



**Transit submarine pipelines:  
balancing the coastal and laying States' jurisdiction in  
the UN Convention on the Law of the Sea**

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*Small Master's Thesis  
Masters of Laws in Law of the Sea  
University of Tromsø  
Faculty of Law  
Fall 2013*

## ABSTRACT

The international regulation of submarine pipelines transiting another State's exclusive economic zone and continental shelf other than the laying State is largely non-existent, outside of the 1982 United Nations Convention on the Law of the Sea. Therefore, the study of how that Convention governs this issue area is crucial. The present thesis asks questions related to the rights and duties of the coastal State as well as the laying State. Especially scrutinised is Article 79 of the LOS Convention and how it creates balance between these two types of States. The questions raised concern the content of the freedom to lay submarine pipelines on the one hand, and the grounds of the limitations placed thereupon on the other hand.

The thesis concludes that the LOS Convention creates a balance between coastal and laying State's interests, rights and duties. However, more needs to be done to create and harmonise a uniform set of standards regulating the laying and maintenance of submarine pipelines.

Key words: submarine pipelines; law of the sea; regulation; freedom of laying; coastal State jurisdiction

## ACKNOWLEDGEMENT

This thesis could not have been written without the help of my supervisor, Elise Karlsen, as well as my friends and family.

My special thanks go to my colleagues and boss for being patient with me, at the time of my studies.

Last but not least, I should thank my professors and the administrative staff for their excellent work with the Master's Degree Programme in the Law of the Sea.

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## ABBREVIATIONS

CBD	1992 Convention on Biological Diversity
EEZ	exclusive economic zone
HSC	1958 Convention on the High Seas
ICJ	International Court of Justice
IHO	International Hydrographic Organization
ILC	International Law Commission
ITLOS	International Tribunal for the Law of the Sea
LOS Convention	1982 United Nations Convention on the Law of the Sea
LOSC	1982 United Nations Convention on the Law of the Sea
MSR	marine scientific research

## **PART I – INTRODUCTION**

### 1.1 Research problem

The 1982 UN Convention on the Law of the Sea (hereafter referred to as the LOS Convention or the Convention)<sup>1</sup> is the constitution of the seas covering, as it purports in its Preamble, all issue areas in the field of the law of the sea.<sup>2</sup> As the LOS Convention is a framework, further, more precise rules and standards are elaborated in other conventions and under the auspices of different international organizations, thus complementing the framework.<sup>3</sup> Yet, one issue area has been painfully neglected and that is the regulation of submarine pipelines. The significance of submarine pipelines has been showcased by the Nord Stream Pipeline project connecting Russia and Europe, as well as the increasing exploitation of oil and gas resources offshore. In spite of their importance, the LOS Convention devotes considerably less articles to submarine pipelines than to other issue areas, while further regulation in separate legal instruments is lacking.

Because of the under-developed regulation of submarine pipelines relative to other issue areas, the focus of the present thesis is directed at the provisions contained in the LOS Convention as these have to be the starting point in any further legislative development.

### 1.2 Research topic

The question of how to regulate submarine pipelines is broad in geographical sense as well as in the sense that there are multiple functions of pipelines with separate ways of regulating them. The present thesis is focused specifically on the regulation of transiting submarine pipelines in the coastal State's exclusive economic zone and on its

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<sup>1</sup> 1982 UN Convention on the Law of the Sea. Signed 10th December 1982, Montego Bay. Entered into force 16th November 1994

<sup>2</sup> LOSC Preamble, Paragraph 1

<sup>3</sup> Churchill, R. R. and A. V. Lowe, *The Law of the Sea*, 3rd edition, Manchester, (Manchester University Press) 1999, pp. 24-25

continental shelf. This is a significant narrowing of the research topic in two ways. First, pipelines can be differentiated according to the functions they perform. Pipelines can be classified into inter- and intra-field pipelines as well as transmission pipelines.<sup>4</sup> Transit pipelines are just one type of the latter, separate from landing pipelines, those that connect field with shore.<sup>5</sup> The focus of the present thesis is solely transit pipelines in the definition given by Vinogradov as being

*an oil or gas transmission line that traverses maritime areas under the jurisdiction of one or several coastal States without being connected to any facility on the territory or subject to those coastal States jurisdiction.*<sup>6</sup>

An important aspect of transit pipelines is, thus, that they lie in multiple States' jurisdiction, complicating their regulation. Second, the research area is narrowed down in a geographical sense. The focus is on the concurrently occurring zones of EEZ and continental shelf, as opposed to, on the one hand, the territorial sea and the archipelagic waters where the coastal State enjoys sovereignty, and on the other, the high seas and the Area, both beyond national jurisdiction. What makes the EEZ and the continental shelf, and the regulation of submarine pipelines in these geographical areas so interesting, is that the coastal State only enjoys sovereign rights in these zones as opposed to full sovereignty, while some of the freedoms of the other States are maintained. In order for both the coastal State and the other States to be able to enjoy their respective rights and freedoms and perform their duties, a careful balancing is required. This narrowing down, in the functional as well as the geographic sense, together provide for an exciting research topic as transit submarine pipelines in the coastal State's EEZ and on its continental shelf is an area where many different interests compete and need balancing.

The balancing between the coastal and the other States is in the core of the present thesis as the author asks how the LOS Convention manages to represent the interests of both the coastal State and the State laying the submarine pipeline through the former's EEZ and continental shelf. To be able to answer this question, the author examines the interests of both State actors and their related rights and duties as provided for in the

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<sup>4</sup> Vinogradov, Sergei, "Challenges of Nord Stream: Streamlining International Legal Frameworks and Regimes for Submarine Pipelines", in *German Yearbook of International Law*, Vol. 52 (2009), pp. 251-252

<sup>5</sup> Ibid. For further explanation on the pipeline categories see also Roggenkamp, Martha M., "Petroleum Pipelines in the North Sea: Questions of Jurisdiction and Practical Solutions", in *Journal of Energy & Natural Resources Law*, Vol. 16:1 (1998), pp. 94-95, 100 and 106-107

<sup>6</sup> Vinogradov (2009), pp. 254



LOS Convention, especially in Article 79: “Submarine cables and pipelines on the continental shelf”. The sub-questions, that help answer the research question, relate to the said article and try to touch upon the practicalities of laying and maintaining submarine pipelines and protecting coastal State interests in the EEZ and on the continental shelf. The legal questions presented are:

- What does the freedom to lay submarine pipelines entail? That is, are maintenance and access to the pipeline included?
- Can the coastal State deny the right to lay pipelines by not allowing surveying?
- What does the right to legislate for the purpose of exploration of continental shelf and exploiting its resources encompass?
- What does the right to legislate for the purpose of prevention, reduction and control of pollution encompass? That is, are safety standards included?
- Does the process of laying submarine pipelines represent pollution?

The structure of the thesis follows these questions. The thesis is concluded with the summary of how balancing of these interests is established by the Convention.

### 1.3 Historical context

Before the substantive discussions, it is important to take a quick look at the historical background of submarine pipeline regulation.

The international regulation of submarine pipelines does not have such a long history as its counterpart in legislation, the submarine cables. The first legal instrument that contains provisions on the issue is the 1958 Geneva Conventions on the High Seas<sup>7</sup> and on the Continental Shelf<sup>8</sup>. These instruments, however, build on the International Law Commission’s draft articles that were heavily influenced by the earlier legislation on submarine cables, the 1884 Convention on the Protection of Submarine Cables.<sup>9</sup> Thus, the Geneva Conventions extended the provisions on cables to pipelines too. Furthermore, the Geneva Conventions offered more protection to cables and pipelines than the 1884 Convention or the ILC drafts as the former included the obligation that the laying State shall pay due regard to existing pipelines and their repair, as well as the

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<sup>7</sup> 1958 Convention on the High Seas, Geneva

<sup>8</sup> 1958 Convention on the Continental Shelf, Geneva

<sup>9</sup> Nelson, L. Dolliver M, “Submarine Cables and Pipelines”, in Rene-Jean Dupuy and Daniel Vignes (eds.), *A Handbook on the New Law of the Sea*, Dordrecht, (Martinus Nijhoff Publishers) 1991, pp. 980

coastal State's obligation that it may not impede their laying and maintenance.<sup>10</sup> On the other hand, the coastal State's legislative right was also extended by the Geneva Conventions for the exploration of its continental shelf and the exploitation of its resources.<sup>11</sup> The Geneva Convention on the High Seas further contained an obligation that made it every State's duty to legislate to prevent pollution from pipelines.<sup>12</sup>

These provisions paved the way to those contained in the LOS Convention that, besides including articles on coastal State regulation of submarine pipelines in the territorial sea and archipelagic water, extended the rules in the EEZ and on the continental shelf. It expressly made all States entitled to lay submarine pipelines on the continental shelf and regulated the consent for the delineation of the course of pipelines, thus clearing up confusion around the possibility of whether a consent was required for the laying itself.<sup>13</sup> While this favoured the laying State, the provision that the coastal State can take measures to prevent, reduce and control pollution from pipelines increased the power of the coastal State.<sup>14</sup> This latter reflects the general spirit of the Convention aiming at protecting the marine environment. However, Article 24 of the Geneva Convention on the High Seas obliging every State to prevent pollution from pipelines was not repeated in the LOS Convention.

#### 1.4 Balance between coastal and maritime State's interests in the LOS Convention

With the establishment of the EEZ regime and the extension of the continental shelf, huge geographical areas came under coastal State jurisdiction. The changes introduced in the LOS Convention that extended the coastal State's jurisdiction into areas previously considered part of the high seas, obviously affected the freedoms that all States, especially the big maritime nations, enjoyed in these areas. The consensus approach was used to make sure different interests were appropriately balanced.<sup>15</sup>

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<sup>10</sup> Ibid. pp. 981-983

<sup>11</sup> Ibid. pp. 981

<sup>12</sup> HSC Article 24

<sup>13</sup> Nelson (1991), pp. 984-985

<sup>14</sup> Ibid. pp. 985

<sup>15</sup> Rothwell, Donald R. and Tim Stephens, *The International Law of the Sea*, Oxford, (Hart Publishing) 2010, pp. 13-14

Some elements of the high seas freedoms were preserved in the new or changed maritime zones, to achieve a consensus and thus make the new Convention acceptable to the maritime States. However, some of the high seas freedoms that concern the functional rights the coastal State enjoys in its EEZ had to be restricted to accommodate these rights and interests.<sup>16</sup> These are the construction of artificial islands and installations, fishing and marine scientific research. It is essentially the freedom of navigation and overflight, as well as the freedom to lay submarine cables and pipelines, that were extended to the EEZ. While these freedoms were preserved, it also had to be made sure that there is a balance with the rights and duties of the coastal State in this zone, as well as on the continental shelf.<sup>17</sup>

This balancing in general is established through the main articles governing the rights and duties of both the coastal State and other States.<sup>18</sup> Article 56 on the “Rights, jurisdiction and duties of the coastal State in the exclusive economic zone” and Article 58 on the “Rights and duties of other States in the exclusive economic zone”, as their titles suggest, establish the backbone of the EEZ’s legal regime by providing for the coastal and other States’ rights and duties. Article 56 provides for the sovereign rights of the coastal State in relation to the natural resources of the EEZ and for coastal State jurisdiction in three issue areas: artificial island, installations and structures; marine scientific research; and protection and preservation of the marine environment. Article 58, meanwhile, extends some of the high seas freedoms, as mentioned above, together with the provisions governing them.<sup>19</sup>

With regard to the continental shelf, Article 77 on the “Rights of the coastal State over the continental shelf” and Article 78 on the “Legal status of the superjacent waters and air space and the rights and freedoms of other States” act similarly to Articles 56 and 58 in establishing the core of the continental shelf regime.<sup>20</sup> It is noteworthy that these articles establish rights for both coastal and other States, but not explicit duties. However, Article 77 establishes the coastal State’s sovereign rights “for the purpose of

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<sup>16</sup> Davenport, Tara, “Submarine Communications Cables and Law of the Sea: Problems in Law and Practice”, in *Ocean Development & International Law*, Vol. 43:3 (2012), pp. 208

<sup>17</sup> Vinogradov (2009), pp. 280-281

<sup>18</sup> Vinogradov (2009), pp. 281

<sup>19</sup> LOSC Article 58 (2) refers to Articles 88-115 contained in the Part on the “High seas”

<sup>20</sup> Vinogradov (2009), pp. 281

exploring [the continental shelf] and exploiting its natural resources”<sup>21</sup>. It is obvious that these sovereign rights of the coastal State have to be respected by all other States. There is, however, one limitation placed on the coastal State’s sovereign rights by Article 78. It provides protection to the freedoms of other States on the continental shelf from coastal State interference when exercising its sovereign rights. While, it seems that neither the coastal State nor the other States have many duties on the continental shelf, it has to be remembered that the continental shelf and the EEZ, in most cases, co-exist up till 200 nautical miles. Seawards of the EEZ’s limit, the EEZ’s regime is exchanged to that of the high seas. However, as Article 79, the main article regulating the laying of submarine pipelines, is found in Part VI on the “Continental Shelf”, it applies on the outer continental shelf as well.

