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To what extent does the river regime regulate litter pollution in the marine environment?

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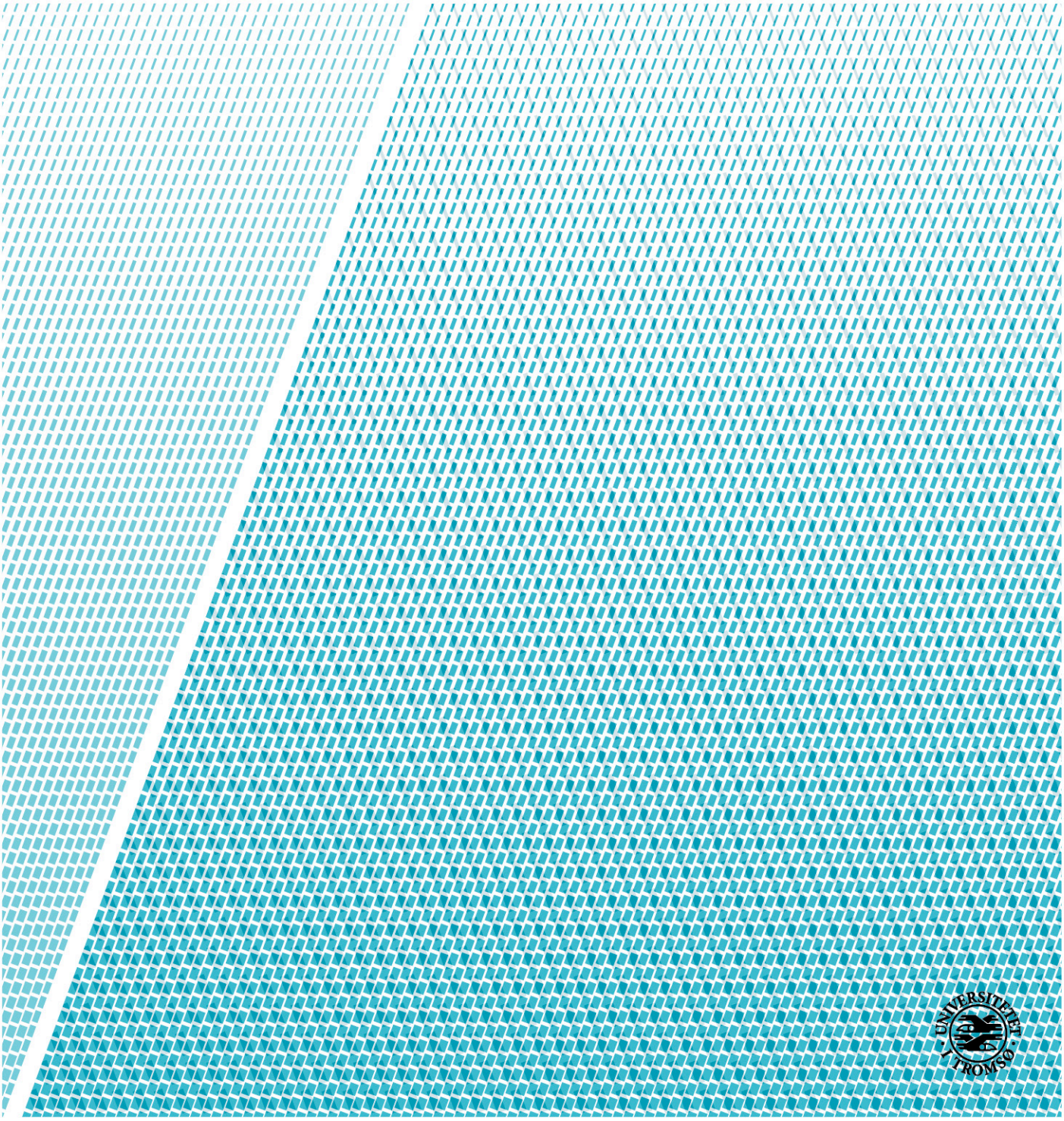

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Abbreviations

EEZ	Exclusive Economic Zone
GAIRS	Generally Accepted International Rules and Standards
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Sources
ICJ	International Court of Justice
ILC	International Law Commission
ILA	International Law Association
ITLOS	International Tribunal of the Law of the Sea
LOSC	United Nations on the Law of the Sea Convention
PCB	Polychlorinated Biphenyl
UN	United Nations
UNEP	United Nations Environment Programme
UNWC	United Nations Convention on the Law of the Non-navigational Uses of International Watercourses
UNECE	United Nations Economic Commission for Europe
UNECE - Water Convention	Convention on the Protection and Use of Transboundary Watercourses and International Lakes
VCLT	Vienna Convention on the Law of Treaties
WFD	EU Water Frame Directive

1 Introduction

1.1 Introduction

Marine debris is solid material that is persistent, manufactured or processed and that is disposed or abandoned in the marine and coastal environment. Marine debris travel with currents, and therefore is found on the seabed, on the water surface and mixed in the water column. The main sources of land-based pollution are landfills on the coasts, tourism and poor waste management, municipal sewage and watercourses that carry the waste out to sea.[1] The magnitude of pollution deriving from land-based activities is difficult to grasp, but is estimated to be responsible for about 80 % of all marine pollution.[2]

Despite this, the regulation of land-based activities is for the most part left to the individual States, and one can only imagine the array of policies throughout the 125 coastal States.[3] The issue of land-based pollution is especially difficult because it is happening within the States' own jurisdiction and several factors come into play, such as socio-economic development and the fact that States generally are unwilling to give in to any attempt that will slow down their development.[4] As a consequence, the regulations that concern land-based pollution are today mainly soft law. The only global treaty that produces some basic binding obligations concerning land-based pollution is the 1982 Law of the Sea Convention (LOSC).

Marine debris is a threat to marine wildlife as the debris can be ingested and entangle animals. This ingestion may lead to suffocation, starvation or malnutrition. Furthermore, through the ingestion of for example plastic debris there also is a risk of PCBs[5] and other chemicals entering the food chain. PCBs can lead to detrimental effects on marine organisms, as they lead to reproductive disorders and increase risk of illness and death.[6] Entanglement may lead to drowning, starvation, death and wounding. Marine debris can also rest and gather on the seabed, thus harming the bottom dwelling animals.[7]

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[1] Report of the Secretary-General (2004), A/59/62/Add.1, p.55, paragraph 212
[2] Report of the Secretary-General (2004), A/59/62/Add.1, p. 29, paragraph 97
[3] VanderZvaag and Powers (2008), p. 424
[4] Tanaka (2017), p. 296
[5] Polychlorinated biphenyl (PCB) has been widely used in industrial materials, but was banned in the 1970's and 1980's.
[6] Lee et al (2001), p. 273
[7] Report of the Secretary-General (2004), A/59/62/Add.1, p. 55, paragraph 213

1.1.1 The plastic issue

It is important to emphasise that plastic is the most serious polluting agent among the different types of debris. It is estimated that 60-80 % of all marine debris is plastic.[8] The wide use of plastic is relatively recent, and the massive production only dates back to the 1950's. Of all the man-made materials, plastic is the one that has grown the fastest and that poses one of the greatest risks for our environment.[9] Plastics are synthetic organic polymers, and being strong, lightweight and cheap to produce – they have become the popular choice for many manufacturers of countless different products.[10] Combined with affordability for the regular citizen, the cheap production has contributed to a global shift of wanting reusable products, to using single use products.[11] The main characteristics of plastic are the very reason it is so dangerous to the environment. Plastic is resistant to natural decay. Weathering can break it down into smaller pieces, but it does not disappear.[12] Scientists have not yet determined the lifetime of plastic, but it is estimated to be from hundreds to thousands of years.[13] UV-light can deteriorate the compounds of plastic, but due to the cold and salty environment of the sea, degradation requires a long exposure time. The items that fall to the sea floor or are tangled with animals or other matter in the marine environment will naturally have little or no exposure to UV-light.[14] The only reliable way to eliminate plastic is by destructive treatment, such as combustion or pyrolysis.[15] It is thought that all the plastic that has ever been introduced to the environment still remains either as whole pieces or as fragments.[16]

Plastic has been found in all the major ocean basins.[17] As a lot of plastic floats, it sails away easily, and ends up being widely distributed.[18] In 2010 alone it was estimated that between 4 and 12 million metric tons (Mt) of plastic debris entered the marine environment.[19] If the pollution continues at the same rate, there could be more plastic than fish by weight in the ocean by 2050.[20]

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[8] Moore (2008), p. 135; Derraik (2002), p. 843
[9] Geyer et al (2017), p. 1
[10] Derraik (2002), p. 842
[11] Geyer et al (2017), p. 1
[12] Pruter (1987), p. 305
[13] Barnes et al (2009), p. 1993
[14] Barnes et al (2009), p. 1986
[15] Geyer et al (2017), p. 1
[16] Thompson et al (2005), p. 1117
[17] Barnes et al (2009), p. 1991
[18] Pruter (1987), p. 305
[19] Jambeck et al (2015), p. 770
[20] MacArthur (2017), p. 843

1.1.2 Rivers as a source of marine litter pollution

Land-based pollution describes pollution caused by different human actions, such as domestic, agricultural, industrial and municipal activities, and that enters the marine environment from land and rivers.

