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SOME REMARKS ON ARTICLE 82 OF THE UNCLOS AND THE NON-LIVING RESOURCES ON THE OUTER CONTINENTAL SHELF

Abstract

The continental shelf beyond 200 nautical miles (NM) accounts for a great value for States. The development of technologies and science has allowed the human economic and scientific activities on the deep parts of the ocean floor. The continental shelf is rich with living resources. The living resources of continental shelf are also valuable, since they possess valuable genetic resources for pharmaceuticals and commercial products. Many valuable non-living resources are situated on the continental shelf, including hydrocarbons (oil and gas) and minerals (e.g. manganese, nickel, cobalt, gold, diamonds, copper, tin, titanium, iron, chromium and galena). Therefore, States have spent significant resources on conducting a research and exploring their continental shelf and the Commission on the Limits of the Continental Shelf (CLCS) has received seventy-seven submissions and issued twenty-nine recommendations pursuant to Article 76 (8) of the United Nations Convention on the Law of the Sea (UNCLOS). With the expected improvement of technological capabilities in decades to come, especially, in deep waters, the continental shelf will be explored more thoroughly and perhaps will meet no technological limits.

Keywords: continental shelf, UNCLOS, CLCS**,** exploitation of the non-living resources

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INTRODUCTION

It is both a great privilege and a pleasure to make a contribution to this volume of Maritime Law dedicated to honouring Professor Janusz Gilas. His career has been marked by his unswerving commitment to the advancement and promotion of the development of Polish science of international law and high-quality standards of international writing and teaching. His approach has fostered deeper reflection on various issues of international law, such as the law of the sea and international economic law. Professor has the right perspective from which to view the law: his concern has always been with the theoretical aspects of international law and what it might have achieved in the real world.

Among many outstanding contributions that Professor Janusz Gilas has made to international law is his staunch support for the development of the law of the sea. Therefore, it seems suitable to offer some thoughts on the law to which Professor Janusz Gilas has been so devoted. Our contribution concerns Article 82 of the United Nations Convention on the Law of the Sea[1] and the non-living resources on the outer continental shelf. It is in a way an attempt to sail the seas that have remained unknown until today as to how Article 82 would be dealt with in practice.

The continental shelf beyond 200 nautical miles (NM) accounts for a great value for States. The development of technologies and science has allowed the human economic and scientific activities on the deep parts of the ocean floor. The continental shelf is rich with living resources. It has been described as the most geologically diverse component of the deep-ocean floor, containing a range of habitats for biological resources, many of which will be located on the outer continental shelf.[2] The living resources of continental shelf are also valuable, since they possess valuable genetic resources for pharmaceuticals and commercial products. Many valuable non-living resources are situated on the continental shelf, including hydrocarbons (oil and gas)[3] and minerals (e.g. manganese, nickel, cobalt, gold, diamonds, copper, tin, titanium, sand, gravel, iron, chromium and galena).[4] There-

[1] Journal of Laws 2002 No. 59, item 534.

[2] Ramirez-Llodra et al., *Deep, Diverse and Definitely Different: Unique Attributes of the World's Largest Ecosystem*, 2010 Biogeosciences 7, at p. 2857. See for a more complex and detailed description: J. Mossop, *The Continental Shelf Beyond 200 Nautical Miles: Rights and Responsibilities*, Oxford 2016, at p. 21-33.

[3] According to the ISA, the estimated proved reserves of oil world-wide at the beginning of the 21st Century are about one trillion barrels. About 252 billion barrels (25%) are estimated to lie in sub-sea environments. The total of world-wide proved resources of natural gas are estimated at about 4.000 trillion cubic feet, of which 26% are estimated to be sub-sea. The ISA, *Technical Study No. 1, Global Non-Living Resources on the Extended Continental Shelf: Prospects at the Year 2000*, Kingston 2001, at pp. 37–46 (hereinafter: *Technical Study No. 1*).

[4] *Ibid*, at 20, 23, 24, 26, 29; *ISA Technical Study No. 4, Issues Associated with the Implementation*

fore, States have spent significant resources on conducting research and exploring their continental shelf and the Commission on the Limits of the Continental Shelf (CLCS) has received seventy-seven submissions and issued twenty-nine recommendations pursuant to Article 76 (8) of the United Nations Convention on the Law of the Sea (UNCLOS).[5] With the expected improvement of technological capabilities in decades to come, especially, in deep waters, the continental shelf will be explored more thoroughly and perhaps will meet no technological limits.

The UNCLOS prescribes the legal regime for continental shelf (Part VI, Articles 76 –85). The coastal State exercises, over the continental shelf, sovereign rights for the purpose of exploring it and exploiting its natural resources. These rights are exclusive in the sense that if the coastal State does not explore the continental shelf or exploits its natural resources, no one may undertake these activities without the express consent of the coastal State. (Article 77 (1) (2)). All coastal States have these rights to the sea floor at least 200 NM (unless there are opposite or adjacent States and entitlements overlap). According to Article 76 (1) of the UNCLOS, which forms a part of customary international law[6] the continental shelf comprises the seabed and subsoil of the submarine areas that extend beyond a State's territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance. However, in certain cases rights of a coastal State extend beyond 200 NM (Article 76 (4) – (7)). In other words, a coastal state has an entitlement to the continental shelf beyond 200 NM if such continental shelf meets the requirement set forth in Article 76 of the UNCLOS. Therefore, the continental shelf is divided into an inner continental shelf (up to 200 NM, ICS) and an extended or outer continental shelf (beyond 200 NM, OCS). Nevertheless, the international courts and tribunals

of Article 82 of the United Nations Convention on the Law of the Sea, Kingston 2009, at p. X (hereinafter: *Technical Study No. 4*); C. Schofield, R. van den Poll, *Exploring the OCS: Working Paper*, [in:] *ISA Technical Study 12: Implementation of Article 82 of the United Nations Convention on the Law of the Sea*, Kingoston 2013, at p. 77.

[5] As of 26 October 2017. See: http://www.un.org/depts/los/clcs_new/commission_submissions.htm, last visit: March 2018. United Nations Convention for the Law of the Sea was opened for signature on 10 December 1982 and entered into force on 16 November 1994. 1834 UNTS 397. According to Article 76 (8)-(9) States claiming an OCS are required to submit information on the limits of continental shelf within ten years of the date of their ratification of the UNCLOS. Many States that had ratified the UNCLOS encountered serious difficulties in complying with that deadline. Therefore, the Meeting of States Parties to the Convention had agreed that States that ratified the Convention before 13 May 1999 would be permitted to submit their claims by 13 May 2009.

