aims at conducting MSR, by itself or under its auspices, in the EEZ or on the continental shelf of the coastal State, and further provided that the coastal State either explicitly approved the project when the decision was initially made or the coastal State did not object to the decision within a period of four months after notification.

²⁷ According to Article 252 UNCLOS, the consent of the coastal State is implied provided that it has not reacted within a period of four months after the required information has been provided by the researching State or the competent international organization.

²⁸ Article 248 UNCLOS.

the research project, to give the coastal State access to data and information about any major changes in the project.²⁹

In the maritime zones beyond national jurisdiction – on the high seas and in the deep seabed – MSR may be conducted by all States with due regard for other rules under the Convention, such as the duty to protect the marine environment.³⁰ In the high seas MSR has been expressly accorded the status of a high seas freedom.³¹ Thus, in this case, only the flag State of the ship conducting research activities has jurisdiction.

These provisions raise some remarks that are worth noting. The first is that the balance seems to weigh more on the side of the coastal States, whose sovereign rights have undoubtedly been reinforced. The extension of the MSR regime to EEZs and the upgrading of the coastal State's consent powers have restrained freedom of scientific activities in larger areas of the sea at the expense of scientific research. However, and this is the second remark, the consent regime applicable to the EEZ and on the continental shelf is not absolutely clear. For instance, the provisions related to the procedural obligations of the researchers are subject to different interpretations or even controversy:³² what are the limits of the coastal State's right to participate, if it desires so, in the research project? Which are the appropriate official channels for the communication of MSR projects? Who assesses the data required prior or during the research activities? Are decisions related to withdrawal of consent justiciable?³³ Arguably, the rights of the researchers are not well-defined and this ambiguity may delay or even discourage potential research projects.³⁴

3. From theory to practice: implementing the MSR regime in the Adriatic and Ionian marine region

MSR in the Adriatic and Ionian marine region is regulated by the relevant provisions of the UNCLOS, in which all coastal States are contracting parties. It is worth noting that the coastal States have not enacted special national legislations to prescribe procedures necessary for conducting MSR, but it seems that their practice is consistent with the UNCLOS requirements.³⁵ Moreover, the almost universal acceptance of the Convention³⁶ and the influence of its Part XIII on State practice indicate that most of the MSR provisions reflect customary international law and, thus, are applicable to all users of the Adriatic and Ionian seas.³⁷ Other legal

²⁹ Article 249 UNCLOS.

³⁰ Articles 256 and 257 UNCLOS.

³¹ Articles 87 and 257 UNCLOS.

³² E. Jarmache, 'Sur quelques difficultés de la recherche scientifique marine' in *Mélanges offerts à Laurent Lucchini et Jean-Pierre Quéneudec, La mer et son droit* (Pedone, 2003) 303-314.

³³ Under Article 297(2) UNCLOS, the coastal State denying consent or ordering the suspension or cessation of MSR in its EEZ or on the continental shelf is not obliged to subject itself to the dispute resolution settlement. For further analysis see J. Ashley Roach, 'Marine scientific research and the new law of the sea', (1996) 27 *Ocean Development and International Law* 59.

³⁴ For further discussion concerning the difficulties for foreign researchers to obtain an approval permit see G. Xue, 'Marine Scientific Research and Hydrographic Survey in the EEZs: Closing up the Legal Loopholes?' in M. Nordquist M. et al (eds), *Freedom of Seas, Passage Rights and the 1982 Law of the Sea Convention* (Martinus Nijhoff Publishers 2009) 209 ff., 215.

³⁵ For a review of the State practice, see the site of the Intergovernmental Oceanographic Commission of UNESCO, <www.ioc-unesco.org> (accessed 17 October 2015).

³⁶ 167 contracting parties, including the EU, <www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm> (accessed 28 September 2015).

³⁷ However, this is not the case for some provisions, such as the one referring to the possibility of implied consent, which is ignored in State practice, see Treves (n 5) paragraphs 16 and 17.

instruments, such as the 1995 Barcelona Convention for the protection of the marine environment and the coastal region of the Mediterranean, complement the general framework by encouraging State parties to cooperate for the promotion of MSR.³⁸

Obviously, international law offers a general framework for conducting and promoting MSR. The question is how this regime is applied to the Adriatic and the contiguous Ionian marine regions. There are three components related to the practical implementation of the MSR legal framework. The first concerns its spatial dimension, while the second refers to its functional application. The third component relates to who is involved.

3.1. Where? The spatial dimension

The Adriatic and the contiguous Ionian seas link seven countries: Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania and Greece. A particular feature of this marine region is that many coastal States have not claimed all maritime zones that they are entitled to establish under international law.³⁹ The result is that large areas of the Adriatic and Ionian marine region remain beyond the jurisdiction of coastal States and under the regime of the high seas.

In fact, the current jurisdictional picture is quite complex.⁴⁰ All coastal States have established a 12 nm territorial sea, with the exception of Greece, which maintains a 6 nm territorial sea and Bosnia Herzegovina, which is a special case due to its particular geographic situation.⁴¹ Within this zone, coastal States have exclusive control over MSR activities and their express consent is required.

The coastal states have also jurisdiction on the continental shelf, where they exercise substantial control over MSR activities. This zone does not need to be proclaimed, as it exists *ab initio* and *ipso facto*, but the narrow sea space does not permit them to enjoy the maximum jurisdictional rights permitted under international law. However, the relative maritime boundaries have not been yet fully established. With the exception of three delimitation agreements in force (the 1968 Agreement between Italy and former Yugoslavia, the 1977 Agreement between Italy and Greece and the 1992 Agreement between Italy and Albania), the rest of the maritime boundaries remain to be agreed, including some territorial sea boundaries, as for example the southern boundary of the Slovenian territorial sea with Croatia, with the dispute being currently subject to arbitration.⁴² Not to mention the maritime boundaries between Greece and Albania. In 2009, after lengthy negotiations, the two States signed a continental shelf delimitation agreement with a built-in mechanism for automatic extension to any future maritime zones that might be proclaimed. However,

³⁸ Article 13 Barcelona Convention.

³⁹ For an explanation see D. Vidas, *The UN Convention on the Law of the Sea, the European Union and the Rule of Law. What is going on in the Adriatic Sea?*, FNI Report 12/2008, Fridthof Nansen Institute, 9-10.

⁴⁰ A list of the relevant national legislation is provided in the website of DOALOS, <www.un.org/Depts/los/LEGISLATIONANDTREATIES/europe.htm> (accessed 2 October 2015).

⁴¹ Bosnia Herzegovina has actually a very limited coastline on the Adriatic Sea, the Neum corridor, which is enclosed between two parts of the Croatian coastline. It could be said that it is an almost landlocked country.

⁴² On 4 November 2009, the two States signed an agreement to submit their territorial and maritime dispute to arbitration. For further information on this arbitration see *Territorial and Maritime Arbitration between Croatia and Slovenia*, <www.pcacases.com/web/view/3> (accessed 15 September 2015). For a brief commentary see G. Cataldi, 'Prospects for the Judicial Settlement of the Dispute between Croatia and Slovenia over Piran Bay' in N. Boschiero, T. Scovazzi, C. Pitea, C. Ragni (eds), *International Courts and the Development of International Law: Essays in honour of Tullio Treves* (T.M.C. Asser Press, 2013) 257-268.

a year later, the Albanian Constitutional Court declared – rather unconvincingly⁴³ – the agreement as unconstitutional.

And the story does not end there. In 2003, Croatia proclaimed an ecological and fisheries protection zone⁴⁴ on the water column above its continental shelf. Although this zone is not mentioned in the UNCLOS, its establishment derives from the rights of coastal States to claim an EEZ and, thus, the legal regime may be identical to the regime of an EEZ. Thus, MSR activities in this zone are subject to the coastal State's consent. Nevertheless, the Croatian act raised strong protests on the part of the neighboring countries, especially Slovenia, who also declared an ecological protection zone with overlapping jurisdiction with the Croatian one.⁴⁵ The dispute has taken not only legal but also political proportions as it was linked to the accession of Croatia to the EU and the two countries agreed to follow the route of arbitration. Italy has also declared an ecological protection zone, but it does not apply to the Adriatic and Ionian seas.⁴⁶

In other words, the maritime zone map of the region is not yet completely drawn, as there are still pending disputes (between Croatia and Slovenia), open issues (for instance delimitation of maritime boundaries between Croatia and Bosnia Herzegovina or between Croatia and Montenegro concerning the Bay of Bota Kotorska and the Prevlaka Peninsula), or even “unfinished business”⁴⁷ (between Greece and Albania). Obviously, this situation affects the conduct and promotion of MSR activities and is not so encouraging for potential researchers. From which coastal State are they going to request permission to undertake a research in disputed areas? It is worth noting that some States (including Greece⁴⁸ and Italy⁴⁹) provide in national legislations that in the absence of delimitation agreements the median line will apply provisionally.

There is also another issue of concern. As EEZs have not been proclaimed (with the exception of the derivative zones of Croatia and Slovenia already mentioned), MSR activities on the continental shelf are subject to the consent of the coastal State, whereas they are free when conducted on the superjacent waters, belonging to the high seas. That is why, in practice, several coastal States (including Greece) require either notification or permission on research activities undertaken in the high seas, in order to ensure that these activities do not infringe upon their sovereign rights on the

⁴³ According to international law, a State cannot invoke its domestic deficiencies to contest the validity of a duly signed international agreement. For further analysis see K. Noussia, ‘The Decision of the Albanian Supreme Court Annuling the 2009 Maritime Delimitation Agreement between Albania and Greece’, (2010) 25 *The International Journal of Marine and Coastal Law* 601.

⁴⁴ *Decision on the extension of jurisdiction of the Republic of Croatia in the Adriatic Sea*, in *Law of the Sea Bulletin* No. 53/2004, 68-69.

⁴⁵ *Act on the proclamation of the ecological protection zone and on the continental shelf*, in *Law of the Sea Bulletin* No. 60/2006, 56-57.

⁴⁶ Law No. 61, 8 February 2006 – “Istituzione di Zone di Protezione Ecologica Oltre il Limite Esterno del Mare Territoriale”, in *Gazzetta Ufficiale della Repubblica Italiana*, n. 52/2006. For further analysis, see T. Scovazzi, ‘La zone de protection écologique italienne dans le contexte confus des zones côtières méditerranéennes’, (2005) 10 *Annuaire du droit de la mer* 209.

⁴⁷ This expression is mentioned by M. Gavouneli, ‘Offshore Energy: Troubled Waters in the Eastern Mediterranean Sea’ in H.N. Scheiber, J. Kraska, M.-S. Kwon, *Science, technology and new challenges to ocean law* (Brill, 2015), 253-279, 276.

⁴⁸ Article 156, Law No. 4001/2011 for the Operation of Electricity and Gas Energy Markets, for Exploration, Production and transmission of networks of Hydrocarbons and other provisions, in *Government Gazette* No. 179, Part One, 22 August 2011.

⁴⁹ Article 1(3), Italian Law No. 61, 8 February 2006.

seabed.⁵⁰ The real question is if there is anything else they can do to ensure that the resources lying on the seabed are treated appropriately.

This unhappy jurisdictional picture could change with the establishment of EEZs or even derivative zones, which will reinforce the coastal States' rights to control and benefit from MSR conducted in areas currently belonging to the high seas.⁵¹ Undoubtedly, the next necessary step should be the delimitation of the maritime boundaries. Although tempting, this scenario is not so desirable. Some coastal States (being also researchers) would rather maintain the current *status quo*, because otherwise their rights to conduct free MSR, as well as other activities, up to the limits of the territorial sea of the neighbors will be restricted. Others, although flirting with the idea of proclaiming an EEZ, hesitate to do so; their act could open a Pandora's box, as the example of the dispute between Croatia and Slovenia reveals.

3.2. Which activities fall under MSR? The functional dimension

Although many proposals have been discussed during the negotiations,⁵² the UNCLOS does not provide a definition for MSR. It seems that the most controversial issue was the difficulty of clearly distinguishing between fundamental and applied research.⁵³ Many developing States strongly believed that the acceptance of such a distinction would inevitably lead to abuses. However, the simple rejection of the difference and the submission of both activities to discretionary coastal State consent do not eliminate potential abuses, as several incidents reveal.⁵⁴

A careful reading of the UNCLOS provisions, especially those concerning conduct of MSR in the EEZ and on the continental shelf, sheds light on an implicit distinction between fundamental and applied research, affecting the discretionary powers of the coastal State to uphold its consent. Even if the precise terms are not explicitly used, it is obvious that the activities where the coastal State should *normally grant* its consent refer to fundamental research (*projects undertaken exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind*); on the other hand, those where consent may be withheld concern applied research (*projects of direct significance for the exploration and exploitation of natural resources, that involve drilling into the continental shelf, etc.*).⁵⁵

However, in practice, it is difficult to distinguish the two types of activities, as no objective criteria have been set forth. The Geneva regime was more effective in that respect, as it provided for the criterion of open publication of the results in order to make a distinction between the two. Thus, fundamental research is conducted with the intention of open publication of the results, while applied research is undertaken with the intention of producing certain practical results. Certainly, all fundamental research may acquire some practical relevance, but, as Lucius Caflisch suggested, "*this does*

⁵⁰ A. Strati, *Greek maritime zones and delimitation with neighboring States* (in Greek) (Nomiki Bibliothiki, 2012), 50.

⁵¹ See *Cost and benefits arising from the establishment of maritime zones in the Mediterranean Sea. Final Report*, June 2013, 165, <ec.europa.eu/maritimeaffairs/documentation/studies/documents/maritime-zones-mediterranean-report_en.pdf> (accessed 4 October 2015).

⁵² DOALOS Guide (n 12) 4-5.

⁵³ DOALOS Guide (n 12) 5, para 10.

⁵⁴ For ex. the *Impeccable* incident in the South China Sea, where a USA surveillance ship was conducting undersea passive sonar operations and acoustic data gathering, provoking the reactions of China. For further discussion, see K.K. Agnihotri, S.K. Agarwal, 'Legal Aspects of Marine Scientific Research in Exclusive Economic Zones: Implications of the Impeccable Incident', (2009) 5 *Maritime Affairs* 135.

⁵⁵ Article 246(3) and (5) UNCLOS.

not mean that such research is undistinguishable from applied research".⁵⁶ As the same author argues, "even in borderline cases where the planned research is partly fundamental in nature and partly aimed at obtaining practical results", the requirement of open publication will not be necessarily detrimental to the coastal State's interests as "it will in fact be the coastal State which will mainly benefit from these results".⁵⁷ This is because it enjoys exclusive resource jurisdiction over the area in which the research is carried out. Nevertheless, even if MSR is conducted under the watchful eye of the coastal State, the latter might be unwilling to publish the results and the UNCLOS gives full discretion in that respect.

Yet, it can be argued that even if the Convention had incorporated a definition for MSR, it might have been outdated, as science and technology evolving more quickly than legal regimes. Regardless of how persuasive this argument may be and in line with the position of the negotiators who concluded that a definition would be superfluous,⁵⁸ the lack of a clear definition may lead to different interpretations. Therefore, it creates great uncertainty about the activities covered by the MSR regime and those that are not. There is a legal grey zone concerning jurisdiction. For instance, it is not certain if all forms of data collection, routine operational activities such as the Argo-types floats⁵⁹ or hydrographical surveys (collection of information for the making of navigational charts and safety of navigation)⁶⁰ can be subject to the MSR regime. Some authors suggest that activities directed at shipwrecks and other forms of underwater cultural heritage⁶¹ or even military surveys (data collection for military purposes)⁶² come within the scope of MSR regime and are, thus, subject to the coastal State consent.⁶³ There is also controversy whether bioprospecting, which relates to the access to genetic resources, falls under the MSR regime.⁶⁴ Unfortunately, there is no clear answer for these concerns.

3.3. *Who is involved? The unexplored duty of cooperation*

MSR in the Adriatic and Ionian marine region is open to coastal States and their research institutions as well as to foreign States and competent international organizations. Certainly, the coastal States are the most interested not only in conducting and promoting scientific research, but also in ensuring protection of their natural resources and economic interests.

Do the coastal States have adequate means to study and understand by themselves their adjacent marine environment? It seems that capacities in terms of institutions and equipment are very uneven on the two sides of the Adriatic and Ionian coast.⁶⁵

⁵⁶ Cafilisch, Piccard (n 8) 850.

⁵⁷ Ibid, 851.

⁵⁸ K. Bork, J. Karstensen, M. Visbeck, A. Zimmermann, 'The legal regulation of floats and gliders. In quest of a new regime?', (2008) 39 *Ocean Development and International Law* 298, 303.

⁵⁹ For further discussion, *ibid*.

⁶⁰ S. Bateman, 'Hydrographic Surveying in Exclusive Economic Zones: Is it Marine Scientific Research?' in M. H. Nordquist, T. T.B. Koh, J. Norton Moore (eds), *Freedom of Seas, Passage Rights and the 1982 Law of the Sea Convention* (Martinus Nijhoff Publishers, 2009) 105 ff.

⁶¹ S. Dromgoole, 'Revisiting the Relationship between Marine Scientific Research and the Underwater Cultural Heritage', (2010) 25 *The International Journal of Marine and Coastal Law* 33.

⁶² Xue (n 37) 222; Bork, Karstensen, Visbeck, Zimmermann (n 58) 305.

⁶³ *Contra* Roach (n 33) 60.

⁶⁴ A. Jorem, M.W. Tvedt, 'Bioprospecting in the High Seas: Existing Rights and Obligations in View of a New Legal Regime for Marine Areas beyond National Jurisdiction', (2014) 29 *The International Journal of Marine and Coastal Law* 321.

⁶⁵ The Mediterranean Science Commission database provides a list with resources and means of marine research institutions by country around the Mediterranean (see <www.ciesm.org/online/institutes/IndexInstituts.htm>, accessed 17 October 2015).

Thus, as far as public sector research is concerned, only few States have large research vessels able to undertake research in the high seas. To reinforce their research capacity they might conclude agreements with foreign researchers States.⁶⁶ The UNCLOS encourages international cooperation in MSR between States and competent international organizations.⁶⁷ These actors are even invited to conclude bilateral or multilateral agreements to create favorable conditions for the conduct of MSR and integrate the efforts of scientists in studying the marine environment.⁶⁸

Indeed, cooperation is very much needed in a domain such as MSR, which requests considerable investments in human and financial resources. Advantages could be gained from networking and better cooperation between research institutions. In fact, some international research projects covering the Adriatic and Ionian seas do exist. Examples are the projects ADRIAMED (Scientific cooperation to support responsible fisheries in the Adriatic Sea)⁶⁹ and MEDITS (International bottom trawl survey in the Mediterranean).⁷⁰ Moreover, the EU has expressed recently a strong interest in promoting MSR in the Adriatic and Ionian marine region.⁷¹ It has even provided examples of possible projects,⁷² which include, among others, a “Deep sea observation network” to map and monitor the seabed, a “Research platform marine robotics” to strengthen unmanned marine vehicles for underwater and seabed operations and a “Research platform on the exploitation of micro-organisms” growing in the Adriatic and Ionian seas. These projects could be potentially financed by the 8th EU Framework Research Program (Horizon 2020), which covers marine scientific research.

However, international cooperation is not always a given. Jurisdictional uncertainty and legal ambiguities may impact the conduct of these projects as practice reveals. For instance, in the MEDITS project, the research activities end at the boundary of the ecological and fishery protection zone claimed by Croatia.⁷³ Therefore, the delimitation of the marine area and the clarification of legal ambiguities are the very first step in launching regional cooperation for MSR activities.

4. Conclusion

The main objective of this paper was to show how MSR can be conducted and promoted in the Adriatic and Ionian marine region. The legal framework is provided by UNCLOS, which establishes general obligations and the legal basis for jurisdiction of the coastal States over MSR. Certainly, it does not resolve all questions satisfactorily and does not provide for technical details. Being a product of a difficult

⁶⁶ This term covers States conducting research themselves or whose private institutions are engaged in such research.

⁶⁷ Article 242 UNCLOS.

⁶⁸ Article 243 UNCLOS.

⁶⁹ ADRIAMED is a FAO regional project funded by Italy and since 2007 by the EU, <http://www.faoadriamed.org> (last visited: 19.10.2015).

⁷⁰ See the website of MEDITS Project, <www.sibm.it/SITO_MEDITS/principaleprogramme.htm> (accessed 19 October 2015).

⁷¹ Four of the coastal States are Member States (Croatia, Greece, Italy and Slovenia) and one is a candidate country (Montenegro).

⁷² *Action Plan accompanying the Communication concerning the EU Strategy for the Adriatic and Ionian Seas*, 17 June 2014, COM (2014), 190 final.

⁷³ *Cost and benefits arising from the establishment of maritime zones in the Mediterranean Sea* (n 51) 174.

compromise between the interests of the coastal and the researching States, it is unlikely to be changed, at least in the nearby future.

Nevertheless, the general regime could be further developed and the legal ambiguities clarified by regional cooperation and consistent State practice. Such cooperation could be undertaken by the coastal States themselves or in the framework of competent international organizations or even in the framework of the Barcelona system for the protection of the Mediterranean Sea from pollution.⁷⁴ For instance, a code of conduct or guidelines for MSR activities could be developed to diminish potential controversies. The need for a more integrated approach is more than evident. Instead of a strict balance of interests between coastal and researching States, wider concerns need to be taken into account, such as issues of sustainability as well as the necessity to know and better comprehend the adjacent marine environment.

⁷⁴ N. Oral, 'The need for a regional framework for marine scientific research in the Black Sea and Mediterranean Sea', (2014) 17 *Marine Genomics* 67.

THE 2001 UNESCO CONVENTION AND THE PROTECTION OF UNDERWATER CULTURAL HERITAGE IN THE ADRIATIC AND IONIAN SEAS

SUMMARY: 1. Introduction. – 2. The definition of Underwater Cultural Heritage. – 3. Objectives and general principles of UCH protection. – 4. Marine spaces under the sovereignty of coastal States. – 5. Contiguous zone. – 6. Exclusive economic zone and continental shelf. – 7. The status of sunken warships and other State vessels and aircraft. – 8. Conclusion: a bid for regional cooperation.

1. Introduction

The Mediterranean Sea, of which the Adriatic and Ionian Seas form part, is known for its rich underwater cultural heritage (UCH) that has lain for centuries on the seabed.¹ Ever since antiquity, and certainly also in earlier historic periods, seafaring routes to and from the Levant have stretched along the shores of the Adriatic and Ionian Seas, especially the more sheltered Eastern shores. But not all ships would reach their port of destination. Many foundered due to unexpected storms or shipping accidents. The sites of such shipwrecks, which encapsulate material remains of human culture at the moment of their sinking, are an invaluable source of knowledge about human activities at sea and about life in the past in general.² Unfortunately, lying on the seabed these historic wrecks do not attract only those who are interested in their cultural and scientific value, but they are also exposed to treasure hunters and plunderers who are keen to get hold of anything valuable that can be sold for profit. Thus, the protection of UCH sites from undue disturbance and, in many cases, plain devastation becomes vital if we want to preserve the knowledge they harbour about the past and convey it to future generations.

Considering this fascinating heritage we have at the bottom of our seas, it will come as no surprise that almost all the riparian States of the Adriatic and Ionian seas should

¹ See eg P. Throckmorton (ed), *The Sea Remembers: Shipwrecks and Archaeology* (Weidenfeld & Nicolson, 1987); J-Y. Blot, *Underwater Archaeology: Exploring the World beneath the Sea* (Thames and Hudson, 1996). Selected shipwreck sites in the Croatian Adriatic from various periods of history are described in D. Frka, J. Mesić, *Blago Jadrana [The Treasures of the Adriatic]* (Adamić, 2012).

² By way of illustration, as at 8 May 2015 in Croatia there were 154 underwater sites listed in the Cultural Heritage Register and thus protected under the terms of the Croatian Cultural Heritage Act (see *infra* n 19). The Adriatic and Ionian States put a lot of effort into developing underwater archaeological research and protecting the UCH. In Greece, for example, the “Ephorate” for Underwater Antiquities was established as a special service within the Ministry of Culture already in 1976 (see <www.yppo.gr/1/e1540.jsp?obj_id=91>, accessed 12 December 2015), and the private, non-profit Hellenic Institute of Marine Archaeology (HIMA) exists even since 1973 (see <<http://www.ienae.gr/index.php/en/hima/about-us>> accessed 12 December 2015); see also A. Strati, ‘Greece’ in S. Dromgoole (ed), *The Protection of the Underwater Cultural Heritage: National Perspectives in Light of the UNESCO Convention 2001* (Martinus Nijhoff Publishers, 2006), 98. In Italy, activities concerning underwater archaeology are coordinated on the national level within the “Direzione Generale Archeologia” which forms part of the Ministry of Culture. In 2004, the ‘Direzione Generale Archeologia’ launched the project “Archeomar” with the aim of creating a comprehensive register of underwater archaeological sites (see official website <www.archeomar.it/archeomar/>). In Croatia, a special Department for Underwater Archaeology operates within the Croatian Conservation Institute, a state agency tasked with the conservation and restoration of movable and immovable cultural objects, which is also involved in archaeological field work (see the official website of the Croatian Conservative Institute <www.h-r-z.hr>). Furthermore, in 2007, the International Centre for Underwater Archaeology in Zadar (ICUA) was founded as an organisational unit within the framework of the Croatian Conservation Institute and, as a first of its kind, was granted the auspices of UNESCO; for more information, see the official website <www.icua.hr/en>.

have become parties to the *Convention on the Protection of the Underwater Cultural Heritage* (CPUCH),³ Greece being the sole exception.⁴ Adopted in 2001 within the UNESCO and in force as of 2009, the CPUCH is the first international instrument that comprehensively deals with the protection of UCH.

On the other hand, the 1982 UNCLOS was the first multilateral treaty to at least address the issue of UCH protection, albeit to a very limited degree. Indeed, the UNCLOS contains only two very summary and vague articles on “archaeological and historical objects”, as UCH is called in the terminology of that Convention. Based on these fragmentary provisions, it was impossible to ensure the comprehensive protection of the UCH.⁵ Still, it is the great achievement of the UNCLOS that it proclaimed the general obligation that “States have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose”.⁶

The most obvious problem with the piecemeal protection regime of the UNCLOS was the lack of a special rule for “archaeological and historical objects” on the continental shelf and in the exclusive economic zone (EEZ), which left valuable cultural objects, especially historic shipwrecks, found on the seabed beyond the 24-mile limit virtually unprotected. As has been aptly observed, such a legal situation presented for treasure hunters an invitation to loot the UCH.⁷ It should be recalled at this point that in fact Greece brought the issue of UCH protection to the fore during the Third United Nations Conference on the Law of the Sea, seeking to achieve an extension of coastal State jurisdiction on the continental shelf and in the EEZ also to include “archaeological and historical objects”. However, this was met with insurmountable opposition.⁸

The question of coastal State jurisdiction was again a highly controversial issue throughout the negotiations for the CPUCH within UNESCO.⁹ Although the initial draft had favoured an extension of coastal jurisdiction, it soon turned out that such a solution would be unacceptable to the major maritime States. Any extension of coastal State jurisdiction beyond the competences accorded by the UNCLOS was out of the question.

³ *Convention on the Protection of the Underwater Cultural Heritage* (2009) 2565-I UNTS 51. To date 52 States have become bound by the CPUCH; see the status of ratifications available on UNESCO’s website, <www.unesco.org/eri/la/convention.asp?KO=13520&language=E> (accessed 12 December 2015).

⁴ Among the Adriatic and Ionian States Croatia was the first, and the third State overall to ratify the CPUCH back in 2004; Montenegro and Slovenia ratified in 2008; Albania and Bosnia-Herzegovina in 2009, and finally Italy in 2010; *ibid.*

⁵ Although Article 303, placed in Part XVI (General Provisions) UNCLOS, purportedly relates to archaeological and historical objects in all maritime zones, its para 2 is famous for the complex, if not contradictory, legal construction of a special rule concerning such objects found on the seabed of the contiguous zone, which avoided to expressly recognise a jurisdictional right of coastal States to regulate and authorise protective measures in respect of UCH (see text to n 41-46). Article 149, on the other hand, deals with archaeological and historical objects in the Area, which “shall be preserved or disposed of for the benefit of mankind as a whole”. For an early criticism of these provisions see L. Caflisch, ‘Submarine Antiquities and the International Law of the Sea’, (1982) 13 *Netherlands Yearbook of International Law* 3. See also eg T. Scovazzi, ‘A Contradictory and Counterproductive Regime’ in R Garaballo, T. Scovazzi (eds), *The Protection of the Underwater Cultural Heritage: Before and After the 2001 UNESCO Convention* (Martinus Nijhoff Publishers, 2003) 4 ff; R. Garaballo, *La Convenzione UNESCO sulla protezione del patrimonio culturale subacqueo* (Giuffrè, 2004) 16 ff; S. Dromgoole, *Underwater Cultural Heritage and International Law* (Cambridge University Press, 2013) 29 ff.

⁶ Article 303(1) UNCLOS.

⁷ Scovazzi (n 5) 8.

⁸ The Greek proposal was in the end reduced to Article 303 UNCLOS. For more details on the *travaux préparatoires* see Caflisch (n 5) 16 ff.; A. Strati, *The Protection of the Underwater Cultural Heritage: An Emerging Objective of the Contemporary Law of the Sea* (Martinus Nijhoff Publishers, 1995), 162 ff.; Garaballo (n 5) 19 ff.; N.C. Pallas, *Maritimer Kulturgüterschutz* (Duncker & Humblot, 2004) 256 ff; Dromgoole (n 5) 32 ff.

⁹ For an account of the negotiating history see especially R. Garaballo, ‘The Negotiating History of the Convention on the Protection of the Underwater Cultural Heritage’ in R Garaballo, T. Scovazzi (eds), *The Protection of the Underwater Cultural Heritage: Before and After the 2001 UNESCO Convention* (Martinus Nijhoff Publishers, 2003).

Hence, a compromise had to be worked out, especially for the continental shelf and the EEZ, but even the moderate provisions that we have today in the CPUCH were perceived by a number of States, notably major maritime States, as running counter to the existing set of jurisdictional zones in the UNCLOS.¹⁰ Greece, on the other hand, was unable to accept that the CPUCH did not provide for a clear-cut rule on coastal State jurisdiction concerning the UCH on the continental shelf and in the EEZ.¹¹

Anyhow, the result we have is that the UCH protection regime as envisaged by the 2001 UNESCO Convention follows the pattern of jurisdictional zones already existing in the UNCLOS. It is the aim of this paper to explain the basic features of the jurisdictional regime for the protection of UCH in the various maritime zones but within the context of the Adriatic and Ionian marine space. Hence, the International Seabed Area will not be addressed in particular, since there is no Area in the Adriatic and Ionian Seas.¹² A section of the paper will also be devoted to the status of sunken State vessels and aircraft as UCH. Where appropriate, and as far as accessible, reference will be made to normative solutions contained in the national legislations of the Adriatic and Ionian coastal States. As concerns national legislation, all of the States in question follow the same legislative technique. None of them have specific laws concerning the protection of UCH. In other words, the general cultural heritage legislation encompasses also the UCH, with certain provisions, or regulations adopted on the basis of the laws, referring to some specific aspects of UCH protection.¹³

Before turning to the jurisdictional regimes in the various maritime zones which are at the heart of our discussion, it seems necessary, however, to at least briefly explain the

¹⁰ Thus, Norway giving its reasons for voting against the CPUCH stated: “[T]he Convention unfortunately also includes parts, which jeopardise the fine balance of jurisdiction achieved through the carefully drafted UN Convention on the Law of the Sea (UNCLOS). This applies in particular to provisions relating to the exclusive economic zone and the continental shelf”; see ‘Statements on Vote during Commission IV on Culture’, UNESCO, 31st Session of the General Conference, 29 October 2001, reprinted in R Garaballo, T. Scovazzi (eds), *The Protection of the Underwater Cultural Heritage: Before and After the 2001 UNESCO Convention* (Martinus Nijhoff Publishers, 2003) 248. The Russian Federation, also voting against the Convention, gave a similar explanation: “[F]or principal reasons, a number of provisions of the Convention are not acceptable for Russia. For example, Article 10 may be interpreted as exceeding the scope of rights and jurisdiction of a coastal State in adjacent seas as set forth by the UN Convention on the Law of the Sea 1982” (ibid, 249). The US, although not a member of UNESCO at the time and participating in the negotiations only with observer status, rejected the CPUCH “because of objections to several key provisions relating to jurisdiction, the reporting scheme, warships, and the relationship of the Convention to UNCLOS” (ibid, 252). The jurisdictional regime was one of the reasons why France abstained from voting (ibid, 246). But any concerns France might have had have obviously been resolved in the meantime, since it ratified the CPUCH in 2013. It should, nevertheless, be noted that many important maritime States voted in favour of the Convention, thus acknowledging the compromise that had been reached, among them Australia, Canada, China, Italy and Japan.

¹¹ The Greek delegation, explaining the reasons for its abstention from voting, stated, *inter alia*, that the system envisaged in the CPUCH for the continental shelf and the EEZ “leaves to the coastal State only a ‘coordinating role’ on its own continental shelf and does not ensure its right to be notified of discoveries of UCH or intended activities directed at UCH found in the area (see in particular Article 9(1)(b)ii). Despite the fact that throughout the negotiations at UNESCO the majority of governmental experts were in favour of extending coastal rights over UCH on the continental shelf, the Draft Convention does not even mention the term ‘coastal State’”, ibid, 247.

¹² The CPUCH’s protection regime for the UCH in the Area (Articles 11 and 12) largely resembles the reporting and consultation procedure established for the EEZ and the continental shelf. For more details see eg PJ O’Keefe, *Shipwrecked Heritage: A Commentary on the UNESCO Convention on Underwater Cultural Heritage* (Institute of Art and Law, 2002) 95 ff; Garaballo (n 5) 291 ff; Pallas (n 8) 448 ff; Dromgoole, *Underwater Cultural Heritage* (n 5) 294 ff.

¹³ On UNESCO’s thematic web pages dedicated to the CPUCH a “Model Implementation Law” can be found which seems to advocate this approach, giving the “example of a comprehensive law on the protection of cultural heritage, encompassing land-based as well as submerged immovable heritage as well as movable objects”; <www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/pdf/UNESCO_MODEL_UNDERWATER_ACT_2013.pdf> (accessed 12 December 2015).

CPUCH's substantive scope of application, i.e. how the Convention defines UCH, and to highlight the CPUCH's most important objectives and general principles.

2. The definition of Underwater Cultural Heritage

Article 1(1)(a) CPUCH defines UCH as “all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years”.

This rather broad definition is supplemented by a non-exhaustive list of examples contained in Article 1(1)(a)(i)-(iii) of the Convention. The listed relics are explicitly considered as UCH and, thus, fall within the scope of the Convention. This list includes: “(i) sites, structures, buildings, artefacts and human remains, together with their archaeological and natural context;¹⁴ (ii) vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural context; and (iii) objects of prehistoric character”.

The advantage of introducing a time limit lies in its objectivity but its downside is, of course, that many shipwreck sites of a younger date, which might well be of archaeological significance, will remain outside the scope of the CPUCH. What immediately comes to mind, are the numerous wrecks of warships and military aircraft sunk during the Second World War.¹⁵ This seems to have been the reason why the 1998 UNESCO preliminary draft had allowed for the possibility that States encompass in their national legislations cultural heritage that had been under water for less than 100 years.¹⁶ Although this provision was omitted in the final text of the CPUCH, there is no discernible obstacle why States could not choose a stricter time criterion in their national legislations, at least as concerns the maritime zones under their sovereignty.

By the expression “traces of human existence”, the definition clearly excludes pure natural phenomena and also remains of palaeontological character,¹⁷ but on the other hand it includes human remains, thus acknowledging the status of shipwrecks as grave sites. This is reasserted in Article 2(9), which requires States to “ensure that proper respect is given to all human remains located in maritime waters”.

The definition does not comprise a geographic element. Accordingly, the scope of the Convention, and, thus, the obligation of States to protect underwater cultural heritage, extends geographically to all seas and oceans, as is the case with the UNCLOS.¹⁸

As to the national legislations of the Adriatic and Ionian States, in Croatia, for example, the 1999 Act on the Protection and Preservation of Cultural Objects,¹⁹

¹⁴ Specifically excluded from the scope of the CPUCH are all pipelines and cables placed on the seabed (Article 1(1)(b)), while installations other than pipelines and cables cannot be considered as underwater cultural heritage, as long as they are still in use (Article 1(1)(c)).

¹⁵ Submerged relics from the First World War, on the other hand, will soon be entirely covered by the definition. cf O'Keefe (n 12) 42; D. Momtaz, 'La Convention sur la protection du patrimoine culturel subaquatique' in T.M. Ndiaye, R. Wolfrum (eds), *Law of the Sea, Environmental Law and Settlement of Disputes: Liber Amicorum Judge Thomas Mensah* (Martinus Nijhoff Publishers, 2007), 447 ff; Dromgoole (n 5) 90.

¹⁶ S. Dromgoole, '2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage', (2003) 18 *International Journal of Marine and Coastal Law* 59, 63.

¹⁷ M. Rau, 'The UNESCO Convention on Underwater Cultural Heritage and the International Law of the Sea', (2002) 6 *Max Planck Yearbook of United Nations Law* 387, 402.

¹⁸ Pallas (n 8) 408; Momtaz (n 15) 447.

¹⁹ Narodne novine [Official Gazette of the Republic of Croatia; NN] No 69/1999; subsequent amendments and/or corrections in NN Nos 151/2003, 157/2003, 87/2009, 88/2010, 61/2011, 25/2012, 136/2012, 157/2013, 152/2014,

although covering UCH, does not contain a specific definition. However, a number of provisions refer to underwater archaeological sites. Among them the list of immovable cultural objects provided in Article 7 comprises “archaeological sites and archaeological zones, including underwater sites and zones”. In order for cultural objects to be protected under the Croatian Cultural Heritage Act no specific time-limit has been prescribed. In practice the Croatian services for cultural heritage protection have applied a stricter time criterion than the one adopted in CPUCH’s definition, placing many underwater sites from the First and Second World Wars under the protection afforded by law.²⁰

The Greek Law 3028/2002 “on the Protection of Antiquities and the Cultural Heritage in General”²¹ deals with almost every aspect of cultural heritage protection and, thus, encompasses underwater cultural heritage, as well.²² In the Law a very complex definition of the protected cultural heritage was elaborated. This definition forms the basis for determining the different levels of protection that are accorded to various categories of cultural heritage depending primarily on their age. To that end a combination of time criteria is used, including the 100 year-limit.²³ However, in Greek legislation a specific time criterion for UCH will be found elsewhere, namely in a decision issued by the Minister of Culture on the basis of Law 3028/2002 in 2003.²⁴ Under that decision all wrecks of ships and aircraft which have been under water for more than 50 years are generally classified as monuments in the sense of the Greek Cultural Heritage Law.²⁵

The Slovene 2008 Cultural Heritage Protection Act²⁶ does not define UCH. There are also no provisions which would solely address the protection of UCH. From the usage of terms in the Act it is nevertheless clear that the Act’s scope of application covers UCH. According to Article 3(1)(2) “archaeological finds” are movable archaeological remains which have been in the earth as well as those which have been under water for at least 100 years. It is then further clarified that the term “archaeological finds” also comprises “arms, munitions, other military material, military vehicles and vessels or their parts” which have been in the earth or under water for at least 50 years. The reference to UCH in the usage of the terms is evident. It is interesting that the definition combines two time limits, a general one of 100 years as used in the CPUCH, and a specific time limit of 50 years for archaeological finds of a military nature. The stricter time criterion was quite obviously introduced with a view to extending the Act’s protection regime to relics from the two world wars of the 20th century. The same differentiation of time limits is repeated in Article 3(1)(3) concerning the definition of the term “archaeological remains”.²⁷

98/2015. An English translation of the initial text adopted in 1999 can be retrieved from the UNESCO Database of National Cultural Heritage Laws, <portal.unesco.org/culture/en/ev.php-URL_ID=33928&URL_DO=DO_TOPIC&URL_SECTION=201.html> (accessed 14 December 2015).

²⁰ See also TM Šošić, ‘Konvencija UNESCO-a o zaštiti podvodne kulturne baštine i jurisdikcija država u Jadranskom moru’ [‘The UNESCO Convention on the Protection of the Underwater Cultural Heritage and State Jurisdiction in the Adriatic Sea’] (2010) 49 *Poredbeno pomorsko pravo* [Comparative Maritime Law] 101, 125.

²¹ Official Gazette A’ 153/2002.

²² Strati (n 2) 105.

²³ For more details see *ibid*, 106 ff.

²⁴ Ministerial Decree 48604/3385/05.09.2003, Official Gazette B’ 1701/2003.

²⁵ Strati (n 2) 108.

²⁶ Uradni list Republike Slovenije [Official Gazette of the Republic of Slovenia; UL] No 16/2008; subsequent amendments in UL Nos 123/2008, 90/2012, 111/2013. An English translation of the initial text adopted in 2008 can be retrieved from the UNESCO Database of National Cultural Heritage Laws (n 19).

²⁷ See also Šošić (n 20) 131.

3. Objectives and general principles of UCH protection

The objectives and principles of the international legal regime of UCH protection as established by the CPUCH are contained in its Preamble and in Article 2, but they are, of course, concretised and elaborated through other provisions of the Convention. We will highlight some of the more important objectives and principles, along with other key general provisions.

Article 2(2) of the Convention restates the general obligation, which, as mentioned, was already introduced by Article 303(1) UNCLOS, namely that “States Parties shall cooperate in the protection of underwater cultural heritage”. Indeed, the principle of cooperation is omnipresent in the CPUCH. The cooperation among States is indispensable for the effective implementation of the protective regime as envisaged by the Convention, and, as will be seen, this is particularly true for the protection of the UCH in the EEZ and on the continental shelf.²⁸

Another important principle is the duty of States to “preserve underwater cultural heritage for the benefit of humanity”.²⁹ Read together with the 1st recital of the Preamble, which acknowledges “the importance of underwater cultural heritage as an integral part of the cultural heritage of humanity and a particularly important element in the history of peoples, nations, and their relations with each other concerning their common heritage”, the employed phrase clearly reflects the common heritage of mankind principle.³⁰

Closely linked to the duty to preserve the UCH for the benefit of humanity is the general prohibition of the commercial exploitation of UCH.³¹ This general prohibition is reinforced in the “Rules concerning activities directed at underwater cultural heritage” which are annexed to the CPUCH and contain a set of modern archaeological and technical standards.³² Rule 2 of the Annex states that “[t]he commercial exploitation of underwater cultural heritage for trade or speculation or its irretrievable dispersal is fundamentally incompatible with the protection and proper management of underwater cultural heritage” and provides that “[u]nderwater cultural heritage shall not be traded, sold, bought or bartered as commercial goods”. The prohibition of commercial exploitation is undoubtedly aimed against treasure hunters and looting activities of any kind, but should, on the other hand, not be interpreted as to totally exclude any involvement of commercial organisations. Indeed, there might well be profit-oriented organisations that have an interest to participate with their financial potential in coordinated research and protection efforts, and this should clearly not be prevented.³³

²⁸ See, *infra*, para 6.

²⁹ Cf Article 2(3) CPUCH.

³⁰ For more details see T.M. Šošić, ‘The Common Heritage of Mankind and the Protection of the Underwater Cultural Heritage’ in B. Vukas, T.M. Šošić (eds), *International Law: New Actors, New Concepts – Continuing Dilemmas. Liber Amicorum Božidar Bakotić* (Martinus Nijhoff Publishers, 2010) 319-350.

³¹ Cf Article 2(7) CPUCH.

³² According to Article 33 CPUCH the Rules annexed to the Convention “form an integral part of it and, unless expressly provided otherwise, a reference to this Convention includes a reference to the Rules”. On the archaeological and technical standards as contained in the Annex to the CPUCH see eg O’Keefe (n 12) 152, 155 ff.; T.J. Maarleveld, U. Guérin, B. Egger (eds), *Manual for Activities Directed at Underwater Cultural Heritage: Guidelines to the Annex of the UNESCO 2001 Convention* (UNESCO, 2013), <www.unesco.org/culture/en/underwater/pdf/UCH-Manual.pdf> (accessed 2 January 2016).

³³ Dromgoole (n 5) 233 ff.

In line with modern archaeological standards, Article 2(5) CPUCH provides for the application of *in situ* protection, whenever this is feasible and in the best interest of the UCH. The principle of *in situ* protection is reiterated in Rule 1 of the Annex and made effective through other Annex rules concerning e.g. project funding and design, project team competence, conservation management, etc.³⁴

One of the intensely debated issues during the negotiations for the CPUCH was, of course, the relationship of the Convention with the UNCLOS. The major maritime States argued that the UNCLOS was a carefully balanced legal structure, notably as concerns the jurisdiction of States in the various maritime spaces, and that the established jurisdictional equilibrium must not be tampered with. Other States, however, felt that the CPUCH was pointless unless it went beyond the UNCLOS. Article 3 of the CPUCH procured the general solution, affirming that “[n]othing in this Convention shall prejudice the rights, jurisdiction and duties of States under international law, including the United Nations Convention on the Law of the Sea’ and that the CPUCH “shall be interpreted and applied in the context of and in a manner consistent with international law, including the United Nations Convention on the Law of the Sea”. Nevertheless, critics say that, in spite of Article 3, many provisions of the CPUCH have significantly departed from the UNCLOS regime. Certainly, if a restrictive approach to interpretation were chosen, this might be true to some extent, but otherwise a workable protection regime for underwater heritage could simply not have been created. Besides, already the 1995 Straddling and Highly Migratory Fish Stocks Agreement, though considered to be an implementing agreement *vis-à-vis* the UNCLOS and containing a provision similar to Article 3 CPUCH, did not merely implement the pertinent articles of the UNCLOS, but provided for largely innovative solutions, which, restrictively interpreted, could not be deemed as being in full compliance with the UNCLOS.³⁵

4. Marine spaces under the sovereignty of coastal states

The protection of the UCH found in marine spaces under the sovereignty of a coastal State, i.e. in its internal waters, archipelagic waters and territorial sea, remains, expectedly, under the sole jurisdiction of the respective State. Pursuant to Article 7(1) CPUCH coastal States “have the exclusive right to regulate and authorize activities directed at underwater cultural heritage in their internal waters, archipelagic waters and territorial sea”. However, this does not mean that it is left to the discretion of the coastal State whether or not to take appropriate protective measures, as might be concluded from the wording of the provision. The opposite holds true, since according to the general principle in Article 2(4) CPUCH States parties “*shall ... take all appropriate measures ... that are necessary to protect underwater cultural heritage*”,³⁶ which clearly indicates an obligation.³⁷ The coastal State’s sovereignty is also limited in so far as it must ensure the application of the archaeological standards contained in the Rules of the

³⁴ Ibid, 317 ff.

³⁵ G. Carducci, ‘New Developments in the Law of the Sea: The UNESCO Convention on the Protection of Underwater Cultural Heritage’, (2002) 96 American Journal of International Law 419, 421 ff; Dromgoole (n 16) 75; Scovazzi (n 5) 15 ff. For more details concerning the compatibility of the CPUCH with the UNCLOS see eg Rau (n 17) 421 ff; Garabello, (n 5) 415 ff; Pallas (n 8) 393 ff; Dromgoole (n 5) 277 ff.

³⁶ Emphasis added.

³⁷ Rau (n 17) 408 ff; Pallas (n 8) 430 ff.

Annex, as regards protective measures taken in its internal waters, archipelagic waters and territorial sea.³⁸

Since the national cultural heritage legislations of the Adriatic and Ionian States which we had occasion to consult, do not specifically extend their scope of application to maritime zones beyond State sovereignty, they will, at least in principle, be applied only within coastal States' territories, i.e. up to the outer limits of the territorial seas.³⁹ As concerns the archaeological and technical standards of the Annex to the CPUCH, which, as mentioned, concern such issues as assurance of proper archaeological expertise through approval of project design and funding, conservation and site management, reporting on project implementation, etc., they are, as far as could be established, to a large extent reflected in the general cultural heritage laws.⁴⁰

5. Contiguous zone

A cursory reading of Article 8 CPUCH would suggest that the jurisdiction of the coastal State in respect of cultural objects in its contiguous zone is identical with the regime in the maritime zones under its sovereignty. Indeed, according to Article 8 States "may regulate and authorize activities directed at underwater cultural heritage within their contiguous zone", which undoubtedly means that States have legislative competence regarding UCH.

However, in the opening passage of Article 8 it is said that the coastal States will exercise this right "in accordance with Article 303, paragraph 2, of the United Nations Convention on the Law of the Sea". The rather famous – or should we say infamous? – and, to all intents and purposes, deliberately ambiguous provision contained in Article 303(2) UNCLOS⁴¹ establishes a legal fiction and has been interpreted both restrictively and extensively, and naturally with disparate outcomes.⁴² Surely, the wording of Article 303(2) UNCLOS is vague and obscure,⁴³ but it undoubtedly gives more powers to States regarding the protection of archaeological and historical objects in the contiguous zone than the mere control necessary to prevent and punish violations of "customs, fiscal, immigration or sanitary laws and regulations".⁴⁴ As we have argued elsewhere,⁴⁵ already on the basis of Article 303(2) UNCLOS States had the possibility of exercising certain regulatory competences in respect of UCH on the seabed up to the 24-mile limit,

³⁸ Cf Article 7(2) CPUCH.

³⁹ Exceptions, albeit of a limited scope, can be found in the Italian and Greek laws.

⁴⁰ In respect of the Croatian legislation, cf J. Mesić, 'Protezione del patrimonio culturale subacqueo in Croazia' in F Maniscalco (ed), *Tutela, conservazione e valorizzazione del patrimonio culturale subacqueo* (Massa Editore, 2004); Šošić, 'Konvencija UNESCO-a' (n 20) 126. In respect of the Greek legislation cf Strati (n 2) 123.

⁴¹ See, *supra*, n 5 and 8. The provision reads as follows: "In order to control traffic in [archaeological and historical] objects, the coastal State may, in applying Article 33, presume that their removal from the seabed in the zone referred to in that article [ie the contiguous zone] without its approval would result in an infringement within its territory or territorial sea of the laws and regulations referred to in that article [ie customs, fiscal, immigration or sanitary laws and regulations]".

⁴² On the different interpretations advanced by commentators see T.M. Šošić, 'The 24-Mile Archaeological Zone: Abandoned or Confirmed?' in R. Wolfrum, M. Seršić, T.M. Šošić (eds), *Contemporary Developments in International Law: Essays in Honour of Budislav Vukas* (Brill, 2016) 311 ff. See also M.J. Aznar, 'The Contiguous Zone as an Archaeological Maritime Zone', (2014) 29 *International Journal of Marine and Coastal Law* 1, 5 ff.

⁴³ As already indicated, the reason for this lies in the fact that Article 303(2) UNCLOS is a compromise solution reached at the Third UN Conference on the Law of the Sea between States advocating the extension of coastal State jurisdiction to UCH and States opposing the same. See references, *supra*, n 8.

⁴⁴ Cf Article 33 UNCLOS.