The contamination of the marine environment is closely linked with discharges from rivers, which are transporting litter into the sea. High flow rate and strong bottom currents bring the waste out to sea, and in smaller rivers waste is often found close to estuaries.[21] Rivers can carry waste originating from the public, due to poor public waste management, pollution from various industrial and agricultural activities and sewage related debris.[22] Approximately 40 % of the world's population lives within 100 km of the coast.[23] Rivers may connect an even larger amount of people and their waste to the marine environment.[24]

In 2017 scientists estimated that between 1.15 and 2.41 Mt of plastic enter into the ocean via rivers every year.[25] It is therefore a significant amount, and necessary to examine more closely the interconnection between the regulative framework of the law of the sea and the international river regime.

It must be noted that according to a recent article on the 20 most plastic polluted rivers in the world, all but four are located in Asia.[26] Three are in Nigeria and one in Colombia. For this thesis, it is relevant to mention that very few of the States with jurisdiction over these rivers are part of the two global watercourse conventions, the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention) and the 1997 Convention on the Law of Non-navigational Uses of International Watercourses (UNWC). Nigeria is member of the UNWC.

There is no global treaty regulating land-based pollution specifically. It is the LOSC and the watercourse regime that will be reviewed in this thesis, as these are key sources when assessing the regulation of land-based pollution of the marine environment. There are more than 2000 treaties that relate to freshwater resources. This is because there are approximately 300 transboundary river basins, each with different needs and possibilities of use. In addition,

[21] Barnes et al (2009), p. 1992
[22] Chen (2015), p. 396
[23] VanderZvaag and Powers (2008), p. 424
[24] Schmidt et al (2017), p. 12246
[25] Lebreton et al (2017), p. 3
[26] Lebreton et al (2017), p. 3

the riparian States' social and economic needs are reflected in the use and development of each watercourse. As a result, the law is fragmented in this field.[27] The two global watercourse conventions are therefore chosen for this thesis. Originally the plan was to create one global convention, but the preparatory work took over 30 years. In the meantime the United Nations Economic Commission for Europe (UNECE) created a regional convention. The UNECE Water Convention was amended to be available also outside the UNECE region in 2003, as at that point it did not look like the UNWC would be able to attain enough parties to ratify it. However, the UNWC came into force in 2014. Today the UNWC has 36 parties, while the UNECE Water Convention has 43 parties.

1.2 Objective

This thesis seeks to shed light on the relationship between the law of the sea regime and the watercourse regime in the context of land-based marine pollution. As these are two separate fields within environmental law, they have not evolved together.[28] The interconnection between the two is crucial in the discussion on the prevention of marine pollution, and it is surprising that this issue has not been more closely studied to date.

The question of this thesis is to what extent the river regime regulates litter pollution of the marine environment.

While plastic in the marine environment is an interesting and topical issue, it is not addressed specifically in the two watercourse conventions. This thesis takes a broader look at the framework, as all of the marine debris is regulated in the same way. Three global treaties are examined in this thesis with the objective of exploring how they each deal with the problem of litter pollution and further to find out if and to what extent the interconnections between the two regimes are considered and allowed for. It will also take a closer look at the international rivers in Norway, with the purpose of illustrating how the country complies with its obligations.

1.3 Sources

This thesis use legal sources as specified by article 38 of the Statue of the International Court of Justice (ICJ). The Vienna Convention on the Law of Treaties (VCLT) is used to direct the

[27] Tanzi and Arcari (2009), p. 25
[28] Vinagradov (2007) p. 586

interpretation of the treaties, and to determine if two treaties can govern the same subject matter.

There is little case law on this subject; therefore, legal scholarly articles and books are also used frequently to inform and support the interpretations of the conventions. As the relationship between the LOSC and the watercourse regime has not been extensively studied in the scholarly literature, primary sources and general principles of law are relied on to support the conclusions made.

Reports and documents by the International Law Commission (ILC) and the United Nations (UN) are also used to assess what the intention of the conventions are, as well as international case law and reports of the International Law Association (ILA). Many of the scholarly articles are from the 1980s and 1990s when the UNWC was negotiated. The soft law developed both prior and subsequent to the conventions function as supplementary tools to the interpretation.

The only global treaty providing general obligations to prevent land-based pollution is the LOSC. In addition there are several instruments of a non-binding nature, such as the 1985 Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-based Sources, Agenda 21 of 1992, the 1995 Washington Declaration on the Protection of the Marine Environment from Land-based Activities, the 1995 Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the 2012 Manila Declaration on Furthering Implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities. Soft law offers assistance in interpretation, as do the general principles of environmental law.

1.3.1 The GPA & GAIRS

In addition to the question of soft law sources, in Chapter 3.5.4 the question is asked if the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA), adopted by 108 Governments and the European Commission at an intergovernmental conference in 1995, can be considered as generally accepted international rules or standards (GAIRS). If so, this would broaden the range of obligations binding the parties. The GPA "aims at preventing the degradation of the marine environment from land-based activities by facilitating the realization of the duty of States to preserve and protect the

marine environment".[29] It is designed to assist States in taking action to prevent, reduce and control pollution within their own policies and resources. In the introduction, the GPA presses that the legal and institutional framework for the protection and sustainable development of the marine environment is the LOSC, but the GPA aims to be of assistance where the provisions of the LOSC lack detail. The reference to GAIRS is found in both the LOSC article 207 and the UNWC article 23.

It is interesting to assess whether the GPA could be considered to be GAIRS, as it offers very detailed obligations on how to reduce litter pollution. It proved to be somewhat problematic finding legal sources on this topic, therefore assistance with interpretation is sought from extensive work on similar issues in the shipping context (applied analogously). With the same method it has also been assessed if the UNWC could function as GAIRS in relation to article 207.

1.4 Methodology

The methodology used is the traditional legal dogmatic method. It describes and discusses the current legal framework for combating marine pollution from watercourses, both in the LOSC and the two watercourse conventions. Thereafter the relationship between the two regimes is analysed. Finally it is looked into the substantial obligations and potential gaps.

This thesis does a desktop analysis based on treaties and literature as discussed above, as there is no other material such as cases available.

1.5 Structure of the thesis

Chapter 2 lays out the legal framework of international waters and watercourses. Thereafter, the relationship between the two watercourses is analysed, and examples of international rivers are introduced. In Chapter 3, the spatial differences between the regimes are studied, asking if there are any gaps in the regulation. From there the relationship between the two regimes is analysed. Thereafter, the substantive obligations are examined. Chapter 3.5.4 investigates how to determine what GAIRS are, and if the UNWC and/or the GPA could be GAIRS, for the purpose of uncovering if there exist instruments that can help fulfill the obligations more than previously presumed. Finally there will be concluding observations in Chapter 4.

[29] The GPA, introduction paragraph 3

2 The legal framework of international waters and watercourses

2.1 The United Nations Law of the Sea Convention (LOSC)

2.1.1 Introduction to the LOSC

The Third United Nations Conference on the Law of the Sea convened in 1973. More than 160 sovereign States participated in the negotiations. The convention was negotiated to be a "package-deal". A State could not pick and choose the articles as they wished, as all the provisions were closely interrelated.[30] The convention covers 25 subjects and issues, such as all issues related to the territorial zone, the exclusive economic zone, the continental shelf, the high seas, marine scientific research and protection and preservation of the marine environment to name a few. In 1982, it was concluded with the adoption of the constitution for the ocean[31], the LOSC.[32] 168 parties widely accepted the LOSC as representing customary law, including its Part XII.

The LOSC establishes a comprehensive framework for the protection and preservation of the marine environment. This is stated as one of the convention's primary objects in the preamble.[33] It is the only global treaty that provides general obligations to prevent land-based marine pollution.

In the introductory part of the convention, the convention has defined pollution of the marine environment. In article 1(4) "pollution of the marine environment" is defined as:

> "the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, 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".[34]

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[30] Koh (1983) "A Constitution for the Oceans", p. xxxiv of the UNCLOS (1983)
[31] Koh (1983), "A Constitution for the Oceans", p. xxxiv of the UNCLOS (1983)
[32] http://www.un.org/depts/los/convention_agreements/convention_historical_perspective.htm#Historical%20Perspective (last visited 8.10.18)
[33] LOSC preamble, paragraph 4
[34] LOSC art. 1 (4)

It is clear that marine debris falls under the category of a substance introduced by man (in)directly into the marine environment with the result of deleterious effects, and therefore is a pollutant pursuant to this definition.

2.1.2 The LOSC on land-based pollution

Part XII of the LOSC regulates the protection and preservation of the marine environment. There are several articles that are relevant to mention in regard to land-based pollution.