[6] *Territorial and Maritime Dispute (Nicaragua* v. *Colombia)*, Judgment of 19 November 2012, I.C.J. Reports 2012, at para. 118.

apply the same legal regime to the whole continental shelf. The International Tribunal for the Law of the Sea (ITLOS) declared in 2012 that:

> Article 76 of the Convention embodies the concept of a single continental shelf. In accordance with article 77, paragraphs 1 and 2, of the Convention, the coastal State exercises exclusive sovereign rights over the continental shelf in its entirety without any distinction being made between the shelf within 200 nm and the shelf beyond that limit.[7]

However, the Convention contains two specific norms that apply in respect only to the OCS and that may be regarded as specific exceptions in the legal regime of the continental shelf. Article 82 obliges States to make payments or contributions in kind to the International Seabed Authority (ISA), whereas Article 246 (6) limits the discretion of a coastal State to withhold consent to conduct marine scientific research projects of direct significance for the exploration and exploitation of natural resources.[8]

Against this background, the purpose of this contribution is to analyse Article 82 of the UNCLOS. To this end, it explores, in the first place, Article 82 and the obligation to make payments or contributions in kind (Section 2). This is followed by a separate section devoted to the rationale, background, implementation of Article 82 and its interpretation (Sections 3 and 4). In Section 5 this contribution describes and analyses in detail the basic concepts and terms of Article 82, including non-living resources, responsibility for determining the amount of payments and contributions, the role of the International Seabed Authority (ISA), payment and contribution, the sorts of resources to be used as payments and contributions, the distribution system in practice, the determination of the value of payment, exemptions and cross-boundary issues (non-living resources straddling the limits of the OCS). Finally, a set of concluding observations is presented in Section 6.

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[7] *The dispute Concerning Delimitation of the Maritime Boundary Between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar)*, judgment of 14 March 2012, Case No. 16 (Judgment), at para. 361. Also, an Arbitral Tribunal in *Barbados* v. *Trinidad and Tobago* concluded that: "there is in law only a single »continental shelf« rather than an inner continental shelf and a separate extended or OCS." *Arbitration Between Barbados and the Republic of Trinidad and Tobago, Relating to the Delimitation of the Exclusive Economic Zone and the Continental Shelf Between Them*, the decision of 11 April 2006, XXVII U.N.R.I.A.A. 147, at para. 231.

[8] On Article 246 see: A. Kirchner, *The Outer Continental Shelf: Background and Current Developments*, [in:] *Law of the Sea, Environmental Law and Settlement of Disputes*. Liber Amicorum *Judge Thomas A. Mensah*, T. M. Ndiaye, R. Wolfrum (eds.), Leiden/Boston 2007, at pp. 602–606.

1. ARTICLE 82 OF THE UNCLOS AND THE OBLIGATION TO MAKE PAYMENTS

Article 82 of the UNCLOS (Payments and contributions with respect to the exploitation of the continental shelf beyond 200 nautical miles) stipulates the obligation of States to make payments or contributions when exploiting any area of a State's continental shelf beyond 200 nm. It states that:

> 1. The coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.
> 2. The payments and contributions shall be made annually with respect to all production at a site after the first five years of production at that site. For the sixth year, the rate of payment or contribution shall be 1 per cent of the value or volume of production at the site. The rate shall increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter. Production does not include resources used in connection with exploitation.
> 3. A developing State which is a net importer of a mineral resource produced from its continental shelf is exempt from making such payments or contributions in respect of that mineral resource.
> 4. The payments or contributions shall be made through the Authority, which shall distribute them to States Parties to this Convention, on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked among them.

The UNCLOS does not provide any detailed rules for the ISA on how Article 82 should be implemented. A brief examination of the text indicates that it is not precise and raises numerous questions of interpretation.[9] Moreover, the above text is regrettably not free from gaps, ambiguity and specifics. Article 82 is a dormant rule (it has not been implemented up to date), but coastal States have already granted prospecting and/or exploration licences or leases on their OCS.[10] For example, Canada has granted a number of petroleum exploration licences on its OCS in the Jeanne d'Arc and Eastern Newfoundland area.[11] The Canada-Newfoundland Offshore Petroleum Board is responsible for regulating the oil and gas industry offshore Newfoundland and Labrador. The Board governs exploration licences, significant discovery licences, and production licenses covering an area of 7,365,000 hectares.[12] As of 2016, the Board issued eight exploration licences

[9] See: M. W. Lodge, *The International Seabed Authority and Article 82 of the UN Convention on the Law of the Sea*, 2006 International Journal of Marine and Coastal Law 21 (3), at p. 325.

[10] *Technical Study No. 4*, at p. XIV.

[11] J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 124.

[12] See: http://www.cnlopb.ca, last visit: March 2018.

and two significant discovery licences. In four cases, a validating well has been drilled, which allows progress to be made towards a production licence.[13] Other States, such as Norway and USA, also have issued licenses on drills in their outer continental shelves.

2. RATIONALE, BACKGROUND AND IMPLEMENTATION OF ARTICLE 82 – GENERAL OVERVIEW

There were several complex and controversial questions negotiated during drafting of continental shelf and the Area rules of the UNCLOS. The first point regarded the outer limits of the continental shelf and for the present purposes it needs not to be discussed in this contribution. However, it ought to be mentioned here that there were two opposite groups where the first opted for extending continental shelf beyond 200 NM and the other was insisting on not extending continental shelf beyond 200 NM in order to pass the governance and enjoyment of the Area resources to the ISA and, ultimately, to the international community of States.[14] Several proposal were made, which specifically considered the revenue sharing system. In the end, the establishment of outer limits of the continental shelf and the content of Article 82 account for a compromise left with certain ambiguities to be solved by future and then distant practice. The preference was made for the gross volume of production, the introduction of the grace period, the preferential position of developing States and establishing of an international organization governing the Area and the revenue system.[15] Eventually, States agreed that coastal States would receive OCS in return of a portion of revenues obtained thanks to the exploration of that shelf and to be shared with the international community to the particular benefit of developing States.[16]

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[13] J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 124.

[14] According to ILA Report on Article 82: "the so-called 'broad margin' States insisted on claiming sovereign rights and jurisdiction over their continental shelves beyond 200M; whereas an opposing group of States, comprised mainly, but not exclusively, of land-locked and geographically disadvantaged States, argued for a final limit, for coastal State continental shelves to be set at 200M." ILA, *Report on Article 82 of the 1982 UN Convention on Law of the Sea (UNCLOS)*, at para. 1.2 (hereinafter: ILA Report on Article 82). See: *United Nations Convention on the Law of the Sea, 1982: A Commentary*, S. N. Nandan, S. Rosenne (eds.), Drodrecht 1993, vol. 2, at p. 932, at para. 82.1.