⁴⁵ Šošić (n 42) 318 ff.

and practice has shown that States have understood and used Article 303(2) UNCLOS in that sense.⁴⁶ These regulatory competences are not tied to the other jurisdictional powers accorded to coastal States by Article 33 UNCLOS. In other words, the coastal State may claim an archaeological zone without necessarily making use of the other jurisdictional powers in the contiguous zone. This view on Article 303(2) UNCLOS, which we have summarily presented, has found its confirmation in Article 8 CPOCH, giving the coastal State the right to “regulate and authorize” protective measures in respect of UCH located in the contiguous zone.

Nevertheless, it should be noted that the opening passage of Article 8 CPOCH contains another proviso to the legislative competence, saying that it is given to coastal States “[w]ithout prejudice to and in addition to” Articles 9 and 10 CPOCH, i.e. the provisions concerning the protection of UCH in the EEZ and on the continental shelf. This obviously means that the mechanism of reports and consultations in respect of UCH in the EEZ and on the continental shelf may also be applied to artefacts found in the contiguous zone. Consequently, the coastal State’s legislative competence in respect of UCH in its contiguous zone is, at least to some extent, limited. But the reference to Articles 9 and 10 CPOCH should be understood as an expression of the principle of cooperation rather than as an obligation of the coastal State to coordinate every single measure taken in respect of UCH in the 24-mile zone with other States claiming an interest in the fate of the UCH in question.⁴⁷

As in the case of the maritime zones under the sovereignty of coastal States, Article 8 CPOCH requires the application of the Rules in the Annex regarding UCH in the contiguous zone. This presents again a limitation on the coastal State’s legislative competence, but here the purpose is to safeguard the effective protection of the UCH through the application of current archaeological standards and best practices.

Turning to the national legislations of the Adriatic and Ionian States, it should, first of all, be said that none of them have expressly proclaimed contiguous zones in the sense of Article 33 UNCLOS. In Italy’s 2004 Cultural Heritage and Landscape Code⁴⁸ we will find a provision – Article 94 – that concerns “archaeological and historical objects found on the seabed of the maritime zone extending twelve nautical miles from the outer limits of the territorial sea”.⁴⁹ Thus, the provision concerns the seabed of maritime areas which are co-extensive with the contiguous zone. The UCH found in that zone “shall be protected in the sense of the ‘rules concerning activities directed at underwater cultural heritage’, as annexed to the UNESCO Convention on the Protection of the Underwater Cultural Heritage, adopted in Paris on 2 November 2001”. The conclusion must be that Italy claims to have jurisdiction, at least to a certain degree, regarding the protection of the UCH located on the seabed beyond its territorial sea and within the 24-mile limit. It is interesting that Article 94 does not expressly extend the application of the Code itself to the UCH found on the seabed beyond Italy’s territorial sea but provides for the application of the Rules, i.e. the archaeological and technical

⁴⁶ For a detailed presentation of the State practice see Aznar (n 42). See also Šošić (n 42) 313 ff.

⁴⁷ See also Šošić (n 42) 323.

⁴⁸ Decreto Legislativo 22 gennaio 2004, n. 42, ‘Codice dei beni culturali e del paesaggio, ai sensi dell’articolo 10 Legge 6 luglio 2002, n. 137’, in *Gazzetta Ufficiale della Repubblica Italiana*, n. 45/2004 – Supplemento Ordinario n. 28. The Code was amended on several occasions; the consolidated Italian text, with cross-references to the legislation containing the amendments, is available at <www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2004-01-22;42> (accessed 4 January 2016). An English translation of the initial text adopted in 2004 can be retrieved from the UNESCO Database of National Cultural Heritage Laws (n 19).

⁴⁹ On Article 94 of the Italian Cultural Heritage and Landscape Code see Šošić (n 42) 324 ff. See also G Andreone, ‘La zona ecologica italiana’, (2007) 109 *Il diritto marittimo* 3, 12 ff; Šošić (n 20) 133 ff.

standards of the Annex to the CPUCH. Nevertheless, since the Rules require e.g. the issuance of various authorisations and approvals and the regulation and control of activities directed at UCH, it would certainly fall upon the competent Italian authorities to fulfil these tasks. Another point of interest is that, despite the express reference to the CPUCH in the Cultural Heritage and Landscape Code, Italy was neither a party to the Convention nor was it in force when the Code was adopted in 2004. In Law No. 157 of 23 October 2009, concerning the ratification and implementation of the CPUCH by Italy,⁵⁰ Article 3 expressly refers to Article 94 of the Cultural Heritage and Landscape Code. The provision, although avoiding the usage of the term “archaeological zone”, deals with delimitation issues and thus confirms the distinctiveness of the maritime zone established by the 2004 Code.⁵¹

In Greece’s 2002 Antiquities and Cultural Heritage Law (Law 3028/2002) there is a provision which seems broader in scope than Article 94 of the 2004 Italian Code. In defining the “cultural heritage of Greece” Article 1(2) of the Greek Law encompasses “cultural objects, found within the boundaries of Greek territory, including the territorial waters, and other maritime zones over which Greece exercises relevant jurisdiction in accordance with international law”.⁵² In other words, the Law, in principle, allows for UCH protection by Greek authorities even beyond the territorial sea, at least up to the 24-mile limit. The importance of such a provision is marked by the fact that the Greek territorial sea has a breadth of only 6 nautical miles.⁵³

6. Exclusive economic zone and continental shelf

As pointed out in the introduction, during the negotiations for the CPUCH the maritime powers were opposed to giving coastal States any extra jurisdictional rights in respect of UCH, which would go beyond the regime in the UNCLOS. Thus, a compromise solution was worked out in the CPUCH as concerns the protection regime in the EEZ and on the continental shelf. As a result, Articles 9 and 10 CPUCH, in order to ensure the protection of UCH, institute a very complex reporting and consultation mechanism based on existing State rights and the flag State and nationality principles of jurisdiction.⁵⁴

First of all, the introductory sentence in Article 9(1) stresses that all States parties are responsible for protecting UCH in the EEZ and on the continental shelf. The provision obviously builds on the existing general obligation of States to protect UCH, and without addressing the coastal States in any particular way.

Article 9(1) goes on with providing for a reporting scheme on discoveries of UCH sites and intended activities directed at cultural relics in the EEZ and on the continental shelf. The reporting procedure differs depending on the location of the site in the coastal State’s own EEZ or continental shelf or the EEZ or continental shelf of a foreign State. Naturally, when a national or vessel flying its flag makes a discovery or intends to pursue activities on UCH sites in its own EEZ or continental shelf, the State shall

⁵⁰ Legge 23 ottobre 2009, n. 157, in *Gazzetta Ufficiale della Repubblica Italiana*, n. 262/2009.

⁵¹ M. Mancini, ‘Agreements to Which Italy Is a Party and Agreements and Understandings to Which Italian Regions and Autonomous Provinces Are Parties’, (2009) 19 *Italian Yearbook of International Law* 469, 471.

⁵² Emphasis added.

⁵³ Strati (n 2) 105 ff.

⁵⁴ Rau (n 17) 412; Dromgoole (n 16) 79; Pallas (n 8) 437.

require that national or the master of the vessel to report to that very State, that is their own State.⁵⁵

In respect of UCH in the EEZ or on the continental shelf of a foreign State, States parties to the CPUCH may choose between two reporting procedures. They shall either require their nationals and masters of vessels flying their flags to report discoveries and activities to them and directly to the foreign State,⁵⁶ or the State party shall, alternatively, require that discoveries and activities be reported only to it, but it then must “ensure the rapid and effective transmission of such reports to all other States Parties”.⁵⁷ In other words, in the latter instance the foreign State in whose EEZ or on whose continental shelf the UCH is located will receive the report indirectly. According to Article 9(2) CPUCH States must make a declaration regarding the manner in which these reports will be transmitted, when ratifying, accepting, approving or acceding to the Convention.

In essence, the purpose of Article 9 is to secure the transmission of the reports to all interested States, including the respective coastal State and any other State with “a verifiable link, especially a cultural, historical or archaeological link, to the underwater cultural heritage concerned.”⁵⁸ Besides, the reports shall also be notified to the Director-General of UNESCO who will make them available to all States parties.⁵⁹

Article 10 CPUCH, which provides for a consultation procedure on the best means of protection for the UCH in the EEZ and on the continental shelf, reflects the principle of cooperation underlying the whole Convention.⁶⁰ Apart from the coastal State, in whose EEZ or on whose continental shelf the UCH is located, all States with a verifiable link to the heritage are included in the consultation procedure.⁶¹ The consultations are led by a “Coordinating State”, a duty primarily to fall upon the coastal State whose EEZ or continental shelf is involved.⁶² As a rule, the coordinating State will also be the one to implement the protective measures that have been agreed upon and will issue the necessary authorisations.⁶³

An important feature of Article 10 is the right of the coordinating State to “take all practicable measures, and/or issue any necessary authorizations ... to prevent any immediate danger to the underwater cultural heritage”.⁶⁴ The coordinating State may take such preventive action even prior to the commencement of consultations.⁶⁵

Yet, it must be stressed that, whenever the coastal State acts as coordinating State, it “shall act on behalf of the States Parties as a whole and not in its own interest”.⁶⁶ And just to make sure that the rights given to the coastal State as coordinating State are not

⁵⁵ Cf Article 9(1)(a) CPUCH.

⁵⁶ Cf Article 9(1)(b)(i) CPUCH.

⁵⁷ Cf Article 9(1)(b)(ii) CPUCH.

⁵⁸ Cf Article 9(5) CPUCH. These are also the States that may declare their interest in being consulted on protection measures in respect of the UCH in question; see, *infra*, n 61.

⁵⁹ Cf Article 9(3) and (4) CPUCH.

⁶⁰ See, *supra*, n 28.

⁶¹ Cf Article 10(3)(a) CPUCH. On the meaning and content of the term ‘verifiable link’ from the perspective of archaeological practice see T.J. Maarleveld, ‘The Notion of “Verifiable Links” in the 2001 UNESCO Convention on the Protection of the Cultural Heritage’, (2014) 19 Art, Antiquity and Law 101.

⁶² Under Article 10(3)(b) CPUCH, the coastal State may refuse to act as the coordinating State, in which case the States that have declared an interest based on a verifiable link to the UCH shall appoint another State to act as coordinating State.

⁶³ Cf Article 10(5) CPUCH.

⁶⁴ Cf Article 10(4) CPUCH.

⁶⁵ For more details see O’Keefe (n 12) 92 ff; Rau (n 17) 416 ff; Scovazzi (n 5) 13 ff; Pallas (n 8) 442 ff; Dromgoole (n 5) 291 ff.

⁶⁶ Cf Article 10(6) CPUCH.

interpreted as to amount to an extension of jurisdiction, it was added that any actions taken by the coordinating State cannot be “a basis for the assertion of any preferential or jurisdictional rights not provided for in international law, including the United Nations Convention on the Law of the Sea”.⁶⁷

Nevertheless, it is worth noting that the coastal State has express legislative competence in order to prevent activities directed at UCH which may interfere with its sovereign rights or jurisdiction according to the UNCLOS. Pursuant to Article 10(2) CPUCH the coastal State may “prohibit or authorize” any such activity. Since its sovereign rights are at stake, such a situation undoubtedly does not entail the consultation procedure, and the coastal State clearly acts on its own behalf and not on behalf of all States parties within the meaning of Article 10(6) CPUCH.⁶⁸

As concerns specific provisions on UCH protection in the EEZ and on the continental shelf in the national legislations of the Adriatic and Ionian States, it should be remembered that none of them have declared a fully-fledged EEZ.⁶⁹ On the other hand, of course, the coastal State’s right to the continental shelf is not dependent on declaration.

Of the Adriatic and Ionian States only Italy made the required choice under Article 9(2) CPUCH, opting for the procedure in Article 9(1)(b)(ii), i.e. that its nationals and masters of vessels flying the Italian flag shall send reports only to the Italian authorities.⁷⁰ The choice made by Italy is implemented by Law No. 157 of 23 October 2009 concerning the ratification and implementation of the CPUCH.⁷¹ According to Article 5(3) of the Law, Italian nationals and masters of vessels flying the Italian flag shall report discoveries of UCH or intended activities directed at UCH in a foreign State’s EEZ or continental shelf to the competent Italian consular services abroad. The consulate shall, upon receipt of such a report, inform the competent authorities of the foreign State but also the Italian Ministry of Foreign Affairs,⁷² which in turn will

⁶⁷ Cf Article 10(6) *in fine*.

⁶⁸ For more details on the scope of this provision see Carducci (n 35) 430; O’Keefe (n 12) 89 ff; Rau (n 17) 415 ff; Dromgoole (n 16) 80 ff; Garabello, *La Convenzione UNESCO* (n 5) 250 ff; Pallas (n 8) 443ff; Dromgoole (n 5) 290 ff.

⁶⁹ On maritime zones encompassing only some of the sovereign rights and jurisdictional powers provided in Part V UNCLOS see eg B Vukas, ‘State Practice in the Aftermath of the UN Convention on the Law of the Sea: The Exclusive Economic Zone and the Mediterranean Sea’ in A. Strati, M. Gavouneli, N. Skourtos (eds), *Unresolved Issues and New Challenges to the Law of the Sea: Time Before and After* (Martinus Nijhoff Publishers 2006) 255 ff; A Del Vecchio Capotosti, ‘*In Maiore Stat Minus*: A Note on the EEZ and the Zones of Ecological Protection in the Mediterranean Sea’ (2008) 39 *Ocean Development and International Law* 287; G. Andreone, G. Cataldi, ‘Regards sur les évolutions du droit de la mer en Méditerranée’, (2010) 56 *Annuaire français de droit international* 1; U Leanza, ‘L’institution de zones de protection écologique dans la politique des Etats côtiers de la Méditerranée’ in B. Vukas, T.M. Šošić (eds), *International Law: New Actors, New Concepts – Continuing Dilemmas. Liber Amicorum Božidar Bakotić* (Martinus Nijhoff Publishers, 2010); G. Andreone, ‘The Exclusive Economic Zone’ in DR Rothwell and others (eds), *The Oxford Handbook of the Law of the Sea* (Oxford University Press 2015) 163 ff; I Papanicolopulu, ‘The Mediterranean’ in *ibid* 609 ff; T. Scovazzi, ‘Harlequin and the Mediterranean’ in R. Wolfrum, M. Seršić, T.M. Šošić (eds), *Contemporary Developments in International Law: Essays in Honour of Budislav Vukas* (Brill, 2016).

⁷⁰ It seems that, apart from Italy, only three more States parties – Argentina, Guatemala and Portugal – made the choice of procedure under Article 9(2) in an unequivocal manner; see list of declarations to the CPUCH available at <portal.unesco.org/en/ev.php-URL_ID=13520&URL_DO=DO_TOPIC&URL_SECTION=201.html#RESERVES> (accessed 5 January 2016). All the States that made the choice opted for the procedure in Article 9(1)(b)(ii). Even if few in number the choices made are hardly surprising, and they are probably even more practical than the alternative, since nationals and vessels will more easily communicate with the authorities of their own country; in the case of vessels standard communications procedures with the flag State’s authorities will exist anyway.

⁷¹ Cf Mancini (n 51) 472.

⁷² Cf Article 5(4) Law No. 157 of 23 October 2009.

transmit the report to the Director-General of UNESCO and, as the case may be, make a declaration to the foreign State under Article 9(5) CPUCH.⁷³

It is interesting that Italy in its Law No. 61 of 8 February 2006 “on the Establishment of Ecological Protection Zones”⁷⁴ included the exercise of jurisdiction concerning “the archaeological and historic heritage, in compliance with the provisions of the ... United Nations Convention on the Law of the Sea and the 2001 UNESCO Convention on the protection of the underwater cultural heritage, adopted in Paris on 2 November 2001, since the date of its entry into effect in Italy”.⁷⁵ However, the Law itself did not effectively proclaim an ecological protection zone. It rather empowered the President of the Republic to do so on the basis of a decree and after preparatory work by various authorities.⁷⁶ It should be noted that the Law refers to ecological protection zones in the plural. Thus, ecological protection zones for different segments of Italy’s coastline may be established and at different points of time.⁷⁷ On Italy’s Adriatic and Ionian coasts, so far, no ecological protection zone has been proclaimed. Naturally, the UCH will invariably be located on the seabed. In other words, Articles 9 and 10 CPUCH will still be applicable to Italy’s continental shelf in the Adriatic and Ionian Seas. To that end Article 5(1) of the 2009 CPUCH Ratification and Implementation Law regulates the reporting of UCH discoveries on Italy’s continental shelf or in an ecological protection zone and also prescribes that any activity directed at UCH requires authorisation from the competent Italian authorities.⁷⁸

A similar approach as in the Italian 2006 Ecological Protection Zones Law can be found in the Ecological Protection Zone and Continental Shelf Act which Slovenia adopted in 2005.⁷⁹ Article 6(1) of the Act provided that “[t]he legal order of the Republic of Slovenia and the EU *acquis* in the areas of the protection and preservation of the marine environment, including the *archaeological heritage*, ... shall apply to the ecological protection zone”.⁸⁰ It is, of course, questionable if Slovenia’s claim to a continental shelf and an ecological protection zone is at all tenable under international law.⁸¹

⁷³ Cf Article 5(7).

⁷⁴ Legge 8 febbraio 2006, n. 61, in *Gazzetta Ufficiale della Repubblica Italiana*, n. 52/2006. Article 2(3) of the Law was amended in 2014, henceforth stipulating that fisheries activities shall be governed by Regulation (EU) 1380/2013 of the European Parliament and of the Council, on the Common Fisheries Policy. Thus, it would seem that the concept of the Italian ecological protection zone now encompasses fisheries issues as well. An English translation of the Law’s initial text was published in *Law of the Sea Bulletin* No. 61/2006, 98; however, the translation is imprecise in that it uses the singular instead of the plural when referring to the establishment of ecological protection zones. On the Italian ecological protection zones, in addition to the references at n 69, see T. Scovazzi, ‘La zone de protection écologique italienne dans le contexte confus de zones côtières méditerranéennes’, (2005) 10 *Annuaire du droit de la mer* 209; G Andreone (n 49).

⁷⁵ Cf Article 2(1).

⁷⁶ Cf Article 1(1).

⁷⁷ To date the only Italian ecological protection zone is the one established for the Northwest Mediterranean, the Ligurian Sea and the Tyrrhenian Sea; Decreto del Presidente della Repubblica 27 ottobre 2011, n. 209, in *Gazzetta Ufficiale della Repubblica Italiana*, n. 293/2011.

⁷⁸ See also Mancini (n 51) 471 ff.

⁷⁹ UL No 93/2005. An English translation was published in *Law of the Sea Bulletin* No. 60/2006, 56.

⁸⁰ Emphasis added.

⁸¹ On the unfoundedness of Slovenia’s claims see D. Vidas, ‘The UN Convention on the Law of the Sea, the European Union and the Rule of Law: What Is Going on in the Adriatic Sea?’, (2009) 24 *International Journal of Marine and Coastal Law* 1, 35 ff; cf also G. Cataldi, ‘Prospects for the Judicial Settlement of the Dispute Between Croatia and Slovenia over Piran Bay’ in N. Boschiero, T. Scovazzi, C. Pitea, C. Ragni (eds), *International Courts and the Development of International Law: Essays in Honour of Tullio Treves* (TMC Asser Press, 2013) 260 ff. Croatia formally protested against the excessive claims of Slovenia as endorsed by the adoption of the 2005 Act; *Note verbale of 31 May 2007*, in *Law of the Sea Bulletin* No. 64/2007, 40.

In the case of Croatia, such a provision was not included in its 2003 “Decision on the Extension of the Jurisdiction of the Republic of Croatia in the Adriatic Sea”⁸² which established an “ecological and fisheries protection zone”.⁸³ But we will find it in the Act on the Coast Guard of the Republic of Croatia adopted in 2007.⁸⁴ According to Article 36(1) of the Act, the Croatian Coast Guard shall, in accordance with international law and the laws of the Republic of Croatia, perform the supervision and protection of, *inter alia*, the cultural heritage in the Croatian ecological and fisheries protection zone. However, there are, it seems, still no specific provisions in the pertinent Croatian legislation on the reporting and consultation mechanism provided in the CPUCH for UCH in the EEZ and on the continental shelf.⁸⁵

7. The status of sunken warships and other state vessels and aircraft

The legal status of sunken State vessels and aircraft⁸⁶ was another particularly contentious issue during the negotiations for the CPUCH. Many States, and foremost the important maritime powers, maintained that warships and other State vessels and aircraft retain sovereign immunity according to international law,⁸⁷ even after and regardless of the time of their sinking to the bottom of the seas.⁸⁸ Consequently, these States advocated, if not the total exclusion of State vessels and aircraft from the protection regime, then at least a special regime. Accordingly, it must be seen as a significant achievement of the CPUCH that sunken State vessels and aircraft have been included into the Convention’s protection regime, albeit with some restrictions.⁸⁹

Article 2(8) CPUCH comprises the general rule that “[c]onsistent with State practice and international law, including the United Nations Convention on the Law of the Sea, nothing in this Convention shall be interpreted as modifying the rules of international

⁸² NN No 157/2003; subsequent amendments in NN Nos 77/2004, 138/2006, 31/2008. An English translation of the initial text was published in *Law of the Sea Bulletin* No. 53/2004, 68; and the first amendment to the Decision in *Law of the Sea Bulletin* No. 55/2004, 31.

⁸³ On the reasons for Croatia’s decision to proclaim an ecological and fisheries protection zone instead of a full EEZ see Vidas (n 81) 9 ff.

⁸⁴ NN No 109/2007.

⁸⁵ See also Šošić (n 20) 128 ff.

⁸⁶ In Article 1(8) CPUCH the expression “State vessels and aircraft” is defined as meaning “warships, and other vessels or aircraft that were owned or operated by a State and used, at the time of sinking, only for government non-commercial purposes, that are identified as such and that meet the definition of underwater cultural heritage”.

⁸⁷ Article 32 UNCLOS states that, with some minor limitations within the territorial sea of a foreign State, “nothing in this Convention affects the immunities of warships and other government ships operated for non-commercial purposes”. Articles 95 and 96 UNCLOS concern the immunities of warships and ships used only on government non-commercial service respectively. Both provisions stipulate that these ships on the high seas “have complete immunity from the jurisdiction of any State other than the flag State”. Forrest has rightly pointed out that the question of sovereign immunity must be distinguished from ownership of sunken warships and other State vessels and aircraft; C. Forrest, ‘An International Perspective on Sunken State Vessels as Underwater Cultural Heritage’, (2003) 34 *Ocean Development and International Law* 41, 42 ff. See also Strati (n 8) 221 ff; Pallas (n 8) 348.

⁸⁸ On the still controversial issue of sovereign immunity extending to wrecks of warships and military aircraft and their legal status in general see eg M.J. Aznar-Gómez, ‘Legal Status of Sunken Warships “Revisited”’, (2003) 9 *Spanish Yearbook of International Law* 61; Forrest (n 87); Garaballo (n 5) 311 ff; Pallas (n 8) 345 ff; M.J. Aznar-Gómez, ‘Treasure Hunters, Sunken State Vessels and the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage’, (2010) 25 *International Journal of Marine and Coastal Law* 209; VĐ Degan, ‘The Legal Situation of the Wreck of the Ironclad ‘Re d’Italia’ Sunk in the 1866 Battle of Vis (Lissa)’, (2012) 51 *Poredbeno pomorsko pravo [Comparative Maritime Law]* 1; Dromgoole (n 5) 136 ff; V. Vadi, ‘Underwater Cultural Heritage and the Market: The Uncertain Destiny of Historic Sunken Warships under International Law’ in V. Vadi and HEGS Schneider (eds), *Art, Cultural Heritage and the Market* (Springer-Verlag 2014).

⁸⁹ Cf Forrest (n 87) 51.

law and State practice pertaining to sovereign immunities, nor any State's rights with respect to its State vessels and aircraft". Obviously, this provision aims at taking into account the concerns of the maritime powers with respect to the wrecks of warships. Furthermore, the provision in fact leaves the unclear legal situation regarding the sovereign immunity of sunken State vessels and aircraft aside, retaining a *status quo* in this respect.⁹⁰

However, the specific provisions concerning the wrecks of warships in the various maritime zones seem to contradict the general rule provided in Article 2(8) CPUCH. Thus, regarding the maritime zones under the sovereignty of a coastal State, Article 7(3) CPUCH stipulates that "[w]ithin their archipelagic waters and territorial sea" coastal States, "with a view to cooperating on the best methods of protecting State vessels and aircraft, *should* inform the flag State Party ... with respect to the discovery of such identifiable State vessels and aircraft".⁹¹ The usage of the word "should" instead of "shall" suggests that this is a recommendation rather than a strict obligation. In addition, the provision does not extend to the coastal State's internal waters. However, in light of the principle of cooperation, laid down in Article 2(2) CPUCH, and its fundamental importance for the protection regime of the CPUCH, it is to be expected that the coastal State will normally inform and consult the flag State.⁹²

In the EEZ and on the continental shelf, as a rule, "no activity directed at State vessels and aircraft shall be conducted without the agreement of the flag State and the collaboration of the Coordinating State".⁹³ However, the opening passage of Article 10(7) CPUCH says that this is "subject to the provisions of paragraphs 2 and 4 of this Article". In other words, when the sovereign rights of the coastal State in its EEZ or on its continental shelf are at stake or an imminent danger for the wreck site exists, there is no obligation to seek the agreement of the sunken warship's flag State for carrying out appropriate protective measures.⁹⁴

In the CPUCH there is no special provision concerning submerged State vessels and aircraft in the contiguous zone. This is because, as discussed earlier, Article 8 CPUCH is applied "[w]ithout prejudice to and in addition to Articles 9 and 10". In other words, Article 10(7) CPUCH extends as well to wrecked State vessels and aircraft found in the contiguous zone.

To be sure, the provisions of Articles 7(3) and 10(7) must have been the main reason why the CPUCH's regime for sunken State vessels and aircraft was eventually unacceptable to the maritime powers.⁹⁵

In recent years the legal status of sunken warships in general had been studied within the *Institut de Droit International* (IDI). As a result of this work, the IDI adopted the Resolution on the "Legal Regime of Wrecks of Warships and Other State-owned Ships

⁹⁰ O'Keefe (n 12) 52; Aznar-Gómez (n 88) 88; Dromgoole (n 16) 73; Forrest (n 87) 50; Pallas (n 8) 457ff; Dromgoole (n 5) 159.

⁹¹ Emphasis added.

⁹² Cf Carducci (n 35) 428; Forrest (n 87) 51; Garabello (n 5) 349.

⁹³ Article 10(7) CPUCH.

⁹⁴ On the other hand, as regards warship wreck sites in the Area, Article 12(7) CPUCH simply provides that "[n]o State Party shall undertake or authorize activities directed at State vessels and aircraft in the Area without the consent of the flag State."

⁹⁵ Cf Garabello (n 9) 135 ff, 150 ff. The CPUCH's regime for sunken State vessels and aircraft was expressly rebuked by France, the Russian Federation, the United Kingdom and the United States; see 'Statements on Vote during Commission IV on Culture' (n 10) 246, 249, 251, 252. Even though Spain had advocated the same legal position as the mentioned States during the negotiations at UNESCO, the CPUCH was in the end deemed to be in line with Spain's views on the legal status of sunken warships. Consequently, Spain voted in favour of the CPUCH and ratification ensued in 2005; Aznar-Gómez (n 88) 211.

in International Law” (IDI Resolution) at the Tallinn Session in 2015.⁹⁶ The aim was to contribute to the clarification of “the uncertainties that continue to surround the question of wrecks of warships” in international law.⁹⁷ According to Article 3 of the Resolution “sunken State ships⁹⁸ are immune from the jurisdiction of any State other than the flag State”, although the provision is “[w]ithout prejudice to other provisions of this Resolution”. It would, thus, seem that the Resolution confirms the legal position of the maritime powers regarding the sovereign immunity of warship wrecks. However, this is somewhat contradicted by other provisions of the Resolution. First of all and which is important for the topic of our discussion, the Resolution does take into account that wrecked warships may have an archaeological and historical significance, providing, in line with the CPUCH, that the wreck of a warship “is part of cultural heritage when it has been submerged for at least 100 years”.⁹⁹ States must ensure the protection of such shipwrecks,¹⁰⁰ where appropriate through preservation *in situ*.¹⁰¹ On the other hand the articles concerning the various maritime zones do not distinguish between recently sunken ships which clearly are not UCH and those having the status of UCH. In the maritime spaces under the full sovereignty of the coastal State, the balance seems to go in the coastal State’s favour, since it “has the exclusive right to regulate activities on wrecks”, albeit “without prejudice to Article 3 of this Resolution”.¹⁰² The same may be said in respect of the contiguous zone, but here the regulatory competence of the coastal State is limited with reference to Article 303 UNCLOS.¹⁰³ Yet, in the EEZ and on the continental shelf the jurisdiction of the flag State seems to prevail, with the coastal State having a limited right to being informed on activities directed at the wreck of the warship by the flag State. The flag State’s activities should, however, be carried out “with due regard to the sovereign rights and jurisdiction of the coastal State”. Still, when there is interference with the coastal State’s sovereign rights, it “has the right to remove a wreck” but only “if the flag State does not take any action after having been requested to co-operate with the coastal State for the removal of the wreck”.¹⁰⁴ Finally and in view of our topic, it is commendable that the Resolution stresses the duty of

⁹⁶ The text of the Resolution is available at <www.justitiaetpace.org/idiE/resolutionsE/2015_Tallinn_09_en.pdf> (accessed 9 January 2016). The rapporteur for the topic was Natalino Ronzitti.

⁹⁷ Preamble, 8th recital, IDI Resolution.

⁹⁸ In Article 1, the term “sunken warship” is defined as “a warship, naval auxiliary or other ship owned by a State and used at the time of sinking solely for governmental non-commercial purposes. It includes all or part of any cargo or other object connected with such a ship regardless of whether such cargo or object is owned by the State or privately. This definition does not include stranded ships, ships in the process of sinking, or oil platforms” (para 2) and the term “wreck” as “a sunken State ship which is no longer operational, or any part thereof, including any sunken object that is or has been on board such ship” (para 1). The wrecks of military and other State aircraft are not dealt with in the Resolution, nor are space objects, although the rules for such craft and objects should be analogous; see IDI, ‘9th Commission: The Legal Regime of Wrecks of Warships and Other State-owned Ships in International Law’ (N Ronzitti rapporteur), (2011) 74 *Annuaire de l’Institut de droit international* 131, 135.

⁹⁹ Article 2(1) IDI Resolution

¹⁰⁰ Article 2(2) IDI Resolution.

¹⁰¹ Article 2(3) IDI Resolution.

¹⁰² Article 7 IDI Resolution.

¹⁰³ Article 8 IDI Resolution: “In accordance with Article 303 of the United Nations Convention on the Law of the Sea, the coastal State may regulate the removal of sunken State ships from its contiguous zone”.

¹⁰⁴ Article 9 IDI Resolution: “Any activity of the flag State on a sunken ship in the exclusive economic zone or on the continental shelf of a foreign State should be carried out with due regard to the sovereign rights and jurisdiction of the coastal State. In accordance with applicable treaties, the flag State should notify the coastal State of any activity on the wreck which it intends to carry out. The coastal State has the right to remove a wreck interfering with the exercise of its sovereign rights if the flag State does not take any action after having been requested to co-operate with the coastal State for the removal of the wreck”.

cooperation among States, *inter alia*, as concerns the protection and preservation of “wrecks which are part of cultural heritage”¹⁰⁵

8. Conclusion: a bid for regional cooperation

By way of conclusion, we would like to highlight another important tool for enhancing efforts regarding the protection and preservation of UCH on the regional and sub-regional level. According to Article 6(1) CPUCH “States Parties are encouraged to enter into bilateral, regional or other multilateral agreements ... for the preservation of underwater cultural heritage”. Moreover, the CPUCH gives States an incentive to use such agreements in order to “adopt rules and regulations which would ensure better protection of underwater cultural heritage than those adopted in this Convention”.¹⁰⁶

Given the rich culture heritage from all periods of human history lying on the bottom of the Mediterranean Sea, it seems quite logical that an initiative for the conclusion of a Mediterranean regional convention on UCH protection appeared even before the adoption of the CPUCH.¹⁰⁷ The “Siracusa Declaration on the Submarine Cultural Heritage of the Mediterranean Sea” (Siracusa Declaration),¹⁰⁸ which was adopted by the participants of an international scientific conference on the protection of UCH in the Mediterranean in 2001, contained and appeal to the Mediterranean countries to “study the possibility of adopting a regional convention that enhances cooperation in the investigation and protection of the Mediterranean submarine cultural heritage and sets forth the relevant rights and obligations”.¹⁰⁹ Two years later Italy presented the preliminary draft of a possible regional convention to government experts from other Mediterranean States who were gathered, again on Sicily, at another conference on regional cooperation for UCH protection.¹¹⁰ Unfortunately, no further action on the matter seems to have ensued.

Even if a convention on the protection of the Mediterranean UCH were realised at some point, but also independent of and in addition to a possible regional regime, the Adriatic and Ionian States should consider the conclusion of agreements on the sub-regional and bilateral level with a view to improving the protection and preservation of the UCH in the Adriatic and Ionian Seas. This follows not only from Article 6 CPUCH but was as well recommended in the Siracusa Declaration which urged the Mediterranean countries “to promote the conclusion of bilateral or multilateral agreements ... relating to specific components of the Mediterranean submarine cultural heritage, such as wrecks and single objects”.¹¹¹ What is more, the recent IDI Resolution renews this entreaty as concerns the particular case of sunken warships and other State

¹⁰⁵ Cf Article 15(1). It is, nevertheless, striking that the wording ‘should co-operate’ has been used, since, at least as far as UCH is concerned, a clear cooperation duty was provided already in Article 303(1) UNCLOS.

¹⁰⁶ Cf Article 6(1) *in fine* CPUCH. Article 6 is again an expression of the cooperation principle on which the whole CPUCH protection regime is founded; see text to n 28.

¹⁰⁷ Garabello (n 5) 60, 118 ff; T. Scovazzi, ‘Un futuro accordo sulla protezione del patrimonio culturale sottomarino del Mediterraneo’ in T. Scovazzi (ed), *La protezione del patrimonio culturale sottomarino nel Mare Mediterraneo* (Giuffrè, 2004) 164; T. Scovazzi, ‘L’approche régionale à la protection du patrimoine culturel sous-marin: Le cas de la Méditerranée’, (2009) 55 *Annuaire français de droit international* 577, 585 ff.

¹⁰⁸ English text published in Scovazzi (ed), *La protezione del patrimonio culturale sottomarino nel Mare Mediterraneo* (n 110) 353.

¹⁰⁹ Siracusa Declaration, para 10 *in fine*.

¹¹⁰ Scovazzi, ‘Un futuro accordo’ (n 110) 164 ff; Scovazzi, ‘L’approche régionale’ (n 110) 586.

¹¹¹ Siracusa Declaration, para 11.

vessels, calling on States bordering an enclosed or semi-enclosed sea to cooperate in the performance of their duties, *inter alia*, in respect of UCH protection.¹¹²

Of course, the conclusion of such agreements will only be purposeful if they provide an added value to existing treaties, notably the CPUCH.¹¹³ Since most of the Adriatic and Ionian States are bound by the CPUCH, a regional or bilateral agreements would also serve as a means of the CPUCH's implementation in practice. Certainly, manifold issues could and should be dealt with in such agreements. For one, the reconnaissance, research and protection of UCH sites is invariably a very costly undertaking. Thus, an institutionalised regional or sub-regional framework might help making financial resources more reliable. Such a regional framework could also provide for structured exchange of expertise and information-sharing,¹¹⁴ including the training of underwater archaeologists and other experts for UCH protection.¹¹⁵ Another matter requiring cooperation among States might be the elaboration of a comprehensive database on known UCH sites, especially in respect of sites located beyond the territorial seas. As concerns specific UCH sites, their protection could be improved by the establishment, where necessary, of transboundary submarine archaeological parks.¹¹⁶

¹¹² Article 15(2) IDI Resolution,

¹¹³ Cf Scovazzi, 'Un futuro accordo' (n 110) 164; Scovazzi, 'L'approche régionale' (n 110) 584.

¹¹⁴ Cf Article 19 CPUCH.

¹¹⁵ Cf Article 21 CPUCH.

¹¹⁶ Cf Siracusa Declaration, para 12, 13.

PART 3

THE GOVERNANCE OF BIOLOGICAL RESOURCES

MARIA CIOTTI

FISHING IN THE ADRIATIC: FROM TECHNICAL INNOVATION TO RESOURCE PRESERVATION. A HISTORICAL OVERVIEW

SUMMARY: 1. Fishing in the Historiography of the Mediterranean. – 2. Fishing in the Adriatic. – 3. The Introduction of Fishing *alla Gaetana*. – 4. Technological Innovation vs. Resource Preservation. – 5. Papal Edict of 1773. – 6. Some Closing Considerations.

1. Fishing in the Historiography of the Mediterranean

For a long time, Italian historians paid only passing attention to fishing – notwithstanding the recent renewed interest in maritime history – because, due to the numbers of people it employed and the revenues it generated, it was considered of only secondary importance compared with the larger fields of inquiry such as the history of agriculture or industry.

Michell highlights as much in one of the first economic historiographic essays on European fishing in the modern era:

“Gli storici si sono interessati delle industrie ittiche in grado di dare origine a più ampie attività commerciali basate su investimenti relativamente cospicui, a scapito di quelle che si presentavano semplicemente come una fonte di sussistenza per le popolazioni in via d’incremento dell’Europa del XV e del XVI secolo”.¹

Fishing in the Mediterranean, moreover (with the exception of specific types of fishing, such as tuna and coral),² remained for a long time an activity that was limited to sustenance and subsistence. In fact, it did not experience nearly the same level of qualitative and quantitative growth in the Mediterranean as it did in North-eastern European countries, which dramatically changed the contours of Nordic fishing in the modern era.³

The gradually increasing importance of piscatorial gathering activity in the Baltic countries and northern Europe – a progress accelerated by the population boom of the eighteenth century – earned fishing a place of primary importance in Northern European historiography. It is sufficient to review the indexes of certain industry periodicals to gain an understanding of its substance and nature.⁴

The predominant theme is clearly that of historical-economic analysis, centred on quantitative growth and industrialization: a theme through which the various stages of

¹ A.R. Michell, ‘La pesca in Europa agli inizi dell’età moderna’ in *Storia economica Cambridge*, vol V, *Economia e società in Europa nell’età moderna* (Einaudi, 1978) 193. Translation of the text: “Historians are interested in those piscatorial industries that were able to give rise to broader commercial activities based on relatively conspicuous investments, as opposed to those which presented themselves simply as source of sustenance for the growing population of the XV and XVI centuries”.

² E. Grendi, ‘Una comunità alla pesca del corallo: impresa capitalistica e impresa sociale’ in *Studi in memoria di Luigi Dal Pane* (Clueb, 1982) 445-460; M.L. Ferru, M. Marini, *Il corallo. Storia della pesca e della lavorazione in Sardegna e nel Mediterraneo* (Edizioni Tema, 1989); E. Grendi, *Il Cervo e la Repubblica. Il modello ligure di antico regime* (Einaudi, 1993); G. Doneddu, *La pesca nelle acque del Tirreno (secoli XVII-XVIII)* (Edes, 2002).

³ M. Mollat Du Jourdin, *L’Europa e il mare* (Laterza, 2004) 91, 151-152; F. Braudel, *Civiltà materiale, economia e capitalismo. Le strutture del quotidiano (secoli XV-XVIII)* (Einaudi, 1993) 188-195.

⁴ Specifically, “International Journal of Maritime History” and “Research in Maritime History”.

the modern age – the introduction of steam power, the transportation revolution, development of new product preservation technology – run through to the present day. All of these are precipitating factors in the great transformation of Nordic fishing which takes over the organization of the work and enterprise structure.⁵

Clearly, nothing similar to the Nordic model is discernible in the various areas of the Mediterranean. As a result, nothing comparable to Anglo-Saxon historiography can be found in Mediterranean historiography.⁶

In Mediterranean countries, small enterprises persisted along with artisanal methods of capture, which is significant, but does not necessarily belie an underdeveloped or marginalized fishing industry, if not proportionally with a more general growth of secondary and tertiary sectors of the economy compared to the first.

Clearly, an important key to understanding the history of modern fishing in the Mediterranean is that of resources, which in recent years have undergone extensive study and research.⁷ This line of research, started by North American environmental historiography,⁸ highlights the ways in which the characteristics of marine ecosystems are central to understanding certain structural characteristics of fishing and its long-term dynamic; and, conversely, to what extent human activity has impacted these marine ecosystems.⁹

⁵ S. Ryan, 'The Industrial Revolution and the Newfoundland Seal Fishery', (1992) 2 *International Journal of Maritime History* 1; D. Vickers, 'Comparing Fisheries', (1995) 1 *International Journal of Maritime History* 198; R. Van Ginkel, 'The Abundant Sea and her Fates: Texelian Oystermen and the Marine Commons, 1700 to 1932', (1996) 38 *Comparative Studies in Society and History* 218; J. Coul, 'The Trawling Controversy in Scotland in the Late Nineteenth and Early Twentieth Century', (1994) 2 *International Journal of Maritime History* 107; N. Cooper and D. Whitmarsh, 'Production and Prices in the Herring Industry of England and Wales, 1900 to 1944', (1994) 2 *International Journal of Maritime History* 175; C.W. Sanger and A.B. Dickinson, 'Renewal of Newfoundland and Labrador Shore station Whaling 1918-1936', (1995) 1 *International Journal of Maritime History* 83; R. Robinson, 'The Diffusion of Steam in the Fishing Industries of Northwest Europe', (1998) 2 *International Journal of Maritime History* 179.

⁶ In Italy, however, there has been a positive change in recent years in the historiographic picture of fishing in the Mediterranean. See, specifically, A. Di Vittorio (ed), *Tendenze e orientamenti nella storiografia marittima contemporanea* (Pironti, 1986); S. Anselmi, 'La pesca in Italia. Note e indicazioni per un profilo storico' in S. Anselmi, *Adriatico. Studi di storia, secoli XIV-XIX* (Clua, 1991), 421-453; T. Fanfani (ed), *La Penisola italiana e il mare. Costruzioni navali, trasporti e commerci tra XV e XX secolo* (Edizioni Scientifiche Italiane, 1993); P. Frascari (ed), *A vela e a vapore. Economie, culture e istituzioni del mare nell'Italia dell'Ottocento* (Donzelli, 2001); G. Doneddu, M. Gangemi (eds.), *La pesca nel Mediterraneo occidentale (secc. XVI-XVIII)* (Puglia Grafica Sud, 2000); A. Di Vittorio, C. Barciela López (eds), *La storiografia marittima in Italia e in Spagna, in età moderna e contemporanea. Tendenze, orientamenti, linee evolutive* (Cacucci, 2001); S. Cavaciocchi (ed), *Ricchezza del mare, ricchezza dal mare secc. XIII-XVIII* (Le Monnier, 2006); L. Palermo, D. Strangio, M. Vaquero Piñeiro (eds), *La pesca nel Lazio. Storia, economia, problemi attuali* (Editoriale Scientifica, 2007); V. D'Arienzo, B. Di Salvia (eds), *Pesci, barche, pescatori nell'area mediterranea dal medioevo all'età contemporanea* (Franco Angeli, 2010). On the history of fishing in the Mediterranean, see also D. Faget, J. Sacchi, 'Fishing in the Mediterranean, Past and Present: History and Technical Changes' in A. Monaco, P. Prouzet (eds), *Development of Marine Resources* (ISTE Ltd, 2014) 1-55.

⁷ U. Leanza (ed), *La pesca e la conservazione delle risorse biologiche del mare Mediterraneo* (Editoriale Scientifica, 1993); M. Armiero, 'La risorsa contesa: norme, conflitti e tecnologie tra pescatori meridionali (XIX sec.)', (1998) 31 *Meridiana* 179; P. Bevilacqua, G. Corona (eds), *Ambiente e risorse nel Mezzogiorno contemporaneo* (Donzelli, 2000); M.L. De Nicolò, *Microcosmi mediterranei. Le comunità dei pescatori nell'età moderna* (Clueb, 2004); A. Clemente, *Il mestiere dell'incertezza. La pesca nel golfo di Napoli Tra XVIII e XX secolo* (Guida, 2005); M. Ciotti, *La pesca nel medio Adriatico nel Settecento tra innovazione delle tecniche e conservazione delle risorse* (EUM, 2006).

⁸ A. McEvoy, *The Fisherman's Problem. Ecology and Law in the California Fisheries, 1850-1980* (Cambridge University Press, 1986); M.B. Bouge, *Fishing the Great Lakee. Environmental History, 1783-1933* (University of Wisconsin Press, 2000); B.J. McCay, *Oyster Wars and the Public Trust: Property, Law and Ecology in New Jersey History* (University of Arizona Press, 1998).

⁹ See specifically, P. Holm, T.D. Smith, D.J. Strakey (eds), *The Exploited Seas: New Directions for Marine Environmental History* (Liverpool University Press, 2001).

2. Fishing in the Adriatic

Fishing, especially in the Adriatic, was impacted by a multiplicity of economic, political and legal factors that created limits and obstacles to its evolution for many years. Firstly, the very nature of the activity must be taken into consideration, *i.e.*, harvesting a product in many ways more similar to hunting than agriculture,¹⁰ even though it can be analogized to farm production in that, as with all so-called primary productions, it exploits a natural resource: in agriculture the fertility of the soil, and in fishing the reproductivity of the fish.¹¹

Moreover, in fishing, production depended on more complex natural fluctuations than agriculture, fluctuations that did not permit forecasting or calculation of actual yield.¹²

Fishing also required considerable financial resource investment to purchase and fit out a boat's equipment, and, given that it concerned a highly perishable food source, to cover the costs of preservation and commercialization of fishing's products, and thus, in turn, extremely tight linkage within transportation systems and sale points.¹³

Ultimately, for the transformation of this productive sector from marginal activity to maritime industry, it was necessary to implement a development model that integrated each of the product's production, preservation, and commercialization.¹⁴

In the Adriatic, such a development took place, not by chance, in the lagoon area around Venice, where Venetian fisherman worked, as well as some from Chioggia and Comacchio, who after centuries of maritime experience had become true masters in the art of navigation, able to practice lagoon fishing and preservation techniques.¹⁵ The symbiotic relationship between fishing and salterns, or, in any event, the wider availability of salt for product preservation, constituted the basis for the entire lagoon economy, protected and sustained by Venice, which had made it a real object for preservation.¹⁶

¹⁰ Michell (n 1) 157; M. Armiero, 'La risorsa invisibile. Stato, pescatori e comunità nell'Ottocento meridionale: il caso di Taranto' in P. Bevilacqua, G. Corona (eds), *Ambiente e risorse nel Mezzogiorno contemporaneo* (Donzelli, 2000) 225.

¹¹ Armiero (n 10) 225.

¹² Ibid; Michell (n. 1) 160-165.

¹³ For analysis of the kinds of fishing structures in modern Europe, see Michell (n 1) 166-168.

¹⁴ As with economic valuation models for fishing, relevant above all in North European countries in which fishing activity was closely linked to management of another product of great strategic importance like salt. In this regard, see Mollat du Jourdin (n 3) 91 and 151-152; according to the author, the extraordinary development of Nordic fishing, starting in the low Middle Ages, was one catalyst of the solidifying of trade between the Northern Seas and the Mediterranean. For an analysis of the relationship between the fishing economy and the production and trade of salt, see J.F. Bergier, *Una storia del sale* (Marsilio, 1984); J.C. Hocquet, *Il sale e il potere. Dall'anno Mille alla Rivoluzione francese* (ECIG, 1990).

¹⁵ The bibliography relating to the lagunar city is very robust; see *Chioggia e la sua storia* (Canova, 1980); M. Marzari, *Il bragozzo. Storia e tradizioni della tipica barca da pesca dell'Adriatico* (Mursia, 1982); D. Memmo, *Calafati, squeri e barche di Chioggia*, vol I - *La storia* (Nuova Editrice Charis, 1985); for the Comacchio area, see also: L. Palermo, 'La pesca nell'economia dello Stato della Chiesa in età moderna' in G. Doneddu, M. Gangemi (eds), *La pesca nel Mediterraneo occidentale (secc. XVI-XVIII)* (Puglia Grafica Sud, 2000) 131-139.

¹⁶ For analysis of the political valence, in the sense of economic power, which the salt trade represented for the Republic of Venice, see J.C. Hocquet, *Le sel et la fortune de Venice*, vol 2 (Université de Lille III, 1978); J.C. Hocquet, 'Monopole et concurrence à la fin du Moyen Age. Venice et les salines de Cervia (XII-XVI siècle)', (1973) *XV Studi veneziani* 21; A. Tenenti, 'Il sale nella storia di Venezia' (1980) *IV Studi Veneziani* 15. Moreover, on the legislation of the Republic of Venice related to fishing, see the public documents available in the *Annali del MAIC* (Ministry of Agriculture, Industry and Commerce), *La pesca in Italia. Documenti raccolti per la cura del MAIC, ordinati da Adolfo Targioni Tozzetti*, vol I, part II, *Ordini disciplinari intorno alla conservazione della laguna e della pesca* (Tipografia del Reale Istituto Sordo Muti, 1872) 526-625.

This picture remains unchanged until the mid-eighteenth century, when, with the introduction of new fishing and preservation techniques for fresh fish, there was rapid expansion of a production and commercial phase for fishing.

Here we note the development and diffusion of the *gaetana*, a landmark event in piscatorial history, marking the passage from a subsistence economy to a productive sector representing an increasingly significant economic factor.

3. The Introduction of Fishing *alla Gaetana*

This fishing technique, already widely practiced in the Tyrrhenian Sea since the beginning of the eighteenth century,¹⁷ was brought to the Adriatic by fishermen from Puglia around halfway through the eighteenth century.¹⁸

Fishing *alla gaetana*, a fishing method using two boats – *paranze*, *paranzelle*, *bilancelle*, *tartanelle*, as they came to be called depending on the region – dragging a net between them with a long, capacious bag made of thick webbing and fitted with popping corks on top to keep it open, and on the bottom with plumbs grazing the bottom of the sea – represented the most important innovation in piscatorial technique then being used, through to the modern day. This innovation, together with the initial use of pair trawling, which – depending on the regional areas in which it was used was also called *a bufala*, *a paranza* or *a coccia* – had an external matrix in the Italian oceans. It had been copied from Provençal fishermen who had in turn imitated Catalan fishermen who as early as mid-seventeenth century were using *aux boeufs* fishing, a term used to distinguish pair trawling with two boats from that employing only one boat (*pêche a la vache*) or *a tartana*.¹⁹

As Biagio Salvemini has noted, this new technique injected an “element of decisive force” that freed fishing from the marginal position it had previously held and allowed it

¹⁷ As evidenced in the edict of the State of the Church issued in 1701, which prohibited “nelle spiagge romane”, fishing “di conserva o a coppia, congiungendo la rete all’una e all’altra barca o tartana sola”, published in De Nicolò (n 7) 143; the Proclamation of the Medici of 1727 expressly prohibited fishing “che si dice alla Gaetana”, published in G. Cascio Pratilli, L. Zangheri (eds), *La legislazione medicea sull’ambiente*, vol II, *Bandi (1621-1737)* (Olschki, 1994) 906-908; and the ban of 1729 for fishermen from Procida and the districts of Naples and Salerno, published in G. Di Taranto, *Procida nei secoli XVII-XIX. Economia e popolazione* (Droz, 1985) 60.