As the coastal State does not enjoy full sovereignty either in the EEZ or on the continental shelf, while other States enjoy specific rights in both, the Convention provides for the due regard obligation. Both the coastal State and the other States shall pay due regard to each other’s rights and duties. This is evident in Article 58 (3) providing for other States to have due regard to the coastal State’s rights and duties, as well as in its counterpart, the stipulation of Article 56 (2) that the coastal State is to pay due regard to other States when exercising its rights and duties. This is all the more important as some of the high seas freedoms are extended into the exclusive economic zone, among others the freedom of the laying of submarine pipelines, as provided for in Article 58 (1). In connection with these freedoms, Article 78 (2) repeats in the context of the continental shelf that the coastal State’s exercise of its rights is not to “infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States”<sup>22</sup>. The coastal State’s duty, therefore, to pay due regard to the other States’ rights and freedoms is guaranteed by the Convention in view of both the activities in the EEZ and those on the continental shelf.

### 1.5 The perspectives of the coastal and the laying States

The main objective of the State laying submarine pipelines in the EEZ or on the continental shelf of the coastal State is the assurance and continued exercise of its

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<sup>21</sup> LOSC Article 77 (1)

<sup>22</sup> LOSC Article 78 (2)

freedom. Since it is already a limited freedom as we shall see, the laying State's interest dictates that the restrictions should be as defined as possible so as to leave little space for the coastal State to expand its jurisdiction and control. Furthermore, from the laying State's point of view those areas that are not expressly regulated by the Convention should be left free of regulation. Such a view could lead to a very textual interpretation of the provisions that pose restrictions to the freedom to lay submarine pipelines.

From the other perspective, that of the coastal State, an increased control over the activities of the laying State is desired. The coastal State has to make sure that its sovereign rights and jurisdiction in its EEZ and on its continental shelf are respected. From this perspective, it is expected that the coastal State wants to have at least an oversight over such activities that could have an impact on or in connection with the resources of these two zones. After all, only the coastal State has the right to explore and exploit these. Furthermore, the coastal State also has to think about its marine environment, not just because pollution affect its rights over natural resources, but also because of the environment's intrinsic value. Therefore, it can be expected that the coastal State's perspective would result in a broad interpretation of the provision giving rights to the coastal State over submarine pipelines in its maritime zones.

These two perspectives have to be kept in mind during the discussion of the questions raised.

## 1.6 Legal sources and method

Although the present thesis is, first and foremost, concerned with the LOS Convention and how it achieves balance in the issue area of submarine pipelines, it is not the only legal source used during the discussions.

The legal sources of international law in general, and that of the law of the sea in particular, can be derived from the Statute of the International Court of Justice<sup>23</sup>. Article 38 lists as sources international conventions, custom, general principles of international law and judicial decisions and scholarly teachings.<sup>24</sup> The core of the discussion centres

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<sup>23</sup> 1945 Statute of the International Court of Justice, San Francisco

<sup>24</sup> ICJ Statute Article 38 (1)

on, as already mentioned, the LOS Convention. However, as the questions raised touch upon other areas of law, not just submarine pipelines, other sources are brought into the discussion as well. Among international conventions the author mainly utilises the 1992 Convention on Biological Diversity (hereafter referred to as CBD)<sup>25</sup> in connection with the protection of marine environment. Reference is made to general principles of international law in connection to environmental protection, especially to the precautionary principle and the preventive principle.<sup>26</sup> In the same issue area, from among judicial decisions, the Southern Bluefin Tuna and the Gabcikovo-Nagymaros cases are briefly alluded to as subsidiary reference, while mention is taken to a wide array of legal writers.

Interpretation of the legal texts is based on the 1969 Vienna Convention on the Law of Treaties,<sup>27</sup> Articles 31-32. First, a textual analysis is conducted in the discussion of each question, using the ordinary meaning of the words. This meaning is analysed in the context and in light of the object and purpose of the Convention.<sup>28</sup> As part of the analysis based on the object and purpose, the principle of effectiveness has been also used to give the provisions the fullest effect that is consistent with the aims of the Convention.<sup>29</sup>

As the context of the provisions analysed, reference is made to many other provisions of the LOS Convention as part of the convention text.<sup>30</sup> Among these are, notably, Articles 56 and 58 establishing the EEZ regime, and Articles 77 and 78 regulating the continental shelf regime. Recourse is also made to various provisions found in Part XII

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<sup>25</sup> 1992 Convention on Biological Diversity, Nairobi

<sup>26</sup> The limited space provided for a Master's thesis is not sufficient to give a detailed account of said principles as the status, interpretation, application, and indeed the content, of these are widely debated. For in-depth analysis and discussion, see, among others, Birnie, Patricia, Alan Boyle and Cathrine Redgwell, *International Law and the Environment*, 3rd edition, New York, US, (Oxford University Press) 2009, pp. 137-164; Hey, Ellen, "The Precautionary Concept in Environmental Policy and Law: Institutionalizing Caution", in *The Georgetown International Environmental Law Review*, Vol. 4:2 (1992); Trouwborst, Arie, "The Precautionary Principle in General International Law: Combating the Babylonian Confusion", in *Review of European, Comparative and International Environmental Law*, Vol. 16:2 (2007); Trouwborst, Arie, "Prevention, Precaution, Logic and Law: The Relationship between the Precautionary Principle and the Preventative Principle in International Law and Associated Questions", in *Erasmus Law Review*, Vol. 2 (2009)

<sup>27</sup> 1969 Convention on the Law of Treaties, Vienna

<sup>28</sup> Vienna Convention, Article 31 (1); Fitzmaurice, Malgosia, "The Practical Working of the Law of Treaties", in Malcolm D. Evans (ed.), *International Law*, 2nd edition, Oxford, (Oxford University Press) 2006, pp. 199, 202

<sup>29</sup> Fitzmaurice (2006), pp. 199, 202

<sup>30</sup> Vienna Convention Article 31 (2)

on the “Protection and preservation of the marine environment”. Besides, the above mentioned other legal sources also serve as means of interpretation as “relevant rules of international law applicable”<sup>31</sup>. As an aid of interpretation, Nordquist’s commentary<sup>32</sup> has also been utilised to highlight the circumstances of the negotiation and conclusion of some of the provisions.<sup>33</sup>

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<sup>31</sup> Vienna Convention Article 31 (3) (c)

<sup>32</sup> Nordquist, Myron H. (ed.), *United Nations Convention on the Law of the Sea, 1982: A Commentary, Volume II*, Dordrecht, (Martinus Nijhoff Publishers) 1993; Nordquist, Myron H. (ed.), *United Nations Convention on the Law of the Sea, 1982: A Commentary, Volume IV*, Dordrecht, (Martinus Nijhoff Publishers) 1991

<sup>33</sup> Vienna Convention Article 32

## **PART II – RIGHTS AND DUTIES RELATING TO SUBMARINE PIPELINES**

### 2.1 The structure of Article 79 “Submarine cables and pipelines on the continental shelf”

While the rights and duties of coastal and other States in connection to submarine pipelines are laid down in different parts of the Convention depending on the maritime zone in question, the provisions this thesis focuses on are found in Article 79: “Submarine cables and pipelines on the continental shelf”. This Article is incorporated in Part VI: “Continental shelf”. However, due to the character of the continental shelf comprising of the seabed and the subsoil but not the water column above, the provisions of this Article have to be read in conjunction with those regulating the EEZ and the high seas. Both Article 58 and Article 87 on the “Freedom of the high seas” subject the freedom to lay submarine pipelines to the provisions of Article 79.<sup>34</sup>

In the structure of Article 79, the first paragraph repeats the right of every State to lay submarine pipelines on other States’ continental shelf. This is followed by the limitations placed on this right as provided for by the next paragraphs. Paragraph 2, while providing that the coastal State may not impede the laying and maintenance of submarine pipelines, allows for the coastal State to regulate these pipelines. The coastal State has the right to take “reasonable measures” for three functions: “the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution”<sup>35</sup>.

The legislative rights the coastal State enjoys on the continental shelf are limited in relation to the functions the coastal State can exercise in this maritime zone. The areas of jurisdiction that Article 79 (2) grants to the coastal State are, therefore, related and

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<sup>34</sup> LOSC Article 58 subjects this freedom to the “relevant provisions of this Convention”, while Article 87 refers to Part VI, respectively. The relevant provisions for the laying of submarine pipelines are contained in Article 79, since it is the continental shelf that lies under the water column of the EEZ and the high seas. Therefore, it is Article 79 that the freedom to lay submarine pipelines is subjected to

<sup>35</sup> LOSC Article 79 (2)



restricted to the functionally limited sovereign rights under Article 77 (1). Since Article 77 gives the coastal State sovereign rights for the purpose of exploring the continental shelf and exploiting its natural resources, the right to take measures for the prevention, reduction and control of pollution seems to be an exception. This case of coastal State jurisdiction, which was included in Article 79 relatively late compared to the other cases of coastal State jurisdiction already present in the 1958 Geneva Conventions, reflects the overall aim of the LOS Convention to protect and preserve the marine environment.<sup>36</sup> Regulation for the prevention, reduction and control of pollution sets submarine pipelines apart from submarine cables as the Convention only provides for such regulation in the case of pipelines, but not in the case of cables. Moreover, paragraph 3 of Article 79 provides for a further restriction that only applies to pipelines but not cables. This paragraph subjects the delineation of the course of pipelines to the consent of the coastal State. According to Nordquist's commentary on the LOS Convention, subjecting the course of the submarine pipelines to the consent of the coastal State is consistent with its right to take measures for the prevention, reduction and control of such pipelines as provided for by the previous paragraph.<sup>37</sup>

Paragraph 4 deals with two issues relating to the sovereignty or the sovereign rights of the coastal State. Namely, Article 79 does not prejudice "the right of the coastal State to establish conditions for ... pipelines entering its territory or territorial sea"<sup>38</sup> and which, thus, fall under its full sovereignty. Furthermore, Article 79 provides that it does not affect the coastal State's jurisdiction over pipelines "constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operation of artificial islands, installations and structures under its jurisdiction"<sup>39</sup>. This is consistent with the sovereign rights of the coastal State "for the purpose of exploring [the continental shelf] and exploiting its natural resources"<sup>40</sup>, as provided for by Article 77, as well as with the jurisdiction of the coastal State over artificial islands, installations and structures, as provided for in Articles 56 and 80 (with reference to Article 60). Article 79 (4), thus, leaves these two issues entirely under the coastal State's authority.