[15] A. Chircop, B. A. Marchand, *International Royalty and Continental Shelf Limits: Emerging Issues for the Canadian Offshore*, 2003 Dalhousie Law Journal 26, at pp. 273–302.

[16] See: T. McDorman, *The Entry into Force of the 1982 LOS Convention and the Article 76 OCS Regime*, 1995 International Journal of Marine and Coastal Law 10, at pp. 165–187.

The implementation of Article 82 has been generally described in the provision. The ISA Technical Study No. 4 has envisaged three chronological phases. Phase 1 is a "pre-production period" and covers the period of prospecting, exploration and development licences or leases, but before commencement of commercial production. Phase 2 is the "grace period" or "transitional period" and concerns the first five years of OCS royalty-free production. Phase 3 is the "royalty period" commencing with the sixth year of production. At this stage, the OCS royalty will begin to apply on the scale set out in Article 82. The duration of this period is coterminous with the commercial life of the non-living resource concerned.[17] The conceptualization of the implementation process helps clarify the content of Article 82 and the rights and duties of the coastal States and the ISA stemming therefrom. It helps understand the structure of the provision and project the regulation of payments and contributions mechanism under Article 82.

3. INTERPRETATION OF ARTICLE 82

Article 82 is far from being clear and leaves many practical issues unresolved. Thus, there is a dire need to interpret it in order to establish the opposite meaning of its terms. During the UNCLOS III Conference there were no discussions or proposals regarding a specific dispute settlement procedure in respect of disagreements between States as to the construction of Article 82.[18] Although the UNCLOS entered into force in 1994, the rules applicable for its interpretation are to be found in the Vienna Convention of the Law of Treaties of 1969 (VCLT), as it codified customary international law with respect to treaty interpretation.[19] Article

[17] *Technical Study No. 4*, at p. 25, 46–47. On the basis of oil and gas industry practices, the Study defines royalties as payment that are due as compensation for the use of property calculated as a percentage of receipts on the basis of an account per unit produced.

[18] ILA Report on Article 82, at para. 1.3.

[19] 1155 UNTS 331. See: *Arbitral Award of 31 July 1989 (Guinea-Bissau* v. *Senegal)*, Judgment of 12 November 1991, I.C.J. Reports 1991, at para. 48; *Oil Platforms (Islamic Republic of Iran* v. *United States of America)*, Judgment of 12 December 1996, I.C.J. Reports 1996, at para. 45; *Kasikili/Sedudu Island (Botswana/Namibia)*, Judgment of 13 December 1999, I.C.J. Reports 1999, at para. 18; *LaGrand Case (Germany* v. *United States of America)*, Judgment of 27 June 2001, I.C.J. Reports 2001, at para. 99; *Avena and Other Mexican Nationals (Mexico* v. *United States of America)*, Judgment of 31 March 2004, I.C.J. Reports 2004, at para. 83; *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion of 9 July 2004, I.C.J. Reports 2004, at para. 94; *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina* v. *Serbia and Montenegro)*, Judgment of 26 February 2007, I.C.J. Reports 2007, at para. 160; *Application of the Interim Accord of 13 September 1995 (the Former Yugoslav Republic of*

31 (1) of the VCLT states that: "[a] treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of their object and purpose." Paragraph 3 (c) calls for a systemic approach to interpretation and it obliges to take into account any relevant rules of international law applicable in the relations between the parties. According to Article 32 recourse may be taken to supplementary means of interpretation, including the preparatory work of the treaty and the circumstances of its conclusion, when the interpretation (a) leaves the meaning ambiguous or obscure; or (b) leads to a result which is manifestly absurd or unreasonable. Having that in mind, certain crucial issues, covered by Article 82, may be identified. J. Mossop lists, in the first place, the concept of the common heritage of mankind.[20] Though Article 82 does not mention that concept, its construction in the light of the common heritage of mankind seems to be permissible under a systemic approach. Moreover, the concept of payment and contribution seems to reflect the idea of the common heritage of mankind since it introduces the sharing of benefits for the exploitation of the OCS with the international community.[21] There are, nonetheless, arguments against the introduction in the process of interpretation of the common heritage of mankind. J. Mossop argues that Article 136 of the UNCLOS[22] limits the scope of the common heritage of mankind to the Area only. Secondly, only one element of the concept of the common heritage of mankind (the sharing of benefits) out of three (other two: lack of appropriation, a system of management) is present in Article 82. Therefore, there is no place for the concept of the common heritage of mankind in that Article.[23] This approach ignores the systemic interpretation and the basic principles of the law of the sea. Moreover, the element of international community's interests is easily visible in the negotiation process as well as through the payments and contribution mechanism and the preferential treatment of developing States. Thus, the concept of the common heritage of mankind might be useful in the interpretation of payments and contribution provision which, as shown below, is equivocal and calls for clarification in the practice.

Macedonia v. *Greece)*, Judgment of 5 December 2011, I.C.J. Reports 2011, par. 91. See also: G. Nolte: *First Report on Subsequent Agreements and Subsequent Practice in relation to Treaty Interpretation, by Georg Nolte, Special Rapporteur*, 19 March 2013, UN Doc. A/CN.4/660, at paras. 8–28.

[20] J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 128.

[21] Also ILA underlined that: "Article 82 thus provides for the application, albeit in limited form, of the Common Heritage of Mankind (CHM) principle within the OCS, even though the OCS is within the coastal State's maritime jurisdiction". As Oda points out, this provision was "[i]nstituted in such a manner that the concept of the common heritage of mankind plays a role in controlling over-expansion of the exclusive interests of coastal States in their continental shelves." S. Oda, *International Control of Sea Resources*, Dordrecht 1989, at p. xxxii.

[22] "The Area and its resources are the common heritage of mankind."

[23] J. Mossop, *The Continental Shelf*, *op. cit.*, at pp. 128–130.