¹⁸ On fishing with *paranze a coppia*, or *alla gaetana*, in the Gulf of Gaeta and later, in the mid-eighteenth century, along the coast of Puglia, and the mid-Adriatic, see B. Salvemini, ‘Dalla “gaetana” al motopesca. Pescatori pugliesi nella grande trasformazione’ in B. Salvemini, *L’innovazione precaria. Spazi, mercati e società nel Mezzogiorno tra Sette e Ottocento* (Donzelli, 1995) 77-121; G. Cavezzi, ‘La “Paranza” nel Piceno (XVIII-XX sec.)’ in M. Marzari (ed), *Navi di legno. Evoluzione tecnica della cantieristica nel Mediterraneo dal XVI secolo ad oggi* (Ed. Lint, 1998) 315-326; Ciotti (n 7) 71-86.

¹⁹ The term *aux boeufs* actually alludes to the greater power of the plough attached to the two oxen compared with that drawn by a single animal, see H.-L. Duhamel Du Monceau, *Traité général des pêches et histoire des poissons*, vol 1, *Suite de la seconde section*, § 5. *De la pêche au Gangui, dite de Boeuf; des Bouefs; ou aux Bœufs* (Chez Saillant & Nyon et Desaint, 1769) 154-155 (see Fig. 2) and § 6. *De la pêche dite Tartane*, 155-160 (see Fig. 1). On fishing techniques in the Eastern Mediterranean, see also G. Buti, ‘Techniques de pêche et protection des ressources halieutiques méditerranéenne (XVII^e-XIX^e siècle)’ in V. D’Arienzo, B. Di Salvia (eds), *Pesci, barche, pescatori nell’area mediterranea dal medioevo all’età contemporanea* (Franco Angeli, 2010) 105-122. On fishing *a tartana* and with *paranze a coppia* in the Adriatic, see M.L. De Nicolò, ‘Dal bragozzo alla tartana. Una rivoluzione piscatoria a Pesaro in età ducale’, (1992) 2 *Pesaro città e contà* 72; M.L. De Nicolò, ‘Recherches sur l’histoire de la pêche en Méditerranée: Tartanes de Provence, tartanes de Vénétie, trabacs, modèles adriatiques pour la pêche à la traîne et le petit cabotage (XVII^e - XVIII^e siècles)’, (2012) 84 *Cahiers de la Méditerranée* 309; M.L. De Nicolò (ed), *Le tartane* (Museo della Marineria Washington Patrignani di Pesaro, 2013); Ciotti (n 7) 63-86; M. Ciotti, ‘Caratteri della pesca e tecniche piscatorie nei porti della Marca meridionale tra XVI e XVII secolo’ in C. Vernelli (ed) *Le Marche tra medioevo e contemporaneità. Studi in memoria di Renzo Paci* (Quaderni del Consiglio regionale delle Marche, 2016) 197.

to assume the complete independence of a specialized production sector.²⁰ One of the immediate problems accompanying the introduction of the *gaetane* was that of resource preservation. The issue was one that the peninsular states would soon need to resolve and assume the role of resource supervisor “in order to bend the free market initiatives of individuals to the will of regulators for the public benefit and reconcile the search for private enrichment with the satisfaction of general public needs”.²¹

4. Technological Innovation vs. Resource Preservation

The need to regulate piscatorial activity, both close to the shore and on the open sea, is not a necessity of the modern world. Already during the Middle Ages the laws of some coastal towns specifically prohibited certain fishing practices they deemed harmful to juvenile fish and the propagation of certain species.²² But it was only during the eighteenth century that the issue of resource preservation began to take centre stage in the history of fishing: it will be debated up to the present day.²³

As noted previously, the issue of preservation of fishing resources significantly contributed to the re-evaluation of fishing as a subject for research and study. The introduction of the *gaetane* also constituted a watershed moment in this sense.

The unanimous charge levelled at this fishing practice during the eighteenth century and even more so in the nineteenth century, was that it compromised the reproduction of many fish species, devastated the juvenile population and caught fish that had not yet grown to full size.²⁴

Trawling, notwithstanding its use in the past, became, over the course of these two centuries, the prevalent fishing technique not only in the Mediterranean but also on a world scale.²⁵ Its widespread popularity was in response to growing demand linked to urbanization and demographic development in the second half of the eighteenth century.²⁶ It presented itself, to use an often-repeated term, as true technological innovation, compared with traditional fishing practices that had been prevalent up to that point. It follows that subsequent innovations related to the technology of means and methods of preservation, but not of catching, which remained – and remains to this day – fundamentally founded on trawling principles.

Numerous government interventions, conflict, and the strong opposition that the new technique immediately met with, belie fishing’s structural transitional phase from marginal activity used primarily for sustenance to a capitalistic, competitive activity; above all these reveal a broken societal and environmental equilibrium.²⁷

²⁰ Salvemini (n 18) 80.

²¹ P. Bevilacqua, *Venezia e le acque. Una metafora planetaria* (Donzelli, 1998) 61 (original text: “al fine di piegare con spirito regolatore, la libera iniziativa economica dei singoli a finalità di valore collettivo e di contemperare la ricerca del vantaggio privato con la soddisfazione di bisogni generali”). On the problems of resource preservation, see especially Chapter II in *Risorse scarse, beni riproducibili*, 51-83.

²² Ciotti (n 7) 57-58.

²³ C. Fioravanti, *Il diritto comunitario della pesca* (Cedam, 2007).

²⁴ For a complete discussion of the issue, see M. Armiero, ‘L’Italia di Padron ‘Ntoni. Pescatori, legislatori e burocrati tra XIX e XX secolo’ in Frascari (ed), *A vela e a vapore. Economie, culture e istituzioni del mare nell’Italia dell’Ottocento* (Donzelli, 2001) 177-213.

²⁵ E. Migliorini, *La terra e le sue risorse. Geografia della produzione*, vol II, *I prodotti del sottosuolo e del mare* (Pironti, 1966) 103-105.

²⁶ Clemente (n 7) 90.

²⁷ Armiero (n 7) 203, original text: “L’uso delle paranze costituì uno dei più grossi problemi nella storia della pesca: opinioni differenti si confrontarono sull’argomento, dividendosi tra i difensori e i detrattori di tale tipo di tecnica. In

What is substantially at issue in this fishing practice is not merely the technique of trawl fishing with nets, also used by the *tartane*, but also the destructive potential introduced by the *gaetana* fishing method. This latter technique consisted in innovation in the production process that combined the catching power of traditional fishing with the driving force of the traditional *latina* net, used by both types of vessels. This allowed for trawling the net at greater speeds than a single vessel could achieve, because, in order to fish, it had to place itself sideways, drifting against the wind.

Restrictive rules that were promulgated by various States on the peninsula in the course of the eighteenth century were the results of a legislative intent directed at resource preservation and limiting exploitation in order to guarantee fishing's continued longevity.²⁸

Rather than driven by a prescient environmental sensibility, these were the result of a widespread pressure exerted, from time to time, by societal categories with differing agendas: merchants of saltwater fish imported from the North and Dalmatia, owners of vessels heretofore used for fishing, and especially, coastal fisherman, who suffered the most direct harm.²⁹

Faced with this growing conflict, a fight between groups of fishermen competing for access to resources and government interventions via legislation seem to increase and become more frequent.³⁰

5. Papal Edict of 1773

Among the numerous laws adopted by the governing authorities seeking to place limits on this piscatorial practice, the one promulgated by the Pontifical State in 1773 prohibiting “pesca a due, o sia con le paranze, nelle spiagge dell’Adriatico”³¹ from April 1 to September 15 is significant. The charge levelled at the *paranze*, contained in the Edict is the same unanimous, general one: that it destroyed “le Ovaje al tempo della fetura, per la maggior facilità che hanno di radere più ampiamente il fondo il mare”, and caught an “infinita quantità di minuti Pesci, senza farli giungere alla loro naturale grossezza”, thus certainly impeding the propagation and reproduction of many fish species.

The documentation produced in support of revocation of the Edict represents an important source in tracing the outline of the transformation of regulation of the fishing industry.³² In the memoranda presented by the coastal communities to request its revocation, the allegations set forth in the Edict are systematically debunked with “dimostrazioni” aimed at proving its lack of foundation based on current scientific

gioco erano gli interessi contrapposti di classi diverse di pescatori: quelli in piccolo, costieri, contrari alla *gaetana*, e gli altri dediti alla pesca in mare aperto, favorevoli alla nuova tecnica” (translation: “The use of trawling is one of the largest problems in the history of fishing: opinions differ on the issue, dividing between those who were for and those against this technique. At issue were the interests of different classes of fishermen: those in small coastal boats were against the *gaetana*, and the others who were open sea fishermen who were in favor of the new technique”).

²⁸ Armiero (n 24) 194-195.

²⁹ Armiero (n 7) 195-199.

³⁰ Ciotti (n 7) 92-97.

³¹ Archivio di Stato, Fermo (ASF), Archivio storico comunale, Fermo (ASCF), *Raccolta di bandi ed editti*, sec. XVIII, *Editto Proibitivo della Pesca a due, o sia colle Paranze nelle Spiagge dell’Adriatico*, 23 luglio 1773.

³² ASF, ASCF, *Osservazioni di Fatto, e di Ragione sulla proibizione delle Paranze a Coppia nell’istesso Mare dell’Adriatico, 1774*, published in M. Ciotti, “Per la pesca ben regolata”. *Le “Osservazioni” sulla proibizione della pesca con le paranze a coppia nel mar Adriatico (1774)* (Crace, 2013) 67-162.

knowledge and calling upon “i più diligenti e sagaci Osservatori delle cose naturali”.³³ Among these, above all, is Jacques Christophe Valmont De Bomare, French naturalist of the eighteenth century, author of the *Dictionnaire raisonné universel d’histoire naturelle*, which was widely distributed in France and many European countries,³⁴ as well as translated, “dalla Francese in lingua Toscana”³⁵.

With respect to bans in force “negli esteri Dominj”, to which the Pontifical Edict applied, we note that these related mainly to fishing undertaken “con reti fitte e minute, lavorate a maglia foltissima e stretta, perché esse ripuliscono affatto il Mare”,³⁶ such as those banned, for example, in Livorno and the Tuscan waters.³⁷ Similarly, fishing was also banned in the waters of Genova that “coi rastri, non già perché si offendono le uova, ma perché si lacera le pasture, le radiche, le piante, i germogli che invitano i pesci a rimanere”³⁸. And the use of such nets “et ordegni”, unknown in the Adriatic, which rendered fishing with the *paranze* “perniciosa” in those waters.³⁹

But the defensive line they adopted was above all aimed at highlighting the objective differences running through the two sides, the Tyrrhenian and Adriatic, insofar as these required differentiated, appropriate rules for the respective characteristics and necessities of the place.⁴⁰ Regardless, if fishing with *paranze* was prohibited in the Tyrrhenian Sea, it was still allowed in countries bordering the Adriatic.⁴¹

Moreover, in the absence of a uniform prevailing legislation for all countries bordering the same sea—a question that remains current to this day—the Papal Edict’s goals would have been frustrated by the activities of fishermen from Venice, Puglia, and Dalmatia, who were free to roam the waters of the Adriatic.⁴²

“Quello dunque, che non faranno le nostre Paranze unite”, the fishermen noted, “di vuotare cioè il mare (se vuotar si potesse), quello faranno i vicini e i stranieri senza divieto”⁴³.

6. Some Closing Considerations

Governance of the sea has been one of the biggest legal issues in the history of international law.⁴⁴ Even as relates solely to fishing, maritime law has struggled to

³³ Ibid, 82.

³⁴ Jacques Christophe Valmont de Bomare (Rouen, 1731 – Paris, 1807), naturalist and professor of natural history at Paris’ Central *Ecole*, was one of the most influential popularisers of the study of natural history in France during the last decades of the eighteenth century. His principle works played a fundamental role in encouraging the popular study of natural history, and was used as a model for other similar works. The first edition of his *Dictionnaire raisonné universel d’histoire naturelle, contenant l’histoire des animaux, des végétaux et des minéraux, et celle des corps célestes, des météores et autres principaux phénomènes de la nature; avec l’histoire et la description des drogues simples tirées des trois règnes et le détail de leurs usages dans la médecine, dans l’économie domestique et champêtre et dans les arts et métiers* in 5 volumes, published in Paris in 1764, followed by many others, confirming its great publication success and wide readership in France and other European countries. The Italian translation, in twelve volumes, was published in Venice between 1766 and 1771; the chapter named *Fish* is in the vol VII, published in 1769.

³⁵ M. Ciotti, *Per la pesca ben regolata*. Le “Osservazioni” sulla proibizione della pesca con le *paranze* a coppia nel mar Adriatico (1774) (Crace, 2013) 84.

³⁶ Ibid, 89.

³⁷ Ibid, 89 and 150-152.

³⁸ Ibid, 89-90.

³⁹ Ibid.

⁴⁰ Ibid, 108-111.

⁴¹ Ibid, 111.

⁴² Ibid, 95.

⁴³ Ibid, 111.

define its exact contours. In fact, fishing posed, and to this day continues to pose, not only the issue of protecting the integrity of national borders, and therefore, in the case of the sea, identification of the same borders, but also protection of a collective asset such as the inheritance of fishery.⁴⁵

Laws and regulations among the peninsula's various pre-unification states as well as countries bordering the Adriatic, constitute an extremely diverse body of legislation, administrations and therefore culture and policy relating to the sea.⁴⁶ Similarly, one can make out many common threads running through piscatorial legislation. In fact, a common problem was that of preservation of fishing stock: all governments therefore sought to regulate techniques, tools and timing of fishing activity in order to ensure adequate reproduction of the resource.⁴⁷

Trawling nets remained specifically central to legislative activity due to the harmful characteristics attributed to them. To protect against this, States promulgated strongly preservationist legislation in the eighteenth and nineteenth centuries that, moreover, met with fierce resistance from those same fishermen; so much resistance that governments were forced to at least partly renounce their absolute bans on trawling nets.⁴⁸

Fishing's long transition, characterised by conflict between tradition and modernity, that marks this activities' passage from subsistence economy to one of the country's important productive components, spurred at the beginning of the eighteenth century by introduction of the *gaetane*, ended in the first decades of 20th century with a further technological innovation, marking the end of navigation with sails and the gradual disappearance of traditional piscatorial culture.⁴⁹

But, once more, the first attempts at modernizing fishing by introducing motorised propulsion was strongly opposed by traditional fishermen, who believed that “come del resto avevano già fatto all'apparire delle paranze a vela, che la pesca meccanica avrebbe prodotto un forte depauperamento del mare”.⁵⁰

From a historical perspective, it is clear that current issues relating to finding innovative solutions to the demands of eco-sustainability for fishing activities – which still to this day use traditional methods with more powerful propulsive means – are actually historical issues rooted in problems that are not easily resolved. Problems that today concern not only the methods and the technology used, but also implicating

⁴⁴ R. Casado Raigón, Giuseppe Cataldi (eds), *L'évolution et l'état actuel du droit international de la mer. Mélanges de droit de la mer offerts à Daniel Vignes* (Bruylant, 2009).

⁴⁵ T. Scovazzi, *La pesca nell'evoluzione del diritto del mare* (Giuffè, 1984); Fioravanti (n 23); regarding the Common Policy on Fishing (CPF), see the recent legislation introduced by the *Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC*, in *Official Journal of the European Union*, L 354, 28 December 2013, 22 ff.

⁴⁶ A. Targioni Tozzetti, *La pesca nei mari d'Italia e la pesca all'estero esercitata da italiani. Introduzione al catalogo della Sezione Italiana all'esposizione internazionale della pesca in Berlino nell'anno 1880* (Stamperia Reale Firenze, 1880). For post-unification Italy, see *Annali del MAIC, La pesca in Italia*, vol I, part I ((Tipografia del Reale Istituto Sordo Muti, 1871); parte II and parte III (Tipografia del Reale Istituto Sordo Muti, 1872); *Raccolta generale della legislazione italiana sulla pesca dal 1865 al 1965* (Giuffrè, 1967).

⁴⁷ For a review of the relationship between the legislative and environmental resource regimes, see Armiero (n 24) 194-209; G. Corona, 'Diritto e Natura: la fine di un Millennio', (1997) 28 *Meridiana* 127.

⁴⁸ Armiero (n 24) 196.

⁴⁹ A. Mori, 'La pesca meccanica in Italia. Parte I', (1940) V *Bollettino della Reale Società Geografica Italiana* 24; A. Mori, 'La pesca meccanica in Italia. Parte II', (1940) V *Bollettino della Reale Società Geografica Italiana* 457; G.B. Lucarelli, *Per la grande industria della pesca marittima*, Pescara 1924; M. Ciotti, 'Filippo Merlini', *Dizionario Biografico degli Italiani*, vol 73 (Treccani, 2009) 699-701.

⁵⁰ Mori, 'La pesca meccanica. Parte I' (n 49) 245-246.

biology, ecology, and, more generally, a new model of governance of the marine environment.

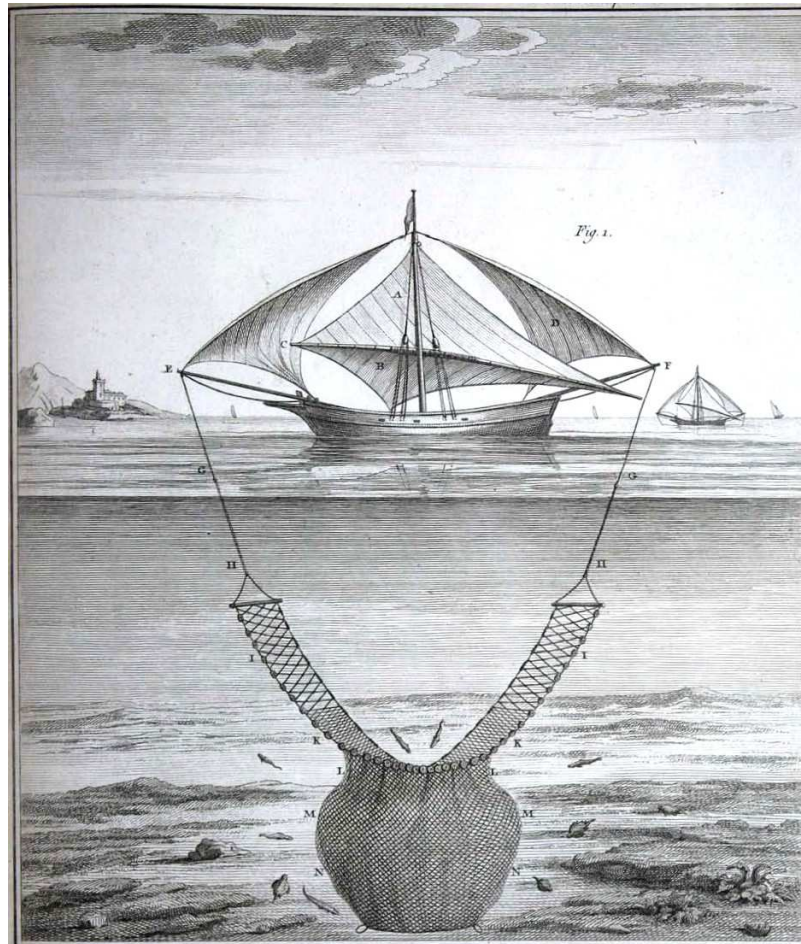


Fig. 1 – H.-L. Duhamel du Monceau, *Traité Général des Pêches, et Histoire des Poissons*, Partie I (1769), Section II, Chap. VI, Planche XLV: “Une Tartane actuellement en pêche”.

Comments on Fig. 1: Fishing a *tartana*, already a widespread practice in the Mediterranean spreads to the Adriatic in the first decades of the eighteenth century via some Provençal fishermen. This fishing technique, which then led to trawling in deep waters, utilised a large net, the *tartana*, pulled by a single boat by means of two diverging poles at stern and bow. It was also known as *pesca alla francese*, or *alla martigana*, from the name of the main production centre of the French *tartane*, Martigues, located on the Gulf of Lion, and, as was nearly always the case, the boat took on the name of the kind of net or fishing technique that it used.

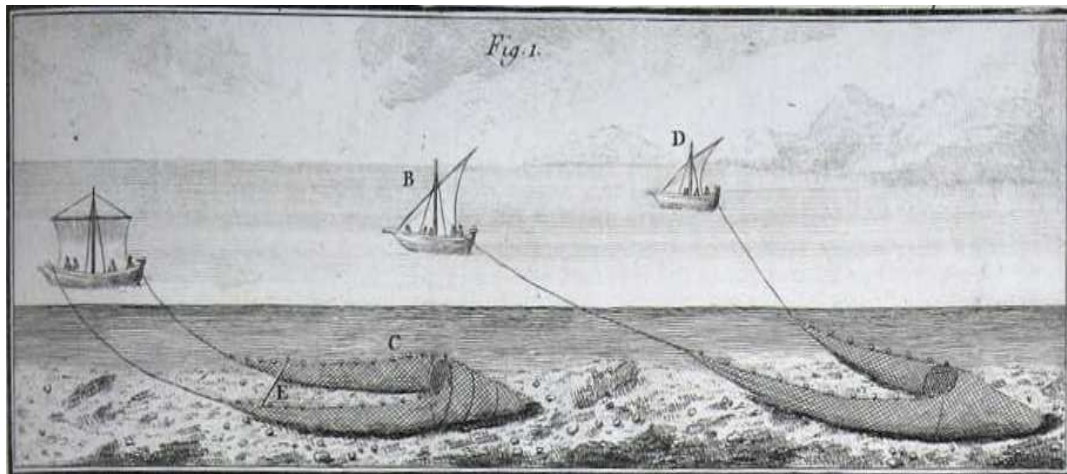


Fig. 2 – H.-L. Duhamel du Monceau, *Traité Général des Pêches, et Histoire des Poissons*, Partie I (1769), Section II, Chap. VI, Planche XLIV : DB “deux bateaux qui trainent de concert un Gangui, affin d'aller plus vite. C'est ce qu'on nomme *les boeufs* ou *le Boeuf*”.

Comments on Fig. 2: The dragging technique originating in the Spanish Levantine coast, the *pêche aux boeufs* spread from the end of the 17th Century over all of the north-occidental coasts of the Mediterranean. Quickly accused of destroying resources, *pêche aux boeufs* was a reply to the increasing demands of urban markets. As they only required modest wind-powered boats, the practice of *pêche aux boeufs* gradually won out over *pêche a la vache* or *a tartana*. In the Adriatic, *pêche aux bæeufs* (or *alla gaetana*, or with *paranze a coppia*, or *a coccia*, as they came to be called along the Western Adriatic coast), was introduced by fishermen from Puglia in the second half of the eighteenth century and, in just a few years, led to the complete abandonment of larger boats like the *tartane* e *tartanoni* (a type of boat that was similar to the *tartana* but larger) which until then had been used for both fishing and commercial purposes.

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THE SUSTAINABILITY OF FISHING IN THE SOUTHERN ADRIATIC AND NORTHERN IONIAN SEAS

SUMMARY: 1. Introduction. – 2. Southern Adriatic Sea. – 2.1. Ecological context, geographical and environmental aspects. – 2.2. Fisheries characteristics and stock assessments. – 3. Northern Ionian Sea. – 3.1. Ecological context, geographical and environmental aspects. – 3.2. Fisheries characteristics and stock assessments.

1. Introduction

The Mediterranean Sea is a sort of ocean in miniature acting as a marine biodiversity hot spot with a high diversity of habitats and species.¹ However, it resulted vulnerable and threatened by different anthropic pressures (increasing use of the coastal areas, eutrophication, discharges, pollution and dumping, marine traffic, alien species, global warming, etc.), with fishing exploitation acting on local and/or global spatial scale as one of the main source of direct and indirect modifications. In fact, most aquatic ecosystems in the Mediterranean Sea are affected by fishery activities that involve a selective removal of part of the marine production for human subsistence, economic returns and development.² In particular, the management of fishery resources in the Mediterranean Sea is target–species-oriented, generally ignoring the need of implementation of the ecosystem approach.³ In addition, the Mediterranean waters are generally classified as oligotrophic and not very productive. Nevertheless, fishing activities have local ancient traditions, particularly along the coasts of the Southern Adriatic and Northern Ionian seas, where very important fishing harbours are distributed.⁴

During the past two centuries, the introduction of many technological innovations led to a progressive increase in the fishing capacity of the Mediterranean fleet and in the catchability by species: both factors further increased the exploitation level in many stocks and the fishing pressure on the marine ecosystems itself. As a consequence, to promote a long-term sustainable fishing and save the high value of ecological services provided by the marine ecosystem, the FAO Conference adopted the Code of Conduct for Responsible Fisheries during 1995.⁵ In this Code, the need for an integrated approach for the marine resources management finds a summary of how to achieve

¹ M. Coll, C. Piroddi, J. Steenbeek, K. Kaschner, F. Ben Rais Lasram, J. Aguzzi, E. Ballesteros, C. Nike Bianchi, J. Corbera, T. Dailianis, R. Danovaro, M. Estrada, C. Frogliani, B.S. Galil, J.M. Gasol, R. Gertwagen, J. Gil, F. Guilhaumon, K. Kesner-Reyes, M.S. Kitsos, A. Koukouras, N. Lampadariou, E. Laxamana, C.M. López-Fé de la Cuadra, H.K. Lotze, D. Martin, D. Mouillot, D. Oro, S. Raicevich, J. Rius-Barile, J.I. Saiz-Salinas, C. San Vicente, S. Somot, J. Templado, X. Turon, D. Vafidis, R. Villanueva, E. Voultsiadou, ‘The biodiversity of the Mediterranean Sea: Estimates, Patterns, and Threats’ (2010) 5 PLoS ONE 5 e11842.

² A. Tursi, P. Maiorano, L. Sion, G. D’Onghia, ‘Fishery resources: between ecology and economy’, (2015) 26 Rendiconti Lincei 73.

³ S. de Juan, J. Lleonar, ‘A conceptual framework for the protection of vulnerable habitats impacted by fishing activities in the Mediterranean high seas’, (2010) 11 Ocean & Coastal Management 717.

⁴ See Map 5, *infra*, at 247.

⁵ FAO, *Code of Conduct for Responsible Fisheries*, 1995, <www.fao.org/docrep/005/v9878e/v9878e00.htm>; FAO, *The State of World Fisheries and Aquaculture*, 2014, <www.fao.org/3/a-i3720e/index.html>.

long-term sustainable use of fishery resources in terms of food, employment, recreation and trade, as well as ecosystem and socio-economic well-being of populations throughout the world, in particular along the Mediterranean Sea. Even though parts of the Code are based on relevant rules of international laws, it is on voluntary acceptance and provides principles and standards applicable to the conservation, management and development of all fishing techniques. It also covers the capture, processing and trade of fish and fishery products, aquaculture and fisheries research. In particular, the international conventions adopted over the last two decades, including the Code of Conduct for Responsible Fisheries, consider the exploitation of living resources on an ecosystem basis; they stress the need for the adoption of an Ecosystem Approach to Fisheries (EAF). In particular, the principles of an EAF are an extension of the conventional principles for sustainable fisheries development to cover the ecosystem as a whole.⁶ This implies sustainable management not only of the commercial stocks, but also of the whole environmental system that supports their production, including the importance of the economic and social dimension.⁷ An EAF foresees the integration of different practices and measures to deal effectively with complex situations with respect to a variety of needs and demands, from the ecological to the socio-economic aspects. An EAF aims to achieve an equilibrium between conservation and sustainable use of biological diversity. In particular, it attempts to satisfy the three components of sustainability, which are the ecological dimension (effectiveness-reproducibility of resources), the economic dimension (efficiency) and the social dimension (equity).⁸ Although the Common Fishery Policy (CFP) started in the 1980s, the Green Book on the future of the CFP was only presented in 2001 on the basis of the Code of Conduct for Responsible Fisheries. This document identifies the limits of the fishery policy that has been adopted by the European Community and the principles on which the reform process of the fishery and aquaculture should be based. In this respect, the Regulation (EC) 2371/2002 strongly promotes the sustainable exploitation of resources from a socio-economic as well as from an ecological point of view.⁹ Even more important, the Regulation (EC) 1967/2006, concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, puts in place the Action Plan for the Mediterranean Sea as part of the Common Fishery Policy.¹⁰ With this Regulation, new rules were established for the protection and conservation of Mediterranean resources, in reference not only to the commercial species but also to the

⁶ S.M. Garcia, A. Zerbi, C. Aliaume, T. Do Chi, G. Lasserre, *The ecosystem approach to fisheries. Issue, terminology, principles, institutional foundations, implementation and outlook*, FAO Fisheries Technical Paper 443, 2003.

⁷ M. Spagnolo, *Elementi di economia e gestione della pesca* (Franco Angeli, 2006) 279.

⁸ S. Cataudella, M. Spagnolo, *The state of Italian marine fisheries and aquaculture* (Ministero delle Politiche Agricole, Alimentari e Forestali, 2011), <www.politicheagricole.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/6412>.

⁹ Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy, in *Official Journal of the European communities*, L 358, 31 December 2002, 59 ff.

¹⁰ Council regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94, in *Official Journal of the European Union*, L 409, 30 December 2006, 11 ff. S. Cataudella, M. Spagnolo, 'The multidimensionality of fisheries: a brief introduction' in S. Cataudella, M. Spagnolo (eds), *The State of Italian marine fisheries and aquaculture* (Ministero delle Politiche Agricole Alimentari e Forestali, 2013) 3-8; S. Cataudella, O. Ferraioli, M. Lariccia, 'L'evoluzione della pesca italiana verso la sostenibilità nel quadro del Codice di condotta per la pesca responsabile (FAO), della Politica Comune della Pesca (PCP) e della Politica marittima integrata' in S. Cataudella, M. Spagnolo (eds), *Lo stato della pesca e dell'acquacoltura nei mari italiani* (Ministero delle Politiche Agricole Alimentari e Forestali, 2011) 11-31.

protected species and sensitive habitats. In fact, previously the protection of marine areas generally occurred for biodiversity conservation purposes and not for fishery objectives.¹¹ Consequently, the adopted Marine Protected Areas (MPAs) in the Mediterranean Sea correspond to areas where sensitive habitats are identified, according to the unique nature or rarity of the habitat type, the importance of the ecological function provided by the habitat to the whole biological community and the extent to which the habitat is sensitive to human-induced effects. However, the adoption of the Code of Conduct for Responsible Fishery and the development of the ecosystem approach implementing the precautionary principle in fisheries, emphasized the importance of the no-take zones (NTZs) as additional tools for fishery management.¹² To this regard, in the Regulation (EC) 1967/2006 are included the recommendations of the General Fisheries Commission of the Mediterranean (GFCM) and the International Commission for the Conservation of Atlantic Tuna (ICCAT) as well as the measures of species protection and habitat conservation, reported in the Habitat Directive (92/43/EEC)¹³ and in the Barcelona Convention. In particular, the new regulations will require the establishment of “No-take” marine reserves and management measures to protect the growth and spawning areas as well as the marine ecosystem from fishing effects. Basically, the NTZs, considered as a tool for reconciling marine ecosystem conservation with fishery management, are worldwide proposed in order to provide refuges for the exploited species, so that they can recover, grow larger, enhance the offspring production and re-stock nearby fishing grounds. Thus, the NTZs, which play a fundamental role in the life cycle of one or more demersal species of economic interest, could insure against uncertainty in predicting fishery dynamics and buffer against broader ecosystem effects of overfishing.¹⁴ Unfortunately, techniques for designing a NTZ are still under development and often their implementation mostly stays on empirical basis. In addition, establishing a NTZ is not easy since the restricting use of one or more areas raises conflicts of interest. In fact, fishermen are often the biggest opponents of NTZs, when they are to be established in fishing areas where fishermen obtain the greatest biomass of commercial species (e.g. those with nurseries). In particular, the definition of large NTZs in the most productive areas (source areas) often meets social resistance and socio-economic pressures, which can lead to the location of a NTZ in unproductive areas that no fishermen or other user groups are willing to protect.¹⁵ In addition, the limit of access to the NTZs will increase overfishing in the unprotected areas throughout the displacement of the fishing effort in alternative productive grounds. In particular, starting from 1998, the Ministry of Agriculture, Food

¹¹ P. Francour, J.G. Harmelin, D. Pollard, S. Sartoretto, ‘A review of marine protected areas in the northwestern Mediterranean region: sitting, usage, zonation and management’, (2001) 11 *Aquatic Conservation: Marine and Freshwater Ecosystems* 155.

¹² T. Lauck, C.W. Clark, M. Mangel, G.R. Munro, ‘Implementing the precautionary principle in fisheries management through marine reserves’, (1998) 8 *Ecological Applications* S72; H.I. Browman, K. Stergiou, ‘Marine Protected Areas as a central element of ecosystem based management: defining their location, size and number’, (2004) 274 *Marine Ecology Progress Series* 269, 271-272; S. M. Garcia, K.L. Cochrane, ‘Ecosystem approach to fisheries: a review of implementation guidelines’, (2005) 62 *ICES Journal of Marine Science* 311.

¹³ *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora*, in *Official Journal of the European Communities*, L 206, 22 July 1992, 7 ff

¹⁴ C.M. Roberts, N.V.C. Polunin, ‘Marine reserves: simple solutions to managing complex fisheries?’, (1993) 22 *Ambio* 363; G.R. Russ, ‘Yet another review of marine reserves as reef fishery management tools’ in P.S. Sale (ed), *Coral Reef Fishes: dynamic and diversity in a complex ecosystem* (Elsevier, 2002) 421-443; B. Halpern, ‘The impacts of marine reserves: does reserve size matter?’, (2003) 13 *Ecological Applications* S117.

¹⁵ L.B. Crowder, S.J. Lyman, W.F. Figueira, J. Priddy, ‘Source-sink population dynamics and the problem of siting marine reserves’, (2000) 66 *Bulletin of Marine Science* 799.

and Forestry Policy (MiPAAF) decreed the institution of “no-take zones” as part of the protection plan of the fishery resources (Zone di Tutela Biologica, ZTB), where fishing is not allowed and/or regulated during critical phases (spawning, recruitment, feeding, etc.) of the demersal stocks there distributed, with the aim of allowing the renewal of the stocks and their sustainable exploitation in neighbouring areas. Such no-take zones should correspond to areas that play a fundamental role in the life cycle of one or more demersal species of economic interest. In other words, they would correspond to areas where species concentrate for different biological reasons and whose protection could enhance the management effect through their proximity to fisheries. Some “no-take zones” were identified along the Italian coasts and particularly in the Southern Adriatic Sea, whilst up to date this management option is not applied in the Northern Ionian Sea.¹⁶

The multi-species nature of Mediterranean fisheries, in terms of both species and fishing gears, requires a specific strategy that is able to combine and integrate the different management measures and preserve flexibility in the fishing activity. In this way, the alternative adoption of a “closed season” in different areas or catch restrictions and gear limitations together with the main regulation of reducing the fishing effort could avoid the overexploitation of marine resources, mainly with the limitation of excessive catches of undersized individuals. To this regard, it is remarkable how the catch composition of the trawl fishery in the Mediterranean Sea is typically constituted by the first (0+, 1+) age classes, making long term projections (as those usually derived by using the classical approaches) sensitive to recruitment fluctuations and to the spatio-temporal variation of the fishing pattern. Thus, to avoid further increases in mortality rates for juveniles and to reduce the amount of discards of dead marine organisms by fishing vessels, it is necessary to increase the selectivity of the currently used gear, that is to increase the mesh sizes for trawl nets and bottom-set nets and hook sizes for longlines.

As stated in the framework document, the main objective of fishing management is to safeguard fish stocks or, in other words, to find a level of exploitation that could provide the maximum sustainable yield (MSY). Within the Italian law relative to the rationalization and development of sea fishing (although this law is no longer in force) (Law No. 41/1982)¹⁷, systematic studies were promoted by the then Ministry of Merchant Navy (now Ministry of Agriculture, Food and Forestry Policy) to monitor the distribution, abundance and exploitation status of the fishery resources along the Italian coasts. Thus, the knowledge on the bio-ecology of many species was acquired reflecting the resource distribution and availability. Some of these studies are still ongoing and they are currently funded by the European Commission. In particular, the EU financed the MEDITS project (International bottom trawl survey in the Mediterranean) since 1994 which regards the demersal resources of the Northern Mediterranean basins and several Member States.¹⁸ Since the year 2000, some EC regulations (e.g., Regulation (EC) 1543/2000¹⁹; Regulation (EC) 1639/2001²⁰) implemented the Data Collection

¹⁶ See Map 6, *infra*, at 248.

¹⁷ *Legge 17 febbraio 1982, n. 41 'Piano per la razionalizzazione e lo sviluppo della pesca marittima', in Gazzetta Ufficiale della Repubblica Italiana, n. 53/1982.*

¹⁸ J.A. Bertrand, L. Gil de Sola ; C. Papaconstantinou, G. Relini, A. Souplet, 'An international bottom trawl survey in the Mediterranean: the MEDITS programme' (2000) 26 Actes de Colloques IFREMER 76.

¹⁹ *Council Regulation (EC) No 1543/2000 of 29 June 2000 establishing a Community framework for the collection and management of the data needed to conduct the common fisheries policy, in Official Journal of the European Communities, L 176, 15 July 2000, 1 ff*

(DCF) program in the Member States, including MEDITS and other projects aimed at the assessment and management of the marine living resources in the European seas. On the other hand, the marine environment is a precious asset which needs to be protected, defended and where possible restored, in order to keep biodiversity and protect the diversity and livelihood of seas and oceans which need to be clean, healthy and productive. To meet these needs, the European Parliament and the EU Council lastly issued the framework directive on the Strategy for the Marine Environment.²¹ This directive sets the goal of Good Environmental Status (GES) for the marine waters to be reached by member States by 2020.

2. Southern Adriatic Sea

2.1. Ecological context, geographical and environmental aspects

The Geographical Sub Area 18 (GSA 18) showed an extension of about 29000 km² (in the depth range between 10 to 800 m along the Italian coasts of Apulia.²² The basin is characterised by the presence of a deep central depression known as the “South Adriatic Pit” (or Bari Canyon), where the maximum depth of 1233 m was recorded, hosting a well-structured cold water coral community that needs management measures in order to preserve its high biodiversity.²³ The continental shelf break is at a depth of around 160-200 m and is furrowed by the heads of canyons running perpendicular to the line of the shelf. These incisions in the seabed provide preferential routes for the transfer of sediments towards the abyssal plain, particularly when they are nearer to the coastline. The Southern Adriatic basin contributes to the entire Mediterranean water mass circulation with its flow of deep-waters, which are formed in the Southern Adriatic Pit by the mixing of highly saline waters from the Levant basin with dense waters from the Northern Adriatic and by local convection from surface cooling.²⁴ The Adriatic Sea, together with the Levant basin, is one of the three areas in the Mediterranean where down-welling processes produced by surface cooling lead to the formation of so-called “dense waters”: these are rich in oxygen and supply the lower levels. The spatial and temporal variability of the currents influences vitally important life-history traits of fish populations, such as the reproductive events, the success of recruitment and the effectiveness of the nursery areas.²⁵ An important change in water

²⁰ Commission Regulation (EC) No. 1639/2001 establishing the minimum and extended Community programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of Council Regulation (EC) No. 1543/2000, in *Official Journal of the European Communities*, L 222, 17 August 2001, 53 ff.

²¹ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (*Marine Strategy Framework Directive*), in *Official Journal of the European Communities*, L 164, 25 June 2008, 19 ff.

²² G. Lembo, M.T. Spedicato, ‘GSA18 Southern Adriatic Sea’ in S. Cataudella, M. Spagnolo (eds), *The state of Italian marine fisheries and aquaculture* (Ministero delle Politiche Agricole, Alimentari e Forestali, 2011) 44-49.

²³ G. D’Onghia, F. Capezzuto, A. Carluccio, R. Carlucci, A. Giove, F. Mastrototaro, M. Panza, L. Sion, A. Tursi, P. Maiorano, ‘Exploring composition and behaviour of fish fauna by *in situ* observations in the Bari Canyon (Southern Adriatic Sea, Central Mediterranean)’, (2015) 36 *Marine Ecology* 541; G. D’Onghia, F. Capezzuto, F. Cardone, R. Carlucci, A. Carluccio, G. Chimienti, G. Corriero, C. Longo, P. Maiorano, F. Mastrototaro, P. Panetta, A. Rosso, R. Sanfilippo, L. Sion, A. Tursi, ‘Macro- and megafauna recorded in the submarine Bari Canyon (southern Adriatic, Mediterranean Sea) using different tools’, (2015) 16 *Mediterranean Marine Science* 180.

²⁴ I. Vilibic, M. Orlic, ‘Adriatic water masses, their rates of formation and transport through the Otranto Strait’, (2002) 49 *Deep Sea Research Part I: Oceanographic Research Papers* 1321.

²⁵ R. Carlucci, G. Lembo, P. Maiorano, F. Capezzuto, C.A. Marano, L. Sion, M.T. Spedicato, N. Ungaro, A. Tursi, G. D’Onghia, ‘Nursery areas of red mullet (*Mullus barbatus*), hake (*Merluccius merluccius*) and deep-water rose shrimp

mass circulation, known as the Eastern Mediterranean Transient (EMT), has affected Mediterranean circulation since the late 1980s, following particular climatic events. The flow of the deep-waters of the Southern Adriatic Sea was replaced by warmer and more saline waters from the Aegean, causing a rise in salinity and temperature, with probable consequences on the productivity of the basin.²⁶

2.2. Fisheries characteristics and stock assessments

The Southern Adriatic Sea makes a substantial contribution to national fishery production, accounting for about 13% of production.²⁷ In particular, the main fishing ports are Manfredonia, Barletta, Bisceglie, Molfetta, Mola di Bari and Monopoli, accounting for about 1100 vessels: 44% are equipped with artisanal fishing, 43% with bottom trawl and 7% with dredges for bivalve fishing.²⁸ The Gulf of Manfredonia is an area with a high concentration of juvenile forms of small pelagic fish (Lembo and Spedicato, 2013). Anchovy and sardine in the adult stage are fished throughout the year by purse seine. The fishing of juvenile of *Sardina pilchardus* in Manfredonia is subject to thorough revision and specific management plans following the enforcement of the Regulation (EC) 1967/2006. Fishing for common octopus, which is abundantly found in the first 50 m of depth, is still quite common along the Bari coastline, and so is that for the sea urchin *Paracentrotus lividus*, which since the mid-1990s has been subject to specific regulations limiting quantities, size and fishing periods. In the fishing communities of Mola di Bari, Monopoli and Savelletri, the large Scombroidei *Xiphias gladius* (swordfish) and *Thunnus alalunga* (albacore) are fished seasonally, from May to November, using long-lines. Fishing for large hake (*Merluccius merluccius*) with bottom long lines is also very common in these fishing communities, particularly in Monopoli. This type of fishing involves less than 5% of the entire South-western Adriatic fleet, but accounts for a significant share of hake production (around 10-12%²⁹). Trawling is the most significant fishing activity in the whole area, with a fishing effort representing around 70% of the total effort.³⁰ The main demersal resources of the Southern Adriatic fisheries are: European hake (*Merluccius merluccius*), cuttlefish (*Sepia officinalis*), Norway lobster (*Nephrops norvegicus*), squids (*Illex coindetii* and *Todaropsis eblanae*), deep-water rose shrimp (*Parapenaeus*

(*Parapenaeus longirostris*) in the Eastern-Central Mediterranean Sea', (2009) 83 *Estuarine, Coastal and Shelf Science* 529; M. Murenu, A. Cau, F. Colloca, P. Sartor; F. Fiorentino, G. Garofalo, C. Piccinetti, C. Manfredi, G. D'Onghia, R. Carlucci, L. Donnalioia, P. Lembo, 'Mapping the potential locations of the European hake (*Merluccius merluccius*) nurseries in the Italian waters' in T. Nishida, A.E. Caton (eds), *GIS/Spatial Analyses in Fishery & Aquatic Sciences*, vol 4 (International Fishery GIS Society, 2010) 51-68; F. Colloca, G. Garofalo, I. Bitetto, M.T. Facchini, F. Grati, A. Martiradonna, G. Mastrantonio, N. Nikolioudakis, F. Ordinas, G. Scarcella, G. Tserpes, M.P. Tugores, V. Valavanis, R. Carlucci, F. Fiorentino, M.C. Follesa, M. Iglesias, L. Knittweis, E. Lefkaditou, G. Lembo, C. Manfredi, E. Massutí, M.L. Pace, N. Papadopoulou, P. Sartor, C.J. Smith, M.T. Spedicato, 'The seascape of demersal fish nursery areas in the North Mediterranean Sea, a first step towards the implementation of spatial planning for trawl fisheries', (2015) 10 PLoS ONE e0119590; J.-N. Druon, F. Fiorentino, M. Murenu, L. Knittweis, F. Colloca, C. Osio, B. Mérigot, G. Garofalo, A. Mannini, A. Jadaud, M. Sbrana, G. Scarcella, G. Tserpes, P. Peristeraki, R. Carlucci, J. Heikkonen, 'Modelling of European hake nurseries in the Mediterranean Sea: an ecological niche approach', (2015) 130 *Progress in Oceanography* 188.

²⁶ CIESM, *The Eastern Mediterranean climatic transient: its origin, evolution and impact on the ecosystem*, CIESM Workshop Series, n. 10, March-April 2000.

²⁷ IREPA Onlus, *Osservatorio economico sulle strutture produttive della pesca marittima in Italia 2010* (Edizioni scientifiche italiane, 2011).

²⁸ IREPA Onlus, *Osservatorio economico sulle strutture produttive della pesca marittima in Italia 2009* (Edizioni scientifiche italiane 2010).

²⁹ IREPA Onlus (n 27).

³⁰ Ibid.

longirostris), horned and musky octopus (*Eledone spp.*) and red mullet (*Mullus barbatus*). Most of the fishery resources in the Southern Adriatic Sea are shared between Italy, Albania and Montenegro.³¹ Their assessment must therefore take data from both shores into account. Similarly, the achievement of more sustainable exploitation levels should assume complementary and shared management policies.³²

A joint assessment to evaluate the status of exploitation for the hake stock was conducted in 2011 by research scientists from Italy, Montenegro and Albania as a representative case for GSA 18.³³ Various models were applied, two of which based on experimental survey data (SURBA model)³⁴ and on commercial fisheries data (VIT model)³⁵ respectively, with a third model (ALADYM Age Length Based Dynamic Model)³⁶ being based on simulation techniques. According to the analyses, the *M. merluccius* stock appears to be overfished, with current F equal to 0.95 higher than $F_{0.1}$ equal to 0.2. This stock is potentially capable of rapid recovery if fishing mortality was to be reduced. In fact, a long-term projection of stock and catches (2010-2030) was made by simulating various scenarios with stochastic variations. In particular, a gradual reduction (14% per year) of F status quo was applied until $F_{0.1}$ was reached in 2020. The results show a clear growth in the spawning stock biomass and a significant increase in catches over the long term. An update of hake stock assessment was made by means of the XSA model and a4a statistical catch at age with data from 2008 to 2011.³⁷ Results confirmed how the stock was in overexploitation with low biomass levels, as current fishing mortality exceeds $F_{0.1}$ levels (0.8 vs. 0.2) and thus it is necessary to consider a significant reduction of the fishing mortality to allow the achievement of the precautionary threshold reference.

Anchovy and sardine were very important in the Adriatic Sea from a commercial point of view, being targeted by pelagic trawlers (Italy) and purse seiners (Italy, Croatia, Slovenia, Montenegro, Albania).³⁸ Most of the Italian boats whose port of registry is located in GSA 18 actually fish and land in GSA 17. Thus the stocks of anchovy and sardine were assessed using the State-space Assessment Model (SAM) with data from 1975 to 2013 concerning GSA 17-18. The current F (0.53) is larger than F_{MSY} (0.23), which indicates that the stock of *S. pilchardus* in GSA 17-18 is exploited unsustainably. As regards anchovy in GSA 17-18, the current F (1.04) is larger than F_{MSY} (0.50), which indicates that this is exploited unsustainably.³⁹ The consequent advice was to reduce the

³¹ N. Vrgoč, E. Arneri, S. Jukić-Peladić, S. Krstulović-Šifner, P. Mannini, B. Marčeta, K. Osmani, C. Piccinetti, N. Ungaro, *Review of current knowledge on shared demersal stocks of the Adriatic Sea. FAO-MiPAAF Scientific Cooperation to Support Responsible Fisheries in the Adriatic Sea, AdriaMed Technical Documents No. 12, 2004.*

³² Lembo, Spedicato (n 22).

³³ European Commission, Joint Research Centre, *Report of the SGMED-09-03 working group on the Mediterranean. Scientific, Technical and Economic Committee for Fisheries (STECF) Part II, 2010.*

³⁴ International Council for the Exploration of the Sea, *Report of the Working Group on Methods of Fish Stock Assessment*, Copenhagen, 29 January-5 February 2003, doc. ICES CM 2003/D:03, Appendix – Survey-based assessments with SURBA 2.0.

³⁵ J. Leonart, J. Salat, *VIT: Software for fishery analysis. User's manual*, FAO Computerised Information Series (Fisheries), no. 11, 1997, <www.fao.org/docrep/w7219e/w7219e00.HTM>.

³⁶ G. Lembo, A. Abella, F. Fiorentino, S. Martino, M.T. Spedicato, 'ALADYM: an age and length-based single species simulator for exploring alternative management strategies', (2009) 22 Aquatic Living Resources 233; M.T. Spedicato, J.C. Poulard, C.Y. Politou, K. Radtke, G. Lembo, P. Petitgas, 'Using the ALADYM simulation model for exploring the effects of management scenarios on fish population metrics', (2010) 23 Aquatic Living Resources 153.

³⁷ General Fisheries Commission for the Mediterranean, *Report of the Working Group on Stock Assessment of Demersal Species (WGSAD)*, Rome, Italy, 24-27 November 2014.

³⁸ M. Cardinale, D. Damalas (eds), *Scientific, Technical and Economic Committee for Fisheries (STECF). Assessment of Mediterranean Sea stocks - part 1 (STECF-14-17)* (Publications Office of the European Union, 2014).

³⁹ Ibid.

relevant fleets effort until fishing mortality was below or at the proposed F_{MSY} level, in order to avoid future loss in stock productivity and landings. This should be achieved by means of a multi-annual management plan taking into account mixed-fisheries considerations.

The Norway lobster is only targeted by trawlers on offshore fishing grounds in GSA 18⁴⁰ Although during 2008 a management plan was adopted, foreseeing the reduction of the fleet capacity associated with a reduction of the time at sea, the landings of *N. norvegicus* in GSA 18 decreased from 2007 to 2013. The stock was assessed by XSA method with data from 2007 to 2013, showing current $F(2013) = 0.85$ higher than $F_{0.1} = 0.14$. Hence, the stock was considered to be exploited unsustainably during the period 2007-2013.