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<sup>36</sup> LOSC Preamble, Paragraph 4

<sup>37</sup> Nordquist (1993), pp. 915

<sup>38</sup> LOSC Article 79 (4)

<sup>39</sup> Ibid.

<sup>40</sup> LOSC Article 77 (1)

Finally, paragraph 5 provides that other States, when laying new submarine pipelines, have to pay due regard to pre-existing ones (including cables), especially with a view to their maintenance. This limitation on the laying of pipelines is referred to by Article 112 (2) regulating the laying of submarine pipelines on the high seas.

The limitations on the freedom of laying submarine pipelines on the continental shelf stem mainly from the rights the coastal State enjoys both on the continental shelf and in the EEZ. The Convention gives the coastal State sovereign rights in its EEZ over natural resources. The limitations on the freedom of laying submarine pipelines due to these functional rights of the coastal State can be clearly seen in paragraph 2. Furthermore, Article 56 also gives the coastal State jurisdiction over, among others, the protection and preservation of the marine environment which is also reflected in paragraph 2 of Article 79. As mentioned above, Nordquist also attributes paragraph 3 of the same Article to the coastal State's jurisdiction with regard to environmental protection. The coastal State's jurisdiction over artificial islands, installations and structures, as well as its sovereign rights over the continental shelf for the purpose of exploring and exploiting its resources, as established in Article 77, are mirrored in the restrictions in paragraph 4 of Article 79. This paragraph is also a reflection of the coastal State's sovereignty over its territorial sea. While Article 79 imposes restrictions on the laying of submarine pipelines as a way to make sure the coastal State can enjoy its rights in the EEZ and on the continental shelf, it is not just the coastal State's rights the limitations can be attributed to. Also other State's freedoms are protected by this Article. Thus, paragraph 5 balances other States' freedom to lay and maintain submarine cables and pipelines with each other by providing for the protection of existing cables and pipelines by stipulating the duty to pay due regard to such cables and pipelines.

While it is Article 79 that provides the main rules regarding submarine pipelines, Articles 112-115 in Part VII on the "High Seas" are also applicable to laying such pipelines in the EEZ. Article 58 (2) expressly stipulates this. These provisions, therefore, apply to the water column above the continental shelf whether it is the regime of the EEZ or the high seas that governs it. Article 112 repeats the freedom to lay submarine pipelines as well as contains a reference to Article 79 (5). The following Articles provide for flag State criminal and civil jurisdiction for breaking submarine

cables and pipelines, as well as for indemnification for incurred loss in the case of avoidance of such break by a vessel.

The starting point of the regime governing transit submarine pipelines is, thus, the extension of the high seas freedom to lay such pipelines. This is of utmost importance for the laying State. However, this freedom is restricted to accommodate coastal State interests and the coastal State's jurisdiction in different issue areas. Thus, the first task of this thesis has to be to examine the laying State's freedom and what it encompasses. Only after that will the author examine the possible limitations posed by Article 79 that establish the coastal State's jurisdiction.

## 2.2 What does the freedom to lay submarine pipelines entail?

The first question that arises is what exactly the freedom to lay submarine pipelines, enshrined in Article 79 (1), entails. More precisely, does the laying State enjoy the freedom to maintain such a pipeline? The problem is posed by the inconsistent language of Article 79, and also Article 87. Both Article 87 (1) (c)<sup>41</sup> and Article 79 (1) provides for the freedom to lay submarine pipelines, while paragraph 2 of Article 79 stipulates that the laying *and* maintenance of such pipelines may not be impeded by the coastal State. The inconsistency of the Convention's language warrants a closer look into whether and how maintenance is included into the freedom of all States.

### 2.2.1 Maintenance as a freedom

Article 79 (1) declares the entitlement of all States to lay submarine pipelines. While the right to maintain these pipelines is not included, importantly the following condition is added to the provision: "in accordance with the provisions of this article"<sup>42</sup>. While this condition, as already noted, imposes limitations on the freedom to lay pipelines, it also means that the importance of maintenance is included into the freedom. Significantly, paragraphs 2 and 5 include provisions on maintenance in relation to the laying of pipelines. As we have seen, both the laying and the maintenance of submarine pipelines

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<sup>41</sup> Since Article 87 (1) (c) subjects the freedom to lay submarine pipelines to Part VI, in particular Article 79, the remainder of this discussion focuses solely on Article 79

<sup>42</sup> LOSC Article 79 (1)

are protected against impediment from the coastal State by paragraph 2. Paragraph 5 places particular emphasis on the importance of maintenance by declaring that new cables and pipelines shall be laid so that the possibility of repairing old ones is not prejudiced. As Beckman notes, the right to maintain and repair submarine pipelines seems to be assumed under the right to lay them.<sup>43</sup>

The same assumption could be drawn, furthermore, from Article 58 (1). That Article guarantees the freedom to lay submarine pipelines in the coastal State's EEZ, along with the "other internationally lawful uses of the sea [...] associated with the operation of"<sup>44</sup> submarine pipelines. For the operation of submarine pipelines it is important that they are maintained properly and repaired if damaged. Such a use of the sea would also be compatible with the Convention as Article 79 shows in paragraphs 2 and 5.

Thus, the right to maintain submarine pipelines is not just assumed under the right to lay them, but is also guarded by Article 79 from the coastal State's interference as well as from the same right of other States to lay cables and pipelines.

### 2.2.2 Does the laying State have a duty to maintain submarine pipelines?

Having established that the right to lay submarine pipelines includes the right to maintain them as well, the question arises whether the right to lay pipelines entails with it a duty to maintain them, since the right to maintain in itself does not compel the laying State to do so. As Article 79 does not include a provision to this effect, the following discussion will centre on the text of the Convention as well as on environmental principles.

#### 2.2.2.1 Is there a duty to maintain pipelines in the LOS Convention?

The point of departure in this case is that the maintenance of pipelines is essential in order to make sure that corrosion on the pipeline does not result in the pollution of the environment. While Article 79 (2) provides a basis for the coastal State's right to

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<sup>43</sup> Beckman, Robert, *Submarine Cables: A Critically Important but Neglected Area of the Law of the Sea*, Indian Society of International Law, 7th International Conference on Legal Regimes of Sea, Air, Space and Antarctica, 15-17 January 2010, New Delhi, pp. 5-6

<sup>44</sup> LOSC Article 58 (1)

legislate for the purpose of the “prevention, reduction and control of pollution from pipelines”<sup>45</sup> with which the laying State has to comply with, it has to be examined whether the Convention provides an obligation for the laying State in particular, to prevent such pollution. For this we have to turn to Part XII.

While the general obligation to protect and preserve the marine environment applies to all States,<sup>46</sup> Article 194 (1) and (2) are especially important among the general provisions of Part XII. These paragraphs provide for the obligation of all States to take measures “to prevent, reduce and control pollution of the marine environment”<sup>47</sup> in general, and “not to cause damage by pollution to other States and their environment”<sup>48</sup> and the environment in areas beyond national jurisdiction from “activities under their jurisdiction or control”<sup>49</sup>. There is, thus, a general obligation to protect the marine environment in all maritime zones from activities under the jurisdiction and control of each State. While paragraph 1 mentions pollution to the marine environment itself, paragraph 2 emphasises the obligation not to cause transboundary harm. The latter is all the more important as the pipelines in question transit through another State’s EEZ and continental shelf.

However, the articles of Part XII Section 5 that specifically provide for the prevention of pollution from difference sources do not include pollution from submarine pipelines. The only article that can be construed to include submarine pipelines only obliges the coastal State to take measures against such pollution.<sup>50</sup> Furthermore, the article’s scope does not extend to transit pipelines. Article 208 establishes a direct link to Articles 60 and 80, which give exclusive jurisdiction for the coastal State over artificial islands, installations and structures in its EEZ and on its continental shelf. Inter-field pipelines do belong under the scope of these provisions. The coastal State’s jurisdiction over these is reinforced in Article 79 (4), along with submarine pipelines “constructed or used in connection with the exploration of [the coastal State’s] continental shelf or the exploitation of its resources”<sup>51</sup>. These pipelines also fall under the scope of Article 208

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<sup>45</sup> LOSC Article 79 (2)

<sup>46</sup> LOSC Article 192

<sup>47</sup> LOSC Article 194 (1)

<sup>48</sup> LOSC Article 194 (2)

<sup>49</sup> Ibid.

<sup>50</sup> LOSC Article 208

<sup>51</sup> LOSC Article 79 (4)

as “sea-bed activities subject to [the coastal State’s] jurisdiction”<sup>52</sup>. However, transit pipelines do not fall into either of the two categories included in Article 208. Therefore, it is only Article 194 in the LOS Convention that could provide a basis for a duty to maintain submarine pipelines.

Article 194 (1) and (2) read together state that measures are to be taken to prevent pollution from activities that are under the jurisdiction or control of the State in question. However, while the Convention provides for the nationality of vessels, it does not provide for such in the case of submarine pipelines. As Roggenkamp suggests, the nationality of the pipelines can be derived from the nationality (State of incorporation or registration) of the owner company.<sup>53</sup> As a basis for this assertion, Article 114 which regulates the breaking and injury of submarine pipelines talks about the owners of these pipelines.<sup>54</sup> This means that the State whose national or company owns the pipeline - that is, the laying State - may “prescribe legislation for the conduct of this pipeline company outside its territory”<sup>55</sup>. If this is so, the laying State has jurisdiction over the pipeline and, thus, falls under the scope of the aforementioned article.

Thus, in the present author’s view, the laying State is obliged not to cause damage by pollution from submarine pipelines to other States and their environment as the laying State does have jurisdiction and control over these pipelines. Does this mean, however, that the laying State have the duty to maintain such pipelines? For this, we have to turn to the preventive principle.

#### 2.2.2.2 Preventive principle

In Article 194 (1) and (2) there is incorporated the preventive principle that requires States to prevent harm to the environment itself.<sup>56</sup> The wording of Principle 2 of the 1992 Rio Declaration on Environment and Development<sup>57</sup> is reflective of these paragraphs as well in stating that

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<sup>52</sup> LOSC Article 208 (1)

<sup>53</sup> Roggenkamp (1998), pp. 97-98

<sup>54</sup> Ibid.

<sup>55</sup> Roggenkamp (1998), pp. 98

<sup>56</sup> Birnie et. al (2009), pp. 147

<sup>57</sup> 1992 Rio Declaration on Environment and Development, Rio de Janeiro

*States have [...] the responsibility to ensure that activities under their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.*<sup>58</sup>

This principle also extends to the prevention in the face of risk of significant harm.<sup>59</sup>

Thus, prevention means action before the environmental harm actually happens. What is more, this principle also contains a continuing obligation of prevention.<sup>60</sup> This is where we can turn back to the maintenance of submarine pipelines. Preventing harm to the marine environment as a continuous obligation and as an obligation that requires action before the harm happens, requires that the pipelines shall be inspected regularly. Regular maintenance is needed to avoid even the risk of serious environmental harm.

Without maintaining the pipelines, the laying State cannot comply with its duty to prevent pollution damage to the marine environment in general and the environment of the coastal State in particular. Therefore, the laying State does not only have a right to maintain the submarine pipelines, which presumably is in its best interest, but also has the duty to do so in order to protect the marine environment.