The general provisions begin in article 192 by stating that the States have an obligation to protect and preserve the marine environment.[35] The next provision affirms the States' sovereign right to exploit their own natural resources, as long as they are in accordance with the duty to protect and preserve the marine environment.[36] Article 194 goes on stating that States shall take measures to "prevent, reduce and control pollution of the marine environment from any source"[37], and that the States must ensure that activities under their jurisdiction do not cause damage by pollution to other States or their environment.[38]

Section 5 of Part XII is called "international rules and national legislation to prevent, reduce and control pollution of the marine environment". Article 207 regulates pollution from land-based sources. The provision begins by instructing the States to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources. From there, it urges States to take into account internationally agreed rules, standards and recommended practices and procedures. In the second paragraph States are instructed to take other measures as be necessary to prevent, reduce and control such pollution.[39]

Article 213 is part of Section 6 concerning enforcement. Article 213 covers enforcement with respect to pollution from land-based sources, and states that the States shall enforce the laws and regulations adopted in accordance with article 207, and that they shall take other measures necessary to implement GAIRS.

A further analysis on the obligations will be done in Chapter 3.

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[35] LOSC art. 192
[36] LOSC art. 193
[37] LOSC art. 194 (1)
[38] LOSC art. 194 (2)
[39] LOSC art. 207 (1) and (2)

2.2 The legal framework for international watercourses

2.2.1 Background for the two conventions

In 1970, The United Nations General Assembly requested the ILC to study the international watercourses with the aim of assessing the progressive development of law on the topic and finding out if it would be possible to codify the rules of customary international law. A set of draft articles was prepared by the ILC over the period of 1974-1994, which later led to the final convention. The process was a lengthy one, due to the fact that several high-profile disputes over international watercourses were on going while the Commission was considering the subject.[40] A draft was adopted by the ILC in 1991, and this was then circulated to the UN member states for their comments. The UN Watercourse convention was adopted by the United Nations on May 21st 1997. It entered into force on August 17th 2014. Today there are 36 State parties to the Convention.[41] Among these are France, Germany, the Netherlands, Portugal, Norway and the United Kingdom. The United States is not a party, and there is a very limited number of Asian and African States that are parties.

The convention was designed to function as a framework convention, as it provides a framework of principles and rules that can be adjusted to suit the characteristics of particular international watercourses.[42]

In the 1980s the UNECE became more focused on the transboundary water management issues in the region. The convention came at a time when Europe was rapidly changing, with the breakup of the Soviet Union and new States emerging. Rivers that had been national suddenly became international, and the need for strengthened legislation for cooperation was urgent.[43] The UNECE Water Convention was originally a regional convention for only the member States of the UNECE. The convention was adopted in 1992 and entered into force in 1996. In 2003 the treaty was amended so that all UN member States could join the treaty. Because all parties to the convention needed to ratify the amendment, it was not until 2016 it became available for all member States.[44] Today, it has 44 member States both inside and

[40] McCaffrey (2014) p. 342
[41] https://treaties.un.org/pages/viewdetails.aspx?src=ind&mtdsg_no=xxvii-12&chapter=27&lang=en (last visited 10.10.18)
[42] McCaffrey (2007) p. 361
[43] UNECE Water Convention implementation guide (2013), ECE/MP.WAT/39, p. 1
[44] https://www.unece.org/fileadmin/DAM/env/water/publications/brochure/Brochures_Leaflets/A4_trifold_en_web_2018.pdf (last visited 5.10.18)

outside Europe.[45] Some of these are the United Kingdom, Germany, France, the EU, Norway, Russia and Sweden. The United States is not part of the convention, and very few countries in Asia, South-America and Africa.

The reason there are now two global watercourse conventions is due to the suggestion that it would be practical to have States bordering the ECE-region as members as well, and later on they decided that a uniform global policy would be the ideal. As the UNWC had still not been finalised, the ECE-region took on the task of amending their regional treaty to become a global treaty.[46] When it was decided to make the UNECE Water Convention global in 2003, the UNWC still had not attained enough ratifications to become operational. At the time, only 11 out of the 35 needed had ratified the UNWC.[47]

2.2.2 Control of land-based pollution in the two watercourse conventions

In the UNWC the relevant articles are 21 and 23. Article 21 deals with prevention, reduction and control of pollution, while article 23 covers protection and preservation of the marine environment.

In the UNECE Water Convention in article 2 (6) the marine environment is addressed. It provides, *inter alia,* that the States must cooperate to protect the environment of the transboundary waters or the waters influenced by such waters, such as the marine environment.

The analysis of these obligations will follow in Chapter 3.

2.3 The relationship between the two conventions

The two conventions both seek to regulate the international watercourses, and are both open to membership for all States. The two conventions are not mutually exclusive. As the UNECE Water Convention was negotiated only between the members of the UNECE, and also is somewhat stricter, it could seem that for a third party it would be a smaller step to first join the UNWC. However, it seems like an important first step for these States, then they can later join the UNECE Water Convention.[48]

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[45] https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-5&chapter=27&lang=en (last visited 5.10.18)
[46] Tombritcaia and Koeppel (2015), p. 18
[47] McCaffrey (2014), p. 355
[48] http://www.unwatercoursesconvention.org/faqs/ (last visited 12.10.18)

The UNWC in its article 3 (1) states that the convention shall not affect previous rights or obligations, and further in article 3 (2) that parties to previous agreements "may, where necessary, consider harmonizing such agreements with the basic principles of the present Convention". The language is modest and advisory. The UNECE Water Convention on the other hand, clearly demands in article 9 (1) that existing agreements must be adapted where necessary "to eliminate the contradictions with the basic principles of this Convention". This reads as a duty to harmonize previous agreements with the UNECE Water Convention.

The VCLT express in article 30 (2) that when States are parties to successive treaties relating to the same subject-matter, and "when a treaty specifies that it is subject to, or that it is not to be considered as incompatible with, an earlier or later treaty, the provisions of that other treaty prevail."[49] This means that when the two treaties are compatible, it is not a problem that they govern the same subject. The UNWC specify that it shall not affect previous agreements, i.e. it is not incompatible with previous agreements. The UNECE Water Convention does however specify that it may not be amended. The earlier treaty, the UNECE Water Convention, therefore seems to prevail.

Nevertheless does the VCLT also expresses in article 30 (4) (a) that when parties to the later treaty do not include all the parties to the earlier one, that between the States parties to both treaties, the rule from paragraph 3 apply, which states that in this scenario "the earlier treaty applies only to the extent that its provisions are compatible with those of the later treaty".[50]

For the scenario where both States are not party to both treaties; one State is party to both and the other is party to only one treaty; the treaty where both States are party to will prevail.[51] This can be exemplified with the international rivers situated in Norway. For the relationship between Norway and Sweden, both treaties apply, as long as they are compatible, as both States are parties to both conventions. As for the relationship between Norway and Russia, only the UNECE Water Convention can be applied, as Russia is only party to this.

The question is therefore if these two conventions are compatible.

[49] VCLT article 30 (2)
[50] VCLT article 30 (3)
[51] VCLT article 30 (4) b

2.3.1 Are the two watercourse conventions compatible?

The preamble of both conventions determines that the two conventions have the same purpose, i.e. protect international watercourses from various forms of pollution, by creating unison rules and enhancing cooperation between States.

Article 3 (2) of the UNECE Water Convention demands that there "shall" be established joint bodies and further lists the tasks of the joint bodies. At this point the UNWC simply suggests in article 8 (2) that watercourse States "may consider the establishment of joint mechanisms or commissions (…) to facilitate cooperation on relevant measures and procedures (…)". The UNWC is again much broader in its wording and therefore seems much less demanding. The UNWC is formulated in such a way that makes the creation of joint bodies appear to be voluntary, which can make the process of cooperation more challenging than necessary. Tanzi argues, "it is beyond doubt that this provision has no normative force".[52] This is supported by the statement of the German representative who introduced the proposal of the second paragraph of the provision, as he stated that "the sponsors of the proposal had no intention of burdening the States parties with new obligations (…). Nor was the proposal intended to establish norms; on the contrary, the proposal recognized that conditions of cooperation and relevant needs could vary from one watercourse to the other."[53] Several of the delegations were reluctant to give up their sovereignty, so this was a compromise – as the joint bodies can be set up when necessary.[54]

The UNWC mentions again the creation of joint mechanisms in article 24, which states that if any watercourse State request another watercourse State, they shall enter into consultations concerning the management of an international watercourse and perhaps establish a joint management mechanism. This provision relates strictly to the management of watercourses, and its scope is therefore more limited than article 8.

Tanzi also argues that given the mention of existing treaties in the preamble of UNWC, it "can be said that the ECE instrument has a crucial relevance in providing substance to the guideline function of our Convention".[55] This makes sense, at least for the member States that are party to both, and supports the idea of the two conventions coexisting and even complementing each other.

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[52] Tanzi and Arcari (2001), p. 186
[53] Summary Record of the 52nd Meeting (1997), UN Doc A/C.6/51/SR.52, paragraph 66
[54] Tanzi and Arcari (2001), p. 187
[55] Tanzi and Arcari (2001), p. 189

Regarding the basic principles, both conventions mention equitable and reasonable utilization[56], the obligation not to cause significant harm[57], the obligation to cooperate[58], and the need for regular exchange of data[59]. The UNWC is more elaborate in what each of these principles entails and demands, but in broad terms the same basic obligations feature in the two conventions.