4. PAYMENTS AND CONTRIBUTIONS

4.1. GENERAL REMARKS

According to Article 82 the coast State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 NM. For the sixth year of production the payment or contribution shall be 1% of the value or volume of production at the site and it shall increase up to 7%. The Authority has described the payments or contributions as a type of international royalty.[24] However, the UNCLOS explains neither payments or contributions in kind nor the concept of value or procedures for the determination of an amount of payments or contributions. The ISA Technical Study claims that coastal States have the option of making either payments (e.g. in monies) or contributions in kind. The Authority does not have an assessment power in this regard. The UNCLOS is also silent as to whether the coastal State can change its choice of payments or contributions in kind after it has already commenced discharging the obligation.[25]

The above introduction to Article 82 shows that a number of questions should be answered in the interpretative and implementation process. The issues might be broken down to the several headings and discussed accordingly: (1) What are non-living resources? (2) Who is responsible for determining the amount of the payment or contribution? (3) May a coastal State choose between payment and contribution or make a combination of the two? (4) What sorts of resources shall be used? (5) How the system will be made in practice? (6) How to determine the value of the payment or contribution? (7) Who is exempted from payments and contributions? (8) What is the role of the ISA?[26]

4.2. PAYMENTS AND CONTRIBUTIONS RELATED TO NON-LIVING RESOURCES

The obligation enshrined in Article 82 covers non-living resources only. It may be reiterated that the coastal State exercises, over the continental shelf, exclusive sovereign rights for the purpose of exploring it and exploiting its natural resources (Article 77 (1)-(2)). These are defined in Article 77 (4) as the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, are either immobile on or under the seabed or are unable to move except

[24] *Technical Study No. 4*, at p. 25.

[25] *Technical Study No. 4*, at p. XV.

[26] See: J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 130–136.

in constant physical contact with the seabed or the subsoil (e.g. sponges, coral and pearl oysters, lobsters, crabs, scallops).[27] Article 82 is limited to non-living resources and therefore sedentary species should be excluded for the scope of resources for the exploitation of which the coastal State shall make payments and contributions. The non-living resources thus encompass primarily minerals and hydrocarbons.

4.3. RESPONSIBILITY FOR DETERMINING THE AMOUNT OF PAYMENTS AND CONTRIBUTIONS. THE ROLE OF THE ISA

There are three possible options with respect of identifying a subject responsible for the above determination: (1) a costal State; (2) the ISA; or (3) both costal State and the ISA working together. Certainly, the coastal State is responsible for making payments and contributions. Consequently, it may be argued that it is that State which shall assess the amount of payment or contribution. One may ask, whether the Authority has any responsibility to fulfil in determining the value or volume of payments or contributions. It is possible to consider the ISA as the only one responsible for the determination of the payable amounts. However, such a solution would probably meet the resistance from the coastal States. A feasible option seems rather to set up a system of cooperation between these States and the Authority. The Virginia Commentary on the UNCLOS indicates that there should be some kind of consultation or agreement with the ISA in order that the Authority can discharge its fiduciary duty to mankind as a whole.[28] Although the language of Article 82 is silent on that point and it may seem that such a cooperation is not legally necessary, the consultation and agreement between a coastal State and the ISA would be desirable and preferable as it would allow to avoid any disputes arising out of the interpretation of unclear terms of Article 82. At least the coastal States should inform the ISA as to how the amount has been determined. The best way to establish the method of determination would be to conclude an agreement between the ISA and all coastal States concerned. However, the Technical Study allows for some flexibility, as it suggests that Article 82 does not preclude change of discharge options. According to the Study, "[f]rom the perspective of implementation convenience, it is conceivable that the coastal State will find it simpler

[27] See: J.A.C. Gutteridge, *The 1958 Convention on the Continental Shelf*, 1959 British Yearbook of International Law 35, at pp. 102–123; S. V. Scott, *The Inclusion of Sedentary Fisheries within the Continental Shelf Doctrine*, 41 International and Comparative Law Quarterly 1992, at pp. 788–807; R. Young, *Sedentary Fisheries and the Convention on the Continental Shelf*, 1969 American Journal of International Law 63, at pp. 359–373.

[28] *United Nations Convention on the Law of the Sea, 1982: A Commentary*, S. N. Nandan, S. Rosenne (eds.), Dordrecht 1993, vol. 2, at p. 934, at para. 82.4.

to discharge its obligation using the same expressed option and accompanying procedure. But it is conceivable that over a 20-year life span of a petroleum field (for example) the OCS State may wish to change the manner of discharging the obligation."[29] However, from the ISA perspective, it would be easier to deal with one mode settlement only than two.[30]

The general role of the ISA would appear to be to initiate, facilitate and ensure effective operation of the mechanism set forth in Article 82. Also, the genuine cooperation of the coastal States would be needed to implement payments and contributions mechanism. The ISA Working Group A Report identified more detailed and more specific obligations arising from the general terms of Article 82. In particular, several information duties are indirectly placed on both coastal States and the ISA. The former are obliged to notice:

– That a particular site has become Article 82–eligible;
– Date of commencement of production;
– Suspension of grace period, including explanation;
– Suspension of production that affects payments or contributions, including explanation;
– Announcement of forthcoming payment, including explanation of how the amounts concerned were arrived at;
– Announcement of forthcoming contribution in kind and related arrangements, including explanation of how the amounts concerned were arrived at (deliveries, timeframes and related arrangements for contributions in kind would need to be made with the ISA);
– Announcement of change of option;
– Date of termination of production

The Authority is obliged to:

– Acknowledgement of receipt of all formal notices from the OCS State;
– Banking instructions regarding payments;
– Receipt of payment;
– Receipt of contribution in kind and related arrangements;
– Annual statement of account certifying received payments or contributions.[31]

[29] Technical Study No. 4, at p. 30.

[30] J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 131.

[31] *Report of Working Group A on Implementation Guidelines and Model Article 82 Agreement* [in:] ISA, *Technical Study 12: Implementation of Article 82 of the United Nations Convention on the Law of the Sea*, Kingoston 2013, at pp. 22–23, at paras. 19–20 (hereinafter: *Report of Working Group A*).

4.4. PAYMENT, CONTRIBUTION OR COMBINATION?

It needs to be underlined, in the first place, that the text of Article 82 speaks of "payments *or* contributions" and not of "payments *and* contributions". Several interesting arguments have been raised in that respect. The ILA Report states that the coastal State has the discretion to fulfil its obligation and select a mode of its own choosing. However, it is claimed that once a State made its choice, it cannot change the selection and switch from a payment to a contribution and *vice versa*. Also, it is not possible to make a combined payment and contribution.[32] Some authors have also considered whether a coastal State should choose between a payment or a contribution only, as the combination of the two is not permitted. Nevertheless, it seems that the prevailing view is that the coastal State may lawfully make a combined payment and contribution.[33] Article 82 does not expressly prohibit a combination of these two modes. The combination has only to be made in accordance with paragraph 2 and reflects the total value of production. Therefore, the ISA could not deny accepting a combined payment and contribution.