The red mullet in GSA18 is mainly targeted by trawlers and to a much lesser extent by small scale fisheries using gill nets and trammel nets.⁴¹ Taking into account the results obtained by the XSA and ALADYM analysis (current F corresponding to the F in the 2013 was about 0.48; $F_{0.1} = 0.45$), the stock of *M. barbatus* in GSA 18 was considered to be exploited at levels close to sustainability. On the other hand, previous assessments carried out using XSA analysis indicated how the stock was in overexploitation with low biomass levels, being current fishing mortality higher than $F_{0.1}$ (1.62 vs. 0.74).⁴²

3. Northern Ionian Sea

3.1. Ecological context, geographical and environmental aspects

The GSA19 covers a surface of about 16500 km² in the depth range between 10- 800 m along a coast line of about 1000 km along the Apulia, Lucania, Calabria and Sicily regions, where eight maritime compartments are located.⁴³ The Northern Ionian Sea is geo-morphologically divided in two sectors by the Taranto Valley, exceeding 2200 m in depth. The former is located between the Taranto Valley and the Apulia region and is represented by a broad continental shelf.⁴⁴ The latter constitutes the southern continuation of the Apennine thrust sheets. Along Calabria and Sicily, the shelf is generally very limited with the shelf break located at a depth varying between 30 and 100 m. Many submarine canyons are located along these coasts, playing an important role in the transport of terrigenous debris from coastal waters to deeper grounds.⁴⁵ The canyons are sites of vertical displacement for megafauna, some species of which have a commercial interest, such as the deep-water shrimps *Aristeus antennatus* and *Aristaeomorpha foliacea*.⁴⁶ These habitats are unsuitable for trawling and represent a

⁴⁰ M. Cardinale, D. Damalas, C.G. Osio, *Mediterranean Assessments part 2 (STECF-15-06)* (Publications Office of the European Union, 2015).

⁴¹ Ibid.

⁴² General Fisheries Commission for the Mediterranean (n 37).

⁴³ A. Tursi, G. D'Onghia, L. Sion, R. Carlucci, F. Capezuto, P. Maiorano, 'GSA19 North-western Ionian Sea' in S. Cataudella, M. Spagnolo (eds), *The state of Italian marine fisheries and aquaculture* (Ministero delle Politiche Agricole, Alimentari e Forestali, 2011).

⁴⁴ M.R. Senatore, L. Mirabile, T. Pescatore, M. Tramutoli, 'La piattaforma continentale del settore nord-orientale del Golfo di Taranto (piattaforma pugliese)', (1980) 15 *Geologia Applicata e Idrogeologia* 33.

⁴⁵ S. Rossi, G. Gabbianelli, 'Geomorfologia del Golfo di Taranto', (1978) 97 *Bollettino della Società Geologica Italiana* 423.

⁴⁶ D. Matarrese, G. D'Onghia, M. De Florio, M. Panza, G. Costantino, 'Recenti acquisizioni sulla distribuzione batimetrica di *Aristaeomorpha foliacea* ed *Aristeus antennatus* (Crustacea, Decapoda) nel Mar Jonio', (1995) 2 *Biol.*

sheltered site for species during sensitive phases of their life cycle. The canyons can act as “ecological refuge” for many bathyal and endemic species, constituting “hot-spots” of biodiversity in the Mediterranean Sea where conservation measures are needed.⁴⁷

From a hydrographic point of view, the Ionian Sea receives surface Atlantic Water from the Western Mediterranean through the Sicilian Channel.⁴⁸ Levantine Intermediate Water lies under the surface layer and extends down to 800-900 m. The Adriatic Sea is considered the main source of cold and less saline Eastern Mediterranean Deep-water, which extends down to the bottom.⁴⁹ The general cyclonic circulation in the Ionian Sea is markedly influenced by the cold dense deep-water masses of the Adriatic Sea inflowing through the Otranto Channel. Hydrographic observations and current measurements performed in the 1990s revealed strong modifications in the dynamics of the entire water column termed Eastern Mediterranean Transient (EMT) which at the present seems to be concluded.⁵⁰ Although the Ionian Sea shows a general low productivity, the total vertical flux of particulate matter recorded on the slope in the Otranto Channel was found to be similar to that observed in coastal areas of the Western Mediterranean and Northern Adriatic seas. The Amendolara seamount extends southwest towards Cape Spulico, covering an area of about 31 km² with a high diversity of fish, crustaceans and cephalopods sought by local fishermen. In the bathyal ground, the Santa Maria di Leuca (SML) coral province, characterized by living *Madrepora-Lophelia*-bearing coral mounds, extends within an area of about 900 km² between 425 and 1100 m in depth.⁵¹ More than 220 species were identified in this area. The SML coral province represents a Mediterranean deep-water biodiversity “hot-spot”, playing the role of attraction refuge for deep-sea fish fauna and also as nursery and spawning area for demersal species.⁵² In order to protect this site, in January 2006 the GFCM created the new legal category of “Deep-sea fisheries restricted area”.

3.2. Fisheries characteristics and stock assessments

In the Northern Ionian Sea fishing occurs from coastal waters to about 800 m deep waters. Gallipoli, Taranto, Crotona and Reggio Calabria represent the most important fisheries, although they have a different distribution of the fishing effort. In the whole GSA 19 different fishing techniques are used. The national official statistics (Mipaaf-

Mar. Medit. 299; M. Relini, P. Maiorano, G. D’Onghia, L.O. Relini, A. Tursi, M. Panza, ‘A pilot experiment of tagging the deep shrimp *Aristeus antennatus* (Risso, 1816)’, (2000) 64 *Scientia Marina* 357.

⁴⁶ J.M. Gili, J. Bouillon, F. Pages, A. Palanques, P. Puig, S. Heussner, ‘Origin and biogeography of deep-water Mediterranean Hydromedusae including the description of two new species collected in submarine canyons of Northwestern Mediterranean’, (1998) 62 *Scientia Marina* 113.

⁴⁷ Ibid.

⁴⁸ A. Theocharis, D. Georgopoulos, A. Lacsaratos, K. Nittis, ‘Water masses and circulation in the central region of the Eastern Mediterranean: Eastern Ionian, South Aegean and Northwest Levantine, 1986-1987’ in A.R. Robinson, Malanotte-Rizzoli (eds) *Tropical studies in Oceanography II*, (1993) 40 *Deep-Sea Research* 1121.

⁴⁹ M. Canals, R. Danovaro, S. Heussner, V. Lykousis, P. Puig, F. Trincardi, A.M. Calafat, X. Durrieu De Madron, A. Palanques, A. Sánchez-Vidal, ‘Cascades in Mediterranean submarine grand canyons’, (2009) 22 *Oceanography* 26.

⁵⁰ B. Klein, W. Roether, B. Manca, D. Bregant, V. Beitzel, V. Kovacevic, A. Luchetta, (1999), ‘The large deep transient in the Eastern Mediterranean’, (1999) 46 *Deep-Sea Research Part I* 371; B.B. Manca, L. Ursella, P. Scarazzato, ‘New development of Eastern Mediterranean circulation based on hydrological observations and current measurements’, (2002) 23 (Issue Supplement s1) *Marine Ecology* 237.

⁵¹ G. D’Onghia, P. Maiorano, R. Carlucci, F. Capezzuto, A. Carluccio, A. Tursi, L. Sion, ‘Comparing deep-sea fish fauna between coral and non-coral “megahabitat” in the Santa Maria di Leuca cold-water coral province (Mediterranean Sea)’, (2012) 7 *PLoS ONE* e44509.

⁵² G. D’Onghia, P. Maiorano, L. Sion, A. Giove, F. Capezzuto, R. Carlucci, A. Tursi, ‘Effects of deep-water coral banks on the abundance and size structure of the megafauna in the Mediterranean Sea’, (2010) 57 *Deep-Sea Research II*, 397.

IREPA Font) report the highest percentage of big gross tonnage vessels (≥ 10 GRT) in Crotona (42%), followed by Gallipoli (33%), while Taranto and Reggio Calabria fisheries are mainly made up by small vessels.⁵³ Small scale fishing, which utilizes mostly trammel nets, longlines and traps, is widespread along the GSA 19. Trawlers represent about 21% in number, 64% in gross tonnage and 56% in engine power in the whole GSA 19. However, in all Ionian fisheries, fishing boats registered as polyvalent fishing vessels often change type of fishing, according to the season and sea/weather conditions as well as the variable availability of resources and market demand. The most important resources in the basin are the red mullet (*Mullus barbatus*) on the continental shelf, hake (*Merluccius merluccius*), deep-water rose shrimp (*Parapenaeus longirostris*) and Norway lobster (*Nephrops norvegicus*) on a wide bathymetric range; as regards the deep-water, shrimps (*Aristeus antennatus* and *Aristaeomorpha foliacea*) on the slope were the most important. In particular, for those commercial species, different nursery areas were detected with persistency along the GSA 19. Other important commercial species in the GSA 19 are the octopus (*Octopus vulgaris*), the cuttlefish (*Sepia officinalis*) and common pandora (*Pagellus erythrinus*) on the shelf, the horned octopus (*Eledone cirrhosa*), the squids (*Illex coindetii* and *Todaropsis eblanae*), the blue whiting (*Micromesistius poutassau*), the anglers (*Lophius piscatorius* and *Lophius budegassa*) on a wide bathymetric range, the greater forkbeard (*Phycis blennoides*), the rockfish (*Helicolenus dactylopterus*) and the shrimps *Plesionika heterocarpus* and *Plesionika martia* on the slope. In addition, many other species are generally caught and totally discarded due to their lack of economic value such as the chondrichthyes *Galeus melastomus* and *Etmopterus spinax* and the osteichthyes *Hoplostethus mediterraneus*, *Coelorinchus caelorhincus*, *Nezumia sclerorhynchus* and *Hymenocephalus italicus*.

The results concerning the exploitation of the main target species in the GSA19 was provided. In particular, the stock assessment for *M. merluccius* was computed by means of the application of VIT, ALADYM and Surba models on MEDITS and DCF data concerning bottom otter trawl, gill net and longline. Results highlighted an overexploitation of the stock in the GSA 19. The assessment of *M. barbatus* was computed during 2012 by means of VIT4win model on MEDITS and DCF data. Yield per Recruit (Y/R) model for all the fishing gears (bottom otter trawl, gill net, trammel net) indicated a current F value equal to 1.17 higher than the reference point estimated $F_{0.1} = 0.38$.⁵⁴ The assessment of *P. longirostris* in GSA 19 was computed by applying an XSA analysis on data from MEDITS and DCF data concerning the bottom otter trawl. The results of the Y/R model showed a $F_{0.1}$ value equal to 0.67 while current F was equal to 1.60 indicating an overexploitation of the stock in the area.⁵⁵ The Norway lobster stock in the GSA 19 resulted underexploited from bottom otter trawl being the exploitation rate (E) lower than 0.4. The stock of *A. foliacea* was evaluated by means of XSA model on data from MEDITS and DCF concerning the bottom otter trawl. The Y/R analysis estimated a reference point $F_{0.1}$ equal to 0.294. The current fishing

⁵³ P. Maiorano, L. Sion, R. Carlucci, F. Capezzuto, A. Giove, G. Costantino, M. Panza, G. D'Onghia, A. Tursi, 'The demersal faunal assemblage of the North-Western Ionian Sea (Central Mediterranean): present knowledge and perspectives', (2010) 26 Chemistry and Ecology 219.

⁵⁴ General Fisheries Commission for the Mediterranean, *Report of the Working Group on Stock Assessment of Demersal Species (WGSAD)*, Bar, Montenegro, 28 January-1 February 2014.

⁵⁵ Cardinale, Damalas (eds) (n 38).

mortality was equal to 0.657 consequently a condition of overexploitation was recorded for the species in the basin.⁵⁶

⁵⁶ General Fisheries Commission for the Mediterranean (n 37).

**ORGANIZATIONAL AND STRATEGIC PROFILES OF MARINE PROTECTED AREAS:
SOME CASE STUDIES IN THE ADRIATIC AND IONIAN REGION ***

SUMMARY: 1. Introduction. - 2. Research Methodology. – 2.1 Study Area. – 2.2 Sampling Methods. – 3. Results and Discussion. – 4. Conclusion.

1. Introduction

Marine Protected Areas (MPAs) are usually defined in the scientific literature as “*any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment*”.¹ They are a typology of the wider category of Protected Areas (PAs) that are defined as “*a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values*”.²

According with such definitions, MPAs are increasingly regarded as valuable tools aimed at both achieving marine conservation and resource management goals.³ They are also basic instruments for the ecosystem-based management approach adopted to mitigate the multitude of threats affecting coastal and marine ecosystems and the services they provide to humankind.⁴ Marine ecosystems worldwide are, in fact, subjected to both human (e.g. overexploitation of marine resources, pollution, habitat degradation) and climate change impacts⁵ that can compromise natural biodiversity, ecosystem functioning and services relevant to society.⁶

Available evidences from a number of case studies worldwide confirm that MPAs may play an important role in recovering marine communities and ecosystems and in enhancing

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¹ G. Kelleher (ed.), *Guidelines for Marine Protected Areas*, Best Practice Protected Area Guidelines Series No. 3, 1999.

² International Union for Conservation of Nature and Natural Resources, *Guidelines for applying the IUCN Protected Area Management Categories to Marine Protected Areas*, Best Practice Protected Area Guidelines Series No. 19, 2012.

³ *The Science of Marine Reserves* (2nd Ed.: Europe, Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO), 2011), <www.piscoweb.org/files/file/science_of_marine_reserves/SMR_EU-HR.pdf>.

⁴ B. Worm, E.B. Barbier, N. Beaumont, J.E. Duffy, C. Folke, B.S. Halpern, J.B.C. Jackson, H.K. Lotze, F. Micheli, S.R. Palumbi, E. Sala, K.A. Selkoe, J.J. Stachowicz, R. Watson, ‘Impacts of biodiversity loss on ocean ecosystem services’, (2006) 314 *Science* 787.

⁵ B.S. Halpern, K.L. McLeod, A.A. Rosenberg, L.B. Crowder, ‘Managing for cumulative impacts in ecosystem-based management through ocean zoning’, (2008) 51 *Ocean & Coastal Management* 203; C.D. Harley, A. Randall Hughes, K.M. Hultgren, B.G. Miner, C.J. Sorte, C.S. Thornber, L.F. Rodriguez, L. Tomanek, S.L. Williams, ‘The impacts of climate change in coastal marine systems’, (2006) 9. *Ecology letters* 228; J.B. Jackson, M.X. Kirby, W.H. Berger, K.A. Bjorndal, L.W. Botsford, B.J. Bourque, R.H. Bradbury, R. Cooke, J. Erlandson, J.A. Estes, ‘Historical overfishing and the recent collapse of coastal ecosystems’, (2001) 293 *Science* 629.

⁶ Worm et al. (n 5).

fishing stocks and also related revenues to fishermen.⁷ Such successes explain the high increase of the number of MPAs, a number that now exceeds 11,300 on a worldwide scale (Marine Conservation Institute, 2015). Although on average MPAs exhibit positive effects, the magnitude (and occasionally also the direction) of responses to protection can vary dramatically.⁸

The sources of this variability in MPAs' performance are numerous and, in some cases, quite well studied. Key issues that have been documented include the level of enforcement, social compliance, MPA size, age, location and fishing regulations.⁹ A significant portion of the variability of MPA effectiveness, however, still remains unexplained, which suggests the need to explore more in depth other aspects possibly affecting MPA performance. Some areas ripe for exploration are, for instance, the goals that each MPA have set and the organizational activities undertaken to achieve such goals. Exploring these institutional characteristics and their influence on MPA performance requires bringing new perspectives and tools from other disciplines to MPA analyses.

Organization Science (hereafter OS) studies the structures, processes, practices, culture, knowledge and other organizational variables and supplies tools to carry out organizations' performance analysis.¹⁰ Organizations are "*cooperative systems of consciously coordinated activities of two or more persons, with a common purpose*".¹¹ Within the framework of the OS, organizations are evaluated based on their 'organizational dimensions'. These dimensions include variables, such as size, vision, mission, goals and strategies.¹² More

⁷ J. Claudet, C.W. Osenberg, L. Benedetti-Cecchi, P. Domenici, J.A. García-Charton, Á. Pérez-Ruzafa, F. Badalamenti, J. Bayle-Sempere, A. Brito, F. Bulleri, 'Marine reserves: size and age do matter', (2008) 11 Ecology letters 481; P. Guidetti, J. Claudet, 'Comanagement practices enhance fisheries in marine protected areas', (2010) 24 Conservation Biology 312; B.S. Halpern, R.R. Warner, 'Marine reserves have rapid and lasting effects', (2002) 5 Ecology letters 361; S.E. Lester, B.S. Halpern, K. Grorud-Colvert, J. Lubchenco, B.I. Ruttenberg, S.D. Gaines, S. Aíramé, R.R. Warner, 'Biological effects within no-take marine reserves: a global synthesis', (2009) 384 Marine Ecology Progress Series 33; C. White, B.E. Kendall, S. Gaines, D.A. Siegel, C. Costello, 'Marine reserve effects on fishery profit', (2008) 11 Ecology Letters 370.

⁸ Lester et al. (n 7).

⁹ Claudet et al. (n 7); G.J. Edgar, R.D. Stuart-Smith, T.J. Willis, S. Kininmonth, S.C. Baker, S. Banks, N.S. Barrett, M.A. Becerro, A.T.F. Bernard, J. Berkhout, 'Global conservation outcomes depend on marine protected areas with five key features', (2014) 506 Nature 216; P. Guidetti, P. Baiata, E. Ballesteros, A. Di Franco, B. Hereu, E. Macpherson, F. Micheli, A. Pais, P. Panzalis, A.A. Rosenberg, 'Large-Scale Assessment of Mediterranean Marine Protected Areas Effects on Fish Assemblages', (2014) 9 PloS ONE e91841; P. Guidetti, M. Milazzo, S. Bussotti, A. Molinari, M. Murenu, A. Pais, N. Spano, R. Balzano, T. Agardy, F. Boero, 'Italian marine reserve effectiveness: Does enforcement matter?', (2008) 141 Biological Conservation 699; S.E. Lester, B.S. Halpern, 'Biological responses in marine no-take reserves versus partially protected areas', (2008) 367 Marine Ecology Progress Series 49; C. Mora, S. Andréfouët, M.J. Costello, C. Kranenburg, A. Rollo, J. Veron, K.J. Gaston, R.A. Myers, 'ECOLOGICAL: Enhanced: Coral Reefs and the Global', (2006) 312 Science 1750; E. Sala, E. Ballesteros, P. Dendrinos, A. Di Franco, F. Ferretti, D. Foley, S. Frascchetti, A. Friedlander, H. Güçlüsoy, P. Guidetti, B.S. Halpern, B. Hereu, A.A. Karamanlidis, J. Garrabou, Z. Kizilkaya, E. Macpherson, L. Mangialajo, A. Mariani, F. Micheli, A. Pais, K. Riser, A.A. Rosenberg, M. Sales, K.A. Selkoe, R. Starr, F. Tomas, M. Zabala, 'The structure of Mediterranean rocky reef ecosystems across environmental and human gradients, and conservation implications', (2012) 7 PloS one e32742.

¹⁰ D.R. Denison, A.K. Mishra, 'Organizational Culture and Organizational Effectiveness: A Theory and Some Preliminary Empirical Evidence', (1989) Academy of Management Proceedings 168; G.A. Fitzgerald, N.M. Desjardins, 'Organizational values and their relation to organizational performance outcomes', (2004) 12. Atlantic Journal of Communication 121; G. Moorhead, 'Organizational analysis: An integration of the macro and micro approaches', (1981) 18. Journal of Management Studies 191; H. Schmid, 'Relationships between organizational properties and organizational effectiveness in three types of nonprofit human service organizations', (2002) 31 Public Personnel Management 377; I. Wang, C.J. Shieh, F.J. Wang, 'Effect of human capital investment on organizational performance', (2008) 36 Social Behavior and Personality: an international journal 1011.

¹¹ C. Barnard, *Functions of the executive* (Cambridge Mass. Harvard University Press, 1938).

¹² R.L. Daft, *Organization Theory and Design* (10th Ed., South-Western Cengage Learning, 2010).

specifically, the ‘size’ of an organization is described by various variables, the most important being the number of employees and total revenues or assets. ‘Vision’ is the “representation of the future we seek to create”.¹³ ‘Mission’ is the core purpose of the organization or the scope of its being.¹⁴ ‘Goals’ are the results or the end points toward which organizational efforts are directed and represent one of the cornerstones in OS.¹⁵ ‘Strategies’ are the actions implemented in order to achieve organizational goals and mission (e.g. the enforcement of the law issued for the protection of the natural ecosystems).

Protected Areas can be seen as social-ecological systems (SESs),¹⁶ established and often managed by public and/or no-profit organizations. MPAs, therefore, can be considered as “organizational systems” whose effectiveness can be influenced by their own organizational dimensions. Although the analysis of the organizational aspects of MPAs is a new approach still in its infancy,¹⁷ the tools provided by OS may provide important insights to analyze and potentially improve MPA performance.

The aim of the study is 1) to assess the putative variability in organizational and strategic profiles of three Mediterranean MPAs used here as case studies and 2) to suggest possible indications aimed at improving MPA organizational asset and related effectiveness.

2. Research Methodology

2.1 Study Area

The research was carried out in the Adriatic and Ionian regions, where we used an exploratory ‘multiple case studies’ approach¹⁸ focusing on three MPAs (Fig. 1): Porto Cesareo and Torre Guaceto MPAs (Italy), and Zakynthos National Marine Park (Greece).

We selected such case studies mainly because they have an active management authority and to compare among MPAs from two different countries.

Porto Cesareo MPA (hereinafter Porto Cesareo) is located in SE Italy and covers 16.654 hectares. It was established in 1997 and it is managed by a consortium constituted by two municipalities (Porto Cesareo and Nardò) and the province of Lecce.

Torre Guaceto MPA is located in SE Italy and it covers about 2,200 hectares. It was established in 1991 and it is managed by a consortium constituted by the WWF Italy and the municipalities of Brindisi and Carovigno.

¹³ P.M. Senge, *The fifth discipline: The art and practice of the learning organization* (Random House LLC, 2006).

¹⁴ Ibid; J.C. Collins, J.I. Porras, ‘Building your company’s Vision’, (1996) 74 Harvard Business Review 65.

¹⁵ A. Etzioni, *Modern Organizations* (Englewood Cliffs N.J. Prentice-Hall, 1964); E. Mintzberg, *The Nature of Managerial Work* (New York Harper & Row, 1973).

¹⁶ E. Ostrom, ‘A general framework for analyzing sustainability of social-ecological systems’, (2009) 325 Science 419; F. Micheli, F. Niccolini, ‘Achieving success under pressure in the conservation of intensely used coastal areas’, (2013) 18. Ecology and Society 19.

¹⁷ C. Scianna, F. Niccolini, S. Gaines, P. Guidetti, ‘Organization Science’: A new prospective to assess marine protected areas effectiveness’, (2015) 116 Ocean & Coastal Management 443.

¹⁸ Eisenhardt, K. M. & Graebner M. E., ‘Theory building from cases: opportunities and challenges’ (2007) 50 Academy of management journal 25; Yen, R. K., ‘Case study research: Design and methods’ (Sage publications, 2013).

Zakynthos National Marine Park takes its name from the Ionian Greek island where it stands on and it covers 8,331 hectares. The Park was created in 1999 and it is managed by an agency constituted by different national Ministries, regional and local administrations, associations and cooperatives.



Fig. 1 – Map of the Mediterranean Sea with the three case study areas:
a) Porto Cesareo MPA; b) Torre Guaceto MPA; c) Zakynthos National Park.

2.2 Sampling Methods

As a first step of this study, we contacted the three MPAs' management authorities via email in order to present our research and ask for their availability for subsequent interviews and support for data collection.

Once they accepted, we administrated structured face-to-face interviews to managers and key informants in order to collect critical data on the three MPAs, chiefly concerning organizational and management issues. Interviews are common instruments employed in both OS¹⁹ and MPA science²⁰ to collect critical data.

¹⁹ R. Andrews, G.A. Boyne, R.M. Walker, 'Strategy Content and Organizational Performance: An Empirical Analysis', (2006) 66 *Public Administration Review* 52; A.K. Jain, 'Impact of Organizational Size & Alliance Formations on Perceived Organizational Performance', (2012) 47 *Indian Journal of Industrial Relations* 559; H. Schmid, 'Relationships between organizational properties and organizational effectiveness in three types of nonprofit human service organizations', (2002) 31 *Public Personnel Management* 377.

²⁰ A. Balmford, P. Gravestock, N. Hockley, C.J. McClean, C.M. Roberts, 'The worldwide costs of marine protected areas', (2004) 101 *Proceedings of the National Academy of Sciences of the United States of America* 9694; A.H. Himes, 'Performance indicator importance in MPA management using a multi-criteria approach', (2007) 35 *Coastal Management* 601.

Many variables have been identified in order to analyze MPAs organizational structure, mission, goals and strategies. Such variables can be divided in two main classes: quantitative variables (Q) and categorical variables (C).

In order to assess MPAs organizational structure, we focused on the following variables:

- size of the organization in terms of number of employees working all year round (Q);
- type of contract of the current manager (C): a= permanent position, b= temporary position;
- formal employer of the personnel (C): a= the management authority, b= others.

We focused also on some management and strategic variables, such as

- vision formalization (C): presence (1) vs absence (0) of a formal vision;
- mission (C):
 - mission formalization: presence (1) vs absence (0) of a formal mission;
 - mission kind: a= conservation, b= education, c= monitoring, d= recreation, e= research, f= surveillance, g= sustainable development;
- goals (C):
 - goals formalization: presence (1) vs absence (0) of formalized goals;
 - goals quantification: a= absent, b= partial, c= complete;
- strategies, enforcement (C):
 - authority of MPA staff members (in charge of the enforcement) to inflict penalties to the lawbreakers: 0= no, 1= yes,
 - MPA staff carries interpretative activities out: 0= no, 1= yes,
 - presence of police body/coast guard in charge to enforce conservation/management measures: 0= no, 1= yes,
 - presence of coordination between MPA authority and police body/coast guard in order to carry on an effective surveillance out: a= no, b= just money and/or activities carried out together, c= strong collaboration,
- evaluation process, in terms of availability of the data (C):
 - presence of a plan of bio-ecological monitoring: 0= no, 1= yes,
 - availability of the data about the bio-ecological monitoring: 0= no, 1= yes,
 - availability of the data about the hours spent for the surveillance by the MPA staff: 0= no, 1= yes,
 - availability of the data about the hours spent for the surveillance by the police body: 0= no, 1= yes
 - availability of the data about the penalties inflicted to the lawbreakers: 0= no, 1= yes.

3. Results and Discussion

The three MPAs investigated here have different size: Porto Cesareo has 7 employees, Torre Guaceto has 10 employees and, lastly, Zakynthos has 32 employees charged to carry on the activities at the MPAs (notwithstanding the type of contract).

The managers (often called also 'Directors') of Torre Guaceto and Zakynthos have permanent positions. On the contrary, the manager of Porto Cesareo has a temporary position. This is because, by law, all the managers of the Italian MPAs have to be hired

with a temporary contract. The manager of Torre Guaceto is one of the few exceptions in Italy with a permanent position because Torre Guaceto is also a national reserve that is subject to regulations different from those of MPAs.

The status of all the other employees of Italian MPAs is even more complex than the status of the managers. While Zakynthos's employees are hired directly by the management authority, in Torre Guaceto and Porto Cesareo the employees are hired by temp agencies that have temporary contracts with the management authorities to provide services to the two MPAs. According to the Italian law in fact, MPAs' management authorities cannot hire permanent or temporary employees (the only exception is the manager). The three case studies¹⁾ highlight the differences in the legal frameworks concerning MPAs in different countries and 2) reveal the weakness of the MPA as organizations, e.g. in Italy, where MPAs are created for a specific mission but their management authorities are not able to hire employees in order to carry out the activities to pursue the mission itself, as usually happens in other public institutions (e.g. schools, hospitals).

Porto Cesareo and Torre Guaceto have formalized their 'vision', which however according to definitions provided before, can be classified as missions. There is not any formalized vision for the Zakynthos MPA yet.

The 'mission' is clearly expressed for all the three MPAs, stated in the national law or in the decree that established each MPA. The remarkable aspect is that "conservation of the nature" is the mission for all the three MPAs, pointing out that, at least in the Adriatic and Ionian Region, there is a common core purpose for the creation of MPAs.

Porto Cesareo and Torre Guaceto have formalized their 'goals' in their management plan, while Zakynthos did not. Nevertheless, the goals formalized by Porto Cesareo and Torre Guaceto are just in part quantitative. Such important aspect highlights a fundamental weakness of MPAs when OS principles are taken into account. They try, in fact, to pursue a mission without a system of clear and measureable goals. In other words, those MPAs work without any clear and measurable plan about the results that they want to obtain.

A crucial point about the management effectiveness of MPAs is the enforcement, which is the activity most cited by the managers (during the interviews) as the more problematic one to be organized. Moreover, a well-defined enforcement plan is one of the crucial strategies in order to reach MPA goals and mission. Within our sample of MPAs, according to the national law, enforcement and surveillance are assigned to the Coast Guard or other police authorities having competence/power at sea. Consequently the MPA staffs do not have the authority to inflict penalties to the lawbreakers and they just carry on 'interpretative enforcement'. Moreover, only in Zakynthos there is coordination between the MPA authority and the coast guard in order to carry on the surveillance.

Regarding the bio-ecological monitoring, the three MPAs considered have a plan for it. However, the results of such efforts are available to the researchers and the public in terms of public reports and/or scientific publications just for Torre Guaceto MPA. This evidence, unfortunately, stresses the fact that the availability of scientific data, their use and dissemination is not a priority for some MPA managers, while it should be, considering that adaptive and ecosystem-based approaches to management require reliable data to be properly adopted.

The exact data about the hours spent for the surveillance are available just in Zakynthos, at least for those concerning the activities carried out by the MPA staff and by the MPA

staff in collaboration with the Coast Guard. Such coordination between the MPA authority and the Coast Guard in Zakynthos makes also available the data about the penalties inflicted to the lawbreakers. In Porto Cesareo and Torre Guaceto, only the approximated data about the hours spent for the surveillance by the MPA staff are available. The data about the penalties inflicted by the policy body to the lawbreakers are available just for Porto Cesareo. Once again, the inconsistency in the rules and organization among Italian MPAs makes the difference; in fact Porto Cesareo regulation provides that the policy body has to notify the penalties inflicted to the management authority. Such regulation is not in force in Torre Guaceto, where the data about the penalties inflicted by the policy body to the lawbreakers are not available.

4. Conclusion

The present study represents an exploratory attempt, in MPA science context, to apply some typical analytical tools of OS in order to describe the structure and management profiles of MPAs.

In spite of the implicit complexity of this study, aiming substantially at relating OS variables with MPAs effectiveness, a number of interesting indications came out, especially in terms of possible aspects to be deepened in future researches and implications for policy makers.

The analysis revealed that MPAs can differ and can be complex in terms of organizational characteristics. Even locally, each MPA is organized in a different way compared to the others, depending on local needs and customs, legislation and internal dynamics/logics. Such result on the three MPAs, if confirmed when a larger sample of MPAs will be analyzed, could give useful hints in order to improve, in the future, MPAs organization and their effectiveness at regional and European scale. This is particularly important, since MPAs have been identified as a crucial tool by EU (see e.g. Marine Strategy Framework Directive) for the management of European seas. It would be, therefore, a very interesting starting point to shape EU-MPAs, in terms of organization and functioning, in a more consistent way, to then adapt such basic and coherent structure to local needs.

ANTONELLA PENNA

NEW CHALLENGES FOR THE MARINE SCIENCE: THE BIOLOGICAL RESOURCE EXPLOITATION

SUMMARY: 1. European Bioeconomy. – 2. Biotechnology. – 3. Blue Biotechnology. – 4. Marine Bio products: actual and potential markets. – 5. Metagenomic and massive sequencing in the oceans: DNA products. – 6. Marine Cosmetics and Nutraceuticals. – 7. Renewable Energy Production.

1. European Bioeconomy

The European Programme, Horizon 2020, handles the EU research and innovative funds under three topics: Excellent Science, Competitive Industries, and Better Society. Under the topic Better Society, six key points are included: (i) health, demographic change and well being; (ii) food security, sustainable agriculture, marine and maritime research and bioeconomy; (iii) secure, clean and efficient energy; (iv) smart, green and integrated transport; (v) climate action, resource efficiency and raw materials; (vi) inclusive, innovative and secure societies. The European Bioeconomy Strategy acts for developing low-emission economy, more sustainable agriculture and fisheries, providing secure food, and promoting renewable biological resources use for industrial purposes preserving the biodiversity and environment.¹

It is already known that in the next decades competition for limited and restricted natural resources will occur. In fact, a increasing global population will need a harmless and secure food supply. Further the global climate change will have an impact on primary production ecosystems, such as fisheries, aquaculture, agriculture and forestry.

It is emergent and basic to act toward an ideal use of renewable biological resources. It is urgent to move towards sustainable primary production and processing systems that can produce more food and other bio-products with lesser efforts, few environmental impact and CO₂ emissions. All countries have to contribute for satisfactory goods based on raw materials, energy and industrial products under conditions of decreasing fossil carbon resources; it is expected to drastically decrease the production of oil and gas by 60% by 2050. Bio waste represents a high potential resource as feedstock for productive processes (138 millions/year). About 30% of food produced in developed countries is discarded. Therefore, it is necessary to change the direction to a more resource efficient society that relies more on renewable biological resources to satisfy the needs of consumers, industry and mitigate climate change.

The Bio economy wants to provide a sustainable production of renewable resources from sea, land, forestry and conversion into food, feed, drugs, and bio-energy. The Bioeconomy provides 20 million jobs and accounting for 9% of total employment in EU in 2009. The Europe Strategy 2020 suggests continuous investment for research and production. The Bioeconomy sustains the pillars of Safe Food, Bio-based Industries, Aquatic Resources and Biotechnology.

¹ European Commission, *Innovating for Sustainable Growth: A Bioeconomy for Europe* (Publications Office of the European Union, 2012).

2. Biotechnology

The Biotechnology is the driving technology of the bio-economy. It contributes to innovation in all the other Activities under the bio-economy, namely food, agriculture and forestry, and fisheries and aquaculture. Examples of biotechnology applications are in industrial processes as bio-pharmaceuticals, food, and feed production and biochemicals. In Europe, the bio-pharmaceuticals sector includes the 20% of current medicines derived from biotechnology. The potential of biotechnology processes and bio-based products could lead to a reduction of CO₂ emissions to be estimated to range between 1 to 2.5 billion tons CO₂ equivalent/year by 2030. In particular, the *Biotechnology Biotech Areas* include: Novel sources of biomass and bio-products; Marine and fresh-water biotechnology (blue biotechnology); Industrial biotechnology: added-value bio-products and bio-processes; Bio-refinery; Environmental Biotechnology; Emerging trends in biotechnology.

3. Blue Biotechnology

Blue biotechnology treats the exploitation of the sea biodiversity for developing new products, as pharmaceuticals or industrial enzymes with high economic value. In the long term, it is expected that the sector will offer high-skilled employment and significant opportunities. In this area, research priorities are strongly driven by Marine and Maritime policies on economical and environmental sustainability.

The high biodiversity contained in the oceans represents a high potential for innovation first as better understanding of marine and maritime resources and biodiversity, second as efficient exploitation of economic and scientific potential. The Blue Biotechnology is able to transform this high potential into real products and knowledge. Blue biotechnology is one of the key enabling technologies and maritime economic sectors. Further, the Marine Biotechnology contributes to more effectively protect the marine environment across Europe, also specifically about the definition of Good Environmental Status (GES) indicators.²

4. Marine Bio products: actual and potential markets

A long list of marine bioproducts or linked processes can be done about their exploitation for the generation of industrial products. At the top list of exploitation and market there are the pharmaceuticals, then cosmetics, nutritional complements, agrichemicals, enzymes, antifouling and antibiofilm compounds, bioremediation, biofuels, nucleotide sequences.

The potential of biotechnology is concentrated on the drug discovery, development and design. The synthesis of antiviral drugs and anticancer drugs includes: AZT (zidovudine, Terovir®): anti HIV; Acyclovir (Zovirax®): anti herpes; Ara-A (Vidarabine®): antiviral; Ara_C (Cystosar-U®): anti leukemias.

² See Directive 2008/56/EC of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive), in *Official Journal of the European Union*, L 164, 25 June 2008, 19 ff.

The marine pharmaceutical is a recent pipeline: The preclinical pipeline continues to supply several hundred novel marine compounds every year and those continue to feed the clinical pipeline with potentially valuable compounds. From a global perspective the marine pharmaceutical pipeline remains very active, by delivering several new compounds to the marketplace in the near future.³ Furthermore, the advent of genetic techniques that permitted the isolation/expression of biosynthetic pathway from marine microbes may well be the new frontier for natural products lead discovery. It is now apparent that biodiversity may be much greater in marine microbes. The numbers of potential species involved in the microbial world are many orders of magnitude greater than those of plants and animals. The explosion of genetic big data led not only to novel screens, but the genetic techniques permitted the implementation of combinatorial biosynthetic technology and genome mining. The knowledge allowed unknown molecules to be identified. These novel bioactive structures can be optimized by using combinatorial chemistry generating new drug candidates for many diseases.

5. Metagenomic and massive sequencing in the oceans: DNA products

EU financed Projects in the framework FP7 started to produce metagenomic multi-sequences of the marine microbial diversity. In particular, the EU 7FP project Micro B3 (Marine Microbial Biodiversity, Bioinformatics, Biotechnology) develops innovative bioinformatic approaches and a legal framework to make large-scale data on marine viral, bacterial, archaeal and protists genomes and metagenomes accessible for marine ecosystems biology and to define new targets for biotechnological applications. Micro B3 constructed upon a highly interdisciplinary consortium of 32 academic and industrial partners comprising world-leading experts in bioinformatics, computer science, biology, ecology, oceanography, bioprospecting and biotechnology, as well as legal aspects. Micro B3 takes full advantage of current sequencing technologies to efficiently exploit large-scale sequence data in an environmental context. Micro B3 creates integrated knowledge to inform marine ecosystems biology and modeling. Moreover, it facilitates detecting candidate genes to be explored by targeted laboratory experiments for biotechnology and for assigning potential functions to unknown genes. Micro B3 develops clear IP agreements for the protection and sustainable use of pre-competitive microbial genetic resources and their exploitation in high potential commercial applications. The translational character of Micro B3, outreach and training activities for various stakeholders is provided, as well as an Ocean Sampling Day to make project results accessible and gain valuable user feedback.⁴ Within the project the massive sampling for metagenomic activity is carried out. Through a wide network build up by Ocean Sampling Day (OSD) is offered a largest dataset on and function in marine research. The results will mark a baseline for the marine environment accessible for researchers, industry, public and policy makers. The OSD constitutes the Workpackage 2. Meanwhile, another important Workpackage 8 is comprised in the Project MicroB3. The goals are (a) ensure intellectual property protection on downstream commercial applications; (b) while alleviating obstacles to facilitated access to pre-competitive research materials and associated data; (c) adopting appropriate access and benefit

³ A.M.S. Mayer, K.B. Glaser, C. Cuevas, R.S. Jacobs, W. Kem, R.D. Little, 'The odyssey of marine pharmaceuticals : a current pipeline perspective', (2010) 31 Trends Pharmacol Sci 255.

⁴ See the EU 7FP project Micro B3, <<http://www.microb3.eu>>.

sharing rules which can promote R&D activities in resource countries and generate funding for biodiversity conservation through a multilateral approach most appropriate for marine bioprospecting. This last part mentions the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. The sampling of seawater resources is under the Access and Benefit Sharing (ABS) document that resolves the legal permits to undertake research in different maritime zones and to transfer research materials to another country. The sampling activity has different rules if the distance from the coast changes. Permit to the National Authority has to be asked if the sampling is in internal waters – territorial seas – exclusive economic zones; otherwise, if the sampling is in the areas beyond national jurisdiction the permit is not required; if the sampling is in the Antarctic Treaty Area the activity is subject to prior notification.

6. Marine Cosmetics and Nutraceuticals

The greatest applications of Blue Biotechnology products in commercialisation are the cosmetics and food sectors with most products having a large predictable societal, as well as economic value.

The organisms to be exploited can be microscopic (bacteria and microalgae) or macroscopic (seaweeds, jellyfish, corals); the functionality properties are several, as UV-filter, after sun; viscosity control agents; surfactants; preservatives; liposomes, carrier systems for active ingredients. The Cosmetic sector is relevant, since it is a growing sector demanding marine innovations. Personal care products industry overall is reaching EUR 487 billion by 2017 with about 713 patents.⁵

The other main sector the production of nutraceuticals supply of marine origin. The specific applications are antioxidants, anti-inflammatory; fat loss; reducing cholesterol; anti-HIV properties, antibiotic and mitogenic properties anti-tumour; iodine deficiency, anti-influenza; treatment of gastric ulcers. The Marine organisms can be microorganisms (bacteria, microalgae) and organisms (fungi, sponges, corals, invertebrates, seaweeds). The socio-economic impact of the food sector has experienced a great development over the past years. The production is based mainly on products from seaweeds. Most of the SME are in north Europe strongly interested in the marine production for food supply even if the largest seaweed production countries are the Philippines and China. The EU is responsible for 21% of world hydrocolloids and for 38% the world production of alginates.

7. Renewable Energy Production

The Bio refinery research involves the application of biotechnology for the production of bioproducts and biofuels. The Biorefinery can significantly contribute to a green economy supporting the EU's Climate Action. To reduce the dependency on fossil fuels imports and meet the target of renewable energy sources in transport it is highly demand to encourage the production and use of biofuels. The Renewable Energy

⁵ *Study in Support of Impact Assessment work on Blue Biotechnology*, Revised Final Report FWC MARE/2012/06 – SC C1/2013/03, 24 July 2014, available at: <ec.europa.eu/maritimeaffairs/documentation/studies/documents/study-blue-biotechnology_en.pdf>.

Directive in 2008, required Members States to meet 10% of transport energy from renewable sources by 2020. By 2012, it was estimated that biofuels consumed in the EU accounted for around 4.5 % of road transport fuels.

The European Renewable Energy Action Plans encourages the sustainable cultivation and use of biomass, bioenergy and biofuels.⁶ The European Biofuels Technology Platform (EBTP) contribute to the development of cost-competitive biofuels and the creation of a healthy biofuels industry, and to accelerate the sustainable deployment of biofuels in the European Union, through a process of guidance, prioritisation and promotion of research, technology and development.

The microalgae and aquatic biomass has the potential to provide a new range of "third generation" biofuels. The microalgae produce high oils and biomass yields of high quality and versatile products, widespread available, not competitive with agricultural land hectare. Further, the algal biomass efficiently capture CO₂ and can be used for wastewater treatments and other industrial plants; algae and aquatic biomass are promising renewable sources for a sustainable and low-carbon economy.⁷

Increasing attention is about the rules and policy on the exploitation of algal green and aquatic biomass. The European Policy and Standards for sustainable biomass and biofuels production consists in developing a series of key actions as: (i) the Policy and Sustainability; (ii) the Deployment of advanced biofuels societal benefits of biofuels, (iii) the Biofuels markets; (iv) the Financing and Investment; (v) the Regulatory Framework; (vi) the Policy and legislation, Standards and Certification.

⁶ See the official website of the EBTP, <biofuelstp.eu>.

⁷ See *Algae, cyanobacteria and aquatic plants for production of biofuels*, <biofuelstp.eu/algae-aquatic-biomass.html>.

PART 4

THE OFFSHORE OIL AND GAS EXPLORATION AND EXPLOITATION

ANDREA PRONTERA

THE OLD AND THE NEW POLICIES AND POLITICS OF OFFSHORE HYDROCARBON DEVELOPMENT IN THE ADRIATIC AND IONIAN SEAS

SUMMARY: 1. Introduction. – 2. Origins and development of offshore policies and politics in the Adriatic and Ionian seas. – 2.1. State intervention, national champions and the construction of the bilateral regime (1960-1990). – 2.2. Between integration and fragmentation (1990-2008). – 2.3. The relaunch of offshore policies (2009-2014). – 3. Maritime boundaries, environmental protection and the emerging offshore politics in the Adriatic and Ionian seas. – 3.1. Between cooperation and confrontation. – 3.2. The national and transnational environmental dimensions of offshore politics . – 4. Conclusions.

1. Introduction

In recent years, security of supply has become a prominent issue on the EU energy policy agenda. The attention for this new ‘old’ issue has been driven by several factors. They include the gas crisis between Russia and the Ukraine, the growing tension between Russia and the EU after the outbreak of war in Eastern Ukraine in 2014 and the Russian annexation of Crimea, and the continuing instability of North Africa and the Middle East. The majority of oil and gas production in Europe takes place offshore, and there are currently over one thousand operations in European waters. The recent economic crisis has negatively affected EU energy consumption, but given the EU’s growing energy demand in the medium and long run, offshore energy resources will continue to be important for helping reduce EU energy dependence and diversify its oil and gas supplies. Most of the current EU offshore petroleum production is located in the North Sea and takes place in the territorial sea and continental shelves of traditional EU energy producers, such as the United Kingdom, Denmark and the Netherlands. However, particularly after the 2007-08 global financial crisis and the economic downturn in Southern Europe, many countries of the Adriatic and Ionian Region, such as Italy, Greece, Croatia, and Montenegro, have formulated new plans for the exploration and exploitation of offshore petroleum resources as a strategy to not only reduce energy dependence, but also to boost economic recovery by attracting foreign investments and by exploiting oil and gas rent. The relaunch of the offshore hydrocarbon sector in the region is also driven by an intra-regional competitive dynamic; that is, once a country starts to elaborate a new plan to exploit its resources, other countries which share a common marine border tend to be pushed to accelerate or review their plan in order to preserve their own resources. Generally speaking, these plans are coherent with the new EU Energy Security Strategy, which has emphasized the importance of increasing EU energy production from fossils fuels in the next few years¹. Nevertheless, the relaunch of offshore plans in the region have triggered specific patterns of interstate and transnational political dynamics, which on one hand reflect some traditional features of offshore politics and on the other hand signal the emergence of a new layer of politics in offshore development.

¹ Final Communication from the Commission to the European Parliament and the Council, *European Energy Security Strategy*, 28 May 2014, COM(2014) 330 final.

The Adriatic and Ionian Sea basins are the second area in the EU where offshore hydrocarbon installations have been developed, mainly thanks to the operations taking place in the Italian continental shelf (minor offshore activities are also taking place in Croatia and Greece)². According to the data on proven hydrocarbon reserves (both onshore and offshore), the potential of the Adriatic and Ionian region in a wider European perspective is not impressive: proven oil reserves represent about 6.5% of the entire European continent (EU member states plus Norway), and proven gas reserves account for about 2.1% of the total (Table 1).

Table 1 – Adriatic-Ionian region (AI) proved oil (in billion barrels) and gas (in trillion cubic feet) reserves by countries.

Country	Oil (BB)	Gas (TCF)
Italy	0.52	2.20
Croatia	0.07	0.88
Greece	0.01	0.04
Albania	0.17	0.03
Montenegro	0	0
Slovenia	0	0
Tot. Adriatic-Ionian Region (AI)	0.77	3.15
Tot. EU (+Norway)	12	146
% AI/EU(+Norway)	6.4%	2.1%

Source: U. S. Energy Information Administration statistics, 2013, <www.eia.gov>.

However, from a regional perspective, these resources can play an important role. The most promising countries in terms of hydrocarbons development seem to be Italy and Croatia, followed by Albania for oil and Greece for gas reserves, while Montenegro has only recently launched its first plan to develop its largely unexplored territorial sea and continental shelf. Italy is the country with the most significant gas reserves in the region, and more than the half of these reserves are located in the Adriatic Sea³.

Since the end of 2000s, the relaunch of offshore development plans has opened opportunities for cooperation in the common development of energy resources and also for confrontation, especially where sea boundaries among the regions' countries are not definitely settled, such as between Croatia and Slovenia and Croatia and Montenegro. The Adriatic Sea has a very fragile marine ecosystem; it is a semi-enclosed sea inside a semi-enclosed sea which is generally considered to be the most endangered in the Mediterranean, and important economic activities, such as fisheries and tourism, depend on its conservation. Due to this fragility and the proximity among the riparian states, potential conflicts in the region address not only the issue of energy resource ownership – i.e. the delimitation of each state's sovereignty rights for the monetization of gas and oil fields – but also possible transboundary pollution from normal operations of offshore installations and the risk of major incidents.

Against this background, this chapter aims to analyse the emerging policies and politics of hydrocarbon development in the Adriatic and Ionian Seas by highlighting the main drivers and effects of the recent relaunch of offshore activities in the region. The

² European Commission, 'Offshore oil and gas safety', <ec.europa.eu/energy/en/topics/oil-gas-and-coal/offshore-oil-and-gas-safety>.

³ F. Terlizze, *Lo sfruttamento sostenibile delle risorse minerarie del mare*, report presented at the Conference: "Il Mare: la sostenibilità come motore di sviluppo. Marine Strategy e Blue Growth, (Livorno, 14-15 novembre 2014)".

first section of the chapter illustrates the origins and development of offshore activities in the Adriatic and Ionian Seas from the 1960s to the relaunch of offshore plans at the end of the 2000s. It describes national policies, the main international institutions and regimes at work in the region, and the basic patterns of international interactions. The second section focuses on recent developments and the political effects of the current offshore plans. Two main patterns of political interactions are highlighted. The first has a more traditional inter-state character and includes cooperative and confrontational interactions. The second represents the emergence of a new kind of political dynamics with domestic and transnational features. These dynamics are related to the growing importance attached to the environmental impact of offshore activities. Finally, in the conclusion, the main findings are summarised and the differences between the 'old' and the 'new' politics of offshore development are described.

2. Origins and development of offshore policies and politics in the Adriatic and Ionian seas

The history of offshore development in the Adriatic and Ionian seas can be divided into three main periods. In the first period, from about the 1960s to the beginning of the 1990s, the basic domestic legislative framework and the bilateral international regime of the sector were established under the general provision of the law of the sea. In particular, at the national level, the offshore sector was basically organized into a centralized institutional structure around the main state-owned companies (or 'national champions'), which managed the sector along with the respective ministers responsible for economic development or industry. There were obviously differences between countries like Italy and Greece, after Greece joined the European Community in 1981, and countries like Yugoslavia and Albania, as latter two countries were less open to foreign companies. With regard to the delimitation of the continental shelf for the exploration and production of hydrocarbon resources, Italy – the major producer country – took the lead in negotiating and defining its sea borders with Yugoslavia, Greece and Albania. During this period, no serious disputes were open which could have blocked or undermined national plans for offshore hydrocarbon development, and environmental concerns were not prominent on the political agenda, although some bilateral agreements between the states of the regions were established, and the Barcelona system began to enter into force.