2.3.2 Conclusion

In sum, the two conventions on watercourses have the same object and purpose, and can therefore complement each other rather than eliminate or contradict each other. The UNECE Water Convention is stricter when it comes to coexisting with other treaties; while the UNWC is much more elaborate on the basic principles. However, these things cannot be seen as issues that would eliminate the one or the other, and as such, the two treaties are compatible and complementary.

2.3.3 Participation in both conventions

Article 9 of the UNECE Water Convention provides an obligation for the member States to enter into bilateral/multilateral agreements and eliminate contradictions in relation to the basic principles. This opens up the possibility for the members of the UNECE Water Convention to join the UNWC.

The UNWC mentions in the preamble, paragraph 9, that existing agreements must be considered. It is further expressed in article 3, paragraph 1, that nothing in the present convention shall affect rights and obligations already in force by the date a watercourse State becomes party to the present convention. It seems therefore that the UNWC is designed in such a way that it allows the UNECE Water Convention to function as a normative basis for the States that look to join UNWC later on and be a member of both.

The wording of article 9 in the UNECE Water Convention does imply, however, that if a state is already a member to the UNWC and wants to join the UNECE Water Convention it must be ready to accept more stringent provisions, as they should “eliminate the contradictions of

[56] UNWC art. 5; UNECE Water Convention art. 2 (2) c
[57] UNWC art. 7; UNECE Water Convention art. 2 (1), 2 (2) a and 2 (4)
[58] UNWC art. 8; UNECE Water Convention art. 2 (6) and 9
[59] UNWC art. 9; UNECE Water Convention art. 6 and 13

the basic principles". Tanzi argues that there are no apparent legal obstacles to join both conventions, as they are not perfectly concurrent, but have enough mutual compatibility.[60]

The initial question raised was what will happen in the case of a conflict between the two treaties, and which of those two will prevail, but according to these findings they will not conflict, as they govern the same subject matter and complement each other. It is unusual and perhaps not ideal or efficient to have two conventions of such similarity on the same subject matter, but as the two conventions are compatible with each other the matter is unlikely to give rise to legal uncertainties in practice.

2.4 Norwegian international rivers

2.4.1 General

To add another layer, a closer look will be taken at Norway's bilateral watercourse agreements. The following section will discuss the rules that are in place for these rivers, and how Norway is complying with the obligations deriving from the two global conventions it is part of. There are only two international rivers that are situated in Norway.[61] One is located in Finnmark, and is shared with Russia and Finland. The other one is located in Østfold, and is shared with Sweden. The intent here is to look into what agreements are in place, and how they control the pollution impact. Norway is part of both of the watercourse conventions, and so are Sweden and Finland. Russia is member of the UNECE Water Convention.

[60] Tanzi (2000), paragraph 3.1.3.1

[61] There are only two international rivers that enters the marine environment/ocean. The rivers that does not enter the marine environment are not interesting for this thesis.

2.4.2 The Pasvik river

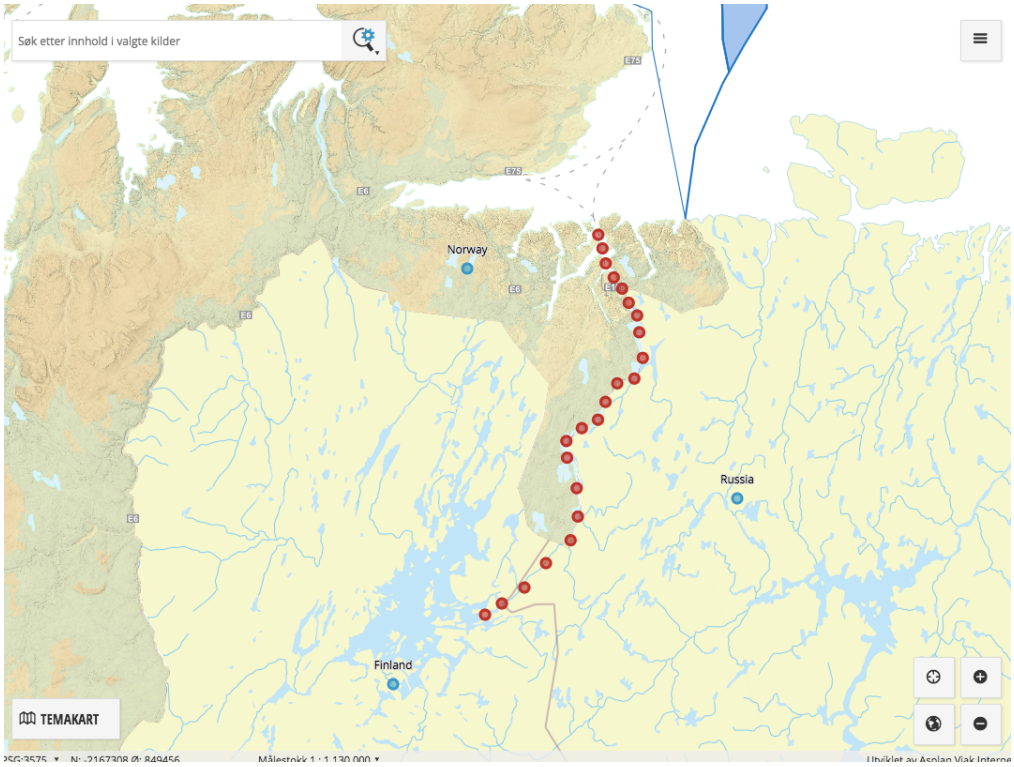

Figure 1:The dotted line illustrates the course of the Pasvik River. Starting in Finland, swirling its way up along the border of Norway and Russia.[62]

The Pasvik river is a transboundary river on the border between Norway, Russia and Finland. The river starts in Lake Inari in Finland, and twists its way up along the Norwegian-Russian border until it hits the Barents Sea. The three nations are all members of the UNECE Water Convention, and only Norway and Finland are member of the UNWC.

The Finnish-Norwegian Transboundary Water Commission Agreement was signed in 1980. It is a body for cooperation between Norway and Finland. The area includes the Pasvik river basin. For the Pasvik river Russia acts as an observing party.[63] The agreement only refers to the cooperation between the States; it does not have any provisions that deal specifically with pollution prevention.[64]

The Commission has contributed to several projects in the area, such as an ENPI-project (2011-2013) aimed at protecting Kolarctic salmon. They have also contributed by starting the ENPI Trilateral Cooperation on Environmental Challenges in the Joint Border Area (State and

[62] Map downloaded from www.barentswatch.no and edited with dots by the author.
[63] https://www.unece.org/fileadmin/DAM/env/documents/2017/WAT/05May_23-24_Implementation_Committee/Jokelainen_SNRVK_esitys_230517.pdf (last visited 24.11.18)
[64] http://www.finlex.fi/fi/sopimukset/sopsteksti/1981/19810032/19810032_2 (last visited 1.12.18). Unfortunately the author could only find the text in Finnish.

Monitoring of Waters in Border Area). In 2014, The Finnish-Norwegian River Basin District was established. This is a bilateral agreement, which aims at fulfilling the requirements of the EU Water Framework Directive (WFD). The Pasvik river is part of this district. The agreement aims to plan and implement river basin management plans and programmes of measures. The objective of the river basin management cooperation is to reach the environmental goals of the WFD.[65] The Commission remains as an important arena for discussion in relation to the WFD.[66] Russia is not part of the agreement.

The Finnish-Norwegian Commission and authorities in both countries have reached out to include Russia in the cooperation. The Murmansk regional environment authorities cooperate with the Commission, and Russia has participated as an observer and expert since 1991.[67] The Pasvik Monitoring and Assessment Program is an example of this trilateral cooperation. This project studied the effects of anthropogenic activities in the area. The river has suffered from subjection to emissions of sulphur dioxide and heavy metals. The monitoring and measures set in place aim at reducing the emissions in order to improve the marine environment.[68]

The agreement on Finnish-Norwegian cooperation predates both river conventions. It was not considered necessary to amend the agreements when Norway and Finland both entered the UNECE Water Convention, which proves that it was considered to be consistent with the principles of the conventions.[69]

There is no specific agreement in place that targets litter pollution.