There are also doubts regarding the alteration of a mode in subsequent years. Article 82 does not expressly prohibit changing payment for contribution and *vice versa*. The ISA Technical Study suggests that it is lawful. It is conceivable that over a 20-year life span of a petroleum field, the costal State may wish to change the manner of discharging the obligation.[34]

4.5. SORTS OF RESOURCES TO BE USED AS PAYMENTS AND CONTRIBUTIONS

If a coastal State decides to make a payment, it should be done in accordance with the industry practice and therefore payments should be made in a freely convertible currency.[35] According to the ISA Study, in relation to payments, given the purpose of the payments and contributions to benefit other States, an international or widely-used currency could be implied.[36] The US dollar is currently used with respect to payments made to the ISA. In this regard, an argument has been made that payments should be consistent with the budgetary practice of the ISA, but Article 82 does not mention the Authority and its practices.[37] Thinking reasonably, it would be more convenient and recommended to make payments in the currency and according to the rules established by the ISA. However, the text

[32] See: ILA Report on Article 82, at paras. 2.13–2.14.

[33] J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 131. See: ILA Report on Article 82, at para. 2.20.

[34] *Technical Study No. 4*, at p. 30.

[35] M. W. Lodge, *The International Seabed Authority and Article 82 of the UN Convention on the Law of the Sea*, 2006 International Journal of Marine and Coastal Law 21 (3), at p. 326.

[36] *Technical Study No. 4*, at p. XV.

[37] M. W. Lodge, *The International Seabed Authority*, *op. cit.*, at p. 326.

of Article 82 does not prescribe such a solution and therefore it should be agreed upon between a coastal State and the ISA. Therefore, it might be argued that the coastal State may switch the mode of discharging its obligation in the subsequent fiscal years.

Contributions in kind were introduced to the UNCLOS in order to secure resource access to States Party beneficiaries.[38] If the coastal State chooses to make a contribution, several questions arise. First, should the contribution be converted to money? Who is responsible for transportation, insurance and storage (the ISA does not have technical and logistic capacities to storage contributions). Who would pay the associated costs? Should the ISA distribute the contribution in kind or should it pay in money? When does the legal title over the share of the resource composing the contribution in kind pass to the ISA?[39] J. Mossop also poses a question regarding resources to be used as a form of contribution in kind, should they be the resources as extracted from the OCS or can the coastal State use another type of resources? She eventually answers in the negative, as allowing States to make their contribution with, for example, grain of an equivalent value, would pose serious challenges for the ISA.[40] Certainly, the proper interpretation of Article 82 would appear to be that the coastal State may not select a different resource then that extracted at a given site. What is more important, Article 82 (2) states that: "The payments and contributions in kind shall be made […] with respect to all production at a site […]" This provision inextricably connects "the payments and contributions" with "production at a site". Therefore, contribution in kind may not be made from other source than production at a given site.

4.6. THE DISTRIBUTION SYSTEM IN PRACTICE

Article 82 (4) makes clear that payments or contributions shall be made through the Authority which shall distribute them to State parties to the UNCLOS on the basis of equitable criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked States.[41] It collects payments and contributions which are subsequently distributed among States with particular regard being paid to the poorest and geographically disadvantaged

[38] *Report of Working Group A*, at p. 20, para. 9.

[39] M. W. Lodge, *The International Seabed Authority*, *op. cit.*, at p. 326; *Report of Working Group A*, at 20, para. 9.

[40] J. Mossop, *The Continental Shelf*, *op. cit.*, at pp. 131–132.

[41] The list of the least developed States and land-locked States has been prepared by the ISA, *Technical Study No. 12: Implementation* of *Article 82* of the *United Nations Convention* on the *Law of the Sea*, Kingston 2013, at p. 97 (hereinafter: ISA, *Technical Study No. 12*).

States on the basis of equity.[42] The role of the ISA seems to be instrumental and of administrative nature, although it requires advance planning and preparation as the Authority needs to set up structures and processes to enable it to receive payments and especially contributions in kind.[43]

Article 82 (4) is elaborated further in Article 160 (2)(o)(i) which provides that Council of the ISA shall:

> recommend to the Assembly rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of the developing States and peoples who have not attained full independence or other self-governing status.[44]

As it has been rightly pointed out by the ISA Technical Study, there are two inconsistencies between Article 82 (4) and 162 (2)(o)(i). First, peoples who have not attained full independence or other self-governing status are not referred to in Article 82 which speaks of States instead of peoples seeking statehood. Second, as opposed to Article 82 (4), Article 162 (2)(i)(o) does not pay attention to the interests and needs of the least developed States and land-locked States.[45] Both inconsistencies might have influence in drafting equitable sharing criteria and it will be the responsibility of the Council of the ISA to mitigate or eliminate above discrepancies in its recommendation.

The most contentious issue for the Council would be to identify equitable sharing criteria. It is indicated that the criteria should take into consideration the Millennium Development Goals, climate change adoption and integrated coastal

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[42] It might be added that the whole Article 82 is considered to be motivated by equity. See: Tommy T. B. Koh, Ambassador of Singapore and President of UNCLOS III, *A Constitution for the Oceans*, [in:] *The Law of the Sea: Compendium of Basic Documents*, Kingston 2001, at p. lxi.

[43] See: *Working Paper on Development of Guidelines for Implementation of Article 82 by Professor Aldo Chircop*, [in]: ISA, *Technical Study No. 12: Implementation* of *Article 82* of the *United Nations Convention* on the *Law* of the *Sea*, Kingston 2013, at p. 43 (hereinafter: the *Chircop Working Paper*).

[44] According to Article 160(f)(i) the Assembly shall: "consider and approve, upon the recommendation of the Council, the rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of developing States and peoples who have not attained full independence or other self-governing status. If the Assembly does not approve the recommendations of the Council, the Assembly shall return them to the Council for reconsideration in the light of the views expressed by the Assembly."

[45] *Technical Study No. 4*, at p. 39.

and ocean management.[46] The ISA Working Group B Report suggested the following order of States taking the benefits of the Article 82 system:

> [t]he eight States Parties that are both Land-Locked States (LLS) and Least Developed Countries (LDC) would have the highest priority and the highest ranking. The 37 States Parties that are either LLS or LDC would be next, and then other similar categories may be considered, such as Small Island Developing States and Geographically Disadvantaged States. These would be followed by other developing States Parties, and then the remainder of the States Parties. To assist in ranking and in determining quantitative scores for the States Parties, the ISA may consider using the following: the UN scale of assessed contributions adjusted to take into consideration the number of States Parties to the Convention; the United Nations Development Programme (UNDP) Human Development Index; and other indices or lists that may be found relevant for this purpose.[47]

Another issue relates to the development of a mechanism for the criteria to be put into practice. The Authority will also need to ascertain the costs of this mechanism. One possibility is to make a deduction from payments and contributions. All these issues will certainly be addressed by the Council and the Assembly of the ISA.