The second period, from the beginning of the 1990s to the end of the 2010s, was characterized by two opposite trends: integration (and homogenization) and fragmentation. On one hand, at national level, the sector was progressively opened to competition and harmonized, especially due to the implementation of the directive 94/22/EC.⁴ Moreover, the new Balkan states began the process of integration into the EU, and at the same time an entirely set of new institutions were established to promote cooperation among the countries and local communities on the Adriatic and Ionian Seas. On the other hand, the international regime for the delimitation of the marine borders was complicated by the Balkans wars and the breakup of Yugoslavia. Among the new Balkan countries, especially, disputes emerged, and Albania and Greece were

⁴ Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospecting, exploration and production of hydrocarbons, in *Official Journal of the European Communities*, L 164, 30 June 1994, 3 ff.

also not able to reach a definitive agreement. Finally, in the recent period (since 2008–09), there has been a relaunch of offshore plans that in the previous phase were declining, due mainly to the decrease in Italian offshore activities. This relaunch has been driven by three primary factors: the economic crisis, concern about the security of supply (especially in the gas sector) and intra-regional competition. The relaunch of national plans for offshore development has created further tensions among the Balkan countries, in particular between Croatia and Montenegro and Croatia and Slovenia. However, this period has also been characterized by a transformation in offshore politics, which have become progressively more complex due to the development of new EU and international governance structures. These dynamics, coupled with growing awareness about the environmental risks of offshore activities, which was aggravated by the 2010 oil disaster in Gulf of Mexico, have broadened the constellation of actors involved in offshore politics. Along with the traditional bilateral government-to-government diplomacy and involvement of energy companies, non-governmental organizations (NGOs), local communities and sub-national governments are becoming more and more involved in the national and transnational political dynamics that overlap with more traditional interstate diplomatic practices.

2.1. State intervention, national champions and the construction of the bilateral regime (1960-1990)

In the 1960s and 1970s, Yugoslavia (1965), Italy (1967), Greece (1969) and Albania (1970) all made claims to continental shelf, according to the principles provided by the law of the sea (particularly Article 1 of the 1958 Geneva Convention on the continental shelf). During this period, Italy was the most active country in the region in the development of offshore energy resources, both domestically - thanks to the operations carried on by the state-owned companies ENI and Agip - and internationally. With Law No. 613 of 21 July 1967, the Italian government asserted Italy's claim to the continental shelf, established the legislative framework for offshore activities and identified the marine areas open for such activities (so-called 'zone marine') in specific portions of the Adriatic Sea (in the Ionian Sea, the areas open for offshore activities were established in 1975). Along with developing its domestic policy framework, Italy focused its efforts to build the bilateral international regime intended to delimitate the state's continental shelf⁵. In 1968, Italy and Yugoslavia signed an agreement (and later Croatia, Montenegro and Slovenia would become successor states of Yugoslavia in this agreement), and in 1977, Italy and Greece signed another. Both agreements were negotiated according to the principles and rules of UNCLOS – i.e. the criterion of equidistance was modified to account for specific geographic circumstances (islands or the curvature of the coastline) – and both agreements included provisions for an obligation to cooperate in case oil and gas deposits were discovered between the maritime borders of the two countries⁶. During this period, Greece also initiated some important offshore activities, mainly through its state-owned company DEP, and minor activities were conducted in Yugoslavia, especially in Croatia, by the state-owned

⁵ For a detailed account of the bilateral agreements in the Adriatic regions from the 1960s to the 1990s, see in this *Volume*, A. Caligiuri, 'The Maritime Boundaries in the Adriatic and Ionian Seas'.

⁶ U. Leanza, 'The Delimitation of the Continental Shelf of the Mediterranean Sea', (1993) 8 *International Journal of Marine and Coastal Law* 373; F.A. Annish, *The International Law of Maritime Boundaries and the Practice of States in the Mediterranean Sea* (Oxford University Press, 1993).

company INA (during the 1960s and the 1970s, the state-owned company Jugopetrol, in cooperation with foreign companies, also did some exploration in Montenegro, but made no important discoveries).

Although Albania did not sign and ratify UNCLOS until 2003, Italy and Albania negotiated and signed an agreement for the delimitation of the continental shelf in 1992 according to the UNCLOS principle of equidistance⁷. The agreement, which included provisions for the joint management of energy resources located between the continental shelves of the two countries, was facilitated by Albania's willingness to develop its hydrocarbon resources. Albania has been a hydrocarbon producer since the 1950s–60s, mainly through its state-owned company Albpetrol, and oil has been an especially important source of revenue for the state since that period.

With the Albania-Italy continental shelf agreement of 1992, the process of delimitation between the Adriatic and Ionian's opposite coasts was virtually completed. Although environmental concerns were a less significant factor at that time than now, Italy also took the lead in the establishment of a bilateral intergovernmental framework intended to promote the protection of the sea. Italy signed an agreement with Yugoslavia in 1974 and with Greece in 1979. Those agreements included the creation of the Joint Commission to monitor offshore activities and manage potential accidents with trans-boundary effects; however, by the end of the 1980s, these commissions were no longer in place. At the same time, Italy, Yugoslavia and Greece became parties to the 1976 Barcelona Convention, while Albania did not sign the Mediterranean Action Plan and did not ratify the Barcelona convention until 1990. In 1991, Albania was also a signatory, together with Greece, Italy, Yugoslavia and the European Commission, of the Adriatic Sea Declaration, signed 13 July 1991 in Ancona, which, *inter alia*, provides for environmental protection of the Adriatic Sea and preservation of its ecological balance⁸.

2.2. Between integration and fragmentation (1990-2008)

At the beginning of the 1990s, different dynamics began to transform the previous institutional framework both domestically and internationally. With the EU directive 94/22/EC, the hydrocarbon sector of the member states was harmonized and opened to competition. Italy applied directive 94/22/EC in 1996, and Greece applied it in 1995. In Albania, in 1993, the government transformed Albpetrol into a public company, owned by the state, and in 1994 enacted Law 7853/94 and Law 7811/94 in accordance with the directive 94/22/EC. In Croatia, INA became a public company in 1993, and since 2003, it has been progressively privatized. Since the mid-2010s, Croatian energy policy has focused on the liberalization and privatization of the energy sector, and the country gradually adopted the EU legislative energy framework, first in the context of the Energy Community and then in the process of accession until the country joined the EU in 2013. After Montenegro gained independence in 2006, it also started to reform its energy sector and to harmonize its laws and standards with the EU energy legal framework (in 2005, Montenegro joined the Energy Community).

During this period, the Italian government enacted various measures to relaunch the energy sector, which had been declining since the second half of the 1980s. Despite the new legislative framework, offshore activities continued to decrease in the 1990s and

⁷ C.R Symmons, 'Albania and the Law of the Sea: An Analysis of Recent Practice', (1996) 11 *International Journal of Marine and Coastal Law* 69.

⁸ *Ibid.*

2000s. During the 2000s, Italy enacted other changes in the royalties regime and established new procedures to speed up the authorization processes for exploration and exploitation licenses. Nevertheless, the new measures did not reverse the trend, and offshore activities continued to decrease, due in part to growing regional and local opposition to the government's plan. From 1995 to 2010, offshore gas production in Italy fell from about 15 bcm/y to about 5 bcm/y⁹.

Along with the homogenization of domestic energy markets, the EU and Italy made important efforts during this period to support the stabilization and integration of the new Adriatic Balkan states. The EU-sponsored Stability Pact for South-Eastern Europe led to the creation, in 2000, of the Italian-sponsored Adriatic-Ionian Initiative, which represented the most important inter-state multilateral forum involving all the Southeastern European countries aspiring to join the EU¹⁰. In the same period, a dense network of transnational institutions was also created: the Forum of the Cities of the Adriatic and Ionian Basin (1999), the Forum of the Adriatic Chambers of Commerce (2001) and the Adriatic-Ionian Euro-Region (2006). All of these new governance structures referenced the need to promote cooperation to preserve the Adriatic and Ionian Seas and to support sustainable development of the coastal areas. This process of transnational institution building was reinforced at the end of the 2010s when, in the context of the EU Integrated Maritime Policy and EU Marine Strategy Framework Directive, the countries of the regions – supported by the sub-national governments – started a political campaign to found an EU Macro Regional Strategy for the Adriatic and Ionian Seas basin. The campaign was successful, and the European Union Strategy for the Adriatic and Ionian Region (EUSAIR) was eventually established in 2014, covering four MS (Croatia, Greece, Italy and Slovenia) and four non-EU countries (Albania, Bosnia and Herzegovina, Montenegro and Serbia). Also during this period, both the EU and the non-EU countries of the region ratified the Espoo and Sea Protocol, which strengthened environmental protection.

However, along with these processes of homogenization and institutionalized cooperation, the region witnessed a fragmentation of sea boundaries in the 1990s and 2000s. Italy easily solved the problem of new marine border delimitation since Croatia, Montenegro and Slovenia became Yugoslavia's successor states in the 1968 agreement (Slovenia became part of the UNCLOS in 1995 and Montenegro in 2006 after its independence). In 2005–06, new agreements between Italy and Croatia and between the two companies involved in the monetization of gas resources, ENI and INA, were also signed to facilitate the common development of a gas field between the Italian and Croatian continental shelves¹¹ (called the Annamaria gas field). In 2009, Italy and Croatia signed a technical agreement for the joint exploitation of this gas field¹².

For the new Balkan countries, the situation was more complicated. A definitive agreement for the common delimitation of state borders at sea has not yet been

⁹ Italian Ministry of Economic Development, Energy Department Directorate-General for Mineral and Energy Resources, 'The Sea', (2013) LVII Supplement to Hydrocarbons and Geothermal Resources Official Bulletin, <unmig.mise.gov.it/unmig/buig/supplemento57-2/supplemento57-2.pdf>.

¹⁰ E. Cocco, 'The Evolving Role of the Adriatic Space in the Mediterranean. Challenges and Opportunities' in *Mediterranean Paper Series* (The German Marshall Fund of the United States, 2013).

¹¹ Cf 'Comunicato Ministeriale, Correzione tecnica della linea di delimitazione Italia-Croazia del 2 agosto 2005', (2005) XLIX Bollettino ufficiale degli idrocarburi e delle georisorse 21.

¹² *Technical Agreement between the Ministry of Economic Development of the Italian Republic (Directorate General for Energy and Mineral Resources) and the Ministry of Economy, Labour and Entrepreneurship of the Republic of Croatia (Directorate for Mining) on the Joint Exploitation of the Annamaria Gas Field in the Adriatic Sea*, 1 July 2009.

concluded among these countries. In 2002, an ‘interim regime’ was established between Croatia and Montenegro regarding the contested coastal and sea border near the peninsula of Prevlaka¹³. In the following years, various efforts to find a definitive solution were made through bilateral negotiations between the Croatian and Montenegrin governments. However, the dispute has proven to be very difficult to solve, and in 2014, both governments agreed to solve the issue of demarcation by means of international arbitration through the International Court of Justice.

An agreement regarding the sea border between Croatia and Slovenia was first negotiated in 2001, but the Croatian government did not sign the resulting treaty¹⁴. No substantive negotiations took place between 2002 and 2008, but the two governments agreed to resolve the dispute with the assistance of a third party. In 2009, with the support of the EU institutions and in the context of Croatia’s EU accession process, the arbitration agreement was signed,¹⁵ but the process has not yet been concluded.

After two years of negotiations, Greece and Albania also signed an agreement in 2009. However, in 2010, the Albanian Constitutional Court nullified the agreement due to ‘procedural and substantial violations’ of the constitution and of the UNCLOS¹⁶. In summary, so far only Italy has signed an international agreement with all relevant parties regarding maritime border delimitation in the Adriatic and Ionian region. Italy and Croatia have agreed to cooperate on the joint development of some gas fields in the Adriatic Sea (Table 2). Unresolved issues still remain between Croatia and Slovenia, Croatia and Montenegro, and Greece and Albania, and the marine border between Montenegro and Albania has not yet been defined (Table 2).

Table 2 – Maritime border delimitation agreements/issues in the Adriatic and Ionian Region.

	Italy	Croatia	Greece	Albania	Montenegro	Slovenia
Italy		IA/TA	IA	IA	IA	IA
Croatia	IA/TA		-----	-----	IR/U*	U*
Greece	IA	-----		U*	-----	-----
Albania	IA	-----	U*		No	-----
Montenegro	IA	IR/U*	-----	No		-----
Slovenia	IA	U*	-----	-----	-----	

Note: IA = intergovernmental agreement; TA = technical agreement; IR = interim regime; U* = unresolved issues; No = marine border/no agreement; ----- = no marine border.

2.3. The relaunch of offshore policies (2009-2014)

By the end of the 2010s, offshore policies in the Adriatic and Ionian Seas had been relaunched. Albania was the first country to move to attract new investors and exploit

¹³ Protocol between the Government of Croatia and the Government of the Federal Republic of Yugoslavia on the temporary border regime along the southern border between the two counties, 10 December 2002.

¹⁴ Treaty Between the Republic of Slovenia and the Republic of Croatia on the Common State Border (the so-called Drnovšek-Račan Treaty), 2001.

¹⁵ See, *Arbitral Agreement between the Government of the Republic Slovenia and the Government of the Republic of Croatia*, 4 November 2009.

¹⁶ See *Albanian Constitutional Court Nullifies Maritime Boundary Agreement with Greece* (University of Durham, 10 February 2010), <www.dur.ac.uk/ibru/news/boundary_news/?itemno=9534>.

its energy resources. Albania's national organizational structure of offshore governance was modified in 2006 when a new public agency, the National Agency of Natural Resources (AKBN), was established to manage the relationships between the government and companies involved in the hydrocarbon sector, including Albpetrol. Currently, some areas are still unassigned, especially onshore (nine areas); the only offshore block remaining unassigned is the 'Rodoni North' block at the marine border between Albania and Montenegro. Greece's first efforts to relaunch its energy sector began in 2007 when the government took over the concessions previously granted to state-owned companies. Since the explosion of Greece's debt crisis in 2009–10, Greece has improved its energy strategy. In particular, Law No. 4001/2011 modified the legislative framework for granting rights to exploration and exploitation and established a new public agency (the Hellenic Hydrocarbons Management Company, HHRM SA) in order to attract international companies. In 2014, the Greek government launched an international licensing round for twenty marine areas (blocks), eleven in the Ionian Sea and nine in the offshore area south of Crete, and an open-door invitation for two offshore areas in the Patraikos Gulf and Katakolo. This plan of the Greek government in the offshore sector has been associated with other energy initiatives, such as the development of the Southern Gas Corridor and the Trans Adriatic Pipeline, promoting the idea of turning Greece into an 'energy hub' and advancing the energy security of the entire EU.

The first attempt by the Croatian government to improve hydrocarbon production was sketched in the policy document 'Energy Strategy of the Republic of Croatia', issued in 2009¹⁷. However, it was only after 2012 that the new Croatian government began to develop a decisive strategy to expand exploration and exploitation (currently, INA is the only offshore hydrocarbon producer in the country, running five gas fields located in the Northern Adriatic Sea in a joint venture with the Italian ENI). In the wake of the Ukraine-Russia energy crisis, Croatia also decided to improve its gas supply security by promoting two new infrastructure projects, the Ionian-Adriatic Pipeline and an LNG facility near the Island of Krk. In 2013, Croatia combined these three projects (pipeline, LNG and hydrocarbon development), with the goal of making Croatia an important energy hub for EU energy security. As for offshore activities, in 2013, the government assigned the task of conducting a seismic acquisition survey of offshore Croatia to the Norwegian Spectrum Company as a precursor to the offshore licensing round that the government planned to hold in the following years. The company estimated that Croatia could have offshore reserves equivalent of 3 billion barrels of oil, enough to meet domestic demand for many decades and to supply the European market, further strengthening the government's willingness to proceed with its plans¹⁸. In 2013, a new regulatory framework was also enacted in order to align Croatian legislation with EU guidelines (Directive 94/22/EC) and to attract foreign companies. The new 'Exploration and Exploitation of Hydrocarbons Act' established a new public agency, the Croatian Hydrocarbons Agency, to manage the licensing rounds and to help the Ministry of the Economy administrate the sector. Finally, in 2014, the government defined twenty-nine offshore blocks in the Croatian section of the Adriatic Sea (eight blocks in the Northern Adriatic and twenty-one in the Middle and Southern Adriatic),

¹⁷ See The Republic of Croatia, Ministry of Economy, Labour and Entrepreneurship, *Energy Strategy of the Republic of Croatia*, June 2009.

¹⁸ B. Pancevski, 'Faltering Croatia Seeks Oil Bonanza', *The Sunday Times* (29 September 2013).

and in April, it launched its first ‘Offshore round for licences for the exploration and production of hydrocarbons’¹⁹.

In Italy, the relaunch of the hydrocarbon sector has been at the centre of the national energy policy agenda since the end of the 2010s. In 2013, with the National Energy Strategy (‘Strategia Energetica Nazionale’), the Italian government decided again to take action to enhance its energy security, reduce its dependence on foreign countries, and boost economic growth in the aftermath of the economic crisis²⁰. Accordingly, on 13 September 2014, the new Italian government of Matteo Renzi enacted the so-called ‘Unlock Italy’ (Sblocca Italia) Law (Law Decree of 12 September 2014, No.133), which introduced some changes into upstream sector governance. The law simplified the procedure for obtaining concessions for exploration and production and recentralized the decision-making processes to overcome the regional and local opposition that limited Italy’s energy policy during the 2000s. Moreover, the new law provided for the issuance of temporary experimental concessions designed to last five years in the Gulf of Venice in the Northern Adriatic Sea, in order to ‘preserve the national resources of hydrocarbons located in the sea and in the continental shelf in areas in the vicinity of the areas of other coastal countries which are undergoing exploration and production activities’²¹. This measure was intended to respond in particular to the new offshore Croatian plan and to preserve Italian resources at the marine border between the two countries²².

Finally, in 2011, the government of Montenegro formulated a comprehensive energy strategy which explicitly stated that part of the government energy policy should be based on the exploitation of domestic hydrocarbon resources and on improvement of supply security in the gas sector. In 2010–2011, Montenegro enacted two laws to establish a new legislative framework in line with the directive 94/22/EC (‘Law on Exploration and Production of Hydrocarbons’), No. 41/10 of 23 July 2010 and 40/11 of 8 August 2011. Then, in 2012–13, thirteen offshore blocks were defined in the Adriatic Sea, and on 7 August 2013 Montenegro launched its first international bidding round to assign the concessions for exploration and exploitation in these areas.

3. Maritime boundaries, environmental protection and the emerging offshore politics in the Adriatic and Ionian seas

Three basic patterns of inter-state dynamics resulted from the relaunch of offshore plans in the Adriatic and Ionian region: cooperation, competition and confrontations and disputes over the delimitation of the states’ border at sea. Italy and Croatia have mainly cooperated, developing their shared energy resources by relying on the bilateral agreement set in the 1960s and its more recent adjustments as well as on the practical

¹⁹ ‘First Offshore License Round is Closed!’, *Croatian Hydrocarbon Agency* (2015), <www.azu.hr/en-us/License-rounds/1st-Offshore-License-Round>.

²⁰ See *Strategia Energetica Nazionale: per un’energia più competitiva e sostenibile*, approved with the Decree of the Ministry of Economic Development and of the Ministry of Environment, Land and Sea of 8 March 2013, <www.sviluppoeconomico.gov.it/index.php/it/component/content/article?id=2029441:strategia-energetica-nazionale-sen>.

²¹ *Law Decree of 12 September 2014, No.133*, Article 38(10).

²² See, for example, the statement of Simona Vicari, Italian undersecretary for economic development: ‘We cannot ignore that other Adriatic and Mediterranean riparian countries are acting with resolution to valorise their undersea resources’, in ‘Adriatic Hydrocarbon Triangle is in Low-Intensity Mess’, (2014) 2 *Energy International Risk Assessment* (EIRA) Newsletter.

cooperation between the companies involved in the development of the gas fields. But while they cooperate in the joint development of gas resources, a competitive dynamic has been also at work between these two countries as the Croatian plan has provoked a 'reaction' from the Italian government to preserve possible energy resources located near Croatian waters. Confrontations and disputes have been prompted mainly among the Balkan states, especially where the boundaries at sea were not yet defined, i.e. between Croatia and Slovenia and between Croatia and Montenegro. These disputes have not prevented energy companies already active in the regional energy markets to take part in the licensing rounds launched by Croatia and Montenegro. However, in 2015, the uncertainty caused by the unsolved maritime borders coupled with a fall in oil prices induced some companies to review their investment decisions.

Croatia and Montenegro have also continued to support their offshore plan while trying to resolve their dispute through the traditional instruments provided by the law of the sea. The EU has indirectly supported the Balkan countries' offshore plans in the context of wider efforts by European institutions to support the development of Southeastern Europe's energy infrastructure system. The Balkan countries have also cooperated among themselves in the area of energy infrastructures. Moreover, along these more traditional patterns of interstate interactions, the relaunch of offshore plans has triggered a new set of national and transnational political dynamics. These dynamics are the result of two mutually reinforcing trends. The first is growing public concern about the negative environmental impact and potential risk of offshore activities and the mobilization and opposition of environmental NGOs, generally supported by local and regional governments. The second trend is the result of the strengthened supranational and EU environmental framework that has created new bridges between offshore activities and environmental protection and has provided new institutional channels of political interactions that overcome national boundaries.

3.1. Between cooperation and confrontation

Although the original 1968 agreement between Italy and Yugoslavia had already established some basic principles for cooperation in the development of joint fields, it was only in the 2009 technical agreement that the Italian and Croatian governments formally approved the programs of gas exploitation signed by ENI and INA. The 2009 technical agreement allowed both governments to supervise and control actual production from the joint gas fields; however, in practice, its successful implementation depends on the arrangements between the companies involved in the monetization of gas resources²³. Indeed, while ENI is responsible for production in Italian waters (Annamaria platform B), the Croatian side (Annamaria platform A) is run by a joint operating company, INAgip, owned 50% by INA and 50% by ENI. ENI, the leading operator in the Italian upstream hydrocarbon sector, was also one of the companies to take part in the 2014 Croatian offshore bidding round. The round received ten bids for just fifteen exploration areas of the twenty-nine blocks that constitutes the country's offshore zone. Despite the relatively simple technical environment of the Croatian offshore – its sea depth is between 100 and 500 meters – no major international companies took part in the licensing round. Declining oil prices were one contributing factor. ENI obtained a license in partnership with the UK-based company Medoiligas,

²³ Caligiuri (n 4) para 4.

and seven more licences were granted to a consortium between Austria's OMV and the US-based Marathon Oil. The other two licences were awarded to a consortium made up by INA, co-owned by the Croatian government and Hungary's MOL. For these companies, which were already involved in the southern and central European energy market or in the Balkans, the opportunity to find new resources and to expand their position in those markets was sufficient reason to invest in the exploration of the Croatian offshore. Marathon Oil, OMV, ENI and Medoilgas took also part in the Montenegrin offshore round, as did the Russian company Novatek and the Greek company Energean. In three consortia (Marathon Oil and OMV, Eni and Novatek, and Energean and Medoilgas), these companies submitted applications for seven of the thirteen blocks offered by Montenegro.

By the end of 2015, exploration had still to begin, and, notwithstanding the suggestions made by the Spectrum Company based on the seismic survey, the actual potential of the Croatian and Montenegrin offshore was not yet clear. Meanwhile, the Croatian government sought to highlight the importance of the country's resources for European energy security to bring attention to the country's offshore sector and to gain the support of EU institutions. EU institutions did not directly express support for the offshore Croatian plan, but they were supportive of the country's strategy for gas infrastructure development, which will be important if gas is found in the Croatian sea in sufficient quantities to allow exportation. The development of the Croatian and Montenegrin energy infrastructures (such as the Ionian-Adriatic-Pipeline and the LNG facility at Krk Island) was also regarded by the energy companies involved in offshore exploration as an important guarantee that possible discoveries could be monetized in reasonable amount of time.

Although the goal of improving Balkan energy security has been supported by all the countries of the region – leading to important cooperation, such as for the realization of the Ionian-Adriatic-Pipeline²⁴ – the launch of the offshore plan has provoked new disputes. In 2014, the Montenegrin Ministry of Foreign Affairs officially filed a complaint against Croatia arguing for the inclusion of the Prevlaka peninsula in the government-issued geographic maps that were offered to interested concessionaires for oil and gas exploration²⁵. In particular, Montenegro contested the Croatian plan respecting blocks 27, 28 and 29, which are located in whole or in part in a portion of the Adriatic Sea claimed by Montenegro. Montenegro recalled that the Protocol on the Provisional Regime of 2002 obliges the two countries to refrain from unilateral actions that would prejudice determination of the common border at sea and on land. According to the Montenegrin government, Croatia's unilateral act of calling for public tenders in the southern part of the Adriatic was inconsistent with the Protocol and violated the principles set by UNCLOS²⁶. In January 2015, after the Croatian international offshore round was concluded, Montenegro's Ministry of Foreign Affairs and European Integration sent a formal note of protest to Croatia for the licenses awarded to the

²⁴ A. Prontera, 'Italian Energy Security, the Southern Gas Corridor and the New Pipeline Politics in Western Europe: From the Partner State to the Catalytic State', (2015) *Journal of International Relations and Development*, <www.palgrave-journals.com/jird/journal/vaop/ncurrent/full/jird201531a.html>.

²⁵ See Montenegro Ministry of Foreign Affairs and European Integration, *Communication from the Government of Montenegro concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia*, No: 09/16-167/35, 2 July 2014; Montenegro Ministry of Foreign Affairs and European Integration, *Communication from the Government of Montenegro concerning exploration and exploitation of resources in the Adriatic Sea by the Republic of Croatia*, No: 09/16-167/121, 1 December 2014.

²⁶ Caligiuri (n 4) para 4.

consortia of INA, Marathon Oil and OMV in blocks 23, 26, 27 and 28²⁷. In January 2015, a formal note of protest was also sent to Marathon Oil and OMV for violating the 'letter and spirit of UNCLOS'²⁸. But no additional actions have been taken against these companies, partly because they were also involved in the Montenegrin offshore sector. However, in July 2015, Marathon Oil and OMV decided to return the seven offshore exploration licenses to Croatia, three of which were in waters disputed by the two countries. This decision was also motivated by the slump in the oil prices that was forcing the energy industry to cut investments²⁹.

The dispute has also gone in the opposite direction. Montenegro's offshore plan initially included a number of blocks that, according to Croatia, were in the disputed area between the two countries, violating the 2002 Protocol. Following several public exchanges with Croatian government, the Montenegrin Government decided to exclude the disputed blocks from its first offshore round and award concessions only for the blocks in its undisputed southern waters³⁰.

The arbitration process initiated in 2009 over the sea border between Croatia and Slovenia was not yet concluded when Croatia decided to develop its offshore plan. Therefore, in April 2014, following the launch of the Croatian bidding round, the Slovenian government presented a formal objection to Croatia for the inclusion of areas close to the contested sea border. The Slovenian position was soon reinforced by the declaration of the Director General for Bilateral Relations and European Affairs, which reminded Croatia of its obligation to 'act in good faith' and conform to the Article 10 of the 2009 Arbitration Agreement stipulating that 'parties must refrain from any action or statement which might intensify the dispute or jeopardise the work of the Arbitral Tribunal'³¹. In theory, the final decision of the arbitration tribunal was expected by the end of 2015. However, in summer of the same year, a scandal occurred after press revelations of secret conversations between the Slovene judge on the panel and the Slovenian representative. The episode caused the Slovenian government to ask for the resignation of both persons involved, and the Croatian government has expressed doubt about its willingness to continue the arbitration process³².

3.2. *The national and transnational environmental dimensions of offshore politics*

In addition to the problems related to the longstanding international boundary disputes in the Balkans, the new plans for offshore development raised new concerns about environmental protection of the Adriatic and Ionian Seas. In Italy, the new plan established by the government in 2014 prompted numerous protests by environmental

²⁷ Montenegro Ministry of Foreign Affairs and European Integration, *Note of Protest of Montenegro's Ministry of Foreign Affairs and European Integration to the Government of Croatia*, No: 09/16-109/1, 5 January 2015.

²⁸ Montenegro's Ministry of Foreign Affairs and European Integration, *Note of Protest of Montenegro's Ministry of Foreign Affairs and European Integration to Marathon Oil Netherland OMV Croatia*, No: 09-16-109/10, 27 January 2015.

²⁹ S. Nasralla, Z. Radosavljevic, 'Update 2: Marathon, OMV Hand Back Croatia Oil Exploration Licences', *Reuters* (29 July 2015); S. Milekic, 'Oil Firms Quit Croatia Over Montenegro Border Row', *Balkan Insight* (29 July 2015).

³⁰ D. Cibulic, 'Offshore Exploration and Exploitation of Hydrocarbons in Montenegro', *CEE Legal Matters* (29 April 2015), <www.ceelegalmatters.com/index.php/legal-analysis-energy/item/2425-offshore-exploration-and-exploitation-of-hydrocarbons-in-montenegro>.

³¹ See K. Ayat, 'Slovenia Fears Croatia's Bidding Round Launch Would Jeopardize Maritime Dispute', *Natural Gas Europe* (17 April 2014), <www.naturalgaseurope.com/croatia-slovenia-maritime-dispute>.

³² S. Milekic, 'Croatia May Quit Arbitration Case Over Piran Gulf', *Balkan Insight* (24 July 2015), <www.balkaninsight.com/en/article/court-wants-to-continue-arbitration-for-piran-gulf>.

NGOs, regional governments and important opposition parties such as the Five Stars Movement, which in the general election of 2013 received about 25% of the votes, making it the second most popular party in Italy. The strategy of offshore development in the Adriatic and Ionian Seas was also opposed by many local communities and local business involved in fishing and tourism. At the beginning of 2015, six Italian regions – four of which are Adriatic and Ionian coastal regions (Abruzzi, Marche, Puglia and Veneto) – appealed to the Constitutional Court against Decree ‘Unlock Italy’, which produced a recentralization of the decision-making process of upstream activities. Moreover, regional government leaders have made numerous statements against the national plan and in defence of their regions’ coastal sea and marine environments. The domestic protest paved the way for transnational dynamics when, in the wake of the launch of the Croatian offshore plan, many environmental NGOs and regional governments called on the Italian government to ask its Croatian counterpart to participate in the Strategic Environmental Assessment according to the directive 2001/41/EC³³ and the 2003 Kiev Protocol of the Espoo Convention. After some hesitation, the Italian Ministry of the Environment asked Croatia to be considered in the process, owing to the trans-boundary dimension of the Croatian offshore plan. Along with the Italian government, five Italian Adriatic coastal regions (Marche, Puglia, Veneto, Abruzzi and Emilia Romagna) – four of which had already appealed to the Italian Constitutional Court against the Italian plan – submitted their observations to the Croatian government. Slovenia and Montenegro also requested to be and were included in the Croatian strategic environmental impact assessment. As a result, the Croatian government decided to postpone the deadline for signing the contract with companies that had received licenses for offshore exploration from April to June 2015³⁴. The Croatian government was also confronting growing domestic protest from environmental organizations and local communities. Various environmental NGOs organized public campaigns against the plan, and some political parties and businesses involved in tourism opposed and criticised the plan. The socialist government emphasised the plan as part of its efforts to improve the country’s energy security, attract investment to stimulate the Croatian economy and gain international political attention in the EU energy map. However, in view of the general election to be held in November 2015, it decided to postpone the offshore plan³⁵. This situation clearly illustrates the new, important role that environmental issues and their political repercussions play in current offshore development politics.

4. Conclusions

Traditionally, offshore policies and politics in the Adriatic and Ionian Seas have been played out by states and energy companies. The interests of states in developing their

³³ Directive 2001/41/EC of the European Parliament and of the Council of 19 June 2001 amending, for the twenty-first time, Council Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations, as regards substances classified as carcinogens, mutagens or substances toxic to reproduction, in *Official Journal of the European Communities*, L 194, 18 July 2001, 36 ff.

³⁴ N. Kulović, B. Tomić, ‘Interview: Offshore Exploration Will Not Endanger Croatia’s Tourism, Minister of Economy Says’, *Offshore Energy Today.com* (2 April 2015), <www.offshoreenergytoday.com/interview-offshore-exploration-will-not-endanger-croatias-tourism-minister-of-economy-says>.

³⁵ ‘Croatia’s Awards Likely to Follow General Election in November’, *Natural Gas Europe* (25 September 2015), <www.naturalgaseurope.com/croatias-awards-likely-to-follow-general-elections-in-november-25573>.

offshore resources have been an important factor in the construction of the international legal regime of the Adriatic and Ionian Seas. During the formative period of this regime, Italy, which had major interests and the economic and technical capacity to develop offshore hydrocarbon resources, took the lead in negotiating agreements with the other countries. However, the sea boundaries among the states of the Adriatic and Ionian Seas have been fragmented as a result of the dissolution of Yugoslavia, and disputes emerged, especially among its successor states. When offshore plans were relaunched in the wake of the 2008 economic crisis and EU energy security concerns, energy resources became an additional topic of contention, especially between Croatia and Slovenia and Croatia and Montenegro. However, it is worth noting that disputes were not caused by the competition for hydrocarbon resources *per se*, since no gas fields have been found in the contested areas. Instead, offshore plans have mainly created additional difficulties for maritime disputes that were already hard to solve, as demonstrated by the problems in the arbitration between Croatia and Slovenia. Where resources have been found at common borders between countries, such as in the case of Italy and Croatia, the countries have cooperated. Although traditional interstate dynamics have characterized the recent period since the relaunch of offshore plans in 2009-2014 and energy companies continue to play an important role in offshore exploration and exploitation, new types of political interactions have also emerged. Offshore plans in the region have prompted many domestic disputes, clashes along the centre-periphery divide and the mobilization of various environmental NGOs. Environmental issues have also triggered new transnational dynamics, strengthened by the new EU and international governance structures and norms and by growing awareness about the environmental effects of offshore hydrocarbon activities. The new politics of offshore development have not replaced traditional patterns of interstate interactions but added to them, resulting in a combination of old dynamics with new, emerging transnational trends.

GEMMA ANDREONE

THE POWERS OF COASTAL STATES OVER OFFSHORE OIL PLATFORMS*

SUMMARY: 1. Introduction. – 2. The rights of Coastal States over the economic resources of the EEZ and the CS. – 3. Coastal State jurisdiction over artificial islands and installations. – 4. The limits of the powers of Coastal States over offshore platforms in recent practice. – 5. Critical questions and risks connected with offshore activities in the Mediterranean and Adriatic seas.

1. Introduction

The question of the exploration and exploitation of oil and gas resources at sea has become a matter of much discussion both in national and in international circles.

On one hand, in fact, this is a sector which offers a high level of expansion in economic terms, especially when we consider the progressive exhaustion of the oil and gas resources on land. On the other hand, however, the experience already gained from land activities in the field, and also the still limited knowledge of the possible negative effects and the great risks inherent in this economic sector at sea, render its development more problematic.

Widespread opposition to development in this economic sector at sea is found both within individual States and internationally, as a result, in particular, of protests and awareness campaigns conducted by the principal environmental NGOs.

In fact, fears about the environmental impact of this activity have led to closer questioning on the nature and the extent of the coastal states' powers than in the past, and also on the existence or otherwise of related obligations in the matter of the conservation of the marine environment, and the prevention of transboundary environmental damage. This last question does not enter into the scope of the present article.

The aim of this article is to look at the international regulatory framework of the coastal states' powers and of their limits, with particular reference to marine areas situated beyond the Territorial Seas (TS).

So, we will proceed first of all to an analysis of the powers of the coastal state as laid down in the UNCLOS, both as regards the question of the exploitation of the economic resources of the Exclusive Economic Zone (EEZ) and the Continental Shelf (CS), and as regards that of the creation of artificial islands and platforms in those areas.

After having considered some aspects which have emerged from recent practice in connection with the limits of the powers of the coastal states, we will look at the specific cases of the Mediterranean and the Adriatic seas.

2. The rights of Coastal States over the economic resources of the EEZ

As is foreseen in the UNCLOS and in customary law, productive activities carried out by the coastal state, either directly by them or with their consent, within the TS, that is within 12 nautical miles from the base line, fall under the control of the state as regards both regulation and all the coercive activities which may derive from the

application of the state laws, in virtue of the almost absolute sovereignty the state enjoys.

In fact, the right of innocent passage of the ships of third states through the territorial sea of a state cannot be invoked where the pre-eminent economic interests of the state impose either the banning or the restriction of navigation in areas close to fixed or mobile structures situated within the area for the exploitation of non-living resources of the seabed and its subsoil. Moreover, the passage within the territorial sea of foreign vessels interfering with the activity of the oil rig can be considered as non-inoffensive, and can be suspended in the areas adjacent to the platforms, if the interference is considered as a threat to the security of the coastal state.

Within the TS, the coastal state has wide and highly discretionary powers to regulate navigation by imposing limitations on navigation or traffic schemes and sea lanes to protect the safety of oil platforms, since the state is only required to take into account IMO recommendations and customary navigational uses within its territorial waters.

As regards the maritime areas situated between 12 and 24 nautical miles, i.e. within the Contiguous Zone (CZ) if that is in existence as proclaimed by the coastal state, these come under the regulations foreseen for the EEZ and the CS, since the powers that the Coastal State can exercise within its CZ are limited to monitoring the observance of national laws regarding customs duties, taxes, and questions of health and immigration relating to the TS. No right to exploit resources is recognized to the coastal state within its CZ. Therefore, all economic activities, and the construction of artificial islands and platforms beyond the TS, come under the regulation for the EEZ or the CS.

When oil exploration and exploitation activities are decided upon or authorized by the coastal state in areas beyond the 12 nautical miles, within the EEZ and/or the CS, these are to be considered legitimate in virtue of the sovereign rights of the coastal state over its economic resources according to Articles 56 and 77 UNCLOS, but the powers of coastal states to protect the rigs or to regulate navigation in the areas in proximity to the platforms appear to be more limited, as we shall see in the following paragraph.

Article 56 provides for coastal states “sovereign rights” over the living and non-living resources of its EEZ, as well as over other activities connected with the exploration and economic exploitation of the zone, and for “jurisdictional rights” over the establishment and use of artificial islands, installations and structures, over scientific research activities and the protection of the marine environment, thus introducing a distinction between “sovereign rights” over resources and the more simple “jurisdictional powers” attributed to the coastal states in the other domains.¹

Indeed, the rights, whether sovereign or jurisdictional, and the related duties of coastal states cannot be intended to be absolute, since due regard to the rights and duties of other states is expressly provided for by Articles 55, 56(2) and 58 UNCLOS.²

Article 58(2) allows for the application of the provisions regarding the high seas and the pertinent rules of international law only if these are compatible with the EEZ regime. The controversial nature of the EEZ was well known to the drafters of the UNCLOS, who, with the introduction of Articles 56, 58, and 59, aimed to create a “permanent legal arrangement” for balancing the diverse interests inside the EEZ.

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¹ For a deeper examination of the EEZ, see G. Andreone, ‘The Economic Exclusive Zone’ in D. R. Rothwell, A. G. Oude Elferink, K. N. Scott, T. Stephens (eds), *The Oxford Handbook of Law of the Sea* (Oxford University Press, 2015) 159-180.

² R. Beckman, T. Davenport, ‘The EEZ Regime Reflection After Thirty Years’ in H. N. Scheiber, M. S. Kwon (eds), *Securing the Ocean for the Next Generation* (Berkeley Publication, 2013) 13-68.

Indeed, Article 59 seeks to resolve possible conflicts over the attribution of residual rights and jurisdiction within the EEZ not attributed or covered by the UNCLOS, with reference, at the same time, to equity and to all relevant circumstances.³ Nevertheless, it does not offer a definitive solution to possible conflicts between coastal and third states⁴ nor does it call for the assumption in favour of one freedom or power over another.⁵

When the coastal state has proclaimed its EEZ, the legal regime of this zone will absorb the CS legal regime, since, according to Article 56 UNCLOS, coastal states' powers are extended to the waters superjacent to the seabed and to the seabed and its subsoil up to a distance of 200 nautical miles from the coast. The CS legal regime will then be applied to the outer CS, if this is claimed by the coastal state and up to the limit fixed unilaterally by it and accepted by the Commission for the CS (Article 76 UNCLOS).

In the absence of the proclamation of an EEZ, the norms to be applied to the activities of exploitation of oil and gas resources are those foreseen by the UNCLOS for the CS (Part VI of the Convention), this being a zone automatically determined, requiring neither effective occupation nor an ad hoc proclamation on the part of the coastal State. This is nowadays a very rare hypothesis, relating to the minority of states which have not yet proclaimed their EEZ, among them many Mediterranean States.

Even when a state has powers only over its CS, not having proclaimed its EEZ, or in the case of an outer CS, the power of exclusive exploitation is in any case limited by the right of third states to free navigation in the superjacent waters, and by the right to lay pipelines and submarine cables as foreseen by Articles 78 and 79 UNCLOS.⁶

Within the EEZ and on the CS the powers of non-biological resource exploitation belong exclusively to the coastal state, even if that state does not exercise them. It

³ See D. R. Rothwell, T. Stephens, *The International Law of the Sea* (Hurt Publishing, 2010) 97; I. Shearer, 'Ocean management challenges for the law of the sea in the first decade of the 21st century' in A. G. Oude Elferink, D. R. Rothwell (eds), *Ocean Management in the 21st Century: Institutional Frameworks and Responses* (Brill, 2004) 10.

⁴ According to some authors, the reference to equity in Article 59 substantially indicates that, in the case of a dispute, it is necessary to recur firstly to negotiations and to consensual means of settlement, before referring the dispute to judicial bodies. See R.R. Churchill, A.V. Lowe, *The Law of the Sea* (III Ed., Juris Publishing Inc., 1999) 176; Beckman, Davenport (n 2) 12.

⁵ R. Virzo, 'La convention des Nations Unies sur le droit de la mer et la pollution provenant d'activités militaires dans la zone économique exclusive' in G. Andreone, A. Caligiuri, G. Cataldi (eds), *Droit de la mer et émergences environnementales* (Editoriale Scientifica, 2012) 255, 257; S. Karagiannis, 'L'article 59 de la Convention des Nations Unies sur le droit de la mer (ou les mystères de la nature juridique de la zone économique exclusive)', (2004) *Revue Belge de Droit International* 325, 392 and 402.

⁶ Article 78 UNCLOS deals with the *Legal status of the superjacent waters and air space and the rights and freedoms of other States* and in its first par states that "The rights of the coastal state over the continental shelf do not affect the legal status of the superjacent waters or of the air space above those waters." And para 2 states as follows: "The exercise of the rights of the coastal state over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other states as provided for in this Convention". Article 79 UNCLOS, concerning *Submarine cables and pipelines on the continental shelf*, states "1. All States are entitled to lay submarine cables and pipelines on the continental shelf, in accordance with the provisions of this article. / 2. Subject to its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines, the coastal state may not impede the laying or maintenance of such cables or pipelines. / 3. The delineation of the course for the laying of such pipelines on the continental shelf is subject to the consent of the coastal state. / 4. Nothing in this Part affects the right of the coastal state to establish conditions for cables or pipelines entering its territory or territorial sea, or its jurisdiction over cables and pipelines constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction. / 5. When laying submarine cables or pipelines, states shall have due regard to cables or pipelines already in position. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced".

follows that the coastal state can regulate exploitation activities according to its own laws as also on the basis of its own economic policies and investments.

The powers of enforcing compliance and related judicial powers which are to be considered inherent in the exercise of exclusive exploitation rights, are not specified in the UNCLOS. Even if it is most unlikely that a violation of exclusive non-biological resource exploitation rights within the EEZ and on the CS should occur, the possibility that some illegal interference on the part of third states may take place, either by their ships or in some other way, during exploration or exploitation operations, cannot be excluded. In particular, there may be interference with or damage to artificial platforms created for the purposes of the extraction of oil and gas.

3. The jurisdiction of Coastal States over artificial islands and installations

The expansion in exploration and exploitation of oil and gas resources in the seabed has led to an increase in the number of artificial islands and structures in the seas, and to the proliferation of mobile structures positioned in marine areas which are subject to the jurisdiction of coastal states.

If, on one hand, therefore, the coastal state has sovereign rights over resources, on the other hand, its powers over artificial structures seem to be more limited. The state appears to have exclusive powers to regulate exploration and exploitation structures, but must coordinate with the rights of third party states to navigate and exercise the freedom of the High Seas recognized within the EEZ and the CS.

As for the coastal State's jurisdictional rights on the establishment and use of artificial islands, installations, and structures, these are regulated by Article 60 UNCLOS. The legal regime envisaged by this provision is then applied, *mutatis mutandis*, to the continental shelf in accordance with the requirements of Article 80.⁷ The rights of the coastal state relating to islands and installations within the EEZ and the CS are similar, with the sole difference that in this latter zone they are far more limited,⁸ since within the EEZ such islands and structures can be legitimately constructed and used for many other purposes, such as the exploitation of renewable energy.

According to Article 60, an almost total exclusivity is accorded to the coastal state to authorize and regulate various kinds of offshore construction, their placement, and their use within the EEZ. The distinction between artificial islands, installations, and structures for all the authorized economic purposes expressly provided for in Article 56 and "installations and structures which may interfere with the exercise of the rights of the coastal states in the zone" is rather vague and often not reproduced in national legislation,⁹ but it seems to admit, in principle, the placement of such constructions by third states, as long as they do not interfere with the rights of the coastal state.¹⁰

⁷ The power of establishing artificial islands or platform on the CS was already provided by the 1958 Convention on the Continental Shelf, which provided also for safety zones around the artificial islands for a maximum breadth of 500 metres.

⁸ See Churchill, Lowe (n 4) 168.

⁹ For national legislation not distinguishing among the different types of constructions, see Churchill, Lowe (n 4) 168; S. Kopela, 'The 'territorialisation' of the Exclusive Economic Zone: Implications for maritime jurisdiction' in International Boundary Research Unit on 'The State of Sovereignty', *20th Anniversary Conference of the International Boundary Research Unit on "The State of Sovereignty" (1-3 April 2009, Durham, U.K.)*, <www.dur.ac.uk/resources/ibru/conferences/sos/s_kopela_paper.pdf>.

¹⁰ On this point, see E.D. Brown, *The International Law of the Sea*, vol 1 (Dartmouth, 1994) 243-244. The author argues that the construction of those installations by third states could be for military purposes.

The legal regime provided by Article 60 is identical for all these types of construction, in relation both to rights and to duties. It is expressly provided that the coastal state can exercise on those constructions exclusive jurisdiction with respect to customs, tax, health, safety, and immigration laws.¹¹

Moreover, according to UNCLOS, the coastal state, where it appears necessary, may establish reasonable safety zones around those constructions, with the aim of ensuring safer navigation, or the protection of the construction itself, to an extent fixed by the coastal state and not exceeding a radius of 500 metres around the construction.¹²

In fact, the idea of instituting safety zones first arose during the work of the International Law Commission (ILC) on the legal regime of the continental shelf at the beginning of the fifties of the XX century. According to the ILC, the coastal states should be able to establish safety zones around their artificial installations to a reasonable distance, in order to protect them from navigation and in consideration of the extreme vulnerability of these constructions in the sea and of the activities of oil and gas extraction carried out by them. For these reasons safety zones were introduced into the 1958 Convention on the CS in Article 70 which foresees their maximum extension of 500 metres. The same disposition, however, imposes limits on the powers of the coastal states to institute such zones insofar as they might interfere with “recognized sea lanes essential to international navigation”.

The 500 metre limit for the safety zone arose from an analogy with the safety zones foreseen for oil installations on land. Some studies, in fact, have noted that no particular attention had been paid or studies carried out within the ILC or successively by the states parties to the 1958 Convention on the CS to evaluate the applicability and usefulness of the 500 metre safety limit at sea.

During the negotiations of the Third UN Conference on the Law of the Sea, the debate on safety zones and their extension intensified in consideration of the need to balance general interests with the freedom of navigation, and with the interests of the coastal state in protecting their own installations and extraction activities from the approach of more sophisticated and powerful ships, able to cover 500 metres in a few seconds. Many states, during the period of elaboration of the UNCLOS, raised the question of the need for a greater protection of artificial islands, particularly in the light of the rapid technological changes in the world of navigation, while others continued to lay emphasis on the need to preserve liberty of navigation.

The fear that the coastal states might use the power to determine the extension of the safety zone around their artificial islands in an arbitrary fashion produced the result that the dispositions of previous international provisions remained untouched. So that the 500 metre limit was confirmed by the UNCLOS, with the difference from the 1958 Convention on the CS that there are no limits on the fixing of such safety zones, and, above all, that for the first time there is a provision for the possible extension of the limit indicated if a general consensus in that regard is reached.

Indeed, Article 60(5) UNCLOS also provides for an extension of the safety zone if authorized by generally accepted international standards or as recommended by the competent international organization.

¹¹ Article 60(2) UNCLOS: “The coastal state shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations”.

¹² Article 60(4) and (5). See A. Harel, ‘Preventing Terrorist Attacks on Offshore Platforms: Do States Have Sufficient Legal Tools?’, (2012) 4 *Harvard National Security Journal* 131.

The international organization to which this disposition refers is clearly the IMO, which has received many requests for authorization to extend the safety zone from coastal states since the UNCLOS entered into force. Over time, requests for authorization to establish more ample safety zones in case of necessity have been put forward, for example, by Canada, and by Brazil, which was initially supported by the USA, although the latter after more careful thought, preferred to withdraw the extension proposal.¹³ Nevertheless, to date, the IMO has never accepted any proposal to agree on a more extended safety zone, even if the question of the need for extension has been brought to the attention of the General Assembly of the IMO.

With its resolution of 19 October 1989 on “Safety zones and safety of navigation around offshore installations and structures” (No. A.271 (16)) the General Assembly of the IMO approved a series of recommendations addressed to states on the question of navigation in areas around offshore platforms. The resolution is principally directed towards flag states, which are bound to oblige their ships to respect the rules of navigation and prevention and to use the greatest caution and prudence while sailing in proximity to offshore platforms. In particular, flag states must ensure that their ships do not enter into safety zones unless explicitly authorized to do so. The resolution, furthermore, encourages coastal states to report all violations of safety zones under their jurisdiction to the flag state of the ship which has committed the violation.

In spite of the ample debate and the explicit requests of some states, the IMO has never evaluated up to now the need or usefulness of extending, or in some special cases, providing for the extension of, the safety zone, still less has it considered it opportune to lay down guidelines in the matter of management of the platforms and their protection from accidents of navigation.

If we look at national practices, we find that most coastal states have instituted safety zones of 500 metres, and only in a few cases does this limit seem to be exceeded in internal law. Some states, however, have not indicated any limit to these safety zones, implicitly referring them to the international regulations applicable. There is, though, a widespread tendency among some states to claim jurisdiction in the matters of safety up to a distance of 24 nautical miles from the coast. In such cases the claims of the state are aimed not only at protecting the islands and artificial installations, but also at obtaining wider powers to protect them from, and prevent, possible violent attacks in an area corresponding to the CZ.

Clearly, however, these are claims which exceed what is acceptable in international law within the CZ, insofar as the states wish to apply in such zones laws which lie outside the realms of prevention and repression of smuggling, tax crimes, crimes relating to questions of public health or immigration committed within the TS. This national practice of claiming powers not foreseen by the UNCLOS in the matter of security beyond the TS does not seem to have led to the formulation of any new powers on the basis of customary law. In any case, it is not clear what would be the impact of such claims in the matter of security on the powers of the coastal states to protect offshore platforms situated within the EEZ or on the CS.