[65] http://ec.europa.eu/environment/water/pdf/Finnish_Norwegian_international_river_basin_district.pdf, (last visited 8.12.18), p. 20
[66] http://ec.europa.eu/environment/water/pdf/Finnish_Norwegian_international_river_basin_district.pdf (last visited 8.12.18), p. 4
[67] Honkonen and Lipponen (2018), p. 326
[68] http://www.pasvikmonitoring.org/englanti/seurantaohjelma_e.html (last visited 28.11.18)
[69] Honkonen and Lipponen (2018), p. 322

2.4.3 The Iddefjord/Enningsdals river

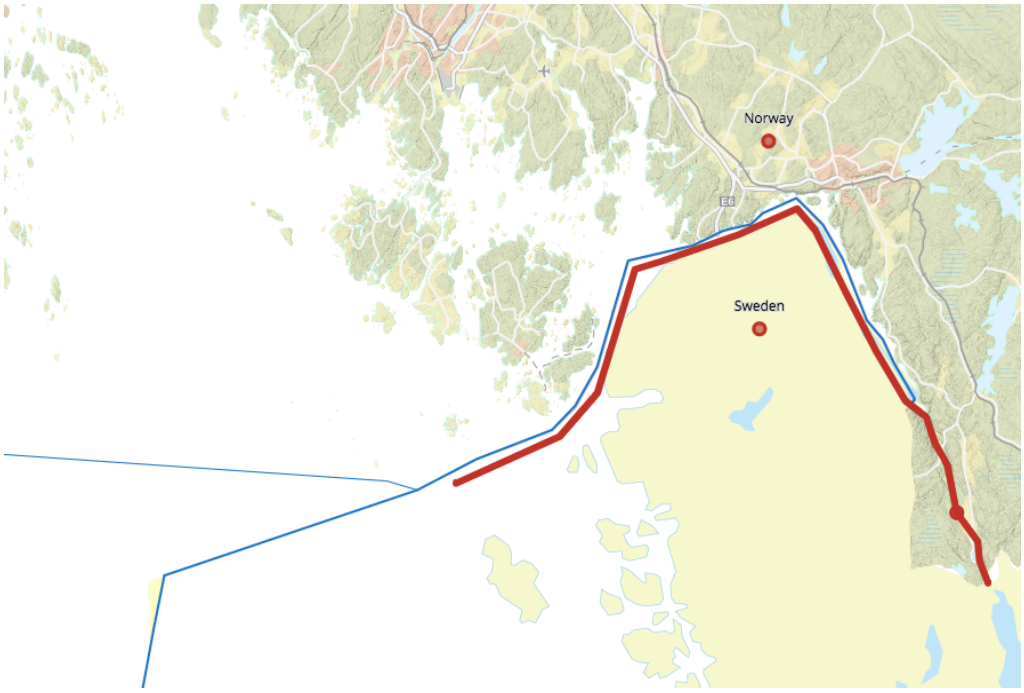

Figure 2: The Enningdals river. The red line illustrates the course of the river. The blue line is the border between Sweden and Norway.[70]

The river is located in the southeast of Norway, Østfold, and swirls along the border to Sweden. It empties out in the Skagerrak and the North Sea. The river has suffered acidification, and the two States therefore cooperate to neutralise the damage to the environment by adding lime on both sides of the border. The WFD also impacts the actions taken in relation to this river.[71] Besides an agreement from 2010 between Norway and Sweden on management of the salmon and trout stock in the river, there is no official agreement in place that controls pollution of the river.[72]

2.4.4 Conclusion on their relevance to pollution control

Pollution control related to the Pasvik river is mainly done locally on recommendation and under supervision of the Commission, which organizes communication between them, as well as suggestions on how to improve. This has led to several projects, such as the trilateral

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[70] Map downloaded from www.barentswatch.no
[71] http://extra.lansstyrelsen.se/projektenningdalsalven/Sv/om-projektet/Pages/default.aspx (last visited 28.11.18)
[72] http://www.miljodirektoratet.no/Global/dokumenter/tema/arter_og_naturtyper/Laks,%20sj%C3%B8%C3%B8rret%20og%20sj%C3%B8r%C3%B8ye/Avtale%202010%20Norge%20og%20Sverige%20-%20Forvaltning%20laks%20og%20%C3%B8rret.pdf (last visited 2.12.18);

http://www.miljodirektoratet.no/no/Tema/Arter-og-naturtyper/Villaksportalen/Internasjonale-avtaler-og-samarbeid-/ (last visited 2.12.18)

monitoring programme. As far as this author has been able to discern, there is no agreement in place that specifically addresses pollution. It is assumed that the management is in line with the watercourse conventions. In relation to the Enningsdals river there is no agreement in place either.

What can be extracted from this is that perhaps the provisions of the watercourse conventions are not as authoritative as they were intended to be in terms of pollution control, or that the lack of official agreements on the pollution control of these two rivers are in fact in line with the provisions of the conventions, although it is not clear what measures that has been taken. It seems most accurate to conclude that, at least for the Enningdals river there is scarcity in terms of pollution control and management, which is not in line with the watercourse provisions. Either way, it appears to be a gap between theory and practice.

3 Interaction between the two regimes with respect to land-based pollution and regulation

3.1 Introduction

To determine the relationship between the regimes, the spatial differences must first be examined. Thereafter it is necessary to examine where the two regimes "meet", if there are gap points of spatial overlaps and the differences in the substantial obligations. One potential issue that might arise from the different regimes could be the protection of estuaries that are situated within both regimes, depending on the specific watercourse and the baselines drawn. This will be assessed in 3.2.2.1. Other issues may be a lack of cooperation and disputes concerning pollution deriving from watercourses beyond the limit of due diligence.

3.2 Spatial differences

3.2.1 Coverage

3.2.1.1 The watercourse conventions

Article 1 of the UNECE Water Convention defines transboundary waters "as any surface or ground waters which mark, cross or are located on boundaries between two or more States; wherever transboundary waters flow directly into the sea, these transboundary waters end at a

straight line across their respective mouths between points on the low-water line of the banks".[73]

Article 1 of the UNWC states that it "applies to uses of international watercourses and their waters for purposes other than navigation and to measures of protection, preservation and management related to the uses of watercourses and their waters."[74] The scope of the convention is international watercourses, which are defined as a "system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus" that are situated in two or more States.[75]

3.2.1.2 The LOSC

The scope of the convention is all the world's oceans and seas, and their utilisation. It includes provisions on exploitation of the maritime areas, and provisions on exploration and protection of the oceans. Most of the provisions of the LOSC govern the sea per se, but it also has provisions addressing protection of the estuaries[76] and of course the provision on land-based pollution[77], which in fact would be on the States sovereign territory, and yet the LOSC have the authority to address this as it could (and it does) impact the marine environment.

3.2.2 Overlaps

Pursuant to the LOSC, the sovereignty of the coastal State extends beyond its land territory and internal waters to the territorial sea.[78] The territorial sea begins from baselines drawn corresponding to the "low-water line along the coast as marked on the large-scale charts officially recognized by the coastal State".[79] Beyond the territorial sea is the exclusive economic zone (EEZ), in which the coastal States have the sovereign right to exploit and explore the resources, as well as the duty to protect the marine environment. These rights and duties go 200 nautical miles (NM) from the baseline where the territorial sea is measured.[80] Outside this zone are the high seas.

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[73] UNECE Water Convention art. 1 nr. 1
[74] UNWC art. 1
[75] UNWC art. 2 (a) and (b)
[76] LOSC art. 1 (4)
[77] LOSC art. 207
[78] LOSC art. 2
[79] LOSC art. 5
[80] LOSC art. 57

3.2.2.1 The Baseline

When the rivers flow into the ocean, it enters the scope of the LOSC. Although the river mouth will direct whatever the river brings into only the territorial sea of the coastal State, the debris will with tides and currents most likely end up being carried further to the high seas. The provisions of the LOSC regulate the ocean areas that are not defined as internal waters. Rivers are characterized as internal waters. The question is when does the water, and whatever the water contains, from the river, transform into being part of the law of the sea. According to article 8 of the LOSC all waters on the landward side of the territorial sea baseline form part of the internal waters of the coastal State. With few exceptions, the LOSC regulates waters seaward of the baselines. The meeting point between the two regimes must therefore be where the baseline is drawn, except where pollution deriving from land-based sources are entering and affecting the marine environment. In such circumstances, the LOSC in fact regulates rivers and other sources of such pollution, by requiring States in article 207 to take measures to prevent such pollution.

In the UNECE Water Convention the transboundary waters end "at a straight line across their respective mouths between points on the low-water line of their banks". In the LOSC if a river flows "directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-water line of its banks".[81] The UNWC does not mention the baseline, but the scope of the convention is the uses of international watercourses and their waters for purposes other than navigation and to measures of protection, preservation and management related to the uses of those watercourses and their waters. One can assume from this that the international watercourse will end when it meets the ocean. Whether this is with or without the estuary is uncertain.