### 2.2.3 Does the laying State have a freedom to access the pipeline?

A related question to discuss is whether the laying State has the freedom to access the submarine pipeline in the coastal State's EEZ and on its continental shelf. Such a right would be necessary to exercise in order for the laying State to maintain or repair the pipeline. However, such an access would also mean potentially extensive works on the seabed and subsoil, for example the examination of how well the course of the pipeline is buried in the ground.<sup>61</sup>

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<sup>58</sup> Rio Declaration, Principle 2

<sup>59</sup> Birnie et. al (2009), pp. 141-143

<sup>60</sup> Birnie et. al (2009), pp. 143; 1997 Case concerning the Gabcikovo-Nagymaros Project (Hungary/Slovakia), Judgement, ICJ Reports, 1997, 7, Paragraph 140

<sup>61</sup> See Crowley, John, "International Law and Coastal State Control over the Laying of Submarine Pipelines on the Continental Shelf: The Ekofisk-Emden Gas Pipeline", in *Nordic Journal of International Law*, Vol. 56 (1987), pp. 52. Among the problems with the Ekofisk-Emden Pipeline, Crowley cites the non-compliance with the Danish condition that the entire pipeline be buried to the depth of one metre, which was discovered as having resulted in divers being able to swim under the pipeline. Although this case is not strictly speaking about maintenance, but it highlights the need to re-examine the state of submarine pipelines

If right of access is a precondition of maintenance, then it seems inevitable that the right of access is governed by the same rules as the right to maintain, that is, by Article 58 (1). Since the right of maintenance is categorised as another internationally lawful use of the sea as argued earlier, the right of access has to be included under the same label as well. At any rate, as the Convention, especially Article 56 (1), does not include rights for the coastal State over granting access to the EEZ, and indeed Article 58 (1) extends the high seas freedom of navigation to the EEZ, the coastal State has no right to restrict access for the vessels of the laying State. There are no such restrictions posed on the navigational rights of other States in the EEZ as in the case of the right of innocent passage in the territorial sea.<sup>62</sup>

This right of access should not be offset by the coastal State's sovereign rights to explore its continental shelf and exploit its resources as contained in Article 77. First, the right to access submarine pipelines for the purpose of repair and maintenance is not linked to the exploration and exploitation of the continental shelf. Therefore, the laying State's right of access does not infringe on the sovereign rights of the coastal State on its continental shelf. Second, the Convention provides in Article 78 (2) that the coastal State in the exercise of its sovereign rights over its continental shelf shall not interfere with other States' navigational and other rights and freedoms. There is no indication that other States' freedom to lay submarine pipelines and rights related to this freedom were excluded from this provision. Refusing the right of access on the continental shelf would breach Article 78 (2).

### 2.3 Can the coastal State deny the right to lay pipelines by not allowing surveying?

Having established the elements of the freedom to lay submarine pipelines, it has to be examined whether the coastal State can have a restrictive effect on this freedom. Before the laying of pipelines, the laying State has to conduct surveys of the seabed to find the optimal routeing of the pipeline. If the coastal State has the power to refuse such a

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<sup>62</sup> In the territorial sea, the Convention gives right of innocent passage to other States. A vessel accessing the submarine pipeline with the purpose of maintenance in the territorial sea might find it difficult to comply with the requirement of innocent passage to be continuous and expeditious under Article 18 (2), as well as the requirement not to engage in an activity not having a direct bearing on passage under Article 19 (2) (1)



survey, it can effectively deny the laying State the exercise of its freedom to lay submarine pipelines.

There is no consensus among legal writers what the activity of surveying the seabed for the purpose of finding an optimal route for submarine pipelines can be categorised as. It has been suggested that this activity qualifies as marine scientific research,<sup>63</sup> but also that it is one of the “other internationally lawful uses of the sea related to [...] submarine cables and pipelines”<sup>64</sup> in the sense of Article 58 (1) of the LOS Convention.<sup>65</sup> There exists also a third option: that such an activity can be hydrographic surveying. It is debated whether hydrographic surveys constitute a separate category from marine scientific research. Whether or not this is the case will be discussed in detail later, as these imply different consequences for the laying of submarine pipelines.

The following analysis focuses on these three options with the aim of establishing whether the coastal State can deny pipeline-related seabed surveying to the laying State thereby barring it from the freedom it may enjoy in the coastal State’s EEZ and on its continental shelf.

### 2.3.1 What is marine scientific research and how is it regulated?

The LOS Convention does not contain a definition for marine scientific research (MSR). Birnie defines MSR in its ordinary meaning as

*any form of scientific investigation, fundamental or applied, concerned with the marine environment, i.e. that has the marine environment as its object.*<sup>66</sup>

Importantly, the LOS Convention makes a distinction between fundamental and applied MSR, even if the Convention does not use these terms. Fundamental, or pure, research is carried out “in accordance with this Convention exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all

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<sup>63</sup> Lott, Alexander, “Marine Environmental Protection and Transboundary Pipeline Projects: A Case Study of the Nord Stream Pipeline”, in *Merkourios-Utrecht Journal of International and European Law*, Vol. 27:73 (2011), pp. 59-61

<sup>64</sup> LOSC Article 58 (1)

<sup>65</sup> Vinogradov (2009), pp. 284

<sup>66</sup> Birnie, Patricia, “Law of the Sea and Ocean Resources: Implications for Marine Scientific Research”, in *The International Journal of Marine and Coastal Law*, Vol. 10:2 (1995), pp. 242

mankind”<sup>67</sup>, while applied research is “of direct significance for the exploration and exploitation of natural resources”<sup>68</sup>. While such a distinction between fundamental and applied research was widely debated during the negotiations of the Convention,<sup>69</sup> such a divide and the separate regulations seem to uphold the balance between researching States and coastal States.

In the legal regime of the EEZ, the Convention’s Article 58 (1) (b) (ii) stipulates that the coastal State has jurisdiction with regard to MSR in its EEZ, in relation to which Article 246 provides for a specific set of rules.<sup>70</sup> While Article 246 (2) requires the coastal State’s consent to the conduct of MSR, such consent is expected by the Convention to be granted in “normal circumstances” under Article 246 (3).<sup>71</sup> However, if the research project fulfils one of the criteria listed in Article 246 (5), the coastal State can withhold its consent. These criteria include, among others, the research being of applied nature, or involving drilling, “the use of explosives or the introduction of harmful substances into the marine environment”<sup>72</sup>.

### 2.3.2 Are seabed surveys related to the laying of submarine pipelines marine scientific research?

Classifying the surveying activities related to finding the optimal route for the submarine pipeline is difficult because of the lack of definitions of MSR or hydrographic surveying in the LOS Convention. It seems, however, certain that such pipeline-related seabed surveying is not fundamental, or pure, research as it is not solely intended for the benefit of all mankind. It is related to commercial activity. Is it, then, applied research? According to Soons’s broad definition, applied research is

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<sup>67</sup> LOSC Article 246 (3); see also Churchill & Lowe (1999), pp. 405-406

<sup>68</sup> LOSC Article 246 (5) (a); see also Churchill & Lowe (1999), pp. 405

<sup>69</sup> De Marffy, Annick, “Marine Scientific Research”, in Rene-Jean Dupuy and Daniel Vignes (eds.), *A Handbook on the New Law of the Sea*, Dordrecht, (Martinus Nijhoff Publishers) 1991, pp. 1128-1131, 1133

<sup>70</sup> Lott (2011), pp. 59

<sup>71</sup> This is the case even if there are no diplomatic relations between the researching State and the coastal State, as a consequence of Art. 246 (4). This would mean that, if surveying the seabed for the purpose of finding an optimal route for the submarine pipeline to be laid is considered MSR, the laying State enjoys the same conditions for such surveys whether it has established diplomatic relations with the coastal State or not. Thus, its freedom to lay submarine pipelines cannot be denied through a refusal of MSR solely because there are no diplomatic relations between the two States

<sup>72</sup> LOSC Article 246 (5) (b)

“undertaken primarily for specific practical purposes”<sup>73</sup>. Thus, the surveying to find optimal routing for submarine pipelines, by being for commercial purposes, would qualify as applied research and, therefore, is encompassed in the scope of Article 246.<sup>74</sup>

However, there does not seem to be a basis for such a definition in the Convention. Therefore, the present author supports the definition put forward by Churchill and Lowe that is based on the text of Article 246 (5):

*Applied research is that which is of ‘direct significance for the exploration and exploitation of natural resources’. Such research clearly impinges directly upon the interests of the coastal State in exercising its sovereign rights over its natural resources. The same is true of research which is particularly intrusive upon the coastal State’s maritime zones.*<sup>75</sup>

Surveying the seabed for a pipeline’s route does not seem to fit in any of these categories, and seems to sit in between fundamental and applied research. While it is not “pure” research since it has a commercial purpose, it does not have a direct significance regarding the exploration and exploitation of the natural resources under the coastal State’s jurisdiction either. What might be intrusive upon the coastal State’s EEZ is listed among the criteria in Article 246 (5), that is, drilling, use of explosives or harmful substances or construction of artificial islands, installations and structures. The researching of samples and seabed topography does not seem to require either of these and this was not the case in Lott’s example of the Estonian-Russian incident of 2007 either.<sup>76</sup>

If it is supposed that such surveying in connection with submarine pipelines does fall under a broader definition of MSR, the coastal State would be expected to give its consent to the conduct of such surveying. Would this surveying include drilling, use of explosives, the introduction of harmful substances into the environment or the construction of installations, the coastal State has the possibility to withhold its consent.<sup>77</sup> However, as noted, the present author is of the view that topographical surveying does not involve any of these activities.

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<sup>73</sup> Lott (2011), pp. 59

<sup>74</sup> Ibid.

<sup>75</sup> Churchill & Lowe (1999), pp.405

<sup>76</sup> Lott (2011), pp. 61

<sup>77</sup> LOSC Article 246 (5)

### 2.3.3 What is hydrographic surveying?

If not MSR, then the question may arise whether surveying for the purpose of finding an optimal pipeline routeing can be classified as hydrographic surveying.

Even though the LOS Convention draws a distinction between MSR and hydrographic surveys in three Articles, namely Articles 19 (2) (j), 21 (1) (g) and 40, it again does not provide a definition for hydrographic surveys. This is more understandable as the Convention does not denote a whole part to such activity unlike MSR. The International Hydrographic Organization (IHO) provides the following definition:

*Hydrography is the branch of applied sciences which deals with the measurement and description of the physical features of oceans, seas, coastal areas, lakes and rivers, as well as with the prediction of their change over time, for the primary purpose of safety of navigation and in support of all other marine activities, including economic development, security and defence, scientific research, and environmental protection.*<sup>78</sup>

This definition places hydrography somewhat separate from scientific research as it is clear from its purpose as providing support to scientific research. Distinction between hydrographic surveying and MSR, as already mentioned, seems to be implied by the LOS Convention as well. As Rothwell and Stephens mention, some States have based claims on this distinction.<sup>79</sup> In light of the consistent language use of the Convention, it would indeed be rather strange if the distinction made between MSR and hydrographic surveys by the text would be purely incidental.

There have, however, been opposite arguments. Rothwell and Stephens cite China's position that MSR and hydrographic surveying are essentially the same with the difference that hydrographic surveying serves "different purposes from either pure or applied research"<sup>80</sup>. Furthermore, Bateman argues that because hydrographic surveys have economic value or utility now or in the future, they should be treated as MSR.<sup>81</sup>

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<sup>78</sup> *Definition of Hydrography*. International Hydrographic Organization. [http://www.iho.int/srv1/index.php?option=com\\_content&view=article&id=299&Itemid=289](http://www.iho.int/srv1/index.php?option=com_content&view=article&id=299&Itemid=289) [Visited 11 July 2013]

<sup>79</sup> Rothwell & Stephens (2010), pp. 330

<sup>80</sup> *Ibid.*

<sup>81</sup> Bateman, Sam, "Hydrographic surveying in the EEZ: differences and overlaps with marine scientific research", in *Marine Policy*, Vol. 29:2 (2005), pp. 170-172

In the first case that hydrographic surveys are separate from MSR, the consequence would be that conducting hydrographic surveys in the EEZ or on the continental shelf of the coastal State is a freedom, “free from coastal State regulation”<sup>82</sup>. This is because the Convention does not regulate hydrographic surveys apart from the said Articles which relate to activities in the territorial sea, international straits and the archipelagic waters.<sup>83</sup> If, however, the case is that hydrographic surveys are part of MSR, the regulations contained in Article 246 would apply to hydrographic surveys as well, including the requirement for the coastal State’s consent. In this case too, however, such consent should be granted in normal circumstances, especially if the criteria in Article 246 (5) are not met.