The recent well known case of the *Arctic Sunrise*, which we will deal with in the next paragraph, has raised the question of the legitimacy of internal Russian regulations which provide for safety zones around their off shore platforms of more than 500 metres, and has also brought to the attention of the international community the

¹³ For a discussion of these proposals, see Harel (n 12) 19 ff.

question of the extreme vulnerability of offshore installations, and also of the weak powers the coastal states have to protect them. Not even this case, which up to today has already led to three decisions on the part of international tribunals, has convinced the IMO of the urgency and necessity of intervening on the question of the extension of safety zones and of introducing explicit guidelines on the powers of coastal states

Turning now to the duties concerning artificial islands and installations, the coastal state is obliged to keep third states constantly informed about the placement of those constructions, as well as their falling into disuse, and also regarding all relevant technical aspects, in order to ensure the safety of navigation. Towards this end, Article 60(3) specifically requires dismantlement to be performed according to general international standards established by international organizations, taking into account other possible implications concerning fisheries, protection of the marine environment, or other rights and duties of third states.

Inevitably, the exercise of exclusive jurisdiction over these spaces implies an assumption of responsibility on the part of the coastal state for all the activities and the events occurring on them. In this context, the position of the Court of Justice of the European Union is worth noting. The Court stated that, according to Articles 77, 60, and 80 UNCLOS, an EU Member State has sovereignty (albeit functional and limited sovereignty) over the continental shelf adjacent to it, and exclusive jurisdiction over the artificial islands and installations positioned on it. Consequently, the “work carried out on these fixed or floating installations [...] is to be regarded as work carried out in the territory of that state for the purposes of applying EU law” and in particular EU law provisions designed to ensure the freedom of movement of persons.¹⁴

4. The limits of the powers of the Coastal State over offshore platforms in recent practice

The features of artificial constructions at sea, as well as their legal implications, vary dramatically according to their characteristics and to the function to which they are destined. Looking, then, at oil, gas, or renewable energy platforms, the extent of the enforcement powers of coastal States over these items has recently caused concern and, in particular, the question of their protection and of their environmental impact is likely to lead to significant developments in the EEZ legal regime. The major and irreparable damage to the environment which occurred in the case of the 2010 explosion of the British Petroleum *Deepwater Horizon* platform in the Gulf of Mexico, drew attention to the particular vulnerability of such installations, including the possibility of terrorist attacks.¹⁵

Then, the 2013 seizure of the Greenpeace vessel *M/V Arctic Sunrise*, and of the activists protesting against the Gazprom oil rig in the Russian Arctic EEZ, raised a number of questions about the extent of coastal state enforcement powers to protect offshore platforms.¹⁶ Indeed, upon the Netherlands’ request for provisional measures as the flag state of the *M/V Arctic Sunrise*, the ITLOS ordered that the *Arctic Sunrise* and

¹⁴ Court of Justice of the European Union, *A Salemink v Raad van bestuur van het Uitvoeringsinstituut werknemersverzekeringen*, C-347/10, judgment of 17 January 2012.

¹⁵ Harel (n 12) 131; S. Kaye, ‘Threats from the Global Commons: Problems of Jurisdiction and Enforcement’, (2007) 8 Melbourne Journal of International Law, <law.unimelb.edu.au/_data/assets/pdf_file/0020/1683101/Kaye.pdf>.

¹⁶ A. G. Oude Elferink, ‘The Arctic Sunrise Incident: A Multi-faceted Law of the Sea Case with a Human Rights Dimension’, (2014) 29 International Journal of Marine and Coastal Law 244, 250 and 256.

all detained persons be released,¹⁷ but did not rule on the merits of the dispute between the Netherlands and Russia or on the lawfulness of the seizure and detention of the vessel and of the 30 volunteers, most of whom were arrested on board the *Arctic Sunrise* outside the 500-metre safety zone established by Russia around its platform.¹⁸

The order of the ITLOS did not deal with the merits of the dispute, that is to say the legitimacy of the coercive acts on the part of the Russian authorities towards the *Arctic Sunrise* and its crew, but this question lies at the heart of the arbitration procedure set in motion on 4th October 2013 by the Netherlands against the Russian Federation, in which the latter refused to take part.¹⁹

On one side, in fact, the Netherlands complained of the violation of the freedom of navigation of the Greenpeace vessel within the Russian EEZ, and also of the violation of individual freedoms laid down in international law and human rights treaties. On the other, Russia, through some *notes verbales*, has asserted the full legitimacy of coercive actions within its EEZ if these are aimed at the protection of economic interests regarding the platforms, and resources of the seabed.

Putting to one side the solutions offered by the Arbitral Tribunal in the Award on the *Arctic Sunrise* case that we will illustrate later, in the absence of any defense on Russia's part, and also quite apart from the outcome of the appeals made by the 30 Greenpeace activists to the European Court of Human Rights against Russia, for presumed violations of Articles 5 and 10 of the European Convention of Human Rights, what comes to the fore in this matter is the vulnerability of off-shore platforms and the considerable uncertainty that exists regarding the extent of coastal State's powers to regulate or protect them.

The most difficult problem arising from the *Arctic Sunrise* case concerns the question of enforcement powers within the EEZ, and within the safety zone which can be instituted around a platform up to a maximum extension of 500 metres.

The IMO General Assembly resolution of 19th October 1989 on "Safety zones and safety of navigation around offshore installations and structures" provided that, within the safety zone, States must take every possible measure to ensure that, unless specifically authorized to do so, their ships do not enter or cross safety zones legitimately instituted by coastal States within their own EEZs. This resolution also describes some measures which should be adopted by ships when they find themselves in proximity to off-shore platforms, such as prudence, the observance of safe speed and distance criteria etc.

Although these measures are contained in a recommendation, they may be considered as "generally accepted international norms" on navigation in proximity to artificial islands as set out in Article 60(6) UNCLOS.

¹⁷ ITLOS, '*Arctic Sunrise*' Case (*Netherlands v Russian Federation*), Case No. 22, Order of the 22 November 2013.

¹⁸ According to Article 16 of the Federal Law on Continental Shelf, adopted on 25 October 1995, the Russian Federation established safety zones around its installations with an extension of not more than 500 meters (<www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/RUS_1995_Law.pdf>). However, the Netherlands has raised the illegality of Russia's claim to a safety zone of three nautical miles, which would be inferred from Notices to Mariners No. 51/2011 published by the Russian authorities and also from the radio communication of the Russian Federation's Coast Guard to the M/V *Arctic Sunrise* that it was not permitted to enter within a radius of 3 nautical miles around the platform. On the irrelevance of the excessive Russian claim to a 3 nautical miles zone, see Oude Elferink (n 16) 250, 256. See the text of the Arbitration Tribunal's decision on the presumed claim to an excessive safety zone around an oil rig.

¹⁹ The first decision adopted by the Arbitral Tribunal was concerning the question of Tribunal competence: *The Arctic Sunrise Arbitration (Netherlands v Russia)* (Award on Jurisdiction) Case No 2014-02 (2014), <www.pcacases.com/web/sendAttach/1325>.

What raises the greatest doubts regarding interpretation, looking at disputes like the *Arctic Sunrise* case, is undoubtedly the fact that Article 60 gives no explicit description of the enforcement powers of the coastal State over ships which may represent a danger to exploitation activities and/or to the platform itself.

The doctrine holds, however, that these powers must be understood to be very wide, since they derive from the exercise of full jurisdiction.

Article 60(4), however, gives the impression of a limitation of enforcement powers within the safety zone, since it provides for the adoption of “appropriate measures” for the safety of navigation and of the installation within the safety zone and not outside it, and therefore not beyond a distance of 500 metres from the fixed or mobile installation.

This provision means that the coastal State cannot be considered to enjoy all the coercive powers necessary to prevent and repress actions harmful or potentially harmful to the economic interests or safety of a platform which occur outside a radius of 500 metres from that platform. Outside the safety zone, if one has been instituted, the State is thus obliged to guarantee freedom of navigation, and would not have any great margin of possible action to prevent interference with or attacks on its platforms.

In any case, Article 60(4), with the term “appropriate measures” implies a high level of discretionary powers of the coastal State to evaluate the kind of measures necessary to eliminate the unauthorized presence of foreign ships in these areas, and to prevent any attempt at unauthorized access into the safety zones. Precautionary measures such as the confiscation of documents of a ship found in the proximity of a platform were adopted by Norway in 1993 in a case involving the Greenpeace ship *Solo*, which was engaged in peaceful protest activity against off-shore oil drilling.

This interpretation of the enforcement powers of the coastal State seems to be confirmed by Article 111(2) UNCLOS which says “The right of hot pursuit shall apply mutatis mutandis to violations in the exclusive economic zone or on the continental shelf, including safety zones around continental shelf installations, of the laws and regulations of the coastal State applicable in accordance with this Convention to the exclusive economic zone or the continental shelf, including such safety zones”.

Something may be deduced from the general principle according to which enforcement powers may be exercised as long as the ship is inside the maritime zone over which the State enjoys such powers. Since coastal States enjoy greater powers inside the safety zones than they do within the EEZ or CS, the State may be deemed unable to exercise enforcement powers over a ship when that ship is outside the safety zone.

The ruling of the Arbitral Award in the *Arctic Sunrise* case of 14 August 2015 enters specifically into the questions just mentioned. In particular, the Arbitration Tribunal undertook to verify conformity with the dispositions of UNCLOS and general international law on the boarding, seizing and detention of the *Arctic Sunrise*, and its crew as an integral part of the ship, by the Russian authorities.

With this intent, the Arbitral Tribunal analysed all the possible legal grounds which might justify the enforcement measures used by Russia against a ship flying the Dutch flag while the ship was exercising its right of free navigation within the Russian EEZ .

In the first place, the decision of the Tribunal excludes the hypothesis that Russia had claimed a safety zone around its platform of an extension not allowed by international law and therefore more than 500 metres. In fact, according to the Tribunal, Russia had instituted, and was exercising therein the rights appertaining to it, a safety zone of 500 metres around the platform in question.

From the study of the regulations and the particular legal points applicable to the case carried out by the Tribunal, it emerges that the coastal state enjoys full coercive powers over foreign ships which violate their exclusive jurisdiction over artificial islands and platforms within the EEZ or on the CS, when these ships are in proximity to islands and platforms, or inside the 500 metre safety zone. Outside that limit, coercive powers over foreign ships may be exercised only with the consent of the flag State.

Such coercive powers can be exercised, without the authorization of the flag state, in the case of hot pursuit which begins inside a safety zone situated within the EEZ or on the CS. The coastal state may pursue and seize a ship which has violated the ban on entering the safety zone of an offshore platform, if the pursuit begins in that zone and continues without interruption until the seizure is effected. In the case in point, the Tribunal excluded the hypothesis of hot pursuit since the pursuit was interrupted and the seizure of the Arctic Sunrise occurred only on the day following the violation of the ban on entering the safety zone.

The Tribunal then excluded that the conduct of the Russian authorities was legal in virtue of the powers the coastal state enjoys in the matter of exclusive exploitation of biological and non-biological resources, since the behaviour of the Greenpeace activists and the ship itself had not led to any violation of the exclusive rights of the state, nor had it involved any risk to the resources of the EEZ and CS.

From the perspective of marine environmental protection and risks of environmental damage arising from the protest activity against the extraction platform, the Tribunal excluded firstly, that any kind of spillage of environmental damage had occurred within the EEZ, and that consequently an appeal to Article 220 UNCLOS as a legal basis for the Russian coercive action was out of the question, and secondly it excluded the presence of any real risk of accident or other event damaging to the marine environment deriving from dangerous manoeuvres carried out in the course of the protest, so considering Article 221 UNCLOS equally inapplicable.

According to the Tribunal, Russia should by that time have acquired a notable familiarity with the forms of manifestation of protest carried out at sea against offshore platforms in the Arctic Ocean, considering the previous cases of protest by Greenpeace within its maritime areas, and therefore, in the light of this experience, should have been able to avoid catastrophic repercussions as a result of the protest. But the decisive point and the one most convincing for excluding the hypothesis that possible environmental risk or accident were a sufficient legal base for Russia's action lies in the fact that many hours had passed between the protest activity and the arrest and seizure of the Arctic Sunrise, so that the risk of accident was no longer impending at the moment of the boarding.

Nor could the special measures foreseen by Article 234 UNCLOS be invoked in this specific case, since Russia does not consider the waters of the Barents Sea as falling into the category of ice-covered waters.

Finally, among hypotheses of security breaches regarding the platform considered, excluding that of piracy which could not be invoked in this particular case, the arbitral decision admits that, in the case of terrorist attacks against offshore platforms, the coastal state may adopt all preventive and repressive measures necessary against suspect ships which are found within the safety zones, or outside it in the exercise of the right of hot pursuit according to Article 111(2). This hypothesis is also foreseen by the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf ("SUA Fixed Platforms Protocol"). However, in the case in point,

the Tribunal not only excluded the hypothesis of hot pursuit, since the pursuit had been interrupted, but also excluded the idea that Russia could have had any well founded suspicion that they were dealing with a terrorist attack, both because the protest had been carried out in a peaceful fashion, and because of their previous experience with cases of protest by Greenpeace.

Therefore, from this decision, by which Russia is judged liable for the violation of the freedom of navigation of the Arctic Sunrise, for not having sought the authorization of the flag state before applying coercive measures, there emerges a notable vulnerability of the offshore platforms and also a significant weakness of the coastal state as regards their power to protect them.

5. Critical questions and risks connected with offshore activities in the Mediterranean and Adriatic seas

Several critical aspects have emerged with regard to the exercise of the powers of coastal states over offshore platforms and to the balancing of states' sovereign and jurisdictional rights with the freedom of navigation in the zones beyond the territorial seas. In particular, when difficulties in interpreting international rules occur, any possible negative impact they may have is much more evident and risky in the case of semi-enclosed and fragile seas. Furthermore it must be emphasized that in a semi-enclosed sea, such as the Adriatic, a possible attack against operating offshore installations could have serious consequences and therefore should be prevented by all lawful means.

The most critical issues regarding the activities of exploration for and extraction of hydrocarbons in the Mediterranean and Adriatic seas are the result partly of the lack of cooperation between coastal states in these semi-enclosed seas on questions of the prevention of accidents and environmental damage, and partly to the absence of any harmonization of state regulations or legislation concerning the matters of exploration, the extraction of resources and the installation and management of offshore platforms.

As far as EU Member States are concerned, the processes of harmonization and technical coordination of offshore activities was consolidated in Directive 2013/30/EU on safety of offshore oil and gas operations.²⁰

There is no lack, however, also among Member States, of conflicts, either explicit or underlying, and even regarding oil and gas resources. For example, the determining of maritime borders creates tensions in the relations between states, as in the case of Slovenia and Croatia, whose controversy over the determining of their respective maritime zones remains unresolved to this day.²¹

Relations between Malta and Italy, too, have been threatened by the existence of a latent conflict regarding the overlapping of some maritime areas already put into the hands of private companies for the exploration for and exploitation of hydrocarbons.

From the perspective of regional cooperation for the protection of the CS, the fact that Italy is not one of the limited number of states that have ratified the two Protocols

²⁰ Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC, in *Official Journal of the European Union*, L 178, 28 June 2013, 66 ff.

²¹ The Arbitration Tribunal which had been called for by the Parties in November 2009 halted its work following the withdrawal of Croatia from the arbitral proceedings, on the 28th July 2015, because of the violations of the arbitral regulations committed by Slovenia.

of the Barcelona Convention relevant to the prevention of accidents and pollution deriving from offshore activities, is symptomatic of the low level of interest in the subject. These are the Protocol dealing with Co-operation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (the so-called Prevention and Emergency Protocol) adopted on 25 January 2002 and which entered into force on 17 March 2004 and the Protocol for the Protection of the Mediterranean Sea Against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (the so-called Offshore Protocol), adopted on the 14 October 1994 and which entered into force on the 24 March 2011. The low participation in regional sectoral agreements regarding the specific matter of offshore activities would indicate that the theme of environmental security does not seem to be a priority of the Mediterranean States.

As far as the Adriatic Sea is concerned, it is well known to biologists, and not only to lawyers, for the difficulties involved in marine living resources management and marine biodiversity conservation in disputed areas. These marine areas have recently been an object of interest to the scientific community which has launched a proposal for the creation of Marine Peace Parks.²² The creation of a Marine Peace Park in the Adriatic Sea could have some implications for the existing and future gas and oil offshore platforms in the area.

There is another interesting development regarding the life of the offshore platforms which could interest the Adriatic Sea. The oil and gas rigs at the end of their use should be dismantled, as mentioned above. Nevertheless, it has been observed that the practice of abandoning the rigs, without dismantling them, has produced in some cases interesting consequences for the marine ecosystem and has raised the issue of the possible re-use of platforms as artificial reefs.²³ Scientific discussion on the unexpected effects of accidental sinking or voluntary abandonment began after the tragic case of the wreck of the Paguro Agip platform, which sank in the northern Adriatic Sea in 1965.²⁴

Many years after this accident, thanks to the exceptional aquatic life which developed in the artificial reef, the wreck of the Paguro platform has turned into a popular destination for sport divers. Indeed, in some cases new and rare ecosystems have grown up around rigs which are themselves worthy of protection.²⁵

²² See P. Mackelworth, D. Holcer, B. Lazar, 'Using conservation as a tool to resolve conflict: Establishing the Piran-Savudrija international Marine Peace Park', (2013) 39 *Marine Policy* 112.

²³ M. Ponti, M. Abbiati, V. U. Ceccherelli, 'Drilling platforms as artificial reefs: distribution of macrobenthic assemblages of the "Paguro" wreck (northern Adriatic Sea)', (2002) 59 *ICES Journal of Marine Science* S 316. The authors argue as follows on the biological changes occurring to the ecosystem on the wreck of an oil platform: "The offshore wreck of the "Paguro" drilling platform also hosted a rich fauna, presumably reflecting a high structural complexity as well as its wide bathymetric range. [...] This is important in light of potential re-use of decommissioned platforms as artificial reefs in the northern Adriatic Sea, because an appropriate disposal strategy should take into account these effects".

²⁴ The accident, during the drilling for a new source of methane, caused the offshore platform *Paguro* to explode and sink to the bottom of the sea. This tragedy also caused the death of three persons. The sunk platform is located now at 12 miles away from the port of Marina di Ravenna at a depth of 25 metres.

²⁵ See also the idea of using the ENI offshore platforms in Adriatic by decommissioning them onto the seabed (sinking) in order to create a series of "hot spots of marine biodiversity" (see L. Vignoli, *Disposal of the Adriatic Offshore Platforms: An Opportunity for the Protection of Nature and the Coastal Tourism*, <www.projectaware.org/video/disposal-adriatic-offshore-platforms-opportunity-protection-nature-and-coastal-tourism>).

NATHALIE ROS

ENVIRONMENTAL CHALLENGES OF OFFSHORE ACTIVITIES IN INTERNATIONAL AND EUROPEAN UNION LAW

SUMMARY: 1. Introduction. – 2. In international law: environmental protection in a Regional Sea System. – 2.1. The conventional framework of the Barcelona System. – 2.2. The governance framework of the Offshore Protocol. – 3. In EU law: industrial safety in an Economic Integration Organization. – 3.1. Integration of the Mediterranean *acquis* into EU law. – 3.2. Application of EU law to Mediterranean governance. – 4. Conclusion.

1. Introduction

The accident occurred, on 20 April 2010, on the *Deepwater Horizon* platform exploiting the *Macondo* well in the Gulf of Mexico, is not the first and, unfortunately, the last of such disasters to take place during offshore operations. But the explosion and fire of this platform have undoubtedly contributed to the awareness of the international community about the dangers inherent in such activities, now possible in increasingly difficult and, therefore, more and more dangerous and risky conditions. Worldwide, the *Deepwater Horizon* accident has revealed to the public opinion and stakeholders all the environmental challenges of offshore operations, and has pointed out the need to fight against subsequent marine pollution, both functional and accidental, improving industrial safety and response capabilities. This process of awareness rising was particularly important in the Mediterranean region.

Up to now, the oil and gas industry is not as well established in the Mediterranean Sea as in other parts of the world, but the number of offshore installations is increasing and future perspectives exist. Furthermore, new deposits have been discovered that may be exploited, since deep and even ultra-deep drilling is now possible. But the risks involved in a fragile and semi-enclosed sea with seismic activity, as the Mediterranean, are even more important. Indeed, a disaster on a platform in the region would have a dramatic effect and irreversible consequences, because of the small size of the basin and the low rate of water renewal.¹

Obviously, these risks are also of great concern in the Adriatic Sea, a semi-enclosed sea in a semi-enclosed sea,² and Ionian Sea, where offshore exploration and exploitation are already a reality.³ Albania, Bosnia and Herzegovina, Croatia, Italia, Greece, Montenegro and Slovenia are involved as bordering States, as well as all Mediterranean States and the EU, since four of the seven riparian are also Member States, and as shown by the Maritime Strategy for the Adriatic and Ionian seas.

From the vantage point of legal governance, environmental challenges of offshore activities in the Mediterranean Sea, and especially in such a semi-enclosed sea as the

¹ On legal challenges, cf N. Ros, 'Exploration, Exploitation and Protection of the Mediterranean Continental Shelf' in C. Cinelli, E.M. Vásquez Gómez (eds), *Regional Strategies to Maritime Security: a Comparative Perspective* (Valencia, 2014) 101-132; N. Ros, 'Quel régime juridique pour l'exploitation offshore en Méditerranée?', (2015) XXXIII *Annuaire de Droit Maritime et Océanique* 205.

² See A. Caligiuri, 'La gouvernance de la mer Adriatique' in N. Ros, F. Galletti (eds), *Le droit de la mer face aux Méditerranées. Quelle contribution des mers semi-fermées au développement du droit international de la mer?* (Napoli, 2016 – forthcoming).

³ See in this *Volume*, A. Prontera, 'The Old and the New Policies and Politics of Offshore Hydrocarbon Development in the Adriatic and Ionian Seas'.

Adriatic Sea, or even in the Ionian Sea, are to be understood both according to International and EU law⁴. Of course, international law approach is mainly focused on environmental protection in a regional sea system (1), when EU law is more dedicated to industrial safety in an Economic Integration Organization (2).

2. In international law: environmental protection in a Regional Sea System

In order to face environmental challenges of offshore activities in the Mediterranean Sea, international law relies first on the conventional framework of the Barcelona System (2.1.), involving the twenty-one bordering States and the EU, and more specifically on the governance framework of the Offshore Protocol (2.2.).

2.1. *The conventional framework of the Barcelona System*

The Barcelona Convention and Protocols (a) constitute the legal dimension of the Mediterranean Action Plan, developed in the framework of UNEP, according to international law and United Nations cooperation principles.⁵ Dealing with offshore activities, the Mediterranean System appears really pioneering with a dedicated conventional act, the 1994 Offshore Protocol (b).

a) Barcelona Convention and Protocols

The Barcelona Convention is an umbrella-treaty (i); it cannot be dissociated from its seven Protocols, with which it forms a global regional system (ii).

i) An umbrella-treaty

The first *Convention for the Protection of the Mediterranean Sea* against pollution was signed on 16 February 1976, and entered into force on 12 February 1978; at the time being, the Mediterranean System was the first to adopt a legal act in the framework of UNEP Regional Seas System. In the aftermath of the Rio Conference, the Contracting Parties have decided to negotiate an amended version of the text; the *Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean*, adopted on 10 June 1995 and entered into force on 9 July 2004, is an umbrella-treaty integrating all the Rio outcomes and intending to set up an environmental and sustainable governance.

The Barcelona Convention especially refers to “the precautionary principle” (Article 4(3)(a)), “the polluter pays principle” (Article 4(3)(b)), and to “environmental impact assessment” (Article 4(3)(c) and (d)), “integrated management of the coastal zones” (Article 4(3)(e)), “best available techniques” and “best environmental practices” (Article 4(4)(b)), and integrates the new requirements in the field of Public Information and Participation (Article 15). It intends to fight against all the forms of marine

⁴ N. Ros, ‘La réglementation euro-méditerranéenne des activités offshore’, (2015) *Diritto del Commercio Internazionale* 121; L. Schiano di Pepe, ‘Offshore oil and gas operations in the Mediterranean Sea: regulatory gaps, recent developments and future perspectives’ in J. Juste Ruiz, V. Bou Franch (eds), *Derecho del Mar y Sostenibilidad ambiental en el Mediterráneo* (Valencia, 2014) 363-387; L. Schiano di Pepe, ‘International Marine Environmental Law and the EU: An Adequate Framework to Address Environmental Emergencies?’ in I. Govaere, S. Poli (eds), *EU Management of Global Emergencies: Legal Framework for Combating Threats and Crises* (Leiden/Boston, 2014) Chapter 14, 298-303.

⁵ See Mediterranean Action Plan official website: <www.unepmap.org>.

pollution, including Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil as specified by Article 7,⁶ and “to protect and preserve biological diversity” (Article 10), in the framework of a global regional system.

ii) A global regional system

With its seven thematic Protocols, all in force since March 2011, it forms a comprehensive legal system, at the Mediterranean scale, addressing the different forms of pollution and environmental challenges. According to Article 29 of the Convention, the relationship inside the system is founded on a twofold principle: a Contracting Party to the Convention has to adhere to at least one of the Protocols; and conversely it is necessary to be a Contracting Party to the Convention to ratify one of the Protocols.

The seven specialized Protocols develop the objectives and principles of the Convention: *Protocol for the Prevention of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft*, adopted in 1976 and entered into force in 1978;⁷ *Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea*, adopted in 2002 and entered into force in 2004;⁸ *Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities*, adopted in 1996 and entered into force in 2008;⁹ *Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean*, adopted in 1995 and entered into force in 1999;¹⁰ *Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil*, adopted in 1994 and entered into force in 2011; *Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal*, adopted in 1996 and entered into force in 2008; *Protocol on Integrated Coastal Zone Management in the Mediterranean*, adopted in 2008 and entered into force in 2011.

It is obvious that several of these Protocols can be applicable to oil and gas exploration and exploitation in the Mediterranean Sea, but one of them is even especially devoted to this specific issue: the 1994 Offshore Protocol.

b) The 1994 Offshore Protocol

The Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil is a dedicated conventional act (i) especially dealing with offshore activities, and an integrated conventional act (ii) in the Mediterranean System.

⁶ Article 7 (Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil): “The Contracting Parties shall take all appropriate measures to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil”.

⁷ Indeed, the amended Protocol for the Prevention and Elimination of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea, adopted in 1995, is now the only one of the new Barcelona Protocols not to be in force⁷.

⁸ Replacing the Protocol Concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency, adopted in 1976 and in force since 1978.

⁹ Replacing the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources, adopted in 1980 and in force since June 1983.

¹⁰ Replacing the Protocol concerning Mediterranean Specially Protected Areas, adopted in 1982 and in force since 1986.

i) A dedicated conventional act

It's important to point out that there is no universal convention on this topic, and that the Mediterranean Protocol is thus also one of the two only existing treaties in the world currently dealing with offshore activities. It is particularly interesting to note that the other conventional act relating to offshore operations is also part of a regional legal system adopted in the framework of UNEP Regional Seas Program. It is the *Protocol Concerning Marine Pollution Resulting from Exploration and Exploitation of the Continental Shelf*, adopted on 29 March 1989 and entered into force on 17 February 1990, in the framework of the *1978 Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution*, in the ROPME Sea Area,¹¹ including the Persian Gulf and the Sea of Oman, a region where offshore issues are very important.

This aspect reinforces the vanguard and pioneering dimension of the *Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil* adopted in Madrid on 14 October 1994, and entered into force on 24 March 2011. The idea of such a protocol was first suggested in 1985, during the 4th Ordinary Meeting of the Contracting Parties to the Barcelona Convention (CoP 4), when offshore activities were not yet so developed in the region, and precisely in order to be able to anticipate future industrial developments and their environmental impacts, taking into consideration the extreme vulnerability of the Mediterranean Sea. A project was elaborated according to Article 7 of the Barcelona Convention, and in 1993 the CoP 8 decided to convene an international conference in Madrid in 1994; thereby, the Protocol was conceived and adopted as an integrated conventional act.

ii) An integrated conventional act

This is part of the pioneering dimension of the Protocol, adopted in 1994 to be a component of the new framework integrating the Rio outcomes, and explains that the Offshore Protocol is integrated in the Mediterranean System, both normatively and institutionally.

In addition to the Barcelona Convention and its Article 7, the Offshore Protocol also refers to two other Protocols, now replaced in their latest version by the 1995 Convention, the *1995 Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean*, and the *2002 Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea*. As regards relationship with the Specially Protected Areas and Biodiversity Protocol, the cross-interpretation of the 1995 Protocol and the 1994 Protocol implies that offshore activities are not on principle prohibited in specially protected areas; only protection measures may be taken, according to international law, and as provided for in Article 6 of the SPA Protocol¹² or in Article 21 of the Offshore Protocol.¹³ Concerning the Prevention and Emergency Protocol, the synergy results first

¹¹ See ROMPE – Regional Organization for the Protection of the Marine Environment official website: <ropme.org>. Member States of ROPME are Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

¹² See especially, Article 6 (Protection Measures): “The Parties, in conformity with international law and taking into account the characteristics of each specially protected area, shall take the protection measures required, in particular: [...] (e) the regulation or prohibition of any activity involving the exploration or modification of the soil or the exploitation of the subsoil of the land part, the seabed or its subsoil”; and also Article 6(b), (f), (h) and (i).

¹³ Article 21 (Specially Protected Areas): “For the protection of the areas defined in the Protocol concerning Mediterranean Specially Protected Areas and any other area established by a Party and in furtherance of the goals stated therein, the Parties shall take special measures in conformity with international law, either individual or

from some cross-references with the Offshore Protocol, but proceeds primarily of the logical approach governing the fight against pollution, as suggested by Articles 16 (Contingency planning)¹⁴ and 18 (Mutual assistance in case of emergency)¹⁵ of the Offshore Protocol, or Article 9(4) of the Prevention and Emergency Protocol.¹⁶ Thereby, in case of emergency, the rules applicable in the field of offshore operations appear largely developed by analogy with the legal regime of maritime safety, older and therefore more complete.

The systemic integration has also an institutional dimension, since the Offshore Protocol gives an operational role, in case of emergency, to the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC).¹⁷ REMPEC was established in 1976 in order to be the “Regional Centre” of the Prevention and Emergency Protocol;¹⁸ logically it has a strong experience in the fight against accidental pollution and emergency response. The Offshore Protocol gives an explicit role to REMPEC, regarding Mutual assistance in case of emergency (Article 18)¹⁹ and Transboundary pollution (Article 26(3)).²⁰ In practice, and despite the financial difficulties encountered by UNEP/MAP, REMPEC actually seems intended to play an even greater role within the governance framework of the Offshore Protocol.

through multilateral or bilateral cooperation, to prevent, abate, combat and control pollution arising from activities in these areas. In addition to the measures referred to in the Protocol concerning Mediterranean Specially Protected Areas for the granting of authorization, such measures may include, inter alia: (a) Special restrictions or conditions when granting authorizations for such areas: (i) The preparation and evaluation of environmental impact assessments; (ii) The elaboration of special provisions in such areas concerning monitoring, removal of installations and prohibition of any discharge. (b) Intensified exchange of information among operators, the competent authorities, Parties and the Organization regarding matters which may affect such areas”.

¹⁴ See especially para 1: “In cases of emergency the Contracting Parties shall implement *mutatis mutandis* the provisions of the Protocol concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency”.

¹⁵ See in particular: “For this purpose, a Party which is also a Party to the Protocol concerning Cooperation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency shall apply the pertinent provisions of the said Protocol”.

¹⁶ “In accordance with the relevant provisions of the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil, each Party shall issue instructions to persons having charge of offshore units under its jurisdiction to report to it by the most rapid and adequate channels in the circumstances, following reporting procedures it has prescribed, all incidents which result or may result in a discharge of oil or hazardous and noxious substances”.

¹⁷ See REMPEC official website: <www.rempec.org>.

¹⁸ Article 1 Definitions (f) of the 2002 Prevention and Emergency Protocol: “‘Regional Centre’ means the ‘Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea’ (REMPEC), established by Resolution 7 adopted by the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region on the Protection of the Mediterranean Sea at Barcelona on 9 February 1976, which is administered by the International Maritime Organization and the United Nations Environment Programme, and the objectives and functions of which are defined by the Contracting Parties to the Convention”.

¹⁹ “In cases of emergency, a Party requiring assistance in order to prevent, abate or combat pollution resulting from activities may request help from the other Parties, either directly or through the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), which shall do their utmost to provide the assistance requested”.

²⁰ “If a Party become aware of cases in which the marine environment is in imminent danger of being damaged, or has been damaged, by pollution, it shall immediately notify other Parties which in its opinion are likely to be affected by such damage, as well as the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), and provide them with timely information that would enable them, where necessary, to take appropriate measures. REMPEC shall distribute the information immediately to all relevant Parties”.

2.2. *The governance framework of the Offshore Protocol*

More than twenty years after its adoption, the Offshore Protocol appears a global and ambitious Protocol (a), because it is still pioneering and definitely oriented towards a legal governance (b) of these activities in the Mediterranean Sea.

a) A global and ambitious Protocol

The 1994 conventional act comprises 32 articles and 7 annexes; it is characterized by a high level of requirements (ii) supported by the legal scope of the Protocol (i).

i) The legal scope of the Protocol

From the vantage point of geography, and contrary to what might suggest the reference to the continental shelf in the title of the Protocol, it encompasses all the Mediterranean areas likely to be affected by a pollution resulting from offshore activities. Article 2 sets the Geographical coverage comprising “the Mediterranean Sea Area”, as defined in Article 1 of the Barcelona Convention, that is to say all the maritime waters of the Mediterranean Sea, the continental shelf and the seabed and its subsoil, on the seaward and landward sides of the baselines, and extending in the case of watercourses up the freshwater limit, with the possibility for the Parties to include also area wetlands or coastal areas of their territory.

As regards the activities, the Offshore Protocol adopts a holistic approach of offshore operations; pursuant to Article 1(d), the conventional definition of “activities concerning exploration and/or exploitation of the resources in the Protocol Area” is very broad including upstream and downstream operations: scientific research, all the forms of exploration (“seismological activities; surveys of the seabed and its subsoil; sample taking; exploration drilling”) and the global process of exploitation, from the establishment of an installation to its removal,²¹ from drilling to transportation (“establishment of an installation for the purpose of recovering resources, and activities connected therewith; development drilling; recovery, treatment and storage; transportation to shore by pipeline and loading of ships; maintenance, repair and other ancillary operations”).²²

Finally, “all mineral resources” are concerned, “whether solid, liquid or gaseous”.²³ Therefore, the Protocol is not only applicable to conventional oil and gas activities; its material scope would include, for example, methane hydrates and rare earths for which some serious prospects exist in the Mediterranean.

In addition, the broad scope of the Offshore Protocol is associated with a high level of requirements.

ii) A high level of requirements

Although the Protocol is now twenty years old and, therefore, cannot integrate the latest legal and technological innovations, or subsequent requirements, it still appears

²¹ Article 20 is especially devoted to Removal of installations.

²² The definition of “installation”, in Article 1(f), strengthens this comprehensive approach: “‘installation’ means any fixed or floating structure, and any integral part thereof, that is engaged in activities, including in particular: (i) Fixed or mobile offshore drilling units; (ii) Fixed or floating production units including dynamically-positioned units; (iii) Offshore storage facilities including ships used for this purpose; (iv) Offshore loading terminals and transport systems for the extracted products, such as submarine pipelines; (v) Apparatus attached to it and equipment for the reloading, processing, storage and disposal of substances removed from the seabed or its subsoil”.

²³ Cf Article 1(c).

pioneering and characterized by a high level of requirements for the Parties and operators. Indeed, it was conceived to be integrated in the new legal framework of the 1995 Barcelona Convention, in conformity with the Rio contribution, and to anticipate the future industrial development of offshore operations in the Mediterranean. The legal ambition of the Protocol is still to be underlined, even if a lot of its dispositions are mere soft law, a common defect in the Barcelona System. Some examples of ambitious provisions can be cited, such as: written authorization for exploration and exploitation (Articles 4, 5 and 6); sanctions for breaches of conventional obligations (Article 7); use of the best available techniques and standards to minimize the risk of pollution (Article 8); environmental impact assessments (Article 5(1)(a), and Annex IV); mutual assistance in cases of emergency (Article 18); removal of installations (Article 20); insurance and other financial security to cover liability (Articles 5 (1)(i), and 27).²⁴

Actually, this high level of requirements is the reason of the low level of ratifications, particularly by European States, and it explains the late entry into force, especially because of the compulsory insurance; indeed, this disposition is the most criticized because most of the States are reluctant to increase the obligations of their industrial sector. Adopted in 1994, the Offshore Protocol has entered into force only in 2011, with the six ratifications of Albania, Cyprus, Libya, Morocco, Syria, and Tunisia. Although the EU has now accessed to the Protocol, its Member States don't manifest their intention to ratify the Protocol in the near future: Croatia, Greece, Italia, Malta, Slovenia, and Spain have signed, when France has neither signed nor ratified; and outside the EU, the situation is not so different, Israel and Monaco have signed, but Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, and Turkey have neither signed nor ratified ... Nevertheless, the Mediterranean System is evolving towards a legal governance.

b) Towards a legal governance

The 10th Meeting of the Focal Points of the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC), convened a couple of weeks after the entry into force of the text, in May 2011,²⁵ had already largely addressed the issue of the future of the Protocol (ii), but the implementation of the Protocol (i) initiated a year later is still ongoing.

i) The implementation of the Protocol

The official process of implementation began during the CoP 17 of the Barcelona Convention, in February 2012, with the adoption of the Decision IG.20/12, *Action Plan to implement the Protocol of the Barcelona Convention concerning the Protection of the Mediterranean Sea Against Pollution Resulting from Exploration and Exploitation of*

²⁴ Concerning the Protocol and its legal contribution, cf E. Raftopoulos, *Sustainable Governance of Offshore Oil and Gas Development in the Mediterranean: Revitalizing the Dormant Mediterranean Offshore Protocol*, in *MEPIELAN E-Bulletin*, 19 August 2010, <www.mepielan-ebulletin.gr/default.aspx?pid=18&CategoryId=4&ArticleId=29&Article=Sustainable-Governance-of-Offshore-Oil-and-Gas-Development-in-the-Mediterranean:-Revitalizing-the-Dormant-Mediterranean-Offshore-Protocol>; L. Schiano di Pepe, 'Offshore oil and gas operations in the Mediterranean Sea: regulatory gaps, recent developments and future perspectives' in J. Juste Ruiz, V. Bou Franch (eds), *Derecho del Mar y Sostenibilidad ambiental en el Mediterráneo* (Valencia, 2014) 371-375.

²⁵ N. Ros, 'La dixième réunion des Correspondants du REMPEC', (2010) XV Annuaire du Droit de la Mer 311.

*the Continental Shelf and the Seabed and its Subsoil.*²⁶ This decision obviously urges all the Contracting Parties who have not yet done so to ratify as early as possible with the view to having the Protocol entering into force for all the Parties and beginning “to produce beneficial effects at the earliest possible moment”. More concretely, the Decision also establishes an *ad hoc* working group coordinated by REMPEC, in order to prepare an in depth assessment and stock taking analysis of the existing practical measures and mainly to develop a dedicated Action Plan.

Three meetings of the Offshore Protocol Working Group were convened, in June and December 2013, and June 2014. The 3rd Meeting has agreed on a revised draft Offshore Action Plan to be definitively adopted by CoP 19,²⁷ tentatively convened in February 2016 in Greece. The Action Plan and its future implementation are to be developed by reference to new environmental law principles, such as integration principle, prevention principle, precautionary principle, polluter-pays principle, ecosystem-based approach, principle of public participation and stakeholder involvement, sustainable production and consumption principle. The Action Plan states three *general objectives*, themselves detailed in *specific objectives*: setting-up a governance framework to support the implementation of the Action Plan and the adoption, enforcement and monitoring of regional standards, procedures and rules; defining commonly agreed regional offshore standards and guidelines to be integrated and used at national level; and develop, in conformity with EcAp²⁸ and its relevant indicators, a regional commonly agreed reporting and monitoring for the Action Plan.²⁹

On a recommendation of the 1st Offshore Protocol Working Group Meeting, highlighting the need for the establishment of a regular regional forum to address issues on offshore activities at the regional level, Decision IG.21/8 of the CoP 18 has established the Barcelona Convention Offshore Oil and Gas Group (BARCO-OFOG),³⁰ in order to serve as an advisory body to the Contracting Parties to the Barcelona Convention as regards the Offshore Protocol; primarily composed of representatives of the Contracting Parties to the Convention, designated by the MAP Focal Point as National Offshore Focal Point, BARCO-OFOG is to be financed through extra budgetary resources and is not yet constituted.

Moreover, in the current economic context, including the internal financial crisis of the MAP, it is not only the implementation but also the future of the Protocol that are conditioned by economical parameters.

²⁶ Report of the 17th Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols, Paris, France, 10th-12th February 2012, UNEP(DEPI)/MED IG.20/8, 14 February 2012, Part I, Annex II *Thematic Decisions*, Decision IG.20/12, 217-218.

²⁷ Report of the 3rd Offshore Protocol Working Group Meeting, Attard, Malta 17-18 June 2014, REMPEC/WG/35/6, 31 July 2014.

²⁸ Ecosystem Approach in the Mediterranean Project (EcAp MED), Implementation of the Ecosystem Approach (EA) in the Mediterranean by the Contracting Parties in the context of the Barcelona Convention for the Protection of the Marine Environment and the Coastal region of the Mediterranean and its Protocols, <ec.europa.eu/environment/marine/pdf/Implementation_EcAp.pdf>, in particular at 14.

²⁹ Reviewed Draft Offshore Action Plan adopted by the 3rd Offshore Protocol Working Group, Malta, 17-18 June 2014, REMPEC/WG.35/5, 31 July 2014.

³⁰ Decision IG.21/08, *Follow up actions regarding the Offshore Protocol Action Plan*, Report of the 18th Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols, Istanbul (Turkey), 3-6 December 2013 UNEP(DEPI)/MED IG.21/9, 16 December 2013, Annex II – Thematic Decisions, 175-179.

ii) *The future of the Protocol*

The future of the Protocol relies first on the effective adoption of this Action Plan in February 2016, during the CoP 19 of the Barcelona Convention and Protocols.

Some States, such as Israel, were initially in favor of a revision of the Offshore Protocol, considered to be obsolete; but since the 1st Offshore Protocol Working Group Meeting, there was a general consensus that such an option should not be considered as it would take too long time and move the Contracting Parties backward on the process of implementation. Nevertheless, and even if the language and content of the twenty year-old Protocol, can be interpreted in line of today's best practices when the need for guidelines should arise, it seems necessary, without considering the revision of the Protocol, to update some provisions especially in the Annexes. In this context, the 3rd Meeting of the Offshore Protocol Working Group has recommended to mandate a correspondence group composed of the seven Contracting Parties to the Protocol, with the support of Contracting Parties to the Barcelona Convention which have not yet ratified the Protocol, to propose amendments to the Protocol and to the Annexes to be adopted by at least six Parties, corresponding to three-fourths of the Contracting Parties, respectively pursuant to Articles 22 and 23 of the Barcelona Convention.³¹ Amendments should be rapidly adopted, while the number of Parties is still limited and the three-fourths majority vote, legally necessary, *a priori* easier to obtain, in order to enter into force afterwards automatically for each new Contracting Party.

Some issues are still pending, either deliberately excluded from the legal scope of the Action Plan, or not yet decided by the Contracting Parties. For example, taking into consideration that Article 27 of the Offshore Protocol only states an undertaking "to cooperate as soon as possible in formulating and adopting appropriate rules and procedures for the determination of liability and compensation for damages resulting from the activities dealt with in this Protocol", it was originally decided not to include these issues in the scope of the Action Plan.³² The 3rd Offshore Protocol Working Group Meeting has only decided to mandate the UNEP/MAP Working Group of Legal and Technical Experts to assess the implementation of the Guidelines on Liability and Compensation for Damage Resulting from Pollution of the Marine Environment in the Mediterranean Sea Area, adopted in 2008 by CoP 15,³³ to offshore exploration and exploitation activities.³⁴

The future of the Offshore Protocol and its Mediterranean governance framework, including implementation activities, depends on budget issues and relies on the establishment of "a financial mechanism for the implementation of the Offshore Action Plan" as provided by Specific Objective 4 of the Action Plan.³⁵ It has been proposed

³¹ Report of the 3rd Offshore Protocol Working Group Meeting, Attard, Malta 17-18 June 2014, REMPEC/WG/35/6, 31 July 2014, 5, para 31-32.

³² On the actuality of these topics, see in this *Volume* L. Schiano di Pepe, 'Liability and Compensation for Damage Caused in Connection with Offshore Oil and Gas Activities: A Work in Progress'.

³³ Report of the 15th Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols, Almeria, Spain, 15-18 January 2008, Annex V, Decision IG 17/4 *Guidelines for the Determination of Liability and Compensation for Damage resulting from Pollution of the Marine Environment in the Mediterranean Sea Area*, 133-140; see T. Scovazzi, 'The Mediterranean Guidelines for the Determination of Environmental Liability and Compensation: The Negotiations for the Instrument and the Question of Damage that Can Be Compensated', (2009) 13 *Max Planck Yearbook of United Nations Law* 183.

³⁴ Report of the 3rd Offshore Protocol Working Group Meeting, Attard, Malta 17-18 June 2014, REMPEC/WG/35/6, 31 July 2014, 5, para 29-30.

³⁵ Report of the 3rd Offshore Protocol Working Group Meeting, Attard, Malta 17-18 June 2014, REMPEC/WG/35/6, 31 July 2014, 8, para 58-65.

that the Offshore Action Plan Fund structure could be managed by a Financial Committee and would exclusively be used for the implementation of the Action Plan, and not for liability and compensation; the first estimation of the budget is two million Euros, but obviously it should be carefully reviewed. This mechanism was compared with the International Oil Pollution Compensation Funds financed by oil receivers through its Parties, and it was underlined that such process should not require any extra costs for public governance. Nevertheless, it is obvious that the financing of offshore governance cannot and should not be too heavily dependent on direct and indirect contributions of the oil and gas industry.

In this context, political and financial support of the European Commission is more important than ever, as the contribution of EU law.

3. In EU law: industrial Safety in an Economic Integration Organization

Obviously, this traditional approach of international law is complemented and reinforced by the legal contribution of the EU; but as an economic integration organization, EU is more focused on industrial safety challenges than on real environmental protection. Nevertheless, in order to cope with problems of marine pollution resulting from offshore activities, the European strategy requires the integration of the Mediterranean *acquis* into EU law (3.1.) and the application of EU law to Mediterranean governance (3.2.).

3.1. Integration of the Mediterranean acquis into EU law

The EU is a founding member of the Barcelona System and a very involved Party, which has signed and ratified the Convention and all its Protocols except the *1996 Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal*. So, the Accession of the EU to the Offshore Protocol (a) is a very important decision, not only for the Union but also for its Mediterranean Member States, as shown by the legal consequences of the accession (b).

a) Accession of the EU to the Offshore Protocol

The Decision of accession (ii) took place almost twenty years after its adoption, in the context of awareness rising subsequent to the accident occurred in the Gulf of Mexico in April 2010, and as the result of a strategic change of mind (i).

i) A strategic change of mind

Prior to its adoption, in 1992, the Commission had proposed to the Council to sign the Protocol,³⁶ but it was then deemed more appropriate to work further on a Community regime for environmental liability rather than anticipate it through an international agreement. The current situation is clearly the result of a strategic change of mind occurred, in the aftermath of the accident in the Gulf of Mexico, on the *Deepwater Horizon* platform, on 20 April 2010, when the EU became more aware of all the potential for resulting risks, especially in the Mediterranean. The scale and gravity

³⁶ Commission of the European Communities, *Proposal for a Council Decision concerning the Signature of a Protocol for the Protection of the Mediterranean Sea against Pollution resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil*, 22 September 1994, COM(94) 397 final.

of the *Deepwater Horizon* accident prompted the Commission to launch, in May 2010, an urgent assessment of safety in offshore oil, as well as gas, exploration and production activities in European waters, combined with a review of applicable European legislation and consultations with industry and Member States' competent authorities.

A Commission Communication adopted on 12 October 2010, and titled *Facing the challenge of the safety of offshore oil and gas activities*, recommended to re-launch the process towards bringing into force the Offshore Protocol, in close collaboration with the Member States concerned and the REMPEC.³⁷ This proposition was supported by the Parliament in its resolution of 13 September 2011 on facing the challenges of the safety of offshore oil and gas activities,³⁸ while the Protocol was already entered into force.

One month later, on 27 October 2011, the Commission published a Proposal for a Council Decision on the accession of the EU to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil.³⁹ This proposal participates of the strategic evolution established within the EU. The risks involved by offshore operations are first prioritized in a global legal framework including the development of EU law. In this context, the European Parliament has finally consented to EU accession to the Offshore Protocol, on 20 November 2012,⁴⁰ as a preliminary to the Decision of accession.

ii) The Decision of accession

The Decision of accession, adopted by the Council on 17 December 2012,⁴¹ is the logical consequence of the procedure initiated in 2010. The Council Decision appears to be closely connected with its context: offshore exploration and exploitation activities are expected to increase after the discovery of large fossil fuels reserves in the Mediterranean; and an accident on a platform, such as in the Gulf of Mexico in 2010, would have immediate adverse transboundary and environmental consequences in the Mediterranean Sea due to its semi-enclosed nature and special hydrodynamics. So, the accession of the EU to the Offshore Protocol is a step forward in a process of awareness and implication of the Union and its Member States in order to manage effectively the risks and challenges involved by these industrial operations, and it is to be understood in close connection with current developments of EU law.

The Council Decision provides that “the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from

³⁷ *Communication from the Commission to the European Parliament and the Council Facing the challenge of the safety of offshore oil and gas activities*, 12 October 2010, COM(2010) 560 final.

³⁸ *Safety of offshore oil and gas activities*, European Parliament resolution of 13 September 2011 on facing the challenges of the safety of offshore oil and gas activities (2011/2072(INI)), P7_TA(2011)0366.

³⁹ *Proposal for a Council Decision on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil*, 27 October 2011, COM(2011) 690 final, 2011/0304 (NLE).

⁴⁰ *EU accession to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil*, European Parliament legislative resolution of 20 November 2012 on the draft Council Decision on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (09671/2012 – C7-0144/2012 – 2011/0304(NLE)), P7_TA(2012)0415.

⁴¹ *Council Decision of 17 December 2012 on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (2013/5/EU)*, in *Official Journal of the European Union*, L 4, 9 January 2013, 13 ff.

exploration and exploitation of the continental shelf and the seabed and its subsoil is hereby approved on behalf of the Union” (Article 1), taking into consideration that “this Decision shall enter into force on the day of its adoption” (Article 3), and with all the legal consequences of the accession.

b) Legal consequences of the accession

Due to the Decision of 17 December 2012, the EU is now a Contracting Party to the Offshore Protocol, with new legal obligations arising according to EU law (i), especially for Mediterranean Member States (ii).

i) According to EU law

Indeed, EU accession to the Offshore Protocol implies its integration into the EU legal order. The immediate legal effects are twofold because the Offshore Protocol may be rightly considered to enter into the legal framework of Article 216 TFEU. This disposition states that “the Union may conclude an agreement with one or more third countries or international organisations where the Treaties so provide or where the conclusion of an agreement is necessary in order to achieve, within the framework of the Union's policies, one of the objectives referred to in the Treaties, or is provided for in a legally binding Union act or is likely to affect common rules or alter their scope” (para 1); and such “agreements concluded by the Union are binding upon the institutions of the Union and on its Member States” (para 2).