Finally, it needs to be added that the coastal State will not participate in the above mechanism set up by the ISA.

4.7. DETERMINATION OF THE VALUE OF PAYMENT

Article 82 states that the rate of payment or contribution shall start with 1% of the value or volume of production at a site. At the same time, it does not provide explanation of terms employed in the provision. The first question concerns the "value of production." Does it encompass the gross value or net value after taxation?[48] Besides, the meaning could vary with reference to different resources

[46] *Ibidem*, at p. 42.

[47] *Report of Working Group B on Recommendations for Equitable Distribution of Payments and Contributions*, [in:] *ISA Technical Study 12: Implementation of Article 82 of the United Nations Convention on the Law of the Sea*, Kingoston 2013, at p. 28, para. 28 (hereinafter: *Report of Working Group B*).

[48] The ISA publication comments as follows: "The meaning of »value« for the purposes of calculating the applicable percentage will need to be clarified for the non-living resource concerned. This could refer to the well-head value in the case of hydrocarbons, i.e., when the product is brought to the surface, but before transportation. The applicable year will need to be determined (e.g., type of calendar year and/or fiscal year) for the OCS State and the Authority […] Also, the OCS State is not permitted to deduct the costs associated with making of payments and contributions." *Technical Study No. 4*, at p. XV.

and in various tax and royalty legal regimes.[49] Article 82 (2) employs the term "all production", but it still does not explain how and on what basis the value should be computed. The term "all production" suggests that Article 82 does not permit deduction of costs incurred before the value or volume is determined for payment or contribution purposes.[50] Besides, establishing net value would encounter serious problems, including the identification of costs to be deducted from the gross value. It therefore seems that the gross revenue standard should be used, also because States rejected the net revenue standard during the negotiation of the text.[51] Another issue concerns the definition of a site. It could have several different meanings, for example, a resource field, geological structure, well site and a license area. A site could be also comprehended differently with regard to different non-living resources. It is suggested, that the most practical approach is to leave the determination of a site to the coastal States, possibly with the assistance and guidelines of the ISA.[52]

According to the ILA Report, the coastal State decides on the form, method and timing of the payments. It should inform the ISA how it established the determination of the value. Its general duty will be to fulfil in good faith Article 82 obligations and to exercise the rights stemming therefrom in a manner which would not constitute an abuse of a right[53] (Article 30 of the UNCLOS, Article 26 of the VCLT and Article 2(2) of the UN Charter as well as general international law). Nonetheless, the best option would be to cooperate with the ISA and work out a mutually acceptable agreement. The Report of the ISA Working Group A advises to set up and use commonly agreed procedures between the coastal States and the ISA in the interests of consistency, predictability and efficiency. The Authority could also prepare a guide to assist the States for this purpose, as it is possible that the ISA's Secretary General will be queried by Member States on various Article 82 matters, including the basis of computation of payments and amounts due.[54]

According to Article 82 (2) the rate of payment or contribution does not include resources used in connection with the exploitation. Again, a clarification will be needed in this regard. The Report of ISA Working Group A provides an

[49] *Report of Working Group A*, at p. 21, para. 13.

[50] *Technical Study No. 4*, at p. 33.

[51] M. W. Lodge, *The International Seabed Authority*, *op. cit.*, at p. 327–328.

[52] *Report of Working Group A*, at p. 21, para. 14. Such guidelines should include: terminological matters; format for certification and explanations to accompany the methodology used for determining amounts of payments and contributions; notices that could be provided to the ISA; and information and notices expected in return. The document would, in essence, be advisory in its character. *Ibidem*, at pp. 23–24, para. 24.

[53] See: ILA Report on Article 82, Conclusions 6 and 7.

[54] *Report of Working Group A*, at p. 20, paras. 6–7.

example of a portion of the produced resource used for various purposes before marketing. In the case of hydrocarbons such use of the resource may be for re-injection to enhance production, help stabilize a well, measure flow rates, generate energy on board the installation, and flaring.[55]

4.8. EXEMPTIONS

Article 82 (3) states that a developing State which is a net importer of a mineral resource produced on its continental shelf is exempt from making payments and contributions. The proposal to exempt all developing States was rejected and replaced by a narrow exception. The main problem is who and how should determine which State qualifies for this exemption. Two criteria must be met: (1) the coastal State must be a developing State; and (2) the State must be a net importer of a mineral resource produced from its own continental shelf. It means that the exemption is resource specific: it applies only to the extent that the developing State is a net importer of the same mineral that it produces.[56] Regarding the first criterion, the UNCLOS does not explain the concept of a developing State and there are no universally acceptable criteria determining that a State is a developing or a developed country. In this regard, it seems that a reference may be made to international economic law and, in particular, to the World Bank regulation, which recognizes a State as "developing", if it has low or middle incomes based on gross national income per capita.[57] As regards the least developed States, the United Nations Economic and Social Council publishes a list of such countries which is reviewed every three years. The three criteria are used: (1) per capita income; (2) human assets; and (3) economic vulnerability. Currently, there are 47 States designated by the United Nations as the least developed States.[58]

The second criterion relates to a State – net importer of a mineral resource produced on its continental shelf. The word "resource" is not defined in the UNCLOS.

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[55] *Report of Working Group A*, at p. 21, para. 12.

[56] M. W. Lodge, *The International Seabed Authority*, *op. cit.*, at p. 329.

[57] In 2016, the World Bank decided not to distinguish any longer between developed States and developing States in the presentation of its data. See: https://qz.com/685626/the-world-bank-is-eliminating-the-term-developing-country-from-its-data-vocabulary, last visit: March 2018. The World Bank classifies countries into four income groups. Economies were divided according to 2016 GNI per capita using certain ranges of income. The first two groups may be referred to as developing States. These are: (1) low income countries had GNI per capita of US$1,025 or less, and (2) lower middle income countries had GNI per capita between US$1,026 and US$4,035. See:http://blogs.worldbank.org/opendata/2016-edition-world-development-indicators-out-three-features-you-won-t-want-miss, last visit: March 2018.

[58] See: http://unctad.org/en/Pages/ALDC/Least%20Developed%20Countries/UN-recognition-of-LDCs.aspx, last visit: March 2018.