While there is doubt as to whether hydrographic surveys can be considered part of MSR or not, the present author takes the view that hydrographic surveys are separate from MSR. One reason for this is that the wording of the Convention is applied consistently throughout the whole text. This has been highlighted by the example that during the drafting of the Convention’s text, Article 79 (2)’s wording has been adjusted from “prevention of pollution from pipelines” to “prevention, reduction and control of pollution from pipelines” to suit the rest of the text.<sup>84</sup> Furthermore, such an understanding would be consistent with the decreasing coastal State power the further away from the coast the maritime zone in question is. Thus, while the coastal State can regulate in respect of marine scientific research and hydrographic surveys in the territorial sea, in the EEZ it is only entitled to jurisdiction with regard to marine scientific research. This would be in line with the more essential nature of hydrographic surveys. They are, as the Chinese argument<sup>85</sup> and the definition of the IHO<sup>86</sup> have also acknowledged, of different purpose than MSR: they are concerned with safety. Therefore, it is important that such hydrographic surveys could be conducted freely in the EEZ, unlike MSR.

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<sup>82</sup> Rothwell & Stephens (2010), pp.330

<sup>83</sup> Article 40 applies *mutatis mutandis* in the archipelagic waters under Article 54

<sup>84</sup> Nordquist (1993), pp. 915

<sup>85</sup> Rothwell & Stephens (2010), pp. 330-331

<sup>86</sup> *Definition of Hydrography* [2013]

#### 2.3.4 Can surveying related to pipelines be considered hydrographic surveying?

As already mentioned, seabed surveying for the purpose of finding the optimal route for submarine pipelines seems to sit between the categories of pure research and research applied to exploration and exploitation of natural resources. It has an economic or commercial character in that it is essential for the transportation of oil and gas but at the same time such surveying is also related to safety. While hydrographic surveying is often associated with safety of navigation, the IHO definition links it with other maritime activities such as environmental protection and economic activity. This wide definition renders hydrographic surveys as a suitable category for pipeline-related seabed surveying in the present authors view.

Surveying the seabed for future laying of pipelines is, on the one hand, about safety. Not the safety of navigation necessarily but of the marine environment and of economic development. Without such surveys the submarine pipeline could be laid on unsuitable grounds that could lead to its breakage and leaking of its contents that may harm both the marine environment and potentially economic interests and safety of supply. On the other hand, it also supports economic activity: without such surveying it would not be possible to lay submarine pipelines.

#### 2.3.5 What are the consequences of pipeline-related seabed surveying being categorised as hydrographic surveying?

Since hydrographic surveying, separate from MSR, is not regulated in the EEZ or on the continental shelf by the Convention, it seems that States are free to conduct such activities in these maritime zones. Such a conclusion can be drawn from Articles 87 (1) and 58 (1) where the phrases “*inter alia*”<sup>87</sup> and “other internationally lawful uses of the sea”<sup>88</sup> respectively can be construed as to refer to, among other, hydrographic surveying.<sup>89</sup>

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<sup>87</sup> LOSC Article 87 (1), original emphasis

<sup>88</sup> LOSC Article 58 (1)

<sup>89</sup> Bateman (2005), pp. 165

Especially Article 58 (1) is of importance for the present thesis, as it provides for all States, in the EEZ of another, to enjoy the high seas freedom of, among others, the laying of submarine cables and pipelines

*[...] and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of this Convention.*<sup>90</sup>

Surveying the seabed for the optimal pipeline routing is, without doubt, associated with submarine pipelines. The freedom to conduct pipeline-related seabed surveys, then, is contrasted with MSR to which the coastal State's jurisdiction is established by Article 56 (1) (b) (ii).

Furthermore, the conclusion that the laying State is free to conduct such surveying without the need to ask for prior coastal State consent is in line with the spirit of Article 79. Said Article provides that "all States are entitled to lay submarine [...] pipelines on the continental shelf, in accordance with the provisions of this article"<sup>91</sup>. That Article, however, does not include any reference to coastal State consent relating to the surveying of the seabed. The only consent it requires is that for the delineation of the course of the pipeline, and the commentaries on the Convention's negotiations do not contain any reference to requiring consent for pipeline-related surveying.<sup>92</sup>

What is important is that Article 79 states the freedom of all States to lay submarine pipelines. As Vinogradov notes, such pipelines cannot be built without prior examination of the seabed:<sup>93</sup> "[w]ithout such survey, the freedom to lay submarine pipelines cannot be realized in principle"<sup>94</sup>.

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<sup>90</sup> LOSC Article 58 (1)

<sup>91</sup> LOSC Article 79 (1)

<sup>92</sup> Since in practice it can be difficult to determine whether a vessel engages in hydrographic surveying or exploration, a solution to the problem could be a system of notifications, making identification and inspection easier for the coastal State. Requiring notification from such vessels could be included as a reasonable measure for the exploration of the continental shelf under Article 79 (2), creating a middle ground for both the coastal and the laying State to agree on

<sup>93</sup> Vinogradov (2009), pp. 284

<sup>94</sup> Ibid.

## 2.4 What does the right to legislate for the purpose of exploration of continental shelf and exploiting its resources encompass?

Having established the freedom of all States to lay, maintain and access submarine pipelines and that the coastal State shall not deny this freedom by banning the laying State from conducting hydrographic surveys, we can turn to the restrictions imposed on the laying State's freedom by Article 79. The first restriction placed by Article 79 (2) on the freedom to lay submarine pipelines is in connection with the exploration of the continental shelf and the exploitation of its resources. The coastal State is given the right "to take reasonable measures"<sup>95</sup> for this purpose. While the wording of this article does not seem particularly contentious, as this legislative right of the coastal State relates to its sovereign rights enshrined in Article 77 (1) it warrants a closer look.

### 2.4.1 Can the coastal State close off part of its continental shelf with the view of future exploitation?

The purpose of the provision in Article 79 (2) that allows the coastal State to take measures for the exploitation of the continental shelf's resources seems to be to ensure that the coastal State can exercise its sovereign rights on the continental shelf. Therefore, it is no surprise that this provision has been included in the law of the sea since the 1958 Geneva Conventions. These sovereign rights include all the necessary rights that are connected to the exploitation of the resources of the continental shelf.<sup>96</sup> It can be said, therefore, that the sovereign rights of the coastal State are very extensive. Considering its purpose to ensure the exercise of the coastal State's rights, the question is whether Article 79 (2) can serve to ensure also the future exercise of the coastal State's sovereign rights. Phrased in a different way, can the coastal State "reserve" areas of the continental shelf for future exploitation on the basis of this provision, thus restricting the freedom to lay submarine pipelines in those areas?

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<sup>95</sup> LOSC Article 79 (2)

<sup>96</sup> Churchill & Lowe (1999), pp. 151



#### 2.4.1.1 Object of Article 79 (2), read together with Articles 77 and 78

Article 79 (2) intends to strike a balance between the sovereign rights of the coastal State and the freedom of the laying State. It brings together Article 77 ensuring the exercise of coastal State sovereign rights as well as Article 78 (2) that guards the freedom of, among other, the laying of submarine pipelines. This balancing means that Article 79 (2) tries to protect the interests of both sides.

Coastal State jurisdiction is, thus, restricted so that it cannot take any measures, but “reasonable” ones. While reasonableness does not have a clear definition or test,<sup>97</sup> the coastal State cannot effectively ban the laying of submarine pipelines. However, the coastal State does have extensive rights for the exploitation of the continental shelf’s resources. This is coupled with Article 77 that does not include a time limit on the coastal State’s sovereign rights. The coastal State is not obliged to exploit its resources at all, and there seems to be nothing stopping it from postponing exploitation to the future. The coastal State’s duty not to impede the laying and maintenance of submarine pipelines in Article 79 (2) is subject to its legislative right connected to its sovereign rights.

#### 2.4.1.2 Restricting an area on the basis of Article 79 (3)

It is Article 79 (3) that stipulates that the coastal State’s consent is needed for the delineation of the course of submarine pipelines. This is the provision the coastal State can turn to, together with paragraph 2 of the same article, if it wants to restrict an area from submarine pipelines. However, as it will be explained later in section 2.6.4, there is possibly the obligation that the coastal State shall provide an alternative routing for the pipeline as paragraph 3 does not include the need to ask the consent of the coastal State to the laying itself.

Thus, the coastal State cannot close off the whole of its continental shelf to preserve it for future exploitation. However, it is possible for the coastal State not to give its consent to the routeing of a planned pipeline on the basis of its sovereign rights. This is

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<sup>97</sup> Vinogradov (2009), pp.282; Beckman (2010), pp. 6; Lott (2011), pp. 58; Davenport (2012), pp. 211

not excluded by the provision. It could be within the rights of the coastal State connected to its resource-related sovereign rights to close off an area with the view of future resource exploitation.

2.5 What does the right to legislate for the purpose of prevention, reduction and control of pollution encompass?

Now, we can turn to the more contentious issues presented by Article 79 (2). The focus in the following sections will be on the coastal State's right to legislate for "the prevention, reduction and control of pollution"<sup>98</sup>. This provision is all the more interesting as it is not related to the sovereign rights of the coastal State but more to its jurisdiction with regard to the protection and preservation of the marine environment as provided for by Article 56 (1) (b) (iii). This is also a reflection of the Conventions general aim of protecting the marine environment.<sup>99</sup>

A contentious issue in connection with this provision is how to interpret "reasonable measures for [...] the prevention, reduction and control of pollution from pipelines"<sup>100</sup> and what such a legislation could encompass. As explained above, paragraph 2 of Article 79 grants limited legislative rights to the coastal State which are related to the functional rights the coastal State enjoys in its EEZ and on the continental shelf, as well as to its jurisdiction for the purpose of environment protection. Due to the limited nature of the coastal State legislative jurisdiction over submarine pipelines transiting its continental shelf, the question arises: what is encompassed in the coastal State's legislative power for the purpose of pollution prevention? More precisely, can the coastal State impose safety standards as reasonable measures, over such pipelines in the name of preventing pollution from breakage due to, for example, anchorage or grounding? Such safety measures could include, for instance, safety zones around pipelines that would restrict anchoring or the possibility of laying new pipelines; or the burial of the submarine pipeline into the subsoil. Such measures could affect the laying State negatively: safety zones could limit the laying State's right to lay submarine

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<sup>98</sup> LOSC Article 79 (2)

<sup>99</sup> LOSC, Preamble, Paragraph 4

<sup>100</sup> LOSC Article 79 (2)

pipelines by protecting existing ones, while the requirement of burial can increase the cost of laying and maintaining submarine pipelines.

The wording of Article 79 (2) clearly states that the coastal State's legislative power has to be exercised for the purpose of "prevention, reduction and control of pollution from pipelines". The interpretation of this provision has to look at the meaning of the words used by the lawmakers, for which the definition of "pollution" has to be examined.