3.2.2.2 Are estuaries parts of the law of the sea or are they internal waters?

The LOSC demand in article 9 of the river flowing "directly into the sea" in order for the baseline to be drawn as a straight line across its mouth has been an issue of interpretation. The natural interpretation is that the river must reach the sea without going through any obstacles, such as other lakes etc. The French text states: *" [s]i un fleuve se jette dans la mer sans former estuaire(...)*". It is therefore clear from the French text that it is a prerequisite that the river does not form estuaries for this provision to be applicable. It has been discussed that if the

[81] LOSC art. 9 and UNECE Water Convention art. 1

"flows directly" in the English text is meant to mean, "without forming an estuary".[82] As all official translations of an international treaty are supposed to be equal, arguably article 10, which applies to drawing baselines across bays, must be used when the river forms an estuary, i.e. when it does not flow directly into the sea. This can be because when an estuary is formed, it shares similarities with bays. This may lead to difficulties, as it "may not always be easy to distinguish between a river entering the sea directly and one entering the sea via en estuary."[83] If a river flows into the ocean via a delta, it is regulated by the less strict provision of article 7 (2).[84]

Despite the somewhat unclear language, this provision has not been problematic.[85] The only case where it has been disputed was when the baseline was drawn in the Rio de la Plata River between Uruguay and Argentina. They agreed to draw the baseline of 118 NM at the mouth of the river. The US, France and the Netherlands, which meant the river was flowing into an estuary or bay, contested this. They therefore meant that article 13 of the 1958 Territorial Sea Convention (today LOSC art. 9) could not be used.[86]

What can be extracted from this is that when the river forms an estuary, the baseline is drawn further out towards the sea, at the "mouth" of the bay at the low-water marks at the bay's natural entrance points.[87] The estuary is then often found to be part of the internal waters.

The LOSC article 1 (4) defines pollution of the marine environment and names explicitly estuaries as part of the marine environment. Thus the marine environment in bays and estuaries are also protected, despite being behind the baseline and subject to national sovereignty.

3.2.2.3 Conclusion

The meeting point between the two regimes is where the baseline is drawn. The transition of authority in regards to the water is not addressed anywhere. Estuaries are often, but not always, part of States' internal waters. This will depend on the river-sea interface in question. Even when the estuaries are part of the internal waters, the LOSC requires States to take care

[82] Symmons (2017) on article 9, p. 99
[83] Churchill and Lowe (1999), p. 47
[84] "Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line (…)"
[85] Lathrop (2015), p. 82
[86] Scovazzi (1995), p. 168
[87] LOSC art. 10 (2) and (3)

of the marine environment in bays and estuaries. The meeting point between the two is generally where the baselines is drawn, but in cases where the internal waters enclosed by straight baselines are actually part of the sea, i.e. fjords and bays, the reach of the LOSC extends into and behind the baselines. An exception to this is, as mentioned, the coverage of article 207 that also obligates the States within their land territory.

3.2.3 Gaps

3.2.3.1 Is the river-sea interface a hole in the legal framework?

Although the LOSC and the watercourse regime both belong within the body of international environmental law, the problem is that the two regimes have evolved independently of each other.[88] As the ILC comments, "such specialized law-making and institution-building tends to take place with a relative ignorance of legislative and institutional activities in the adjoining fields and of the general principles and practices of international law."[89] This is despite the recognition in the LOSC preamble of the fact that "the problems of ocean space are closely interrelated and need to be considered as a whole"[90] and the desire for hydrological unity in the watercourse law.[91]

Another issue is that the parties of the two regimes will have different interests.[92] The watercourse States may have less concern for the long-term ramifications of pollution deriving from the watercourses that end up in the marine environment. Their primary interest is being able to use their watercourse within the limits of the equitable and reasonable utilization, and can benefit from polluting, as it floats away anyway. Ultimately, the watercourse States do not have the same incentive as the coastal States to reduce the pollution, as the consequences do not affect them (apart from, of course, the watercourse States that are also coastal States, like Norway).

The issue that arises is that both regimes address the problem of pollution, but neither addresses the link between the two regimes in an adequate way. With reference to it being inadequate, it is meant that they both address pollution and to some degree, for the

[88] Vinogradov (2007), p. 589
[89] ILC, Fragmentation of International Law (2006), UN DOC. A/CN.4/L.682, p. 11
[90] LOSC preamble, paragraph 3
[91] Vinogradov (2007), p. 589
[92] Vinogradov (2007), p. 586

watercourse conventions, the protection of the marine environment, but no measures are suggested to link the two regimes.

The meeting point between the two regimes is an area that is not regulated by either regime, and therefore appears as a gap in the legal framework. The consequence of this is that there is no apparent authority of the interface area, which means that none of the regimes have the obligation of monitoring and regulating the flow of debris entering the marine environment.

Cooperation is therefore necessary, and will be examined in the following.

3.3 Cooperation between the regimes

Article 207 (3) urges States to cooperate in terms of harmonizing their policies at a regional level. Regional cooperation is therefore an objective when it comes to land-based marine pollution. Although the "appropriate regional level" is not defined, it can seem like it concerns enclosed or semi-enclosed sea within the scope of art. 122.[93] It can be assumed that States bordering the same seas will have similar interests, and therefore benefit from coordinating their actions. Article 123 in these cases covers the more specific duties of these States, as it concerns cooperation of States bordering enclosed or semi-enclosed seas.

In the UNECE Water Convention the need for cooperation between the member States is stated in article 2 (6). This article demands that the riparian Parties cooperate in order to develop strategies to, *inter alia*, prevent and reduce transboundary impact and protect the marine environment of transboundary waters and the waters influenced by such waters. It does however only demand that the riparian States cooperate with each other; the States are not obliged to cooperate with other parties not bordering the river in question.

Article 9 (3) and (4) is more interesting. In article 9 (3) the convention offers the possibility for a coastal State affected by transboundary impact to be invited to the activities the riparian States are performing through their joint bodies. Article 9 (4) is even more relevant. It demands that the joint bodies created according to the convention invite joint bodies created by costal States to protect the marine environment, to harmonize their work and to reduce, prevent and control the transboundary impact.

[93] Wacht (2017) on article 207, p. 1386

The UNWC does not mention coastal States at all. In article 7 (2) the convention addresses communication between an injured watercourse State and the injuring watercourse State. Again in article 21 it focuses solely on not harming other watercourse States. There is also a general obligation to cooperate in article 8. Article 23 introduces the obligation to preserve the marine environment, and in doing so, the watercourse State shall, "individually and, where appropriate, in cooperation with other States, take all measures (…) to protect and preserve the marine environment". This is interesting, in contrast to the other provisions of the conventions which talk about the watercourse States and their cooperation, this provision demands that the watercourse States also cooperate with "other States". This implies that this is meant to also include States outside the convention, making the obligation much wider. It encourages the watercourse States to cooperate with all involved States in dealing with protecting the marine environment.[94]

Cooperation is also a general principle in the field of international environmental law. One single State cannot save the environment on its own, so international cooperation is necessary. The duty to cooperate has been considered by the law of the sea courts and tribunals to be a fundamental principle of international law.[95] States have a duty to cooperate in mitigating transboundary environmental risks and emergencies, through notification, consultation, negotiation, and in appropriate cases, environmental impact assessment.[96] The principle is incorporated in several agreements, amongst others principle 24 of the Stockholm Declaration[97] which states that "[c]ooperation through multilateral or bilateral agreements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States."[98]

Cooperation with neighbouring States is urged in all three conventions, and the general principle of cooperation does additionally strengthen this obligation as well as it extends the obligation to cooperation with potentially all States if it is deemed useful for the protection of the environment.

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[94] Summary Record of the 24th meeting (1996), U. N. Doc. A/C.6/51/SR.24, paragraph 36
[95] Mox Plant Case (Ireland v United Kingdom), 2001, paragraph 82; Land Reclamation in and around the Straits of Johor (Malaysia v Singapore), 2003, paragraph 92
[96] Birnie et al (2009), p. 137
[97] The Stockholm Declaration was concluded at the first UN Conference on the Human Environment in 1972
[98] Principle 24 of the Stockholm Declaration; also similar in principle 27 of the Rio Declaration

3.4 Relationship between the two regimes

As previously mentioned in section 2.3 regarding conventions with the same parties, the later treaty will prevail, which in this case are the watercourse conventions.[99] This is if they are not compatible. The LOSC does however have its own provision on how to deal with subsequent treaties concerning areas the LOSC governs and their compatibility with the LOSC. This is what will be dealt with in this next section.

3.4.1 The LOSC article 311: Relation to other conventions and international agreements

Article 311 governs the relationship between the LOSC and other conventions and international agreements. The purpose of the article is to clarify whether and to what extent the obligations of the LOSC will prevail, and what elements from other agreements may be permissible. The provision is therefore essential to avoid conflicts. The LOSC relies on international organizations and member States on national, regional and global levels to assist in filling out the more detailed rules, but article 311 safeguards the main principles of the Convention.[100]

> "This Convention shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligation of the Convention."[101]

Article 311 (2) contains the general conflict clause and states that it shall not alter the rights and obligations of States Parties that arise from other agreements compatible with the Convention and do not affect the States' obligations under the Convention. Paragraph 1, 3 and 5 are *lex specialis* in relation to paragraph 2 and limits its scope of application.[102] In paragraph 5 it is explicitly declared that this article does not "affect international agreements expressly permitted or preserved by other articles of this Convention."