Article 77 (4) of the UNCLOS states that natural resources of the shelf include mineral resources, other non-living resources and sedentary species. Thus it seems that mineral resources are a sub-category of natural resources. Article 82 (1), as opposed to paragraph 3, speaks of non-living resources and it may be strongly argued that Article 82 (3) encompasses only minerals and not other resources such as hydrocarbons. The ISA Technical Study refers to it as an inconsistency and drafting problem.[59] Both the ILA Report and the ISA Study suggest that there is a gap between a strict interpretation of Article 82 (3) and the purpose of the whole provision.[60] The view is also shared in the international law doctrine.[61] Therefore, it is claimed that it would be apposite to construe the exemption in such a way as to include all States – net importers of mineral and other non-living resources.

4.9. CROSS-BOUNDARY ISSUES: NON-LIVING RESOURCES STRADDLING THE LIMITS OF THE OCS

4.9.1. GENERAL REMARKS

Several intriguing issues arise in case of non-living resources lying on two or more territories. For example, a hydrocarbon field may lie on an OCS and the Area, or on inner and outer continental shelves of two opposite or adjacent States. In such cases the exploitation of a field by a well in one location is capable of extracting the whole field. This scenario is conceivable where that part of the resource located on the OCS is accessed from the inner shelf area through directional drilling or where a fugacious resource migrates in the reservoir to the extraction point.[62] J. Mossop adds that oil and gas fields are pressurized and, when extraction takes place, the hydrocarbons wander towards the exploitation point as a result of changes in the pressure and the extraction affects the level of recoverable resource that drops.[63] According to the ISA Technical Study, there are four potential scenarios: (1) the OCS resource straddles the exclusive economic zone (EEZ) of the costal State; (2) the OCS resource straddles the EEZ of a neighbouring State;

[59] *Technical Study No. 4*, at p. 36.

[60] *Technical Study No. 4*, at p. 36; ILA Report on Article 82, at para. 2.20.

[61] J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 135.

[62] *Technical Study No. 4*, at p. 59.

[63] J. Mossop, *The Continental Shelf*, *op. cit.*, at pp. 139, 140. Therefore, she refers to oil and gas as migratory resources. See: R. Lagoni, *Oil and Gas Deposits Across National Frontiers*, 1979 American Journal of International Law 73, at p. 215-243; M. Miyoshi, *The Basic Concept of Joint Development of Hydrocarbon Resources on the Continental Shelf*, 1988 International Journal of Estuarine and Coastal Law 3, at p. 1–18; B. Taverne, *Petroleum, Industry and Governments: A Study of the Involvement of Industry and Governments in the Production and Use of Petroleum*, The Hague 2008; V. Becker-Weinberg, *Joint Development of Hydrocarbon Deposits in the Law of the Sea*, Heidelberg 2014.

(3) the OCS resource straddles the OCS of a neighbouring State; and (4) the OCS resource straddles the Area.[64] All these situations may be divided into three categories and analysed accordingly: (1) fields located on the inner and OCS of one coastal State; (2) fields located on the continental shelves of two or more States; and (3) fields located on the continental shelf and on the Area.

4.9.2. FIELDS LOCATED ON THE INNER AND OUTER CONTINENTAL SHELF OF A SINGLE COASTAL STATE

In this scenario, the coastal State exercises its sovereign right to exploit natural resources, but is under an obligation to make payments and contributions for resources exploited in its OCS. The ISA Technical Study has considered this problem and concludes that the producing State would need to determine what percentage of the production is proportionate to that part of the resource located on the OCS.[65] This certainly will cause practical problems and the determination of payments and contributions should be difficult. First, there will be certain objective problems concerning the extraction and exploitation of a specific field. For example, the extraction of the resource in a particular location might not necessarily be proportionate to the field as a whole.[66] Moreover, the ISA would be in a difficult position to verify the date provided by the coastal State.

4.9.3. FIELDS LOCATED ON THE INNER AND OCS OF THE NEIGHBOURING STATES

The transboundary fields may cause political and legal issues. The first question arises when the international maritime boundary is not fixed between neighbouring States. If the boundary has been delimited, then the questions remain about the exploitation of a transboundary field. The UNCLOS and its Article 82 does not say much about such shared resources. J. Mossop identifies the obligation of a coastal State not to exploit common fields without affecting the neighbour's share of resource which she refers to as an obligation of mutual restraint.[67] A theoretically correct construction would appear to be that a coastal State exercises its sovereign rights over sea floor and subsoil of the continental shelf and extraction of resources lying on its continental shelf infringes the rights of the coastal State which consequently involves international responsibility. Therefore, a State has an obligation not to exploit its resources on its continental shelf in a way that would breach the rights of neighbouring States. Although there is no

[64] *Technical Study No. 4*, at p. 59.
[65] *Ibidem*, at p. 60.
[66] *Ibidem*, at p. 60.
[67] J. Mossop, *The Continental Shelf*, *op. cit.*, at pp. 139, 140.

general obligation to cooperate and conclude an agreement in good faith in international law (*pactum de negotiando*, *pactum de contrahendo*),[68] the best option to resolve these questions is a bilateral treaty between the States concerned. Another solution seems to be an international judicial or arbitral decision. There are a few good examples of mutual and beneficial cooperation in this regard. Such treaties accept the concept of unitization of deposits, that is, that a deposit of oil or gas as a fluid should be treated as a single deposit if it straddles the boundary of different States.[69] The most-cited treaty is the 1965 Agreement between the United Kingdom and Norway.[70] Its Article 4 states as follows:

> If any single geological petroleum structure or petroleum field, or any single geological structure or field of any other mineral deposit, including sand or gravel, extends across the dividing line and the part of such structure or field which is situated on one side of the dividing line is exploitable, wholly or in part, from the other side of the dividing line, the Contracting Parties shall, in consultation with the licensees, if any, seek to reach agreement as to the manner in which the structure or field shall be most effectively exploited and the manner in which the proceeds deriving therefrom shall be apportioned.

The above Article encompasses all basic elements of unitization.[71] Under this provision, the United Kingdom and Norway concluded the Agreement relating to the Exploitation of the Frigg Field Reservoir and the Transmission of Gas therefrom to the United Kingdom of 10 May 1976.[72] Other examples include the cooperation between Germany and the Netherlands, Mexico and the United States, France and Spain, Japan and South Korea as well as Thailand and Malaysia.[73]

4.9.4. FIELDS LOCATED ON THE CONTINENTAL SHELF AND IN THE AREA

It obviously might be the case that a given resource straddles the Area and the OCS of the coastal State. According to the ISA, there could be two scenarios. In the first place, the coastal State undertakes a unilateral development of the transboundary resource and it would have to make the payments and contribution. The

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[68] Unless there is a specific rule to the contrary, e.g., Article 74 and 83 of the UNCLOS.