### 2.5.1 Meaning of pollution and its regulation

A definition of "pollution of the marine environment" is included into the Convention, in Article 1 (1) (4), where pollution is understood as meaning

*the introduction by man, directly or indirectly, of substances or energy into the marine environment [...] which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.*<sup>101</sup>

As several commentators have pointed out, this definition of "pollution of the marine environment" is significant because it is open to include all the sources and types of pollution,<sup>102</sup> thus giving a dynamic and evolutionary character to the term.<sup>103</sup> Thanks to this open and evolutionary character of the term "pollution", new pollution sources could be included into the interpretation of the definition, along with new rules and standards to mitigate these. Thus, areas with an environmental dimension include the areas of, for example, ships collision<sup>104</sup> and noise pollution<sup>105</sup>. Alongside the dynamic terminology employed by the LOS Convention, another tool used to achieve dynamism in the Convention is the allusions to the other international instruments by the employment of rules of reference to generally accepted international rules and standards.<sup>106</sup> On the one hand, this allows the incorporation of new standards into the framework of the Convention in line with the newer scientific and technological discoveries, to keep the Convention up-to-date. This is especially important in the area

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<sup>101</sup> LOSC Article 1 (1) (4)

<sup>102</sup> Rothwell & Stephens (2010), pp. 342

<sup>103</sup> Boyle, Alan, "Further development of the 1982 Convention on the Law of the Sea", in *International and Comparative Law Quarterly*, Vol. 54:3 (2005), pp. 569

<sup>104</sup> Rothwell & Stephens (2010), pp. 359-362

<sup>105</sup> Rothwell & Stephens (2010), pp. 341-342

<sup>106</sup> Rothwell & Stephens (2010), pp. 343-344; for examples of the application of rules of reference see LOSC Part XII Sections 5-6

of marine environment protection. On the other hand, through rules of reference such rules and standards become obligatory to which otherwise a State have not consented. This leads to a greater global uniformity in the law of the sea, and in particular in marine environment protection.

Especially with the prevention of accidental pollution from ships collision is it possible to draw parallels when it comes to safety measures in the case of submarine pipelines, as pollution may originate from a breakage of such a pipeline caused by the grounding of a vessel or anchorage. Similarly to ships collision, in the case of a pipeline breakage caused by grounding, anchorage or bottom trawling, the result of the accident is the leakage of a substance, for example oil or gas. This can be understood as an indirect way of introducing these substances into the marine environment “by man”<sup>107</sup>. Such a leakage can cause harm to marine life and consequently affect marine activities. The definition of pollution in the LOS Convention, thus, can easily be stretched wide enough to include leakage resulting from pipeline breakage caused by, for example, grounding or anchorage.

#### 2.5.2 Purpose and object of Article 79 (2)

Even if pollution from the breakage of submarine pipelines can be included into the pollution definition of the Convention, safety measures are not in themselves directed at the prevention of such pollution. While they do have the side effect of preventing pollution, safety measures are, first and foremost, aimed at preventing the accidents themselves. In the author’s view, there is a distinction between measures taken specifically to prevent pollution of the marine environment and measures taken to avoid collisions or accidents. Therefore, further analysis is required to answer the question whether safety standards are covered by the rights given to the coastal State in Article 79 (2).

However, a further parallel can be drawn between accidental vessel-source pollution and pollution from submarine pipeline breakage. In the case of accidental vessel-source pollution, Article 211 (1) of the LOS Convention, in Part XII, makes a direct linkage

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<sup>107</sup> LOSC Article 1 (1) (4)

between international rules and standards for the purpose of avoiding accidents, specifically mentioning ships routing measures, and the pollution of the marine environment such an accident could cause. This reference incorporates into the LOS Convention various IMO instruments, among others the 1972 Convention on the International Regulations for Preventing Collisions at Sea (COLREG) and the 1974 International Convention for the Safety of Life at Sea (SOLAS). Measures, such as ships' routing systems<sup>108</sup> or Areas to be avoided<sup>109</sup> and No anchoring areas<sup>110</sup>, not only aim at maritime safety but also result, in an indirect way, in the prevention of accidental pollution. Similar safety measures if imposed by the coastal State in the case of submarine transit pipelines can also lead to improved safety from grounding or anchorage, as, for example, no anchoring areas or safety zones would restrict vessels' movement and anchorage in the vicinity of submarine pipelines

The purpose of Article 79 (2) when providing for the legislative jurisdiction of the coastal State, in this case, is to provide protection for the marine environment in the EEZ of the coastal State as well as in the adjacent areas from pollution from pipelines. On the one hand, this is an end in itself as witnessed by the Preamble of the Convention. On the other hand, in order for the coastal State to enjoy its rights over the living natural resources of its EEZ, these resources and their environment have to be protected against pollution, in this case, from leakage of submarine pipelines. Article 79 (2), thus, aims at giving the necessary tools for the coastal State to protect the marine environment in its EEZ and on its continental shelf.

If, as shown above, the breakage of such pipelines is understood as pollution of the marine environment, the prevention of such an accident is well served by safety measures similar to those aimed at preventing ships collision. While safety measures are not directly aimed at the prevention, reduction and control of pollution from pipelines, they do have the effect of preventing such pollution. Therefore, the coastal State's right to legislate against pollution under Article 79 (2) can be construed to include safety

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<sup>108</sup> 1974 International Convention for the Safety of Life at Sea, London, Annex, Chapter V. Safety of Navigation, Regulation 10 Ships' routing

<sup>109</sup> 1985 IMO Assembly, General Provisions on Ships' Routing, 20 November 1985, Resolution A.572(14), paragraph 2.1.12

<sup>110</sup> 2001 *Amendment to the General Provisions on Ships' Routing*, IMO Safety of Navigation, 19 January 2001, SN/Circ.215, Section 2 (1) and (2)

measures that are reasonably protecting the course of the transiting submarine pipelines. Such an interpretation is confirmed by, among others, Klumbyte<sup>111</sup> and Roggenkamp<sup>112</sup>.

An opposite argument could be based on a very narrow reading of Article 79 (2) and a narrow understanding of reasonable measures taken to prevent, reduce and control pollution. However, in the author's view, such an interpretation would be against the spirit of the Convention. Excluding safety measures from the scope of the said paragraph would mean that the coastal State is denied a way to prevent pollution from accidents concerning submarine pipelines.

## 2.6 Does the process of laying submarine pipelines represent pollution?

A further, and possibly even more controversial, issue concerns two interlinked questions, namely: at what point does the pollution for which the coastal State is given legislative jurisdiction by Article 79 (2) occur, and how broadly can the "pollution from pipelines" be understood. As Proelss points out, a major environmental issue in connection with submarine pipelines arises at the time such pipelines are being laid, not necessarily during the lifetime of the pipelines, as the process of the laying of pipelines disturbs the seabed and along with that the benthic habitats.<sup>113</sup> Therefore, it is important to assess whether the coastal State is allowed to legislate to protect the marine environment, especially habitats and biodiversity, in the case of the laying of the submarine pipelines, as opposed to the existence of the pipelines; or indeed, it might have the duty to do so.

As a first step, the text and the wording of the provision laid down in Article 79 (2) has to be looked at. That paragraph stipulates that such a legislative right of the coastal State exists with regard to pollution from pipelines. The text seems to suggest that the coastal State is only entitled to legislate in the case of already existing pipelines, not pipelines that are in the process of being laid. Such an interpretation is reinforced by the wording

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<sup>111</sup> Klumbyte, Skirmante, "Environment Protection: Pipelines", in Ulrich Karpen (ed.), *Maritime Safety – Current Problems of Use of the Baltic Sea: Conference in Cooperation with the International Tribunal for the Law of the Sea April 21st – 23rd, 2004*, (Nomos) 2004, pp. 75

<sup>112</sup> Roggenkamp (1998), pp. 106

<sup>113</sup> Proelss, Alexander, "Pipelines and protected sea areas", in Richard Caddell and D. Rhidian Thomas (eds), *Shipping, Law and the Marine Environment in the 21st Century: Emerging challenges for the Law of the Sea – legal implications and liabilities*, (Lawtext Publishing Limited) 2013, pp. 276

of the rest of the same paragraph that emphasises the difference between new and existing pipelines by mentioning the “laying and maintenance of such [...] pipelines”<sup>114</sup>. On this basis, it would reasonably be expected that, had the lawmakers intended to give a legislative power to the coastal State for the purpose of pollution caused during the laying of the submarine pipelines, they would have expressly made a reference to that.

As explained above, the structure of Article 79 composes of the freedom of laying submarine cables and pipelines and the limitations placed on this freedom as a result of it taking place on the continental shelf of another State. The purpose of the whole Article, and within it that of paragraph 2, is to provide for a balance between the coastal State’s resource related interests and its interest to protect its marine environment, and the freedom of all States to lay and maintain submarine pipelines. The article makes sure that both of these interests can be fulfilled without placing unnecessarily onerous restrictions on either group of States. If the coastal State’s legislative jurisdiction extended to the case of the laying of the submarine pipelines for the protection of habitats, that might mean an unreasonable interference into the freedom of laying submarine pipelines.

2.6.1 Is the process of laying submarine pipelines considered pollution in the sense of Article 1 (1) (4)?

While the text of Article 79 (2) seems to indicate that the coastal State’s right to take measures for the prevention, reduction and control of pollution only include pollution for already existing pipelines, the definition of pollution as provided for in the LOS Convention’s Article 1 (1) (4) has to be scrutinised again. While the laying of submarine pipelines can cause harm to marine life by disturbing benthic habitats, the already cited definition in the LOS Convention is clear in stipulating that pollution is a “substances or energy”<sup>115</sup>. Although as mentioned earlier, the definition of pollution in the law of the sea has been evolving as a response to new concerns, it is questionable whether “the introduction [...] of substances or energy”<sup>116</sup> can be stretched so widely as to include the laying of submarine pipelines. If the laying of submarine pipelines cannot

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<sup>114</sup> LOSC Article 79 (2); see also Nordquist (1993), pp. 915

<sup>115</sup> LOSC Article 1 (1) (4)

<sup>116</sup> Ibid.

be categorised as substances or energy, then there is no place to consider whether it causes harm to marine life or not.<sup>117</sup>

If the process of laying submarine pipelines cannot be understood in conformity with the definition of pollution as contained in the LOS Convention, the coastal State's jurisdiction over submarine pipelines for the purpose of prevention, reduction and control of pollution under Article 79 (2) cannot be extended to that activity. The coastal State's jurisdiction is only "activated" by the conditions of Article 79 (2) once the pipeline is already laid. The subject of this jurisdiction is the pollution that originates from the pipeline, not the environmental effects of the laying of such pipelines. Thus, the process of laying submarine pipelines cannot be included into the pollution definition provided by the Convention.

2.6.2 If not pollution, then how can the process of laying submarine pipelines be categorised and how is it governed by the Convention?

The case of loss of benthic habitats from the laying of submarine pipelines could rather be likened to the adverse effects caused by ballast water exchange. Ballast water exchange and the introduction of invasive alien species as its result have been described as "threat to biodiversity", rather than pollution.<sup>118</sup> The basis for this is, first, that the living organisms introduced by ballast water into the marine environment cannot be categorised as substances or energy in the meaning of Article 1 (1) (4) of the LOS Convention. Secondly, Article 196 (1) that contains the obligation to protect the marine environment from alien species makes a distinction between pollution and the introduction of such species. This distinction is confirmed by Nordquist's commentary on the said Article, explaining that even though looking at the text of Article 196 (1) would suggest that the introduction of alien species is part of the concept of pollution, the history of the Article's development shows that these are two distinct issues.<sup>119</sup> The placing of Article 196 further reinforces that it is not to be considered pollution, as it is

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<sup>117</sup> Proelss (2013), pp. 288

<sup>118</sup> De La Fayette, Louise, "The Marine Environment Protection Committee: The Conjunction of the Law of the Sea and International Environmental Law", in *The International Journal of Marine and Coastal Law*, Vol. 16:2 (2001), pp. 175 and 180-181, note 88

<sup>119</sup> Nordquist (1991), pp. 73-76



placed among the general obligations relating to the protection and preservation of the marine environment in Part XII, and not in the section on pollution prevention.<sup>120</sup>

The threat posed to the marine environment by the shifting of sediments at the time of the laying of submarine pipelines can be considered as a threat to marine biodiversity due to it disturbing the benthic habitat. Similarly to ballast water exchange, the result of the process of laying submarine pipelines is not an introduction of substance or energy into the marine environment but it is nonetheless a harm to marine life in its effect. Furthermore, the only reference to the protection of habitats is to be found among the general provisions of Part XII, not among the provisions relating to pollution.