As the LOSC is a framework agreement, the LOSC expressly references the regulation of issues by international agreements throughout its substantive articles. There is a specific

[99] VCLT article 30 (2)
[100] Matz-Lück (2017) on article 311, p. 2010
[101] LOSC article 311 (2)
[102] Matz-Lück (2017) on article 311, p. 2014

relationship provision for other environmental agreements, article 237, which is *lex specialis* over article 311 in relation to environmental agreements.[103]

Article 237 will therefore be examined in the following.

3.4.2 Article 237: the specialized relationship clause

Article 237 of the LOSC regulates obligations under other conventions on the protection and preservation of the marine environment. Article 237 is the final provision in Part XII dedicated to the protection and preservation of the marine environment. The purpose of the provision is to clarify the relationship between Part XII of the Convention with other treaties that also concern the protection and preservation of the marine environment. Article 237 functions as a conflict clause where a conflict arises due to conflicting obligations a State may have assumed under another treaty and a general obligation from the Part XII of the LOSC. As mentioned above, article 237 (1) is *lex specialis* to the general conflict rule in article 311 (2). Article 237 is applicable only concerning the relationship between Part XII and other treaties also dealing with the protection and preservation of the marine environment.

Article 237 (1) states that "[t]he provisions of this Part are without prejudice to the specific obligations assumed by States under special conventions and agreements previously which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention."

"Without prejudice to the specific obligations (…) under special conventions and agreements previously" is understood to mean that the obligations of the LOSC will not alter the rights and obligations of an agreement or convention agreed upon before the LOSC was in force. As the wording does not indicate anything to the contrary, it is assumed that the obligations can be stricter or more specific than what the general obligation in article 192 entails.[104]

The first paragraph further refers to "States". This indicates that is not required that all States party to the Convention are parties to the special convention/agreement in question. Czybulka argues that the same must apply for conventions and agreements concluded after the LOSC.[105]

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[103] Czybulka (2017) on article 237, p. 1601
[104] Czybulka (2017) on article 237, p. 1599
[105] Czybulka (2017) on article 237, p. 1599

The second part of the first paragraph continues on from the previous statement, as the provisions of the Part XII are without prejudice to specific obligations of States under "agreements which may be concluded in furtherance of the general principles set forth in this Convention".[106]

It is necessary to point out that only "agreements" are mentioned in this section. Agreements are often viewed as a broader category of instruments than conventions.[107] The use of only the term "agreement" may therefore increase the scope of the article to some degree.

In "furtherance" means to promote something, and the natural interpretation of this is then that agreements that promote the general obligations of the LOSC will be encompassed by this provision. This means that agreements concerning enforcement of measures to prevent, protect and preserve the marine environment will be accepted.

Article 237 (2) states that "[s]pecific obligations assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principle of this Convention".

This paragraph appears to lay down a qualification to the first paragraph. Again the term "convention" is used, which would appear to limit the scope more than in the first paragraph. The obligations assumed by States under these special conventions must correlate with the general principles and objectives of the LOSC. This means that the special conventions in questions cannot contradict the general principles of the LOSC such as the common heritage of mankind, the sustainable use of resources, the sovereign right to exploit own resources, the freedom of navigation and the protection of the marine environment.

3.4.3 Are the watercourse conventions "in furtherance" of the general obligations of the LOSC?

If the conventions are in furtherance, it means they are in accordance with the Convention on the general principles. If they are not, the provisions of the LOSC will prevail, presupposed that it is the same parties.

[106] LOSC art. 237 (1)
[107] Czybulka (2017) on article 237, p. 1600

Both conventions were initiated by organs of the United Nations, which one can assume, would take the principles of the LOSC into account. They strive to attain clean(er) international rivers, which will again benefit the marine environment.

The watercourse conventions generally promote the protection of the environment; they promote cooperation and require the States to exercise due diligence when acting, to prevent harm. Although one could argue that the watercourse conventions allow for some pollution, as the main objective is not to harm other watercourse States, this must be seen as a regretful consequence more than the intent of the provisions of the conventions.

The watercourse conventions are in "in furtherance" of the general obligations of the LOSC, and the relationship between the two regimes can therefore be free of conflict.

3.5 Substantive overlaps

3.5.1 What material rules are covered under the different conventions?

3.5.1.1 The definition of the marine environment in the LOSC

The definition of the marine environment in each of the conventions is relevant to take a closer look at, to be assured that it includes the same elements.

The LOSC does not define the term "marine environment". In article 1 (4) "pollution of the marine environment" is the focus. The provision does not specifically define the term "marine environment". The natural interpretation of "marine environment" is that it encompasses everything in the surroundings, as well as all the life in the sea. This interpretation is supported by The International Tribunal for the Law of the Sea (ITLOS) in the Southern Bluefin Tuna cases, among others.[108]

Although there is no definition of the marine environment in the LOSC, it is important to keep in mind that the treaty was negotiated in the late 1970's, and as it was early in the development of environmental law, the Convention lacks clear references to some of the central principles that are agreed on today. The LOSC includes the obligation of States to

[108] ITLOS, *Southern Bluefin Tuna Cases (New Zealand v Japan; Australia v Japan)*, 1999, paragraph 70.

prevent harm to the environment of others and the obligation of preventing pollution from spreading outside their own maritime zones.[109]

Article 237 anticipates the development of more detailed rules on environmental protection, as long as these rules are consistent with the general principles and objectives of the LOSC. Such agreements are therefore relevant when interpreting the provisions of the LOSC. The LOSC does not have a reference to the "precautionary approach", the essence of which is to "ensure the taking of early action in order to address serious environmental threats which may emerge in cases where there is on-going scientific uncertainty concerning proof of cause and effect."[110] It was introduced in the 1992 Rio Declaration in Principle 15. There is a trend towards the precautionary approach becoming part of customary law, but if it has crystallised as a rule of customary law yet is arguable.[111] An aspect of the precautionary approach is the duty to do an environmental impact assessment (EIA) to identify and deal with the potential risks of activities. The obligation to conduct an EIA before conducting activities that may significantly harm the marine environment in a transboundary context[112] has also been recognized as a principle of international law by the International Court of Justice (ICJ).[113]

International case law has also contributed to the interpretation of the environmental obligations of the LOSC. It has been determined that the duty to protect the marine environment must cover the conservation of the living resources of the sea, and therefore extends beyond controlling pollution to measures focused primarily on conservation and the preservation of ecosystems[114] and "to the prevention of harms that would affect depleted, threatened, or endangered species indirectly through the destruction of their habitat."[115] As

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[109] LOSC art. 194 (2)
[110] Tanaka (2015) p. 40
[111] *Pulp Mills on the River Uruguay Case (Argentina v Uruguay)*, 2010, paragraph 164; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion, ITLOS, 2011, paragraph 135
[112] Mentioned in treaties such as UNFCCC art. 4 (f) and CBD art. 14 and Espoo Convention; LOSC art. 206 includes an obligation to assess the effects of activities under their jurisdiction when they have reasonable grounds to suspect their planned activities may cause substantial pollution of or can cause harmful changes to the marine environment.
[113] *Pulp Mills on the River Uruguay Case (Argentina v Uruguay)*, 2010, paragraph 204
[114] *Chagos Islands Marine Protected Area Arbitration (Republic of Mauritius v United Kingdom & Northern Ireland),* 2015, paragraph 538
[115] The Matter of South China Sea Arbitration (Philippines v The People's Republic China), 2016, UNCLOS Annex VII Arbitral Tribunal, paragraph 945

shown, case law has therefore developed a more complete interpretation of the obligations to protect and preserve the marine environment.[116]

This is on the same note as the general obligation in article 192, where an obligation is set out to protect and preserve the environment as a whole.[117] This is also in line with the object and purpose of the LOSC.[118]

It is then accurate to assume that the marine environment in the LOSC reads to entail all aspects, meaning marine life in the "water column, coastal areas, on the seabed and within the subsoil and other parts of the environmental continuum of the oceans".[119]

3.5.1.2 The marine environment in the river conventions

The UNWC also fails to define the term "marine environment", but the ILC has explained in their commentary that it encompasses "the water, flora and fauna of the sea, as well as the sea-bed and ocean floor".[120]

The UNECE Water Convention does not say anything about what the marine environment is. It does however urge the riparian States to cooperate so they can prevent the pollution of the environment of the transboundary waters and the environment influenced by such waters.[121]

3.5.1.3 Conclusion on the definition of marine environment

What can be concluded is that under the LOSC all living things and their habitats are part of the marine environment. The lack of a definition or interpretation in the river conventions may suggest that the same definitions that are understood under the LOSC could be used analogously. The consequence of this interpretation is that the definition of the marine environment is broad for the watercourse conventions as well, and the obligations relating to protecting said marine environment are extensive.

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[116] STAP Report (2013), p. 32
[117] Nordquist, Nandan and Rosenne (2002) on article 145, note 145.8(a), p. 196.
[118] LOSC preamble, paragraph 3
[119] Nordquist, Nandan and Rosenne (2002) on article 145, note 145.8(a), p. 196.
[120] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 125
[121] UNECE Water Convention art. 6

3.5.2 Nature of the environmental obligations

3.5.2.1 The LOSC

Article 207 addresses land-based pollution, and therefore is examined first. The more general, but still relevant provisions in Part XII, such as article 194, will be looked into to supplement article 207.