[69] M. Miyoshi, *The Basic Concept of Joint Development of Hydrocarbon Resources on the Continental Shelf*, 1988 International Journal of Estuarine and Coastal Law 3, at p. 6.

[70] The agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Kingdom of Norway relating to the delimitation of the continental shelf between the two countries of 10 March 1965, 551 UNTS 214.

[71] M. Miyoshi, *The Basic Concept of Joint Development of Hydrocarbon Resources on the Continental Shelf*, 1988 International Journal of Estuarine and Coastal Law 3, at p. 7.

[72] 1254 UNTS 379.

[73] See the sources referred to in footnote 61.

second scenario presupposes an agreement between the State and the ISA. The rules and procedures for the exploration and exploitation of the Area contained in Part XI of the UNCLOS will be applicable, but only to activities taking place in the Area.[74] At the same time, the ISA must be aware of the fact that the exploitation activities carried out in the Area might affect fields of continental shelves of coastal States. Parties to the UNCLOS envisaged such a situation in Article 142 (1) which provides that activities in the Area, with respect to resource deposits in the Area which lie across limits of national jurisdiction, shall be conducted with due regard to the rights and legitimate interests of any coastal State across whose jurisdiction such deposits lie. Thus, the Authority must obtain a consent from the affected State in order to launch an exploitation of non-living resources. The best way would be to conclude a unitization agreement for the exploitation of a given field.

CONCLUSIONS

The main purpose of Article 82 is to address political demands of achieving equality and equity in the matter of the exploitation of natural resources of the deep seabed. It contains basic framework for establishing a mechanism that may successfully meet these demands. It remains to be seen whether the ISA and the most powerful coastal State will find a right solution to the benefit of the international community and, in particular, developing States. The establishment of the Article 82 system will also be a test for the developed States of how they approach the need of protecting the world common heritage and the need of the developing States. Will they sacrifice some of their interests for the benefit of the least developed States and the land-locked States in order to reach an equitable solution?

What is also important, States have an obligation to seek to find ways to balance economic activities with environmental protection. This remark is of particular relevance, as the pressure on oil and gas supplies increase, the exploitation of reserves found on the OCS is very likely. Thus, there are concerns about the impact of exploration and exploitation on the maritime environment.[75] Oil exploration and exploitation can result in environmental damage caused by accidents that negatively impact on ecosystems as the explosion on the *Deepwater Horizon* rig showed. The blowout had significant environmental consequences. Approximately 430 miles of marsh shorelines were exposed to oil, leading to high mortality for many species. Decline in abundance of certain pelagic fisheries were

[74] *Technical Study No. 4*, at p. 62.

[75] J. Mossop, *The Continental Shelf*, *op. cit.*, at p. 37.

noted in subsequent years.[76] Nonetheless, the *Deepwater Horizon* explosion has not stopped the exploration and exploitation activities which are likely to increase in the forthcoming years.

It is fair to say that the importance of the mechanism set forth in Article 82 is likely to increase, especially with the growing prospects for exploiting resources in the deep parts of seas. With the development of technology, the scenarios of exploring non-living resources in outer continental shelves are getting brighter. Working papers prepared for the ISA have noted that improved technology is allowing economically viable exploration and exploitation of hydrocarbon resources in more hostile condition. It might therefore be anticipated that billions of dollars will be devoted to deep sea exploration efforts in the foreseeable future, with trillions of dollars of resources at stake.[77] Having that in mind it seems to be quite urgent to resolve all ambiguities embodied in Article 82 in order to avoid potential conflicts and disputes. Here, the role of the ISA should be underscored as it is the organ of the international community perfectly equipped to deal with and resolve all controversial matters. The Authority, on its side, should adopt equitable and transparent regulations in the transparent and open procedures.

KILKA UWAG O WYKORZYSTANIU ZASOBÓW NIEOŻYWIONYCH SZELFU KONTYNENTALNEGO POŁOŻONEGO POZA 200 MILAMI MORSKIMI W KONTEKŚCIE ARTYKUŁU 82 UNCLOS

Słowa kluczowe: szelf kontynentalny, UNCLOS, CLCS, eksploatacja nieożywionych zasobów morskich

[76] *Ibidem*, at p. 37, 41, who quotes: National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water The Gulf Oil Disaster and the Future of Offshore Drilling, Report to the President*, 2011, https://www.nrt.org/sites/2/files/GPO-OILCOMMISSION.pdf, last visit: March 2018; I. A. Mendelssohn et al., *Oil Impacts on Coastal Wetlands: Implications for the Mississippi River Delta Ecosystem after the* Deepwater Horizon *Oil Spill*, 2012 BioScience 62(6), at pp. 562–574; J. R. Rooker et al., *Spatial, Temporal, and Habitat-Related Variation in Abundance of Pelagic Fishes in the Gulf of Mexico: Potential Implications of the Deepwater Horizon Oil Spill*, PLOS One, published: 10 October, 2013.

[77] C. Schofield, R. van den Poll, *Exploring the OCS : Working Paper*, [in:] *ISA Technical Study 12*, at pp. 75, 71.

Abstrakt

Szelf kontynentalny położony poza 200 milami morskimi od linii podstawowej, od której mierzona jest szerokość morza terytorialnego, stanowi istotną wartość dla państw. Rozwój technologii pozwolił na gospodarcze wykorzystanie i naukowe badania odległych części dna i podziemia oceanów. Oceaniczne szelfy kontynentalne są bogate w żywe zasoby - cenne ze względu na zasoby genetyczne i ich komercyjne zastosowania. Również wiele zasobów nieożywionych znajduje się na oceanicznych szelfach, w tym węglowodory (ropa naftowa i gaz) i minerały (np. mangan, nikiel, kobalt, złoto, diamenty, miedź, cyna, tytan, żelazo, chrom i galena). W związku z tym niektóre państwa przeznaczyły znaczne środki finansowe na przeprowadzenie badań swoich szelfów kontynentalnych. Komisja ds. Granic Szelfu Kontynentalnego otrzymała siedemdziesiąt siedem wniosków i wydała dwadzieścia dziewięć zaleceń zgodnie z art. 76 ust. 8 Konwencji Narodów Zjednoczonych o prawie morza. W nadchodzących dziesięcioleciach oczekiwana jest dalsza poprawa możliwości technologicznych, pozwalających na dokładniejsze zbadanie odległych części oceanicznych szelfów kontynentalnych.