The general obligation relating to the protection and preservation of the marine environment is contained in Article 192. It has been argued that Part XII of the LOS Convention should be read broadly as to include not just the prevention of pollution in the sense of Article 1 (1) (4) but also conservation of marine life.<sup>121</sup> It is in Article 194 (5) where the LOS Convention, concluded years before the concerns for biological diversity arose, contains, in Part XII, the only clear conservation obligation, relating to the protection of habitats:

*The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.*<sup>122</sup>

This seems to allow for the coastal State to legislate for environment protection and conservation, at least when it comes to vulnerable ecosystems and habitats.

However, Article 194 (5) is only applicable in the case of “measures taken in accordance with this Part”, that is, Part XII on the “Protection and preservation of the marine environment”. Even though the said Part contains obligations for the coastal State to legislate for the purpose of prevention, reduction and control of pollution from seabed activities and artificial islands, installations and structures under its jurisdiction

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<sup>120</sup> Whether the introduction of invasive species by ballast water exchange can be considered pollution under the LOS Convention is debated. For arguments that it is indeed pollution, see, for example, Tsimplis, Michael, “Alien Species Stay Home: The International Convention for the Control and Management of Ships’ Ballast Water and Sediments 2004”, in *The International Journal of Marine and Coastal Law*, Vol. 19:4 (2005), pp. 413-414

<sup>121</sup> Proelss (2013), pp. 282-283; 1999 Southern Bluefin Tuna Cases (New Zealand/Japan; Australia/Japan), Order of 27 August 1999, ITLOS Reports, Paragraph 70

<sup>122</sup> LOSC Article 194 (5)

in Article 208, this Article, as previously mentioned, is not applicable to submarine pipelines that are transiting the coastal State's continental shelf.

Furthermore, paragraph 1 of Article 194 stipulates that the measures taken by the States to protect the marine environment shall be consistent with the Convention.<sup>123</sup> This would suppose that, in the case of submarine pipelines, the freedom to lay such pipelines should not be infringed as that would lead to a bad precedent for the other freedoms of the high seas to which all States have the right, recognised by this Convention, to exercise.

### 2.6.3 Obligations to protect the marine environment under international law

The LOS Convention establishes its relationship with other international instruments in Article 311, giving it priority over other treaties requiring other treaties to be compatible with it.<sup>124</sup>

The 1992 Convention on Biological Diversity contains, among others, in Article 8 (d) a provision obliging the Contracting Parties to

*as far as possible and as appropriate [...] promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings.*<sup>125</sup>

This obligation seems consistent not just with the general objectives of the LOS Convention to conserve the living resources of the seas and protect and preserve the marine environment,<sup>126</sup> but also specifically with Article 194 (5) of the LOS Convention cited above.

However, Article 22 (2) of the CBD requires the implementation of its provisions to be consistent “with the rights and obligations of States under the law of the sea”<sup>127</sup>. This reinforces the priority of the LOS Convention (except for in cases of serious damage or

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<sup>123</sup> Proelss (2013), pp. 283

<sup>124</sup> Boyle, Alan, “Relationship between International Environmental Law and Other Branches of International Law”, in Daniel Bodansky, Jutta Brunnée & Ellen Hey (eds.), *Oxford Handbook of International Environmental Law*, Oxford, (Oxford University Press) 2007, pp. 135

<sup>125</sup> CBD Article 8 (d)

<sup>126</sup> LOSC Preamble, Paragraph 4

<sup>127</sup> CBD Article 22 (2)

threat)<sup>128</sup> over the CBD.<sup>129</sup> From the requirement of consistency with the LOS Convention it flows that the freedoms of the high seas cannot be ignored when implementing the CBD.<sup>130</sup> Boyle cites the specific example of the freedom of navigation vessels enjoy on the high seas as well as in the EEZ<sup>131</sup> but this example can be extended to the laying of submarine pipelines as this activity is encompassed among the freedoms of the high seas.

Article 237 of the LOS Convention acts as a *lex specialis* in the case of Part XII of the Convention and other conventions on the protection and preservation of the marine environment.<sup>132</sup> Under this provision, agreements concluded for that purpose do not have to be compatible with the LOS Convention but only be consistent with it. As Jakobsen argues, as a result of the conclusion of the CBD, the general obligation set down in Article 192 of the LOS Convention can be considered to encompass the duty to preserve and conserve the biological diversity.<sup>133</sup> If that is so, the obligation towards marine biodiversity would be applicable in the case of laying submarine pipelines, as Article 192 is a very general obligation, without reference to other sections of Part XII that was problematic in the case of Article 194 (5).

The priority of the agreements in Article 237 is stipulated if they are “concluded in the furtherance of the general principles set forth in this Convention”<sup>134</sup>. These general principles can be argued to include both environmental obligations and navigational and other freedoms,<sup>135</sup> which again does not seem to support the coastal State’s right to legislate for the protection of biodiversity over the laying of submarine pipelines.

What seems to support a possibility for the coastal State to protect marine biodiversity from the laying of transiting submarine pipelines is if it is possible to show that the exercise of the right to lay submarine pipelines causes “a serious damage or threat to

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<sup>128</sup> For further discussion see Jakobsen, Ingvild Ulrikke, *Marine Protected Areas in International Law: A Norwegian Perspective*, Tromsø 2009, pp.286-307

<sup>129</sup> CBD Article 22 (1)

<sup>130</sup> Boyle (2005), pp. 579; Boyle (2007), pp.139

<sup>131</sup> Ibid.

<sup>132</sup> Nordquist (1991), pp. 425

<sup>133</sup> Jakobsen (2009), pp. 306

<sup>134</sup> LOSC Article 237 (1)

<sup>135</sup> Jakobsen (2009), pp. 307

biological diversity”<sup>136</sup>. However, it might be difficult to prove such damage or threat due to lack of scientific knowledge and data. Here the precautionary approach can be of help.

The precautionary approach gained global endorsement through the 1992 Rio Declaration on Environment and Development as Principle 15, and also became included in the Preamble of the CBD. Principle 15 of the Rio Declaration proclaims that:

*[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.*<sup>137</sup>

Because of the uncertainty in the approach’s meaning and its general terms, the precautionary approach is commonly thought of a general principle of law, meaning it influences treaty interpretation and application.<sup>138</sup> The effect of the precautionary approach is that it triggers preventive measures earlier<sup>139</sup> and lowers the standard of proof of risk,<sup>140</sup> thus leading to an earlier intervention.

Therefore, it seems that even if a serious threat to marine biological diversity, that would trigger the protection of benthic habitats from the process of the laying of submarine pipelines through Article 22 (1) of CBD, cannot be proven, the precautionary principle could be relied on to protect these habitats.

#### 2.6.4 Consent to the delineation of pipelines’ course as a tool to protect biodiversity

It has been suggested that the way to protect biodiversity from the laying of submarine pipelines is through the requirement contained in Article 79 (3) of the LOS Convention that the coastal State grant its consent to the delineation of the course of the submarine pipeline.<sup>141</sup> Paragraph 3 does not elaborate further than only prescribing that such consent shall be obtained from the coastal State. Thus, the Convention does not provide for possible grounds on which the delineation proposal can be rejected by the coastal

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<sup>136</sup> CBD Article 22 (1)

<sup>137</sup> Rio Declaration Principle 15

<sup>138</sup> Birnie et. al (2009), pp. 159-164

<sup>139</sup> Birnie et. al (2009), pp. 163

<sup>140</sup> Birnie et. al (2009), pp. 157

<sup>141</sup> Lott (2011), pp. 58; Proelss (2013), pp. 289

State which leaves the reasoning open for the coastal State. While this would favour the fulfilment of the obligation to protect marine biodiversity, it also leaves the coastal State's decision open to possible unreasonableness.

It is important here to look at the relationship between paragraphs 2 and 3. While paragraph 2 stipulates the cases in which the coastal State can take reasonable measures over the submarine pipelines in its EEZ and on its continental shelf, paragraph 3 talks about the consent to the delineation of the course of such pipelines. Can the coastal State's consent be viewed as a reasonable measure, extending the requirement in paragraph 2 to be reasonable?

Even though the reasonable measures taken by the coastal State with regard to pollution and the delineation consent appear in two separate paragraphs, it is notable that it is in these two provisions where the Convention makes a distinction between submarine cables and pipelines. It seems, therefore, that the drafters of the Convention wanted to give extra protection for coastal State interests related to the marine environment from submarine pipelines where the likelihood of pollution is admittedly bigger than in the case of submarine cables. It follows that the two provisions could possibly be read together. The close connection between the two provisions could also be based on the order in which they appear in the Article, after each other. Therefore, the logical consequence could be drawn that the delineation consent can be included as a reasonable measure under paragraph 2.<sup>142</sup>

If the consent for the delineation can be seen as part of the coastal State's reasonable measures, the coastal State's obligation not to impede the laying and maintenance of the submarine pipelines applies to its consent as well. Therefore, the difference has to be maintained between consent for the laying of the submarine pipeline and the consent for the delineation of the course of such a pipeline. Claims by some States that they have the right of prior consent for the laying, as such, of submarine pipelines, as well as cables,<sup>143</sup> shall be dismissed. The differentiation between the consent for the laying itself and for the delineation of the course is evident from the negotiations of Article 79.

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<sup>142</sup> A link between the reasonable measures in paragraph 2 and the consent for the delineation of the pipelines' course in paragraph 3 has been implicated by, among others, Nordquist (1993), pp. 915 and Lott (2011), pp. 57-58

<sup>143</sup> Churchill & Lowe (1999), pp. 174

Denmark did propose subjecting the laying of submarine pipelines to the consent of the coastal State as it saw a marked difference between pipelines and cables. For the latter the Danish proposal would have retained the freedom of all States for laying and the right of the coastal State to take reasonable measures.<sup>144</sup> However, the Danish proposal, as we can see, was not accepted.

Furthermore, interpreting the consent to the delineation of the course of the pipeline as part of the reasonable measures the coastal State has the right to take, requires the granting or the refusal of such a consent to be “reasonable”. What reasonableness requires, however, is open and subject to debate.<sup>145</sup> In the case of pipelines transiting the jurisdiction of the coastal State, such pipelines should be “protected against discretionary application of national regulations” and the measures taken “should not go beyond what is normally expected”<sup>146</sup>. Fulfilling these conditions, according to Vinogradov, would result in the measures being reasonable.<sup>147</sup> Applying this in the case of the delineation consent means that the decision to refuse the granting of the delineation consent should be based on objective criteria. Furthermore, the coastal State cannot prohibit the laying of the pipelines in its entirety even if it relies on objective criteria. Such a refusal would make the consent to the delineation of the course of the pipeline in effect equal to the consent to the laying of the pipeline. This is not permitted by the Convention under Article 79 and seems to be inconsistent with the freedom to lay submarine pipelines on the continental shelf enjoyed by all States.