Anyway, after the accession of the EU, and the integration of the Offshore Protocol into EU law, the obligations relating to its implementation are not only incumbent upon the EU, but also largely upon its Member States, which have to transpose its provisions into domestic law even though they have not ratified the Protocol. Furthermore, EU law shall contribute to reinforce the contribution of the Offshore Protocol, through the *acquis* and the new role assigned to the European Maritime Safety Agency initially established by Regulation (EC) No. 1406/2002 of 27 June 2002.⁴² Indeed a new Regulation (EU) No. 100/2013, adopted on 15 January 2013,⁴³ extends EMSA competencies, both from the material and geographical point of view, first to response to marine pollution caused by oil and gas installations, and second to States applying for accession to the Union and European neighborhood partner countries, which include Mediterranean non-Member States. Therefore, EMSA is able to be involved in the implementation of certain aspects of the Offshore Protocol and may even collaborate with REMPEC⁴⁴, what can be of particular interest especially for Mediterranean Member States.

ii) For Mediterranean Member States

Obviously, the Decision of accession has also consequences for the eight Mediterranean Member States of the EU, due to their legal status of Parties to the Barcelona System. This should encourage or incite Mediterranean Member States to

⁴² Regulation (EC) No. 1406/2002 establishing a European Maritime Safety Agency, in *Official Journal of the European Communities*, L 208, 5 August 2002, 1 ff.

⁴³ Regulation (EU) No. 100/2013 of the European Parliament and of the Council of 15 January 2013 amending Regulation (EC) No. 1406/2002 establishing a European Maritime Safety Agency, in *Official Journal of the European Union*, L 39, 9 February 2013, 3 ff.

⁴⁴ On this issue, see *Safety of offshore exploration and exploitation activities in the Mediterranean: creating synergies between the forthcoming EU Regulation and the Protocol to the Barcelona Convention- Final report*, May 2013 64-89, <ec.europa.eu/environment/marine/international-cooperation/regional-sea-conventions/barcelona-convention/pdf/Final%20Report%20Offshore%20Safety%20Barcelona%20Protocol%20.pdf>.

ratify, although they remain the most fervent opponents to the Protocol. In December 2012, the Decision of accession provided that “in addition to Cyprus, some other Member States that are Contracting Parties to the Barcelona Convention have announced recently their intention to also ratify the Protocol”;⁴⁵ but more than three years later, and even though some of them have announced their intention to ratify (France, Italy, Malta), implement (Greece) or transpose (Slovenia);⁴⁶ the *status quo* remains ... and Cyprus is still the only EU Member State Party to the Offshore Protocol.⁴⁷

However, ratification by Mediterranean EU Member States is not unnecessary, furthermore at the Mediterranean level where the Protocol needs more ratifications, and a better balance between EU and non-EU Member States. This evolution seems necessary in order for the Protocol to become more effective in the whole Mediterranean basin, and enhance cooperation and environmental protection, including developing mutual assistance in cases of emergency (Article 18), providing scientific and technical assistance to developing countries (Article 24), and sharing mutual information (Article 25), in order to fight against transboundary pollution (Article 26), as required by the Protocol.

As Mediterranean Member States are so reluctant to ratify the dedicated Protocol of the Barcelona Convention, the application of EU law to Mediterranean governance appears to be another option in order to face environmental challenges of offshore activities in the Mediterranean Sea.

3.2. Application of EU law to Mediterranean governance

Adopted on 12 June 2013, the *Directive on safety of offshore oil and gas operations* (a) is characteristic of EU law as developed in an economic integration approach; despite its shortcomings and an inevitably partial applicability in the Mediterranean basin, it is a step forward that must contribute to the participation of EU law to Mediterranean governance (b).

a) *Directive on safety of offshore oil and gas operations*

Materially, the contribution of the Directive is a positive development, especially because there exist some synergies with the Offshore Protocol (ii), but formally the legal instrument is the result of a disappointing evolution, from a proposed regulation to a directive (i).

i) *From a proposed regulation to a directive*

The normative process at the origins of the Directive on safety of offshore oil and gas operations, adopted on 12 June 2013,⁴⁸ is specifically European, but as the Decision of

⁴⁵ Council Decision of 17 December 2012 on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (2013/5/EU), in *Official Journal of the European Union*, L 4, 9 January 2013, 13 ff., para 3.

⁴⁶ Report of the 3rd Offshore Protocol Working Group Meeting, Attard, Malta 17-18 June 2014, REMPEC/WG/35/6, 31 July 2014, p 4, § 23, Table 1 *Offshore Protocol ratification process*. No information is available concerning the national situation in Croatia and Spain.

⁴⁷ Cyprus has ratified on 16 May 2006.

⁴⁸ Directive 2013/30/EU of the European Parliament and the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC, in *Official Journal of the European Union*, L 178, 28 June 2013, 66-ff.

accession to the Protocol, it stems from the awareness resulting from the *Deepwater Horizon* accident, and the aforementioned Communication from the Commission of October 2010. The urgent assessment of safety in offshore activities in European waters, the review of applicable European legislation, and the consultations with industry and Member States' competent authorities, have enabled the Commission to identify, since the month of July 2010, five main areas where action was needed to maintain the safety and environmental credentials of the EU: "thorough licensing procedures; improved controls by public authorities; addressing gaps in applicable legislation; reinforced EU disaster response, and; international cooperation to promote offshore safety and response capabilities worldwide".⁴⁹

For the first time, the adoption of a comprehensive legislative framework is planned at EU level; to this end, the Commission made, on 27 October 2011, the initial and ambitious choice of a regulation, directly binding upon Member States, in order to establish a harmonized EU system, automatically incorporated into the domestic legal order of all the Member States.⁵⁰ The proposed Regulation took into consideration the considerable disparities and fragmentation amongst Member States' laws and practices, the virtual absence of international law instruments and the gaps in relevant EU law, with the objective to reduce the occurrence of major accidents related to offshore activities in EU waters and to limit their consequences, both environmental and economical.

On 3 December 2012, the ambitious strategy of the Commission was definitely challenged in the Council, at the instigation of the States particularly concerned by offshore activities. By 21 February 2013, the European Parliament and the Council reached a political agreement and recommended the adoption of a directive, a disappointing option, much less ambitious, since it only establishes objectives and leaves the Member States free of the means to achieve them during the transposition.

The Directive 2013/30/EU of the European Parliament and the Council on safety of offshore oil and gas operations was finally adopted on 12 June 2013, developing *some* synergies with the Offshore Protocol.

ii) Some synergies with the Offshore Protocol

The Directive and the Decision of accession to the Offshore Protocol must be considered in close relation. In practice, this complementarity is even necessary in the perspective of a regional governance.⁵¹ As underlined by European Environment Commissioner Janez Potocnik, during the accession procedure to the Offshore Protocol: "This proposal complements the legislative proposal for the safety of offshore oil and gas activities. It will allow us to work hand in hand with our non-EU Mediterranean partners, ensuring better protection of this sea for all its users". On the one hand, the Council Decision of 17 December 2012 states that "(11) The Commission is also proposing a Regulation on safety of offshore oil and gas prospecting, exploration and production activities (the 'proposed Regulation'). (12) The Offshore Protocol concerns a field which is in large measure covered by EU law. This includes, for instance,

⁴⁹ *Communication from the Commission to the European Parliament and the Council Facing the challenge of the safety of offshore oil and gas activities*, 12 October 2010, COM(2010) 560 final, 3.

⁵⁰ European Commission, *Proposal for a Regulation of the European Parliament and of the Council on safety of offshore oil and gas prospecting, exploration and production activities*, 27 October 2011, COM(2011) 688 final, 2011/0309 (COD).

⁵¹ Cf *Safety of offshore exploration and exploitation activities in the Mediterranean: creating synergies between the forthcoming EU Regulation and the Protocol to the Barcelona Convention. Final Report* (n 45).

elements such as the protection of the marine environment, environmental impact assessment and environmental liability. Subject to the final decision of legislators on the proposed Regulation, the Offshore Protocol is furthermore consistent with the objectives thereof, including those concerning authorization, environmental impact assessment and technical and financial capacity of operators”.⁵² On the other hand, the Directive of 12 June 2013 recalls that “in relation to the Mediterranean Sea, in conjunction with this Directive, the necessary actions were undertaken for the Union to accede to the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (the Offshore Protocol) to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (the Barcelona Convention), which was concluded by Council Decision 77/585/EEC”.⁵³

The accession Decision and the Directive have a common purpose, but they are not of the same generation and have specific objectives and focus, with rather different geographic and functional scopes. The Protocol has a profile of international law, dedicated to environmental protection and fight against pollution of the Mediterranean Sea; it’s a legal instrument of regional cooperation, with the broad objective to protect against pollution from offshore activities, and a holistic approach, including the whole process of offshore activities, scientific research, exploration and exploitation, and all the mineral resources of the continental shelf. The Directive has a profile of EU law, focused on economic integration and industrial safety. It has a more specific scope than the Protocol, that is to ensure the safety of offshore activities, excluding research and transport, and is limited to the oil and gas operations,⁵⁴ in the maritime areas under Member States jurisdiction. Its main objective is to prevent major accidents and limit their consequences, by establishing minimum safety requirements likely to contribute to an indirect improvement of environmental conditions and health of workers.⁵⁵

The Protocol and the Directive both aim at regulating offshore oil and gas activities, and in that regard provide for many synergies, but they also present real differences of approach or formulation, as legal instruments. When such differences exist or may occur, national additional measures may be necessary to ensure parallel implementation and compliance. For example, it can be required with respect to such important topics as authorization systems, monitoring, definition of competent authorities, wastes and harmful or noxious substances and materials, removal of installations, contingency planning, insurance or other financial security to cover liability. This set of synergies and differences is very important regarding Mediterranean Member States of the EU,

⁵² Council Decision of 17 December 2012 on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (2013/5/EU), in *Official Journal of the European Union*, L 4, 9 January 2013, 14ff.

⁵³ Directive 2013/30/EU of the European Parliament and the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC, in *Official Journal of the European Union*, L 178, 28 June 2013, 71 ff., para 51.

⁵⁴ Directive 2013/30/EU of the European Parliament and the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC, in *Official Journal of the European Union*, L 178, 28 June 2013, 74 ff, Article 2(3): “‘offshore oil and gas operations’ means all activities associated with an installation or connected infrastructure, including design, planning, construction, operation and decommissioning thereof, relating to exploration and production of oil or gas, but excluding conveyance of oil and gas from one coast to another”.

⁵⁵ For a doctrinal analysis of the Directive, cf J. Juste Ruiz, ‘La directive européenne sur la sécurité des opérations pétrolières et gazières en mer’, (2014) 39 *Revue Juridique de l’Environnement* 23; and more specifically in a Mediterranean perspective, L. Schiano di Pepe, ‘Offshore oil and gas operations in the Mediterranean Sea: regulatory gaps, recent developments and future perspectives’ in J. Juste Ruiz, V. Bou Franch (eds), *Derecho del Mar y Sostenibilidad ambiental en el Mediterráneo* (Valencia, 2014) 378-387.

because in the future they will normally have to transpose and implement simultaneously the Protocol and the Directive in their national legislation; therefore, they are also particularly concerned by the participation of EU law to Mediterranean governance.

b) Participation of EU law to Mediterranean governance

To be able to cope effectively with environmental challenges of offshore activities in the Mediterranean region, the EU Directive must be considered not only a real but disappointing normative contribution (i) but also a future contribution with geographical limits (ii).

i) A real but disappointing normative contribution

Complementary to the Directive, the EU *acquis* is relatively important; it encompasses fifteen European legal acts, in the field of environment (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora; Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage; Directive 2009/147/EC on the conservation of wild birds; Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment), including marine issues (Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy), safety and health of workers and civil protection (Council Directive 92/91/EEC of 3 November 1992 concerning the minimum requirements for improving the safety and health protection of workers in the mineral-extracting industry through drilling; Council Decision of 8 November 2007 establishing a Community Civil Protection Mechanism), and industrial safety (Directive 94/9/EC of the European Parliament and the Council of 23 March 1994 on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres; Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances; Directive 97/23/EC of the European Parliament and of the Council of 29 May 1997 on the approximation of the laws of the Member States concerning pressure equipment; Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC; Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives; Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures), including the oil industry (Directive 94/22/EC of the European Parliament and the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons). Three relevant conventions can also be considered to be part of the EU *acquis*: *UNCLOS* of 10 December 1982; *Convention on Environmental Impact Assessment in a Transboundary Context* (Espoo Convention) of 25 February 1991; and *United Nations Economic Commission for Europe Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters* (Aarhus Convention) of 25 June 1998.

As regards the Directive, it is developed with an economic integration perspective, and is obviously more focused on industrial safety than on environmental protection; its main objective is threefold: to reduce as far as possible the occurrence of major accidents relating to offshore oil and gas operations; to limit their consequences, thus increasing the protection of the marine environment and coastal economies against pollution, establishing minimum conditions for safe offshore exploration and exploitation of oil and gas and limiting possible disruptions to Union indigenous energy production; to improve the response mechanisms in case of an accident.

Obviously, it is a step forward, but it's far below initial expectations. Indeed, the lobbies of the oil and gas industry, as well as States particularly involved in offshore activities, such as Denmark, Netherlands, or United Kingdom, have not only worked in favor of a directive rather than a regulation, but also to reduce the scope of the text that appears really very disappointing. Overall, the established rules lack clarity and provide only partial solutions to global problems; most of the provisions are mere soft law ... and no independent monitoring and supervision role was granted, including to EMSA.⁵⁶ Member States' latitude of action was preserved, what is more conducive to development and profits of the offshore industry than to effective safety of oil and gas operations, and above all to environmental protection, whose preoccupations and challenges remain in the background.⁵⁷ Furthermore, and as regards the Mediterranean, the Directive is also a future contribution with geographical limits.

ii) A future contribution with geographical limits

In the case of a directive, transposition is required. *Ratione temporis*, and as regards States, the transposition supposes to "bring into force the laws, regulations, and administrative provisions necessary to comply with this Directive" within a period of two years, "by 19 July 2015" (Article 41(1)). Regarding the industry, owners and operators, the Directive distinguishes the cases of planned and existing installations; a three years period is granted in the case of planned installations or operations, "by 19 July 2016" (Article 42(1)⁵⁸), and a five years period in relation to existing installations, "by 19 July 2018" (Article 42(2)).

Ratione personae, the scope of the Directive varies according to circumstances. Only coastal Member States having offshore oil and gas operations carried out in the waters under their jurisdiction shall transpose the whole Directive. Other coastal Member States shall be obliged to bring into force only those measures which are necessary to ensure compliance with three articles: Article 32 dealing with transboundary emergency preparedness and response of Member States without offshore oil and gas operations under their jurisdiction, Article 34 on penalties, and Article 20 regarding offshore oil and gas operations conducted outside the Union. Article 20 mentions the eventuality of a report in case of a major accident occurred during offshore oil and gas operations conducted outside the Union, and it is the only provision that shall be transposed even by landlocked States according to Article 41(4). But pursuant to Article 41(5), States where no offshore company is registered in are not concerned by this requirement, and shall be obliged only as from 12 months following any later registration of such a

⁵⁶ See Article 10 (Tasks of the European Maritime Safety Agency).

⁵⁷ See for example, Article 4(6), or as regards the specific case of the Arctic, Article 33(3) and Recital 52.

⁵⁸ Article 42(1) refers to "owners, operators of planned production installations and operators planning or executing well operations".

company. The Commission has underlined the risks associated with this precedent, both as regards the integrity of EU law and in terms of possible circumvention.⁵⁹

Ratione loci, the transposition is only an obligation for offshore operations conducted in the maritime areas under the jurisdiction of Member States. In the Mediterranean, it concerns only eight States and the areas under their jurisdiction, so it could lead to a fragmentation of the legal regime, *a fortiori* when there are little or no convergences with the Protocol.

4. Conclusion

In the Adriatic and Ionian seas, as in the whole Mediterranean, international and EU law have to be used together in order to face environmental challenges of offshore activities. Solutions should arise at the crossroads between a Mediterranean Protocol dedicated to protection against pollution from offshore activities, to which EU Member States remain largely refractory, and the logic of economic integration and industrial safety, initiated by the European Directive, which is functionally more restrictive and applies only to Member States.

But we have to be realistic... given the current economic and systemic crisis, power of lobbies and receptivity of policymakers, the balance between short term benefits and long term objectives is far from addressing environmental challenges of offshore activities in a fragile semi-enclosed sea. We just have to hope that an effective improvement will be possible without the occurrence of disasters, both ecological and human, unlike maritime navigation with *Erika* and *Prestige* shipwrecks.

⁵⁹ Directive 2013/30/EU of the European Parliament and the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC, in *Official Journal of the European Union*, L 178, 28 June 2013, 66 ff., *Statement by the Commission*.

Liability and Compensation for Damage Caused in Connection with Offshore Oil and Gas Activities: A Work in Progress

SUMMARY – 1. Liability for damage arising out of offshore accidents... as a measure of last resort? – 2. Civil liability for offshore oil and gas activities at the global level ... or not? – 3. Directive 2013/30/EU on safety of offshore oil and gas operations: what room for the polluter pays principle? – 4. Civil liability and compensation for offshore activities a work in progress under EU law ... – 5. ... and international law as well.

1. Liability for damage arising out of offshore accidents ... as a measure of last resort?

As with any human activity likely to cause sudden or persistent environmental degradation, also offshore oil and gas exploration and exploitation are nowadays subject to a considerable body of international (of both global and regional scope of application), European and national rules. A comprehensive assessment of the relevant norms goes clearly beyond the scope of the present contribution; suffice it to say that differing views exist on the completeness of such normative system and the adequateness of the level of protection accorded by it.¹

What can be observed in relation to this specific area of the law is that, undoubtedly, legislative efforts have so far focussed especially on accidents prevention and response rather than on liability and compensation. In a sense, this is understandable for at least two main reasons. On the one hand, as it is well known, the principle of prevention which forms an integral part of environmental law at all levels, requires that, first and foremost, measures are put in place in order to prevent the occurrence of accidents likely to cause environmental damage or, at least, to minimise their impact. On the other hand, whilst it may be (relatively) easy to agree on (and, conversely, impose on the relevant operators) a set of preventive rules – as these will be broadly speaking based on a common ground of practical knowledge and technical expertise – the same may be less true of liability and compensation regimes.²

¹ For a general outline of the subject, with particular regard to the prevention aspects, reference can be made to L. Schiano di Pepe, 'Offshore Oil and Gas Operations in the Mediterranean Sea: Regulatory Gaps, Recent Developments and Future Perspectives' in J. Juste Ruiz, V. Bou Franch (ed), *Derecho del mar y sostenibilidad ambiental en el Mediterráneo* (Valencia, 2014), 363.

² The debate around the question of liability for damage arising out of offshore accidents has been quite active, as demonstrated for example by contributions such as the following: R. Abeyratne, 'The Deepwater Horizon Disaster – Some Liability Issues', (2010) *Tulane Maritime Law Journal* 125; B. J. Bush, 'The Answer Lies in Admiralty: Justifying Oil Spill Punitive Damages Recovery Through Admiralty Law', (2011) *Lewis & Clark Law School Environmental Law* 1255; M. Davies, 'Liability issues raised by the Deepwater Horizon blowout', (2011) *Australian & New Zealand Maritime Law Journal* 35; K.G. Engerrand, 'Indemnity for Gross Negligence in Maritime Oilfield Contracts', (2011-2012) *Loyola Maritime Law Journal* 319; V. J. Foley, 'Post-Deepwater Horizon: the changing landscape of liability for oil pollution in the United States', (2010) *Albany Law Review* 515; T. Kurtz-Shefford, 'Liability for offshore facility pollution damage after the Deepwater Horizon? What happened to the global solution?', (2012) *Journal of International Maritime Law* 453; K. Noussia, 'The BP Oil Spill – Environmental Pollution Liability and Other Legal Ramifications', (2011) *European Energy and Environmental Law Review* 98; A. D. Paul, 'Rethinking Oil Spill Compensation Schemes: The Causation Inquiry', (2011) *Loyola Maritime Law Journal* 137; T. J. Schoenbaum, 'Liability for Damages in Oil Spill Accidents: Evaluating the USA and International Law Regimes in the Light of Deepwater Horizon', (2012) *Journal of Environmental Law* 395; T. Scovazzi, 'Maritime Accidents with Particular Emphasis on Liability and Compensation for Damage from the Exploitation of Mineral

Examples of such an approach are provided by the 1982 UNCLOS,³ as several provisions contained therein require contracting parties to establish global and regional rules to prevent marine environmental degradation with particular reference to activities such as drilling and the operation of offshore installations. More on point, at the regional level, significant results have been achieved in the North East Atlantic and, to a lesser extent (as it shall be seen), in the Mediterranean Sea, as demonstrated, respectively, by the 1992 Convention for the Protection of the Marine Environment of the North East Atlantic⁴ (Article 5 and Annex III thereto) and the 1994 Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil,⁵ part of the so-called “Barcelona system” made up of (what is now) the 1995 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its seven thematic protocols.⁶

More recently, and in the same vein, Directive 2013/30/EU of the European Parliament and of the Council, of 12 June 2013,⁷ purported to introduce a set of rules establishing “minimum requirements for preventing major accidents in offshore oil and gas operations and limiting the consequences of such accidents”.

The very wording used by the Directive’s Article 1, reproduced above, reminds us, however, that sometimes the occurrence of an accident simply cannot be excluded, notwithstanding the existence of sophisticated, state-of-the-art preventive regimes, and that some damage is likely to occur when the relevant rules of prevention are not complied with or fail to meet their objective for other reasons.

This demonstrates the pressing need for a specific liability regime to function not only as an additional deterrent for operators but also as a tool to ensure that victims are adequately compensated if and when one of such accidents occurs. In this respect, liability and compensation should not be seen only as a measure of last resort or as a “mere” safety net to come into play... just in case something goes wrong but, rather, as a complementary instrument working hand-in-hand with preventive regimes.

Within the present contribution, an attempt will be made to analyse existing and proposed legal regimes relevant to offshore oil and gas exploration and exploitation activities, at the international and EU level, having liability and compensation for damage that may derive therefrom as the main viewpoint. In this vein, after a brief overview of the most pertinent international instruments at the global and regional levels, attention will be paid to some of the recent developments occurred within the EU legal system (and in particular to the virtues and flaws of the already mentioned Offshore Directive) and, finally, to the on-going efforts to equip the international community with a set of rules specifically focussed on liability and compensation for offshore accidents. As it will appear in due course, the process at stake can with no hesitation be defined as a “work in progress” and, for this reason, deserves the attention and contribution of all relevant stakeholders at a time when crucial decisions are being made with a view to addressing in an efficient and balanced manner the operations of an

Resources of the Seabed’ in A. De Guttry, M. Gestri, G. Venturini (eds), *International Disaster Response Law* (Springer, 2012) 287.

³ Adopted on 10 December 1982; entered into force at the international level on 16 November 1994.

⁴ Adopted on 22 September 1992; entered into force at the international level on 25 March 1998.

⁵ Adopted on 14 October 1994; entered into force at the international level on 24 March 2011.

⁶ Adopted on 10 June 1995; entered into force at the international level on 9 July 2004.

⁷ *Directive 2013/30/EU of the European Parliament and of the Council on safety of offshore oil and gas operations and amending Directive 2004/35/EC*, in *Official Journal of the European Union*, L 178, 28 June 2013, 66.

industry at the crossroads of enormous economic and environmental interests and concerns.

2. Civil liability for offshore oil and gas activities at the global and regional level ... or not?

As it was authoritatively noted in 2011, liability and compensation issues in relation to offshore oil and gas activities are not properly dealt with by any international law instrument of global or regional application.⁸ As a starting point, despite the moving nature of many offshore platforms, a successful liability and compensation regime such as the one jointly established by the *1992 International Convention on Civil Liability for Oil Pollution Damage*,⁹ on the one hand, and the *1992 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*,¹⁰ on the other hand, are clearly not applicable insofar as the “object” involved does not fall within the definition of ‘ship’ provided thereby, viz., according to Article I.1 of the former, “any sea-going vessel and seaborne craft of any type whatsoever constructed or adapted for the carriage of oil in bulk as cargo, provided that a ship capable of carrying oil and other cargoes shall be regarded as a ship only when it is actually carrying oil in bulk as cargo and during any voyage following such carriage unless it is proved that it has no residues of such carriage of oil in bulk aboard”.

A more pertinent instrument, the *1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources*¹¹ (designed to apply to the North Sea, the Baltic Sea and the North Atlantic Ocean), whilst containing provisions channelling the liability towards the operator and entitling the latter to limit such liability to a certain monetary amount, has not entered into force so far and is highly unlikely to do so in the future.

Other instruments, such as the *Mediterranean Offshore Protocol*¹² touched upon above, whilst mentioning the need for a liability and compensation mechanism, have fallen short of devising a comprehensive regime to that effect. The Protocol’s Article 27(1), in fact, merely requires contracting parties to “cooperate as soon as possible in formulating and adopting appropriate rules and procedures for the determination of liability and compensation for damage resulting from the activities dealt with in [the] Protocol”.

⁸ See, for example, L. Chabason, *Offshore oil exploitation: a new frontier for international environmental law*, IDDRI Working Paper No 11/11, <www.iddri.org/Publications/Collections/Idees-pour-le-debat/WP%201111_chabason_offshore.pdf>.

⁹ Originally adopted on 29 November 1969 and entered into force at the international level on 19 June 1975; subsequently replaced by a new version thereof adopted on 27 November 1992 which entered into force at the international level on 30 May 1996.

¹⁰ Originally adopted on 18 December 1971 and entered into force at the international level on 16 October 1978; superseded by a new version thereof adopted on 27 November 1992 which entered into force at the international level on 1 May 1996.

¹¹ Adopted on 1 May 1977 and never entered into force.

¹² On which see also T. Scovazzi, ‘UNEP: The Fifth Protocol to the Barcelona Convention on the Protection of the Mediterranean’, (1995) *The International Journal of Marine and Coastal Law* 543, as well as E. Raftopoulos, *Sustainable Governance of Offshore Oil and Gas Development in the Mediterranean: Revitalizing the Dormant Mediterranean Offshore Protocol*, MEPIELAN eBulletin, 19 August 2010 <www.mepielan-ebulletin.gr/default.aspx?pid=18&CategoryId=4&ArticleId=29&Article=Sustainable-Governance-of-Offshore-Oil-and-Gas-Development-in-the-Mediterranean:-Revitalizing-the-Dormant-Mediterranean-Offshore-Protocol>.

In the meantime, “pending development of such procedures”, parties are called upon by Article 27(2), on the one hand, (a) to “take all measures necessary to ensure that liability for damage caused by activities is imposed on operators, and that they shall be required to pay prompt and adequate compensation” and, on the other hand, (b) to “take all measures necessary to ensure that operators shall have and maintain insurance cover or other financial security of such type and under such terms as the Contracting Party shall specify in order to ensure compensation for damage caused by the activities covered by [the] Protocol”.

The position within the Barcelona Convention system in general is, to say the truth, not much more advanced, if one considers that the only instrument existing on liability and compensation is currently represented by (non-mandatory) guidelines adopted by the 16th Meeting of the Contracting Parties in January 2008.¹³

As a consequence of the (late) entry into force of the Offshore Protocol, which is now binding for six States plus the EU, we now face a situation which is, in all fairness, not less uncertain and fragmented than it used to be in the past, at least from the standpoint of liability and compensation for damages caused in connection with offshore oil and gas activities. Admittedly, for those States that are contracting parties to the Offshore Protocol (as well as for the EU) we have clearly moved from a scenario where no international regime (of regional character) existed to one which is indeed subject to a definite set of rules devoted to exploration and exploitation activities of the continental shelf, its seabed and its seafloor.

If we look at the substance of such rules, however, it has to be recognized that, far from having introduced a uniform legal regime (comparable to the 1992 Civil Liability Convention and 1992 International Oil Pollution Compensation Fund Convention that have been mentioned above), the Offshore Protocol heavily relies on the legislation of its contracting parties for the purpose of ensuring, first, a certain degree of cooperation for the formulation and adoption of “appropriate rules and procedures for the determination of liability and compensation”. Second, and on an interim basis (i.e., pending the development of the relevant procedures), operators are required to pay “prompt and adequate compensation” (to what extent, according to what standards and for what kind of damage is not clarified, though), should an accident occur, and an “insurance cover or other financial security” shall be set up “of such type and under such terms” ... as the contracting party concerned itself shall specify!

The current scenario is, in addition, legally fragmented, too, if one considers that the above rules only apply, within the Mediterranean Sea area, to a handful of coastal States, giving them a competitive disadvantage in the lucrative offshore oil and gas business *vis-à-vis* States that have not yet ratified the Offshore Protocol. This is bound to potentially negatively impact on the success of the Protocol in two different (although interrelated) ways: first of all, by possibly discouraging Mediterranean States from becoming parties to the Protocol and, secondly, by driving those that may decide to become parties towards the adoption of liability standards and compensation rules that are not particularly stringent.

The above considerations, which apply to the Mediterranean Sea as a whole, are particularly significant in sub-regional contexts which feature the presence of EU as

¹³ See, in this respect, T. Scovazzi, ‘The Mediterranean Guidelines for the Determination of Environmental Liability and Compensation: The Negotiations for the Instrument and the Question of Damage that Can Be Compensated’, *Max Planck Yearbook of United Nations Law Online* (2009) 183.

well as non-EU Member States, which is notably the case of the Adriatic and Ionian Seas with specific regard to the position of Albania, Bosnia-Herzegovina and Montenegro. Indeed, especially due to the increasing interest for offshore activities in that part of the Mediterranean Sea, one may see the Adriatic-Ionian Initiative (also) as an appropriate framework for ensuring a prompt ratification process of the Offshore Protocol (to which Albania, but not the two other non-EU Member States, is at present a contracting party).

3. Directive 2013/30/EU on safety of offshore oil and gas operations: what room for the polluter pays principle?

Given the unsatisfactory situation that currently exists at the international level, as briefly represented in the previous section, it is important to ascertain whether or not the EU has been able to take the lead towards the establishment of more adequate liability and compensation rules in the field of offshore oil and gas exploration and exploitation. Reference has therefore to be made, in this respect, to the already mentioned Directive 2013/30 on safety of offshore oil and gas operations.

At the outset, however, it is appropriate to recall that, as widely know, Article 191(2) TFEU, provides that the environmental policy of the EU shall, inter alia, be based on the principle that the polluter shall pay. Such principle is generally considered to imply, on the one hand, a prohibition of environmental State subsidies and, on the other hand, the enactment of appropriate liability and compensation rules.¹⁴

The principle has been implemented in several pieces of secondary legislation and has been addressed in a comprehensive manner through the adoption of Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedy of environmental damage.¹⁵

In a paper which is the process of being published, I have taken the view (which I maintain here) that, so far, the EU has failed to properly implement the polluter pays principle into its offshore oil and gas legislation.

On the one hand, in fact, it appears from the wording of the Offshore Directive (including its recitals) that the EU (and its institutions as co-legislators) are fully aware of the intricate liability issues that are likely to arise out of an accident occurred in connection with the running of an offshore installation, especially when such accident happens to have transboundary implications. On the other hand, however, in this author's opinion, no significant substantive measure has been provided for by the 2013 Directive in order to address such issues, perhaps due to the apparent urgency to adopt at least a set of minimum preventive rules, which brings us back to the considerations that have been developed in the first section of the present paper concerning the (wrong) perception of liability as a measure of last resort.

It is interesting to recall, by way of an example, that recital No. 9 of the Directive recognises the limits of the existing (national) liability regimes, by pointing out that

¹⁴ Cf J. H. Jans, H.H.B. Vedder, *European Environmental Law After Lisbon* (Groningen, 2012) 41 ff., for an authoritative discussion of the principles of European environmental policy, including in particular the polluter pays principle.

¹⁵ *Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage*, in *Official Journal of the European Union*, L 143, 30 April 2004, 56.

under such regimes “the party responsible may not only be clearly identifiable and may not be able, or liable, to pay all the costs to remedy the damage it has caused”. Later on, it is also stated that “as no existing financial security instruments, including risk pooling arrangements, can accommodate all possible consequences of major accidents, the Commission should undertake further analysis and studies of the appropriate measures to ensure an adequately robust liability regime for damages relating to offshore oil and gas operations, requirements on financial capacity including availability of appropriated financial security instruments or other arrangements” (recital No. 63).

The result is that, under Article 39 of the Directive, the Commission is required, by the end of 2014, to submit to the European Parliament and to the Council a report “on the availability of financial security instruments and on the handling of compensation claims, where appropriate, accompanied by proposals” and that, in turn, by 19 July 2015, the Commission shall submit to the same institutions “a report on its assessment of the effectiveness of the liability regimes in the Union in respect of the damage caused by offshore oil and gas operations”, along with an “assessment of the appropriateness of broadening liability provisions”, to be accompanied again, “where appropriate, by proposals”.

At a closer scrutiny there appears to have been only one (limited) intervention of substance operated by Directive 2013/30, consisting in the amendment of the 2004 Liability Directive in order to take into account some of the peculiarities of the offshore oil and gas sector.

Article 38, in this respect, extends the scope of application of the said Directive also to damage adversely affecting the environmental status of “waters, the seabed and subsoil on the seaward side of the baseline from which the extent of territorial waters is measured extending to the outmost reach of the area where a Member State has and/or exercises jurisdictional rights, in accordance with the [UNCLOS], with the exception of waters adjacent to the countries and territories mentioned in Annex II to the Treaty and the French Overseas Departments and Collectivities”.

The Environmental Liability Directive, however, is in itself open to criticism especially due to the limited role accorded to individuals as opposed to public authorities.¹⁶

It is therefore unfortunate that the Offshore Directive confines itself to requesting to Member States, “[w]ithout prejudice to the existing scope of liability relating to the prevention and remediation of environmental damage pursuant to Directive 2004/35/EC”, to “ensure that the licensee is financially liable for the prevention and remediation of environmental damage as defined in that Directive, caused by offshore oil and gas operations carried out by, or on behalf of, the licensee or the operator” (Article 7).¹⁷

The Offshore Directive was to be implemented by 19 July 2015 according to its Article 41(1). At the time of writing, however, at least according to information that has been made publicly available, three States – Germany, Greece and Romania – one of which is clearly a Ionian Sea coastal State, appear to have missed the relevant deadline.¹⁸

¹⁶ Article 3(3): “Without prejudice to relevant national legislation, this Directive shall not give private parties a right of compensation as a consequence of environmental damage or of an imminent threat of such damage”.

¹⁷ For a critical account of the Directive from the perspective of marine environmental protection, reference can be made to S.M. Carbone, F. Munari, L. Schiano di Pepe, ‘The Environmental Liability Directive and liability for damage to the marine environment’, (2007) *Journal of International Maritime Law* 341.

¹⁸ This is the indication resulting from the <<http://eur-lex.europa.eu>>.

4. Civil liability and compensation for offshore activities: a work in progress under EU law ...

Within the on-going normative process that has been described in the previous section, a report dealing with “civil liability, financial security and compensation claims for offshore oil and gas activities in the European Economic Area” was published on behalf of the European Commission on 14 August 2014.¹⁹

The study, based on the analysis of the legislations of 20 “Target States” (18 EU Member States and two EEA Member States), was intended to assist the Commission in the preparation of the two reports provided for by Article 39 of the Offshore Directive by assessing, for each and every State concerned, the effectiveness of existing liability regimes for bodily injury, property damage and economic loss (so-called “traditional damage”), the handling of compensation claims and the availability of financial security instruments for compensation of the above heads of damage from offshore oil and gas operations.

The conclusions reached by the report are quite discomfoting. The point is made, in particular, that, should an accident such as the *Deepwater Horizon* disaster occur in European waters, there would be no liability, in most Target States, for many third-party claims for “traditional damage” as well as no regime, in the vast majority of Target States, to handle compensation payments.

The grounds on which such conclusions have been based are of various nature, and include the non-recognition of liability for pure economic loss (*i.e.* loss which is independent from a bodily or otherwise physical damage) in a number of jurisdictions or, alternatively, the existence of general tort law criteria that may render difficult (and sometimes almost impossible) for the criteria themselves to be met in pure economic loss cases. In addition, the geographical scope of application of the laws of some Target States is sometimes doubtful, as it is not sure whether accidents occurring on the continental shelf or in the exclusive economic zone would be covered or not.

One might have expected that the findings of the above-mentioned study would have prompted the European Commission to propose a series of amendments to the Directive, with a view to fill the liability loopholes identified in the previous sections of the present contribution.

This has not happened, though, as demonstrated by the most recent development at EU level, certainly represented by the publication, in September 2015, of a report from the Commission to the European Parliament and the Council “on liability, compensation and financial security for offshore oil and gas operations” pursuant to Article 39 of the Offshore Directive.²⁰

The report is of particular interest for two different reasons: on the one hand, it sets out the Commission’s view on the achievements and shortcomings of the Offshore Directive – a view, as it shall be seen, that is open to some scepticism and criticism. On

¹⁹ BIO by Deloitte, Stevens & Bolton LLP, *Civil liability, financial security and compensation claims for offshore oil and gas activities in the European Economic Area, Final Report*, 14 August 2014, <ec.europa.eu/energy/sites/ener/files/documents/201408_offshore_oil_and_gas_activities.pdf>.

²⁰ *Report from the Commission to the European Parliament and the Council on liability, compensation and financial security for offshore oil and gas operations pursuant to Article 39 of Directive 2013/30/EU*, 14 September 2015, COM(2015) 422 final.

the other hand, it also indicates possible development trends in the field, both at the EU as well as at the national level.

In its analysis of what the Offshore Directive has accomplished, the Commission makes the point that “the [Offshore Safety Directive] channels [liability for offshore accidents] unequivocally to offshore licensees, i.e. the individual or joint holders of authorizations for oil/gas prospecting, exploration and/or production operations”.²¹ Whilst the statement is not directly supported by a reference to the pertinent provision of the Directive, one gathers, from a subsequent section of the same Report, that the Commission’s position is that Article 4 in general, and its para 3, in particular, justifies such a position.²²

Undeniably, Article 4 of the Offshore Directive requires the competent national authorities to take a number of significant steps, including in particular, to preliminarily assess the prospective offshore licensee’s “financial capabilities ... to cover liabilities potentially deriving from the offshore oil and gas operations in question including liability for potential economic damages where such liability is provided for by national law” (Article 4(2)(c)). It also requests that the licensing authority “does not grant a license unless it is satisfied with evidence... that the applicant has made or will make adequate provision, on the basis of arrangements to be decided by Member States, to cover liabilities potentially deriving from the applicant’s offshore oil and gas operations”, that Member States establish “as a minimum (...) procedures for ensuring prompt and adequate handling of compensation claims, including in respect of compensation payments for transboundary incidents” and, finally, that they also “require the licensee to maintain sufficient capacity to meet their financial obligations resulting from liabilities for offshore oil and gas operations” (Article 4(3)).

The provision, however, certainly falls short of providing a proper channelling mechanism towards offshore licensees and this for at least two main reasons. First, the Directive merely refers to the existing civil liability and compensation regimes in individual Member States, as made very clear by the use of expressions such as “liabilities potentially deriving from the offshore oil and gas operations”, “potential economic damages”, “where such liability is provided for by national law” and “on the basis of arrangements to be decided by Member States”. To put it differently, compensation and liability are covered by the Directive only and to the extent that they are dealt with by the applicable national law to which the Directive itself refers.

Secondly, no proper channelling is present because the liability of the licensee is, at least apparently, not exclusive in nature, contrary to the situation that is typically present in the field of liability and compensation for oil pollution damage from ships, regulated by an international legal regime which provides, under normal circumstances, for the liability of the registered shipowner only.²³ It goes without saying that the two circumstances are strictly intertwined, since no proper channelling can exist in the absence of a uniform or at least fully harmonised set of rules.

Whilst there is no room, in the context of the present contribution, to discuss the features of a possible, future European liability offshore regime in any detail, it has to be noted that in the past European legislators have been unable to agree on crucial

²¹ Ibid, 2.

²² Ibid, 10.

²³ Reference is to the already mentioned 1992 International Convention on Civil Liability for Oil Pollution Damage and 1992 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage.

issues such as the notion of recoverable damage, the standard of liability, the establishment of a compensation fund and other relevant aspects. This has been the case, for example, in the context of the proposed (and later abandoned) European-wide oil pollution liability regime to supplement the one in place for ship-source pollution at the international level.

More recently, the project to insert civil liability provisions into the 2004 Liability Directive also failed, thus rendering the Liability Directive a “public law” instrument (as already discussed at the end of the previous section of the present contribution). Whilst one has to hope that better results can be achieved in the field of offshore oil and gas activities, the diverging legal traditions and approaches of the various Member States may well turn out to be an insurmountable obstacle.

Such a sceptical approach is confirmed if one turns to the other reason of interest of the Commission’s report, i.e. its description of existing and potential evolutionary trends in the area. After a detailed discussion of the possible introduction of criminal sanctions for some particularly serious instances of offshore accidents, the report concludes that the need for these will emerge in due course from an evaluation of the effects of the Directive, as implemented by Member States.

It also concludes for the inappropriateness of broadening liability provisions through EU law on the basis of two circumstances, namely that environmental liability (within the meaning of the Environmental Liability Directive) is already available for offshore accidents and that although there is at present no uniform regime dealing with civil liability, EU-wide rules on conflict of laws and jurisdictions “prevent differences in national regimes from disadvantaging claimants”.²⁴ No mention is made, though, on the need to ensure a greater degree of certainty through the adoption of a uniform system of substantive rules.

In fact, the weak point identified by the Commission, rather than being represented by the substantive rules in place, appears to be the unavailability of financial security instruments “to fully cover the more infrequent and costly offshore accidents in the [EEA]”. The Report therefore concludes that if the availability of financial security instruments is not improved as a consequence of the operation of national legal systems, the Commission “will reassess whether and what further EU action could achieve these objectives”.²⁵

Particular emphasis is put by the Commission on the role of the EU Offshore Authorities Group (EUOAG) as a forum within which experience will have to be shared on the whole range of relevant issues that has been briefly mentioned here, including the various kinds of liability that are currently (un)available for offshore accidents and ways to ensure the possibility to rely of appropriate financial instruments.

5. ... and international law as well

A few closing remarks are needed in respect of possible developments at the international level. The lack of an *ad hoc* instrument dealing with liability and compensation for offshore accidents is perceived as being clearly unsatisfactory by an

²⁴ Report from the Commission to the European Parliament and the Council on liability, compensation and financial security for offshore oil and gas operations pursuant to Article 39 of Directive 2013/30/EU (n 20) 14.

²⁵ Ibid, 15.

increasing number of observers and may be overcome in the future especially thanks to the efforts carried out by prominent non-governmental organizations.

For example, the *Institut du Développement Durable et des Relations Internationales* (IDDRI),²⁶ based in Paris, has put the issue of offshore activities at the top of its agenda since at least five years, which has led to a series of events and publications calling for a strengthening of the framework regulating offshore oil and gas activities that have significantly contributed to the debate.

With particular regard to the liability implications, the Global Oceans Commission, in addition, has set forth a specific proposal (out of a total of eight) concerning offshore oil and gas and, in particular, the establishment of “binding international safety standards and liability”, highlighting its support for “the elaboration of an international convention regulating liability and compensation” covering “economic loss and ecological damages”, providing for “strict liability of operators”, including “provisions for a shared liability between licence holders and their subcontractors”, binding “States to ensure that operators have adequate financial capacity to pay for possible compensation” and setting “a liability cap at a level that can ensure the recovery of costs associated with environmental remediation and compensation and losses born by public and private entities, as well as a compensation fund to address major disasters that are likely to exceed the liability cap”.²⁷

Last but not least, the long-standing *Comité Maritime International* (CMI) has set up an International Working Group on “offshore activities” that, pursuant to the well-established CMI “method”, has produced a questionnaire for national maritime associations (which has received eighteen replies so far) and three interim reports. Work is still going on, also in co-operation with the IMO (on which see immediately below), and is likely to bring about significant results in terms of possible recommendations to the international community in the near future.²⁸

With regard to IMO, it is important to recall the action taken by the Government of Indonesia, already in 2010, by filing a proposal at the 97th session of the Legal Committee of the Organization with a request that the Committee should include in its future programme of work an item concerning liability and compensation arising from transboundary pollution resulting from offshore oil exploration and exploitation.²⁹ The move, as it is well known, was taken in the aftermath of the two very serious accidents occurred, in 2009, at the Montara oilfield in the Australian EEZ - and seriously affecting Indonesian coastline and population - and, in 2010, at the Deepwater Horizon platform in the Gulf of Mexico.

The proposal, as it also well known, did not get through, not only because of the argument according to which offshore installations, being not ships, cannot be considered as falling within the terms of reference of the Legal Committee, but also because there was no agreement among members of the Committee on the existence of a “compelling need” for the proposed instrument.³⁰

²⁶ See <www.iddri.org> for recent developments.

²⁷ Global Oceans Commission, *The Future of Our Ocean. Next steps and priorities – Report 2016*, <http://www.some.ox.ac.uk/wp-content/uploads/2016/03/GOC_2016_Report_FINAL_7_3.low_1.pdf>.

²⁸ See <www.comitemaritime.org> for recent developments.

²⁹ IMO, *Proposal to add a new work programme item to address liability and compensation for oil pollution damage resulting from offshore oil exploration and exploitation Submitted by Indonesia*, doc. LEG/97/14/1, 10 September 2010, Annex 2 – Elements for a liability and compensation regime for oil pollution damage resulting from off-shore oil exploration and exploitation.

³⁰ See, in particular, IMO, *Report of the Legal Committee on the work of its ninety-ninth session*, doc. LEG 99/14, 24 April 2012, para 13.17: “The Committee recognized that bilateral and regional arrangements were the most

The response of the IMO has been negative with regard to the prospect of drafting a new international convention, but co-operative in a more general perspective.

The Legal Committee, meeting at its 100th session, did in fact encourage delegations to “work intersessionally to facilitate further progress within the Committee”.³¹ An International Consultative Group was therefore set up,³² under the leadership of Denmark and Indonesia, within which discussions have been held, inter alia, in April and July 2015, at the IMO headquarters and in Yogyakarta, Indonesia, respectively, and which has led to the finalisation of a document setting out “*Guidance for Bilateral/Regional Arrangement/Agreement on Liability and Compensation Issues Connected with Transboundary Oil Pollution Damage Resulting from Offshore Oil Exploration and Exploitation Activities*” that has in the meantime filed with the IMO.³³

According to its para 1.4, the purpose of the document is “to assist IMO Member States to formulate national legislation, bilateral, regional, or international instruments pertaining to liability and compensation connected with transboundary oil pollution damage resulting from offshore exploration and exploitation activities”. For this reason, its structure is not one that would be typically used for the purpose of drafting a model convention or legislation: the wording is illustrative and explanatory rather than prescriptive and the main focus is on a number of “examples” or “elements” that “may be included in bilateral/regional arrangements or agreements” – as the title of its para 2 indicates.

I will critically discuss, in very brief terms, some of the suggested elements and examples in order to evaluate if and how they contribute to the on-going debate on the process towards the establishment of an adequate body of rules on liability and compensation for damages arising out of offshore accidents, with a particular focus on the guidance document’s coverage of the proposed scope and on the liability rules of future arrangements or agreements.

Indications as to the potential scope of a national, bilateral or regional instrument relate first of all to the facilities “intended to be covered” and examples are given that include offshore facilities, artificial islands and ancillary units that are engaged in relevant activities.

“Damage wanted to be covered” and “types of claim” are also suggested as key elements of a definition of the scope of any arrangement or agreement, bearing in mind that the guidance document is intended to deal with “transboundary” pollution damage only.

Considering the nature of this guidance tool, some more clarity would be perhaps beneficial. The distinction between the two elements is, first of all, not self-evident, as the type of claim covered will necessarily be strictly connected to the damage sought. In addition, the examples given with regard to these components are, arguably, not fully consistent. As a matter of fact, only “damage to coastline or related interests of one or more States, which requires emergency action or other immediate response” is

appropriate way to address this matter; and that there was no compelling need to develop an international convention on this subject”.

³¹ See IMO, *Report of the Legal Committee on the work of its one hundredth session*, doc. LEG 100/14 of 30 April 2013, para 13.17.

³² See IMO, *Report of the Legal Committee on the work of its one hundred and first session*, doc. LEG 101/12, 13 May 2014, para 11.10, where the Committee expresses “its appreciation to Indonesia and Denmark for the information that they stood ready to co-chair the intersessional consultative group to develop guidance on bilateral and/or regional agreements or arrangements”.

³³ On file with author.

identified as a type of damage whereas “damage to living or non-living natural resources in the public domain by public authorities” as well as “damage to individuals or legal persons” are mentioned as possible claims.

A definition of “incident” is also recommended, presumably in order to exclude operative pollution from the scope of application of the proposed instrument.

Liability-related elements are contained in paragraphs 2.7, 2.8 and 2.9 of the guidance document. It is thereby assumed that the polluter pays principle will be part of the arrangement or agreement and it is also indicated that the extent of its coverage will have to be defined, for example, so as to include also the cost of further incident prevention, community loss and environmental recovery.

No mention can be found, however, either here or elsewhere in the document, of the channelling principle *stricto sensu* as explained earlier on in this paper, although consistency with existing international agreements, which is mentioned as one of the relevant parameters to be taken into account, would indicate that this is indeed a possibility. Also not mentioned is the basis of liability although, once again, consistency with existing international agreements would require this to be strict in nature (as opposed to fault-based).

The above solution would be particularly justified should the relevant regime – as it is also assumed – provide for limited liability. Liability limitation, although acceptable in principle within the context of a global legal framework, poses special problems in relation to national, bilateral or regional agreements or arrangements. It is indeed suggested that this particular aspect should be handled very carefully in order to be sure not only that the agreed cap is able to effectively cover the consequences of a major accident whilst at the same time sustainable for the insurance market, but also that a situation is not put in place whereby different regimes in different regions or sub-regions may determine a condition of competitive advantage for certain operators.

The question of the availability of appropriate compulsory insurance coverage or other financial security instruments is also rightly highlighted by the guidance document, this being the only way to ensure that any regime of whatever nature and geographical scope of application, turns out to be effective and that the victims of the offshore accident receive prompt and adequate compensation.

Finally, the reciprocity element that has been built into the document (at para 2.6) underscores the intention of the drafters to minimize the risk of a differentiated treatment with the indirect effect of raising the level of protection available to victims of offshore accidents.

The document submitted by Denmark and Indonesia will be reviewed, commented and decided upon by the Legal Committee, whose 103rd session is scheduled for early June 2016.

POSSIBLE OIL POLLUTION IN THE ADRIATIC SEA

SUMMARY: 1. Introduction. – 1.1. Adriatic Sea and its properties. – 1.2. Causes of oil slicks and lookalike signatures. – 2. Available data and methods. – 3. Results and discussion. – 4. Conclusions.

1. Introduction

1.1. Adriatic Sea and its properties

The Adriatic Sea is a small semi-enclosed sea covering the total area of 138 600 km², with its longer axis in a NW direction 800 km long, and up to 200 km wide. It is connected to the greater Mediterranean through the Otranto strait. Its coasts, including those of thousands islands is about 6200 km long. Croatian marine environment is larger than its land area.