One further element of reasonableness that seems to flow from this argument is that the refusal of the consent for delineation of the pipeline should include alternative routing for the said pipeline. However, while in other parts of the Convention, notably in the case of the right of transit passage, there is a requirement of “similar convenience with respect to navigational and hydrographical characteristics” for alternative routes,<sup>148</sup> this is not so in the case of submarine pipelines. Admittedly, as the Convention does not expressly talk about an alternative route for submarine pipelines, it cannot pose

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<sup>144</sup> Nordquist (1993), pp. 914

<sup>145</sup> Vinogradov (2009), pp. 282; Beckman (2010), pp. 6; Lott (2011), pp. 58; Davenport (2012), pp. 211

<sup>146</sup> Vinogradov (2009), pp. 282

<sup>147</sup> Ibid.

<sup>148</sup> LOSC Art. 38 (1)

requirements for such a route either. However, hydrographical characteristics are of great significance when deciding on the route of submarine pipelines.

What the above discussion seems to indicate is that the coastal State has considerable leeway to protect parts of its seabed and its marine environment from the process of the laying of the submarine pipelines. As Proelss suggests also, the coastal State's only option to "assert its nature conservation interests on the continental shelf"<sup>149</sup> is through the *ex ante* denial of permission for the course of the pipeline in line with Article 79 (3).<sup>150</sup>

Some suggest that the provision that the course of the pipeline needs to be consented to by the coastal State may be incompatible with the notion of freedom.<sup>151</sup> However, in the present author's view the requirement of the delineation consent contributes to the balancing of the coastal and the laying States' interests in the EEZ and on the continental shelf in as much as such a consent protects the marine environmental interests as well as the resource related interests of the coastal State while preserving the right of other States to lay submarine pipelines. The coastal State still retains the possibility to protect its marine environment not just from pollution from pipelines but also from threats to marine biodiversity posed by the laying of pipelines, while the other States still enjoy a freedom that may not be impeded and that does not need the consent of the coastal State for the laying of pipelines itself.

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<sup>149</sup> Proelss (2013), pp. 289

<sup>150</sup> Ibid.

<sup>151</sup> Churchill & Lowe (1999), pp. 174; Vinogradov (2009), pp. 283

## PART III – CONCLUSIONS

### 3.1 Balancing coastal and laying States' rights and obligations

As it can be seen from the discussions above, Article 79 contains and supposes rights and obligations for both the coastal State and the laying State. This means advancing the interests of both while posing restrictions in such a way that the interests of both sides could be realised. The balancing of coastal and laying States' rights and duties is achieved by a broad reading of the LOS Convention.

First and foremost, Article 79 guarantees the right of every State to lay submarine pipelines. In order to realise this right in practice and to have a functioning pipeline, further rights have to be granted to the laying State, namely the right to conduct hydrographic surveys without the need for a prior permission from the coastal State, the right of maintenance and the right of access. The laying and maintenance of submarine pipelines is also protected by the obligation of the coastal State not to impede this freedom. Although the coastal State is provided wide powers for the protection of the marine environment, the basic obligation not to impede the laying State's freedom sets limits to this. The duty of the coastal State not to infringe on this freedom is included into Article 79 (2), although subjected to its legislative power, as well as into Article 78 (2). But what might give a bigger advantage to the laying State in the protection of its interest, is Article 297 (1) (a) that subjects to the dispute settlement mechanism of the Convention the disputes concerning "the freedoms and rights of [...] the laying of submarine cables and pipelines, or [...] other internationally lawful uses of the sea specified in article 58",<sup>152</sup> unlike some other areas in the EEZ regime.<sup>153</sup>

Meanwhile, the coastal State's sovereign rights and jurisdiction had to be respected as well. It is especially the protection of the marine environment of the coastal State that places a restriction on the laying State's freedom. The coastal State's interest in

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<sup>152</sup> LOSC Article 297 (1) (a); see also Nordquist (1993), pp. 917 and Vinogradov (2009), pp. 285-286

<sup>153</sup> LOSC Article 297 (2) and (3); Rothwell & Churchill (2010), pp. 456



preserving its marine environment is protected by its right to legislate for the prevention of pollution from pipelines and to give its consent to the route of the pipeline, extending to the biodiversity protection. In this area, the developments after the conclusion of the LOS Convention play an important part. Furthermore, the safety measures the coastal State may take in connection to submarine pipelines are also related to environment protection. The laying State's duty to maintain the pipeline and consequently to protect the marine environment acts as a further guarantee for the coastal State. Thus, the coastal State's interests in relation to the marine environment and its protection are well-guarded by the Convention and subsequent developments in international law. Meanwhile, the coastal State's extensive rights on the continental shelf for the purposes of exploration and exploitation are protected by their nature as sovereign rights. However, in the present author's view, Article 79 does not add much in this regard to coastal State powers.

Even though it might seem that the coastal State's interests are maybe less well-represented than those of the laying State, one problem can make the exercise of the freedom to lay submarine pipelines very difficult. This problem, which can arise from Article 79 (2) and the right of each coastal State to take measures for environmental purposes over submarine pipelines, is that the course of the pipeline might lead through the EEZs of multiple coastal States. Such a submarine pipeline would be subjected to multiple "reasonable measures" that together can result in an unreasonable or even impossible situation. Thus, the question is whether there can be a way to avoid this multiple sets of reasonable measures and a ground for cooperation.

### 3.2 Ways of resolving the problem of multiple sets of reasonable measures

One way of evading some of the issues that arise when a submarine pipeline traverses multiple EEZs in practice has been through agreement on extraterritorial jurisdiction.<sup>154</sup> Citing examples from the North Sea, Roggenkamp gives an introduction into the working of the Norwegian pipeline agreements that establish transportation, safety and fiscal jurisdiction.<sup>155</sup> While these agreements provide for Norwegian extraterritorial jurisdiction which paves the way for uniformity in the entire length of the pipeline, the

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<sup>154</sup> Roggenkamp (1998), pp. 100

<sup>155</sup> Roggenkamp (1998), pp. 103-105

situation created by such an agreement seems to be even more complicated than the one without it.

First, the various agreements cited by Roggenkamp show that extraterritorial jurisdiction can lead to concurrent jurisdiction: the sending State, provided with the extraterritorial jurisdiction, and the receiving State both have similar rights over the same pipeline.<sup>156</sup> This results in, for example, concurrent enforcement jurisdiction or the difficulty with avoiding double taxation.<sup>157</sup> Second, although there might be a uniform set of standards for the entire pipeline resulting from the agreement, transit States are not party to this agreement.<sup>158</sup> These transit States are still entitled by the LOS Convention to take their reasonable measures under Article 79 (2).<sup>159</sup> Thus, while such agreements might function well in the case where the pipeline only traverses two State's EEZs, they do not solve the problem when there are more States involved.

As another mode of trying to resolve the problem, the present author suggests that a possible way forward could be based on the common obligation of the coastal State and the laying State to preserve the marine environment. As already submitted, the coastal State's duty to preserve the marine environment and biodiversity can be derived from reading Article 79 (2) and (3) as well as the CBD and the precautionary principle together, while the laying State's similar duty is manifested in its duty to maintain the submarine pipelines as a protective measure. Furthermore, Article 194 (1), though in very general terms, provides a possible legal basis for cooperation for the protection of the marine environment from all sources. While paragraph 3 of the same article includes the areas that the measures taken under the Part XII shall include, this is not an exhaustive list as suggested by the inclusion of the phrase "*inter alia*"<sup>160</sup>. Especially read together with paragraph 5, this could be a basis for a cooperation on the regulation of submarine pipelines. Meanwhile, Davenport points at the widely interpreted cooperation obligation contained in Part XII and the due regard obligation, in light of the general spirit of the Convention for cooperation, to resolve coastal and other State

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<sup>156</sup> Roggenkamp (1998), pp. 102-103

<sup>157</sup> Roggenkamp (1998), pp. 104-105

<sup>158</sup> Roggenkamp (1998), pp. 105-106

<sup>159</sup> Ibid.

<sup>160</sup> LOSC Article 194 (3), original emphasis

interests in a similar case of submarine cables.<sup>161</sup> With regard to the obligation to protect the marine environment as a basis for cooperation however, it is regrettable that the wording of Article 24 of the 1958 Geneva Convention on the High Seas was not transferred into the text of the LOS Convention as that article made it clear that every State has the duty to regulate for the purpose of preventing pollution from submarine pipelines.<sup>162</sup>

Although with the intention to scale back the high seas freedom of laying pipelines, Crowley has envisaged regional regimes for the regulation of submarine pipelines,<sup>163</sup> “preferably in the context of a detailed regional framework of standards or code of conduct rather than by a fixed body of rules”<sup>164</sup>. This recommendation is supported by the present author, for two reasons. First, such a flexible system would indeed be of benefit when creating a uniform set of standards for submarine pipelines, especially with the view of protecting the marine environment. Evolving technology plays an important role in the protection of the marine environment and an effective regime has to build on technological development to stay dynamic. Second, a regional regime might be preferable to a global one. Consensus on standards can be easier built on a regional scale rather than the global, while the lowest common denominator might be higher in case of a regional cooperation as well. Furthermore, the environmental effects of submarine pipelines are felt more on the regional level in contrast with, for example, the effects of ballast water exchange. While the latter needed a global regulation because of the scale of shipping, submarine pipelines seem to be built on a sub-global scale in the near future, thus affecting regions, rather than globally.

### 3.3 Ways forward: possible research areas

What has been obvious from the start is that regulation of submarine pipelines is a neglected and under-developed part of the law of the sea. What seems to be similarly under-developed is the study of this issue area. More research is needed into the subject.

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<sup>161</sup> Davenport (2012), pp. 215

<sup>162</sup> HSC Article 24

<sup>163</sup> Crowley (1987), pp. 58-59

<sup>164</sup> Crowley (1987), pp. 59

In the previous section the author has suggested one way of increasing cooperation and regulation in the field. However, further, detailed research is needed to show how coastal and laying States can work together to form a set of measures that would make it easier to lay submarine pipelines, whilst protecting the rights of the coastal States as well.

As explained in the Introduction, the scope of the present thesis is limited in both the geographical area and in the type of pipelines. Especially interesting is the question of environmental protection in relation to submarine pipelines on the high seas and the Area. In this area, similarly to what was shown in the case of the EEZ and the continental shelf, there seems to be a gap in Part XII. This gap is, however, more acute than in the case of the aforementioned zones, as there is no coastal State that could provide for measures for the purpose of prevention, reduction and control of pollution from pipelines on the high seas. In case of the Area, Article 145 (a) could provide a possible legal basis for the Authority to take measures. This provision obliges the Authority to adopt rules in case of “harmful effects of [...] pipelines [...] related to”<sup>165</sup> activities on the Area, possibly opposed to pipelines that are not connected to activities on the Area, for example transit pipelines. Furthermore, the conflict of different uses of the sea and the Area – laying and maintenance of submarine pipelines and exploitation of the Area’s resources – has to be examined as well.<sup>166</sup> Similarly to the case with geographical areas, the present thesis leaves research open into other types of pipelines as well.

As the LOS Convention points out in its Preamble, “the problems of ocean space are closely interrelated and need to be considered as a whole”<sup>167</sup>. The present research has also dealt with different issue areas from marine scientific research to exploration and exploitation to protection of the marine environment. Especially because the regulation as well as the study of submarine pipelines is under-developed, the analysis had to include many other fields and consider problems of these. To be able to give answers to questions relating to submarine pipelines, the study of related fields also needs to be more advanced. No research into submarine pipelines can disregard advancements in

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<sup>165</sup> LOSC Article 145 (a)

<sup>166</sup> Davenport (2012), pp. 216

<sup>167</sup> LOSC Preamble, Paragraph 3

the areas of the aforementioned problems, and should strive to contribute to these too as much as possible. This way we can treat the challenges of the law of the sea as a whole.

Word count: 17.211

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