Surface circulation in the Adriatic is prevalently cyclonic.¹ Such circulation is due to that the Adriatic Sea as a dilution basin, with major fresh water input from the Northern and Northeastern Adriatic rivers, and advection of saltier Mediterranean waters in the south. Circulation is strongly influenced by the winds and alternates between winter and summer wind regimes.² The winds and circulation features exhibit interannual variability due to climate conditions over the area wider than the Adriatic³ which influence the rate of water exchange with the greater Mediterranean causing periods of stronger and lower intrusion of the Mediterranean waters. The conditions in the Otranto strait are connected to the Ionian Sea and its bimodal oscillation pattern.⁴

The Adriatic Sea ecosystem is influenced by input of nutrients coming from the Po River, which accounts for 80% of the freshwater input, and includes sewage of the large Italian cities as well as drainage from agricultural fields along its catchment area, and all similar influences from both coasts.

Pollution risk comes also from waste water of different kinds of ships, especially tankers. Due to intensive ship traffic the oil spills accidents are potential threats for the Adriatic. Drilling for oil in the Adriatic, pipelines, oil refineries and LNG terminals on both coasts pose risk to the environment. If accidents occur, these could produce damage especially to tourism and fisheries and jeopardise the economy of the population along the Adriatic coasts. The recent study of the Institute of Oceanography

¹ M. Zore, 'On gradient currents in the Adriatic Sea', (1958) 8 Acta Adriatica 1; A. Artegiani, 'The Adriatic sea hydrography, The European anchovy and its environment, (1996) 60 (Supl. 2) Scientia Marina 33.

² A. Artegiani, D. Bregant, E. Paschini, N. Pinardi, F. Raicich, A. Russo, 'The Adriatic Sea General Circulation. Part II: Baroclinic Circulation Structure', (1997) 27 Journal of Physical Oceanography 1515.

³ B. Grbec, M. Morović, G. Beg Paklar, G. Kušpilić, S. Matijević, F. Matic, Z. Ninčević Gladan, 'The relationship between the atmospheric variability and productivity in the Adriatic Sea area', (2009) 89 Journal of Marine Biology Association UK 1549.

⁴ G. Civitarese, M. Gačić, M. Lipizer, G. L. Eusebi Borzelli, 'On the impact of the Bimodal Oscillating System (BiOS) on the biogeochemistry and biology of the Adriatic and Ionian Seas (Eastern Mediterranean)' (2010) 7 Biogeosciences 3987.

and Fisheries,⁵ has shown that fish spawning grounds cover most of the open sea bottom. If we wish to protect fish resources and have sustainable fisheries, probably more Adriatic areas should be excluded from drilling for oil.

From a geopolitical point of view the Adriatic Sea it is extremely interesting for Central, Southern and Eastern Europe as a mean of transport communication for people and goods. The transport includes passenger ships between east and west coasts on the routes Pula-Venice, Zadar-Ancona, Split-Ancona, Dubrovnik-Bari, Bar-Bari and Durres-Bari and also numerous lines between the east coast and its islands.

The lines exist also between Italian ports Venice, Ancona and Bari to Greek ports Patras and Igoumenitsa. All these lines are intensified from May to October season.

Large number of ships navigate along the main transport routes and fishing areas. Such intensive traffic is presented for the years 2013 and 2014 in the Fig. 1 and 2. Transport routes of tankers and cargo ships are concentrated along the long Adriatic axis, while fishing areas are dispersed both in the coastal and open sea. The intensity of ship traffic is represented by color, the most intensive by red-yellow, which clearly marks the ship routes. Other place with intensive ship traffic occurs near the Italian coast, where oil rigs are installed in the sea (Rospo Mare, Elsa and other oil and gas fields). Middle to small oil slicks/spills occur in areas of oil and gas production/transportation. Slicks occur also in areas of local and regional ferry lines connecting Rijeka, Zadar, Šibenik, Split, Makarska and Dubrovnik with the Croatian islands. Small oil spills associated with routine ship operations can be frequently found everywhere in the Adriatic.

1.2. Causes of oil slicks and lookalike signatures

The possibility to detect oil spills/slicks is disturbed by the so-called look-alike signatures,⁶ similar features caused by different phenomena.⁷ For example, several hydrodynamic phenomena could be seen at sea surface and mistaken for oil slicks. These may be currents, upwelling zones, SST (Sea Surface Temperature) variations or internal waves.⁸

Potential sources of mistakes come from meteorological phenomena in the lower atmosphere due to wind stress, precipitation or atmospheric gravity waves.

Also, a lot of biological phenomena leave traces at the surface, can be mistaken for slicks. These are biogenic slicks, algae blooms, floating seaweeds, or sperm and eggs of marine animals. Such slicks are usually thin stripes and may be visible at lower wind speeds.

The shipmade turbulence can also give a wrong impression of a slick. Even the areas with shallow bottom topography are sometimes mistaken for spills. This list of potential look-alikes is not complete and an effort is needed from experienced analyst to

⁵ Institute of Oceanography and Fisheries, 'Prilozi za dopunu Strateške procjene utjecaja na okoliš, Okvirnog plana i programa istraživanja i eksploatacije ugljikovodika na Jadranu', (2015) Institut za oceanografiju i ribarstvo 1.

⁶ H. A. Espedall, O.M. Johannessen, 'Detection of oil spills near offshore installations using synthetic aperture radar (SAR)', (2000) 21 International Journal of Remote Sensing 2141.

⁷ A.Y. Ivanov, 'Remote sensing of oil films in the context of global changes' in D. Tang, *Remote Sensing of the Changing Oceans* (Springer, 2011) 169–194.

⁸ J. A. Johannessen, R. A. Shuchman, G. Digranes, D.R. Lyzenga, C. Wackerman, O.M. Johannessen, P.W. Vachon, 'Coastal ocean fronts and eddies imaged with ERS 1 synthetic aperture radar', (1996) 101 Journal of Geophysical Research 6651; A. Joseph, *Measuring Ocean Currents: Tools, Technologies and Data* (Elsevier, 2013).

determine what kind of substance is seen from the SAR (Synthetic Aperture Radar) images.

In addition to these, while very strong winds (> 12 m/s) cause mixing of the water and make the spills to disappear, there must be some wind in the area for the spills to be detected and distinguished from other similar features at the surface.

Here also some smaller slicks are visible as well as the ships wakes. On Fig. 3, there are examples of a few oil spills of different shapes and dimensions. Seen is one large slick (24 km^2) (Fig. 3a) with feathered edges caused by the wind, interrupted from another ship that passed over. Fig. 3b shows one (9 km^2) fresh slick modified probably by local currents. Fig. 3c shows one large and long slick (74 km^2) with feathered edges caused by a longer action of the wind. Fig. 3d shows large slick (46 km^2), prolonged in a thin slick towards south east, indicating the ship direction.

Oil spill detection is only possible within a narrow range of wind speeds (Bern *et al.*, 1992). At low wind speeds < 2 m/s the contrast relative to the background sea is lost. The minimum wind speed of 2-3 m/s allows creation of sufficient brightness on the SAR images and optimal wind speed is between 3-6 m/s,⁹ but spills may still be visible even at speeds of 10-12 m/s.¹⁰

Natural spills occur when the liquid hydrocarbons leak out from the underwater deposits where oil has been accumulated through the geological past. The seeps are usually triggered by a local seismic activity. There are some evidences of such seeps in the Adriatic Sea. Natural seeps come to the sea surface in different forms, depending on the amount and duration of the leaking phenomenon.

The detection of natural leakage as well as detection of slicks in general, requires thorough investigation of a suspected particular area for a longer time.¹¹ Such seeps usually appear in a sickle like form.

Oil slicks may occur in different forms and dimensions, depending on the amount of oil, the structure of winds and currents and the time passed from leaking. They could be amorphous, sometimes perturbed or strait, with feathered edges or diffused. Fresh and old slicks differs from each other, while spills caused by different oil fractions have also different recognizable shapes.

2. Available data and methods

In this paper few examples of SAR images and the analysis of larger data sets were presented, that were used in our previous published works.¹²

⁹ T. I. Bern, T. Wahl, T. Andersson, R. Olsen, 'Oil spill detection using satellite based SAR: Experience from a field experiment', (1993) 59 Photogrammetric Engineering and Remote Sensing 3.

¹⁰ Ivanov (n 7); K. Litovchenko, A. Ivanov, 'Monitoring of oil spills in the North Caspian Sea using SAR imagery and multi-sensor satellite data' in M. Oluić (ed), *Proceedings of the First International Conference on Remote Sensing Techniques in "Disaster Management and Emergency Response in the Mediterranean Region"* (EARSeL, 2009) 267-272.

¹¹ K. N. Topouzelis, 'Oil Spill Detection by SAR Images: Dark Formation Detection, Feature Extraction and Classification Algorithms', (2008) 8 Sensors (Basel) 6642.

¹² M. Morović, A. Ivanov, 'Oil Spill Monitoring in the Croatian Adriatic Waters: needs and possibilities', (2011) 52 Acta Adriatica 45; M. Morović, A. Ivanov, M. Oluić, Ž. Kovač, N. Terleeva, 'Distribution and sources of oil slicks in the Middle Adriatic Sea' in *Ocean Remote Sensing for Sustainable Resources – Proceedings of the 12th Biennial Conference of Pan Ocean Remote Sensing Conference (PORSEC)(2014)* 1-8; M. Morović, A. Ivanov, M. Oluić, Ž. Kovač, N. Terleeva, 'Oil spills distribution in the Middle and Southern Adriatic Sea and intensive ship traffic', (2015) 56 Acta Adriatica 143.

The large ESA archive of Envisat SAR images was available in the frame of the ESA research project 19234 (Principal investigator M. Oluić), while Radarsat-1 SAR images were provided by RDC Scanex in the frame of the joint Croatia-Russia pilot project.

The area of interest was the open sea in the Middle and Southern Adriatic. The quicklooks were examined through the EOLISA catalogue for the period 2003-2011. Images with pronounced oil spills were ordered from ESA for further analysis. After analyzing the images visually, considered were properties like size, shape, and contrast. The wind conditions during the image acquisition was also taken into account. Images with inappropriate wind conditions (too strong wind or no wind) were excluded from analysis. Wind data (10 min averaged wind speed, direction and gust data) were obtained thanks to the State Hydrometeorological office in Zagreb.¹³ The wind data were available from several stations in the Adriatic islands.

The raw raster images were imported to the NEST program, processed (geo-referenced) with the NEST ESA SAR ToolBox to geographical grid and exported to GeoTIFF format. Each image was in details observed to determine oil slicks and enlarged to get clear view of a particular slick. After that, the images were imported to the GeoMixer program.¹⁴ GeoMixer is a software and geo-portal for storage, integration, visualization, interactive analysis, and publishing of SAR data (and other remote sensing data) and results of analysis using the on-line GIS (Geographic Information System) tool. In it, it is also possible to integrate SAR images with other geospatial data about oceanography, meteorology, offshore oil-and-gas infrastructures, digital nautical charts, bathymetry, marine boundaries, ship lines and other useful information.

Collection of many data and information about marine basin in such an application allows identification of oil spills and discrimination of them from look-alikes, with a very high confidence level, although there may be uncertainties in oil spill determination on SAR images, without additional airborne survey or sampling. The SAR images enable ship detection, as ships on high resolution SAR images appear as small bright spots.¹⁵

3. Results and discussion

From about 300 examined SAR images, after inspection, only about 30 (from both Envisat and Radarsat-1) showed clear oil spill signatures. All selected Envisat SAR images were integrated in GeoMixer together with geographical map. The coverage by images from our analysis is shown on the Fig. 4.

On a number of these images a large number of ships were visible along the main transport routes that concentrate along the long Adriatic axis, and in fishing areas that are dispersed both in the coastal and open sea.¹⁶ Our analysis of Envisat and Radarsat-1

¹³ Morović, Ivanov, Oluić, Kovač, Terleeva (n 12).

¹⁴ See GeoMixer official website: <geomixer.ru>.

¹⁵ A.Y. Ivanov, *SAR GIS and WEB in oceanographic applications: local winds, oil seeps, oil spills and ship detection*, presentation at IOR, Split, June 2013.

¹⁶ M. Morović, A. Y. Ivanov, M. Oluić, Ž. Kovač, N. Terleeva, 'Oil spills distribution in the Middle and Southern Adriatic Sea and intensive ship traffic', (2005) 56 *Acta Adriatica* 143.

SAR images and oil spill distribution maps for the Adriatic Sea confirms general opinion from other seas that most oil pollution occurred along the main ship routes.¹⁷

Summary maps of large and medium oil slicks of different man-made nature detected in the period 2003-2011 in the Adriatic Sea is analysed through GeoMixer technology. The results of SAR images revealed many large oil slicks in the Adriatic Sea, especially in its central part, along the main transport routes. We can observe the location of spills comparing Fig. 5 to Fig. 6. Large spills are mostly found in the Croatian Fishery and Ecological Zone.

The slicks/spills extended from 9 to 108 km² (Fig. 7).¹⁸ Some had feathered edges, indicating the presence of different oil fractions (see also Fig. 3a and 3c). Such slicks may come into the water during routine tank washing operations and are dispersed in the course of time and under the action of wind and currents. It is very probable that most spills were intentionally released during night, since were detected in SAR images acquired during descending morning passes of satellite between 05:00-09:00 UTC.

Analysis of distribution of large oil spills revealed that tank washing occurred frequently in the central Adriatic Sea like in the Central Black Sea. Most probably some of these spills were produced by multipurpose chemical tankers, which transport liquid substances of different toxicity including crude oil and oil products. Hydrocarbons and products retrieved from them are toxic for marine life and most of them are carcinogenic. The fate of these substances is not studied in the Adriatic, but a lot of them ended in a food chain and could harm humans as well.

These liquids together with emulsifiers and surface active substances used for tank cleaning can form different surface-active films on the sea surface. Although the Adriatic Sea is declared as a PSSA according to the MARPOL Convention, tank washing is sometimes legal.¹⁹

The highest amount of largest oil spills are detected in the open sea, at the boundaries of the Italian and Croatian sectors. These slicks are not necessarily produced by crude oil. Other medium ship-made oil spills can be produced by ballast waters, tank washing residues or oil mixtures from the engine room and bilge waters and even oily fish wastes, some of it produced during routine fishing boats operations.

Although it would be possible to track ships that caused such types of pollution, since the satellite images are not yet accepted as proves in the court, it would be difficult to press charges to any suspected ship.

There is a reasonable doubt that oil slicks/spills occur very frequently, and all cannot be observed by satellites. Also quantity and quality of spilled oil and oily products

¹⁷ M. Gade, W. Alpers, 'Using ERS-2 SAR images for routine observation of marine pollution in European coastal waters, (1999) 237/238 Science of Total Environment 441; P. Pavlakis, *Investigation of the Potential of ERS1/2 SAR images for monitoring Oil Spills on the Sea Surface* (Office for Official Publications of the European Communities, 1995); P. Pavaklis, D. Tarchi, A. J. Sieber, *On the monitoring illicit vessel discharges. A reconnaissance study in the Mediterranean Sea*, (European Commission, 2001), <ec.europa.eu/echo/files/civil_protection/civil/marin/reports_publications/jrc_illicit_study.pdf>; Sensors Radar Technology and Cybersecurity Unit, *Satellite monitoring of illicit discharges from vessels in the seas around Italy, 1999-2004* (European Commission / Joint Research Centre, 2006); G. Ferraro, A. Bernardini, M. David, S. MeyerRoux, O. Muellenhoff, M. Perkovic, D. Tarchi, K. Topouzelis, 'Towards an operational use of space imagery for oil pollution monitoring in the Mediterranean basin: A demonstration in the Adriatic Sea', (2007) 54 Marine Pollution Bulletin 403; A. Y. Ivanov, A. A. Kucheiko, 'Large discharges from ships in the Black Sea studied by synthetic aperture radar with the support of automated identification systems', (2014) 35 International Journal of Remote Sensing 5513.

¹⁸ Morović, Ivanov, Oluć, Kovač, Terleeva (n 12).

¹⁹ The Adriatic Sea is a PSSA on the basis of Annexes I e V of the International Convention for the Prevention of Pollution from Ships (MARPOL).

remains unknown. Even with the new satellite Sentinel with coverage of every second day over the mid-latitudes, a lot of spills would pass undetected due to other reasons.

Some specific areas in the Adriatic Sea are put under protection by legislation. These are a number of national parks, special reserves, significant landscapes and monuments of nature.²⁰ Ecological network of marine protected areas encompasses 16,39% of Croatian seas and covers 5205 km². It is composed of hundreds of polygonal or point areas important for the conservation/preservation of species and habitat types. Concerning the entire Croatian marine area, protected is less than 10% of the area, and at the Italian side also about the same. Although human activities are limited in the protected areas, such measures cannot protect these areas from accidental oil pollution that may occur in the vicinity.

It is very important to define marine borders of the states surrounding the Adriatic Sea for the reason of their obligations concerning protection, search and rescue and the rights for exploration of underwater hydrocarbon resources. However, as in the earlier period, the delimitation agreements are still pending,²¹ between Slovenia and Croatia about Savudrijska vala (or Piran Bay). The agreements are still missing between Montenegro and Croatia in the South Adriatic, and border is not completely clear between Bosna-Hercegovina and Croatia in the Neum-Klek Bay. All these are the results of undefined marine borders between the republics of the former federation of Yugoslavia.

4. Conclusions

The area of interest was the open sea in the Middle and Southern Adriatic. The 300 quicklooks were examined through the EOLISA catalogue for the period 2003-2011, while positive determination of slicks was at about 30 images.

Summary maps of large and medium oil slicks of different man-made nature detected in the period 2003-2011 in the Adriatic Sea is analysed through GeoMixer. The results of SAR images revealed many large oil slicks in the Adriatic Sea, especially in its central part, along the main transport routes. Large spills are mostly found in the Croatian Fishery and Ecological Zone.

Analysis of distribution of large oil spills revealed that tank washing occurred frequently in the central Adriatic Sea like in some other seas.

After presented information, it is certain that we must be worried for the fate of the Adriatic Sea in terms of ecosystem and economy. The Adriatic is a small semi-enclosed sea with increasing rate of transport of petrol and a perspective to increase even more if new oil deposits would be found. And, increased transport is correlated to risk from accidents.

The existing control is inefficient and the possibility to protect from pollution a long Croatian coasts with more than thousands islands is insufficient. The pollution does not obey national borders nor human regulation, but will follow the currents. Therefore,

²⁰ See Državni zavod za zaštitu prirode, *Ekološka mreža RH (Natura 2000)*, <www.dzpz.hr/ekoloska-mreza/natura-2000/ekoloska-mreza-rh-natura-2000-1300.html>; see also <www.biportal.hr/gis>.

²¹ D. Vidas, *Zaštita Jadrana (Protection of the Adriatic Sea)* (Školska knjiga, 2007); D. Vidas, *The UN Convention on the Law of the Sea, the European Union and the Rule of Law, What is going on in the Adriatic?*, FNI Report 12/2008, 10 December 2008, <<http://www.fni.no/pdf/FNI-R1208.pdf>>.

these coasts are potentially endangered from ongoing and future activities at the sea, especially from transport and drilling for new hydrocarbon deposits.

If we wish to protect fish resources and have sustainable fisheries, probably more Adriatic areas should be excluded from drilling for oil.

We can only hope that recent increase of interest in exploration of undersea oil and gas resources in the Adriatic would raise awareness for the necessity of continuous monitoring of oil slicks via SAR images and other means and that this would increase our efforts to prepare for potential larger accidents during future exploitation and transportation of oil.

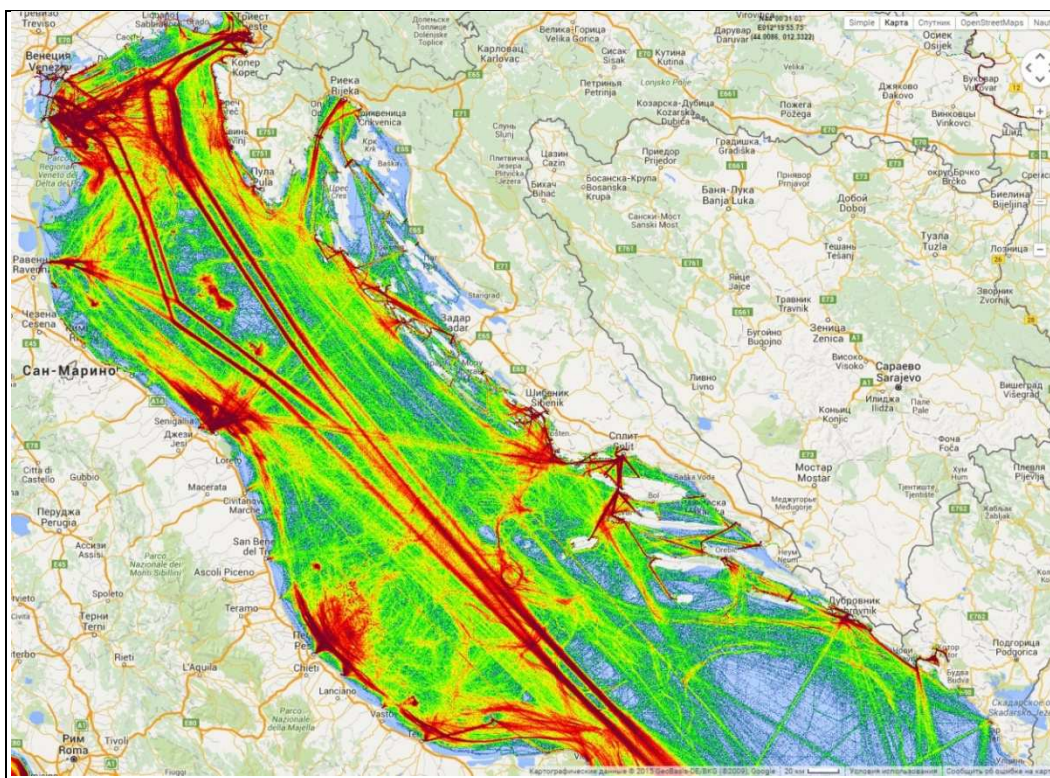


Fig. 1 – Traffic density in the last three months of 2013. © <www.marinetraffic.com>

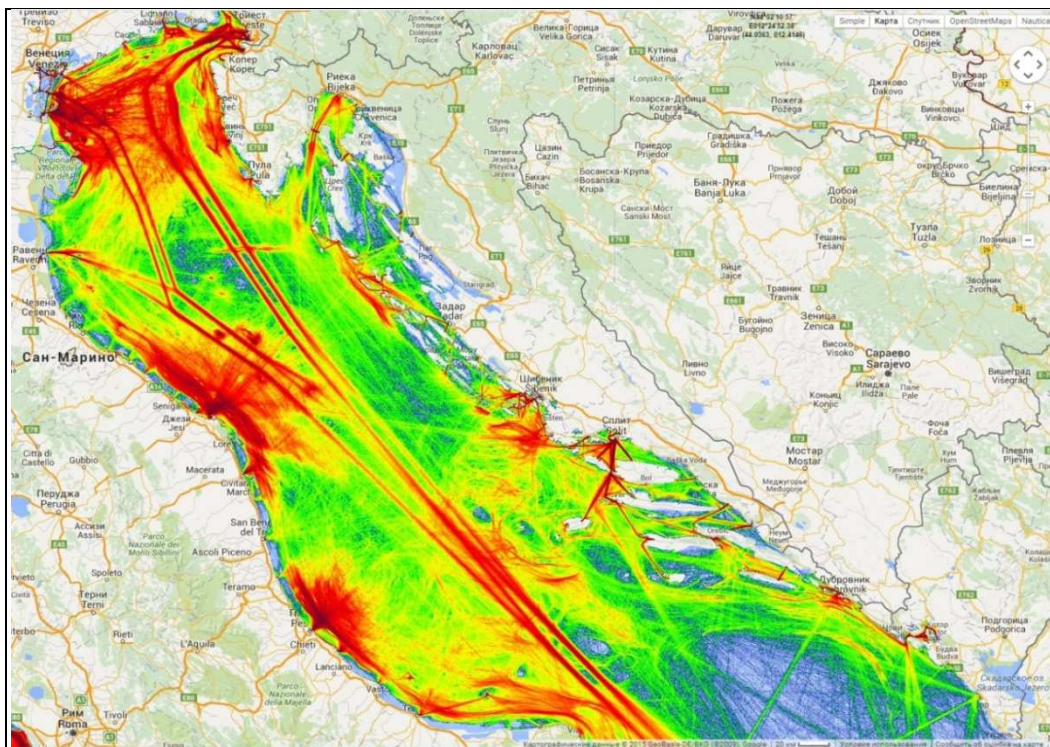


Fig. 2 – Traffic density in the last three months of 2014. © <www.marinetraffic.com>

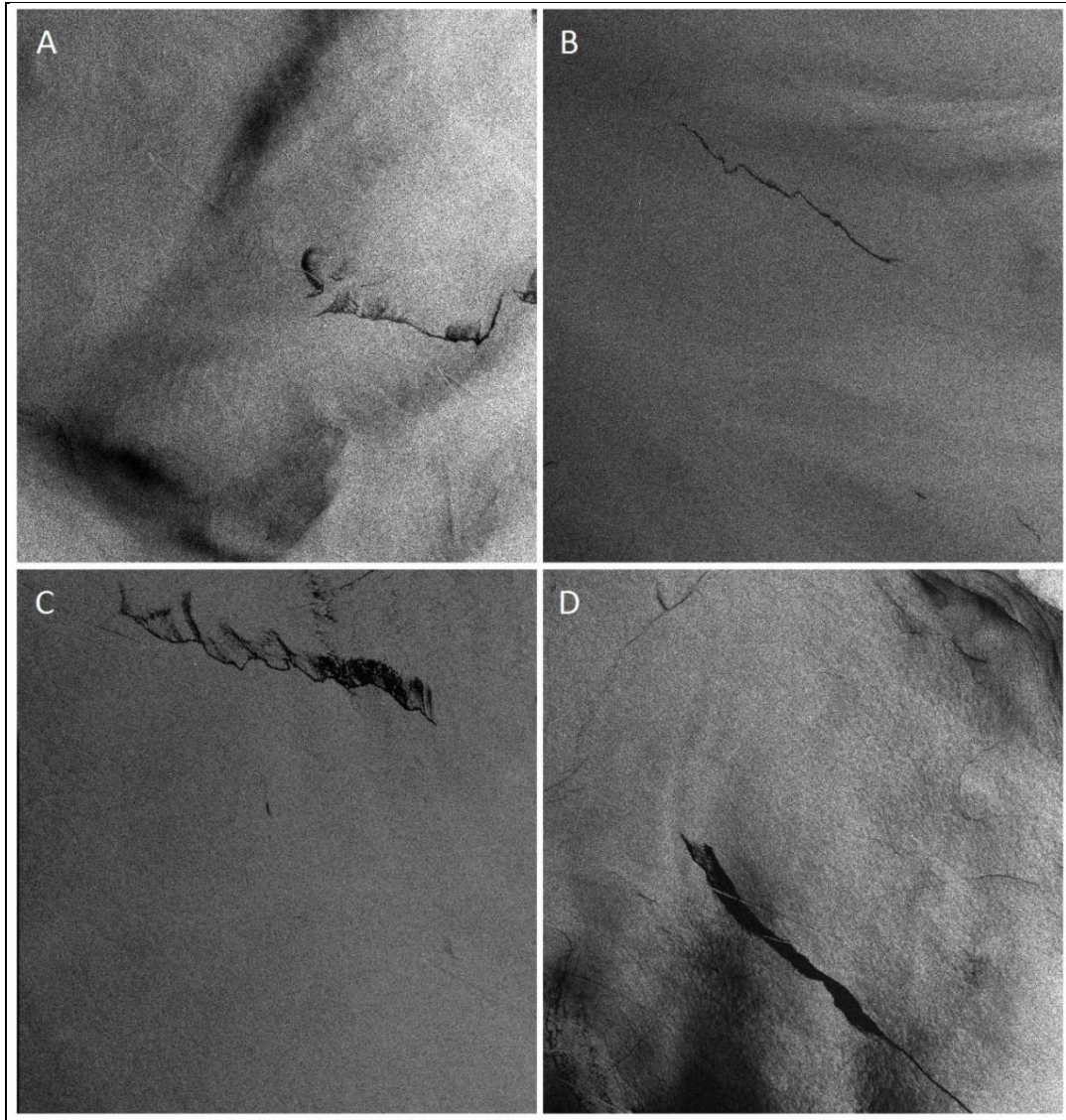


Fig. 3 – Excerpts from Envisat SAR images with large ship-made oil spills of different shapes and dimensions acquired 15.04.2003 (A), on 10.05.2008 (B), on 19.07.2008 (C) and on 11.09.2008 (D). Wind smearing of the patches (so-called, feathered edges) indicates the presence of different fractions of the oil in the releases during tank washing (from M. Morović, A. Ivanov, M. Oluić, Ž. Kovač, N. Terleeva, 'Oil spills distribution in the Middle and Southern Adriatic Sea and intensive ship traffic', (2015) 56 Acta Adriatica 143). © ESA

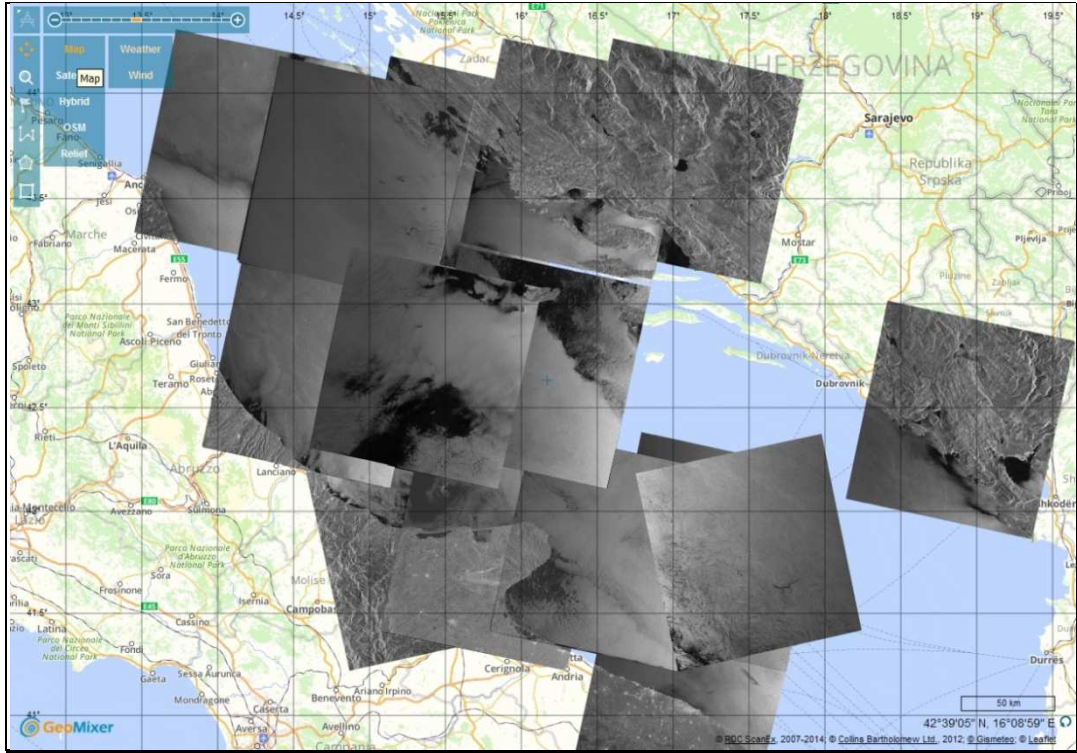


Fig. 4 – Coverage of the Adriatic Sea by archived Envisat SAR images acquired in the period 2003-2010 joined in the GeoMixer application. © ESA, SCANEX

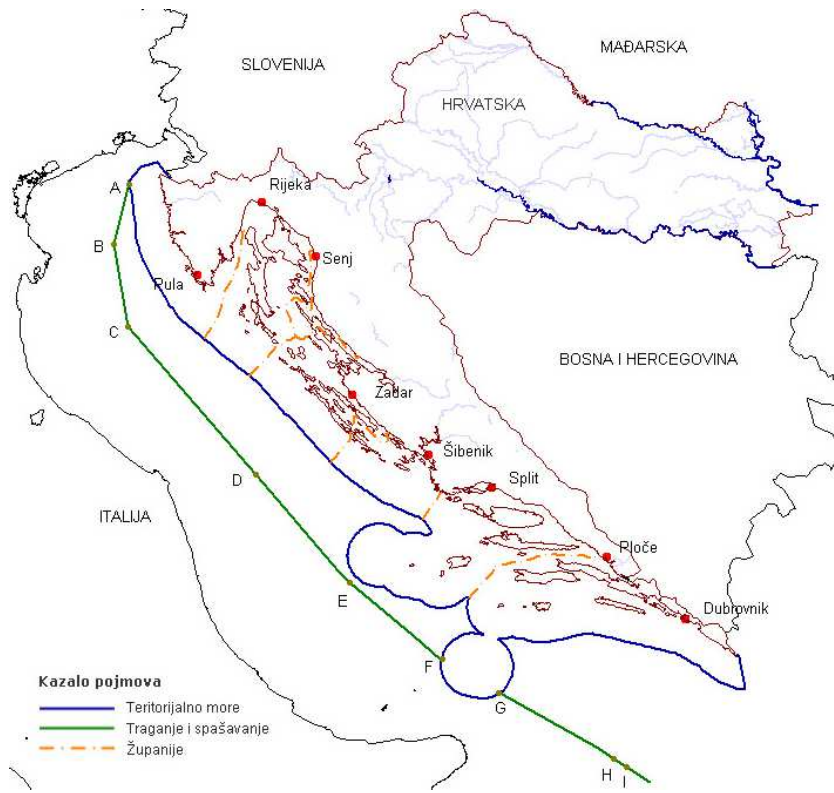


Fig. 5 – Blue-Croatian Fishery and Ecological Zone, green-search and rescue under Croatian jurisdiction, red-county borders.

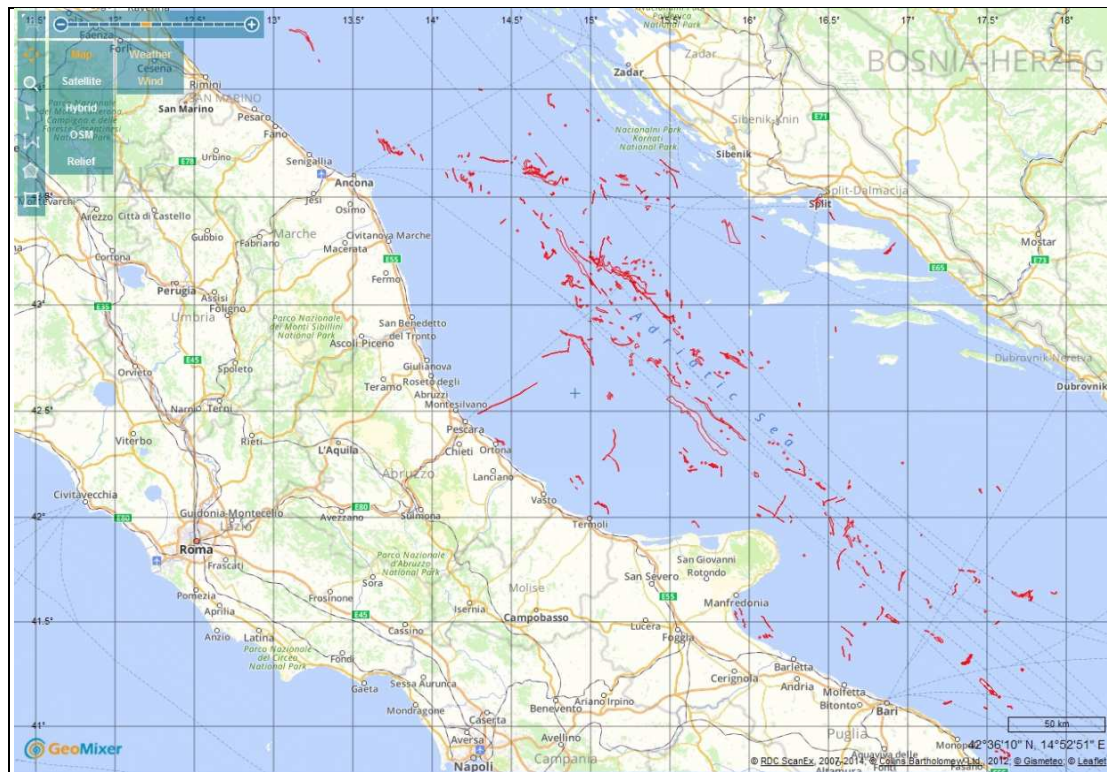
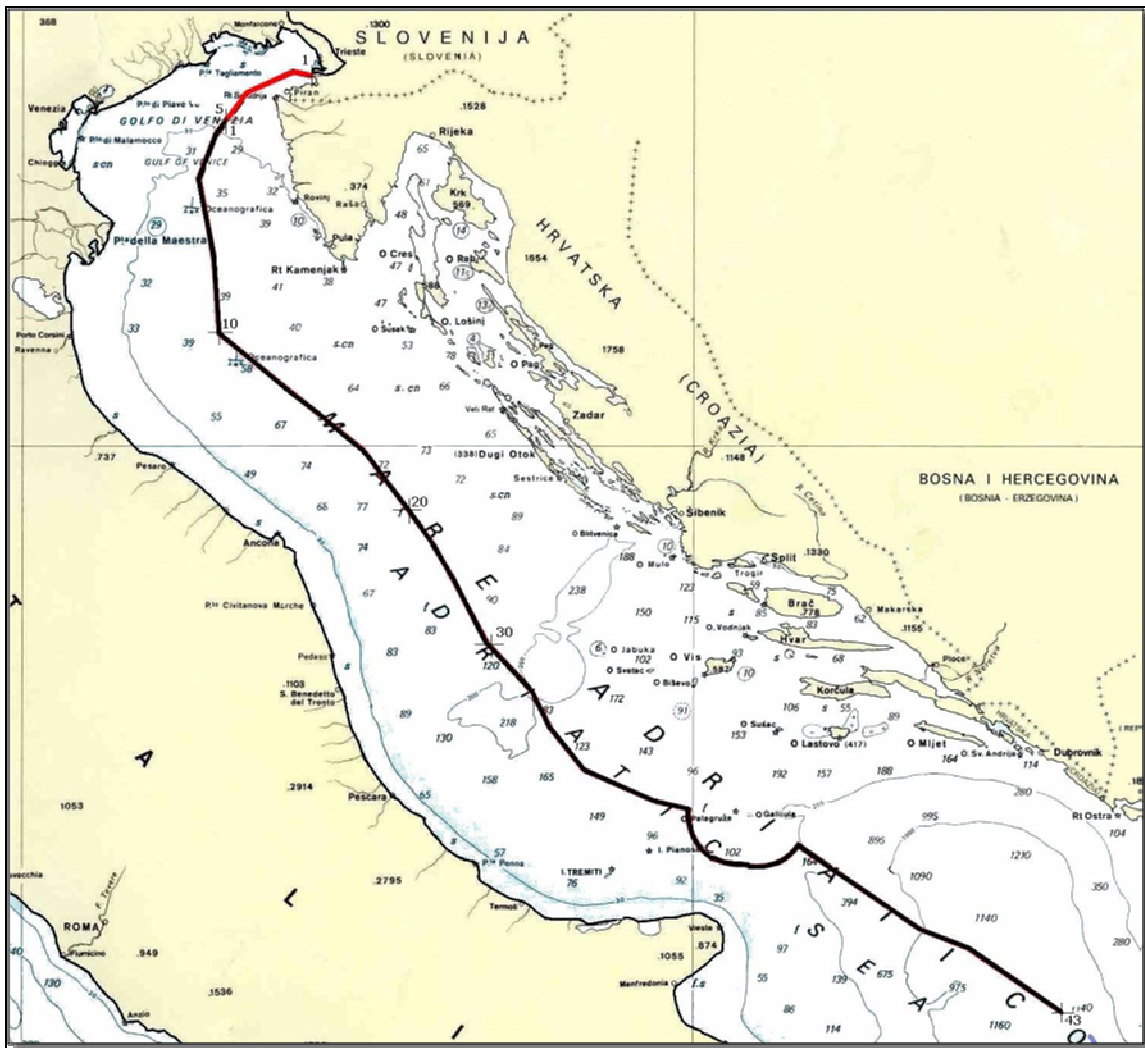
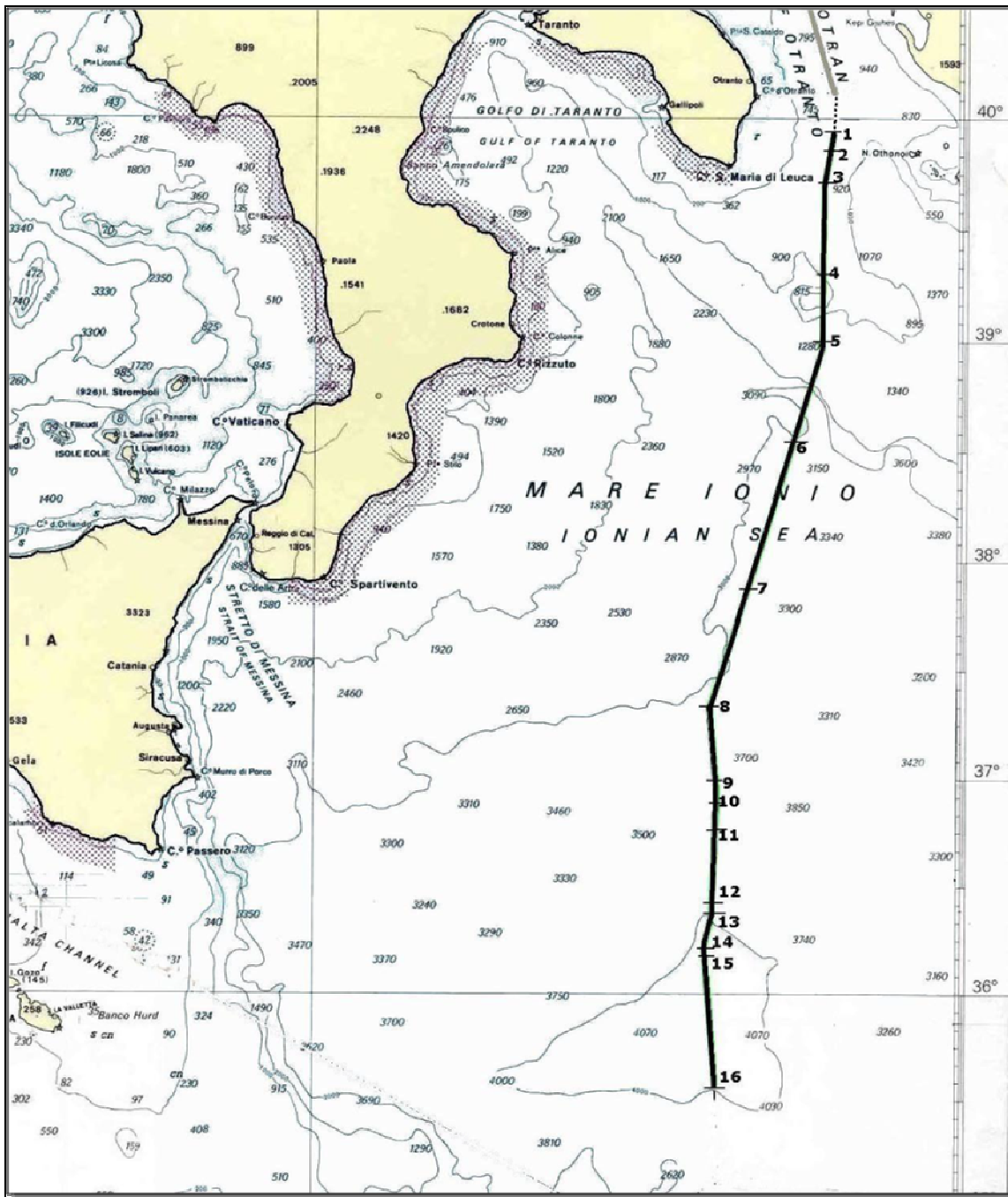


Fig. 6 – Summary map of oil slicks of different nature detected in the SAR imagery of the Adriatic Sea (according to Morović et al. 2015). Extension of oil pollution along the main shipping routes is clearly seen. © SCANEX

MAPS



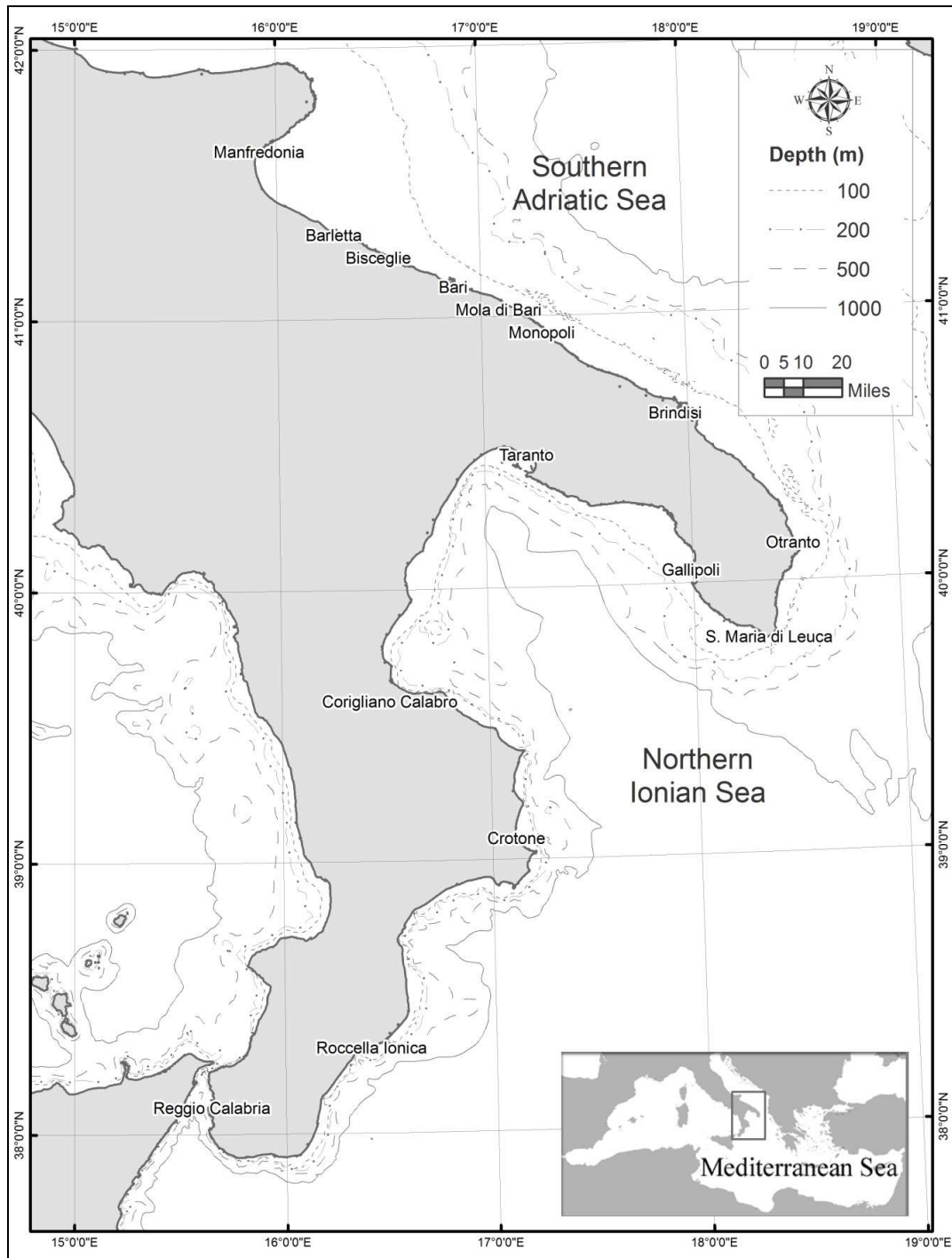
Map 1 – Delimitation of continental shelf between Italy and SFRY (Successor States: Slovenia, Croatia and Montenegro) according to the Agreement of 8 January 1968. The red line defines the new delimitation in the Gulf of Trieste according to the Italian-Croatian Technical Agreement of 2005.



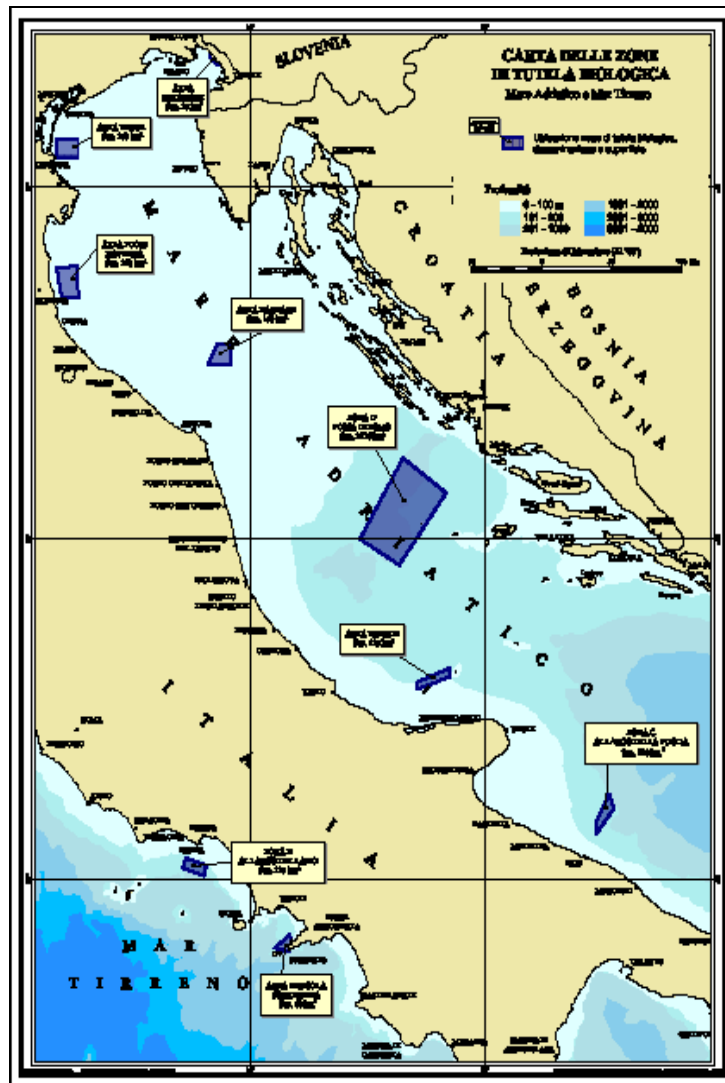
Map 3 – Delimitation of continental shelf between Italy and Greece according to the Agreement of 24 May 1977.



Map 4 – EUSAIR area. © <www.adriatic-ionian.eu>



Map 5 – The Southern Adriatic and Northern Ionian Seas (Central Mediterranean Sea) with indication of the main fishing harbours.



Map 6 – The “no-take zones” identified along the Italian coasts and particularly in the Southern Adriatic Sea.

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