3.5.2.2 The LOSC Article 207: Pollution from land-based sources

Articles 207 and 213 set the legal foundation for the protection of the marine environment from land-based sources. Article 207 (1) reads:

> "States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, (…), taking into account internationally agreed rules, standards and recommended practices and procedures."[122]

First of all, article 207 addresses all States, which mean that all States are bound, with or without a coastline. As this article provides a duty to adopt laws and regulations at the national level, it provides a prescriptive power with regard to the obligations contained in art. 194.[123]

It also reads as a requirement of harmonization between international and national instruments, although not a duty to achieve a uniform approach.[124] This means that States must consider various international instruments in force, even though they might not have consented to them. Tanaka notes that as the States are only required to "take into account" internationally agreed rules and standards when adopting laws and regulations, States may adopt measures that are more stringent or less stringent than those embodied in international law. The control by internationally agreed criteria is therefore somewhat modest.[125]

Article 207 (3) places an obligation upon the States to endeavour to harmonize their policies in this connection at the appropriate regional level. The term "endeavour" is very vague, which makes it an uncertain standard of obligation. It does not give any indication to the criteria of determining the suitability of the international standards and adequate measures.

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[122] LOSC article 207 (1)
[123] Wacht (2017) on article 207, p. 1383
[124] Wacht (2017) on article 207, p. 1384
[125] Tanaka (2017) p. 300

Hassan therefore argues that the obligation with its broad and imprecise formulation does not have much of a practical effect.[126]

Even though there is a general obligation to harmonize policies in art. 194 (1) in respect to protecting the marine environment, it does not make art. 207 (3) unnecessary. Through the formulation of "at the appropriate regional level" it geographically concretizes this obligation with regard to pollution from land-based sources. This is explained by the fact that the States have different economies, technological and geographical features, and different sources of pollution. It therefore makes it more sensible to try to harmonize rules, rather than trying to establish a completely uniform legislation. Furthermore the LOSC does not define the term "appropriate regional level", but Wacht argues that it seems to concern primarily enclosed or semi-enclosed seas within the meaning of art. 122. States bordering the same marine area generally will share the same interests and need to coordinate their actions.[127]

Article 213 demands that the States enforce their laws and regulations adopted in accordance with article 207 and implement applicable international rules and standards "established through competent international organizations or diplomatic conference" to prevent, reduce and control pollution of the marine environment from land-based sources.

The article does not indicate what the internationally agreed upon rules and standards are. Unlike the provisions dealing with pollution from ships, dumping or seabed installations, article 207 does not require adherence to any minimum international standards established by international organisations.[128] These provisions (art. 208, 210, 211) call for the States to apply the 1973 MARPOL Convention[129] and the 1972 London Convention[130] as obligatory minimum standards. These define the content of the general obligation of due diligence. Boyle argues that article 207 is drafted in such terms that it gives no specific content to the underlying obligation of due diligence, found in customary law.[131]

3.5.2.3 Conclusion

Articles 207 and 213 are abstract. They do not contain any guidance as to how the cooperation is supposed to be performed to achieve the goal of preventing land-based

[126] Hassan (2006) p. 83
[127] Wacht (2017) on article 207, p. 1386
[128] Hassan (2006) p. 82
[129] International Convention for the Protection from Ships (MARPOL) 1973
[130] Convention on the Prevention of Marine Dumping of Wastes and Other Matter (London Convention) 1972
[131] Boyle (1992), p. 25

pollution. The real issue is that there are no applicable rules or standards in place, and therefore the provision is weaker than it could be.

The provision urges States to not pollute, but it is difficult to know what exact measure must be taken in order to not breach the obligation, and what potential sanctions may be.

3.5.2.4 General obligations and principles

Article 192 contains a general obligation for the member States to protect and preserve the marine environment. The measures that need to be taken are listed under article 194 (3). Article 194 (3) (a) demands the measures be designed to minimize to the fullest extent "the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping."

3.5.2.5 Article 194: Measures to prevent, reduce and control pollution of the marine environment

> "States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection."[132]

The phrase "at their disposal and in accordance with their capabilities" – is included to provide for the possibility of avoid the obligation for economic considerations.[133] The provision applies primarily to developing States, but is not limited to just these. The question of which steps are possible to prevent and eliminate land-based pollution will depend on the capability of the state in question. This appears to be an early version of the common but differentiated responsibilities-principle in practice.[134]

The phrase "any source" implies that the provision includes all sources of marine pollution, including land-based pollution.

As the provision suggests that States are to "jointly as appropriate", take all measures necessary to prevent pollution, this means States are urged to cooperate. As marine pollution

[132] LOSC art. 194 (1)
[133] Nollkaemper 1993 p. 47
[134] Tanaka (2015), p. 50

via international watercourses can arise from multiple States, international cooperation is a prerequisite to regulate marine pollution arising from these sources.[135]

3.5.2.6 The principle of good neighbourliness in article 194 (2)

The principle of good neighbourliness can be applied to the regulation of land-based pollution.[136] With this in mind, States are under a duty to ensure that discharges from land-based sources from their territories do not cause pollution to the marine environment of other States or of areas beyond national jurisdiction.[137] The principle is embodied in article 194 (2) of the LOSC. The principle is understood to be an obligation exercising due diligence not to cause transboundary harm.[138]

3.5.2.7 Due diligence in article 194 (2)

Due diligence is an abstract concept, and difficult to pin point exactly. The degree of due diligence that is expected to be exercised may depend on the activity that is in question, and also on the technical and economic capacity of the States in question. The expectation of what measures a State needs to take before due diligence has been exercised may vary depending on the State and exercise. ITLOS commented on the concept of due diligence, and stated that is difficult to make an exact description of the concept, and that "it may change over time as measures considered sufficiently diligent at a certain moment may become not diligent enough in light, for instance, of new scientific or technological knowledge."[139] It is therefore to be expected that it is difficult for international tribunals to determine when the obligation has been breached, and that it may be even more difficult when it comes to land-based pollution due to the fact that there are so many different contributors involved, such as industrial, agricultural and municipal activities.[140] It is also worth noting that when it comes to land-based pollution, the due diligence obligation in theory applies to all the States from which the pollution may originate. In practice, this is difficult, leading to a situation where the States have shared responsibility. Even if a breach of the obligation of due diligence could be

[135] Tanaka (2017) p. 299
[136] Tanaka (2017), p. 296
[137] Montreal Guidelines paragraph 3
[138] Okowa (1997), p. 332
[139] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion, ITLOS, 2011, paragraph 117
[140] Tanaka (2017), p. 297

determined, it will be difficult to ban the activity, as the activity may not even be illegal under the national jurisdiction.[141]

As article 194 (2) restricts conduct that may "cause damage by pollution to other States and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights (…)"[142], it also extends the obligation to not pollute outside any State's maritime zones, i.e., the high seas are also protected by this provision. It is also interesting to note that the last sentence concerning the high seas just demands that pollution be prevented, not necessarily "damage by pollution". The threshold of pollution is therefore lower. It means that the obligation to impede the spread of pollution arising from incidents or activities under the jurisdiction or control of the State is triggered by the act itself, and that no hazards or neighbouring injured parties are needed.[143] Hakapää also argues for this interpretation, but also argues that that the wording "spread of pollution" should be understood as effect orientated, so only actual deterioration of the marine environment will mean the due diligence standard has been breached.[144]

3.5.2.8 Conclusion

Article 194 assumes control in relation to land-based pollution. It also allows States a wide discretion in performing their duties by including reference to the use of "the best practicable means" and "in accordance with their capabilities" in this respect. This gives the States permission to be somewhat reluctant in relation to their responsibility for taking adequate measures, as it depends on their "capability" to do so.[145] This is a manifestation of the principle of common, but differentiated responsibilities. There is no guidance to help determine whether an obligation has been breached. The due diligence standard is difficult to determine, especially when there are several States involved. There is still a minimum standard of due diligence that must not be breached, which is that a State must do everything possible to properly research and prevent damage. Another issue may be that a State would not want to bring attention to their lack of exercising due diligence in the matter of land-based pollution, as it would affect their internal affairs. For the watercourse States this entails that they are obliged to cooperate and exercise due diligence on the basis of the general obligations of the LOSC, to prevent pollution from harming the marine environment.

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[141] Tanaka (2017), p. 297
[142] LOSC article 194 (2)
[143] Czybulka (2017) on article 194, p. 1306
[144] Hakapää (1981), p. 85
[145] Hassan (2006), p. 84

3.5.2.9 UNWC Article 21: Prevention, reduction and control of pollution

In article 21 (1) pollution of an international watercourse is defined as "any detrimental alteration in the composition or quality of the waters of an international watercourse which results directly or indirectly from human conduct".

This definition is general, as it does not identify any specific polluting agents. As it refers to "any detrimental alteration", thereby it does not address the threshold at which the pollution becomes impermissible.[146] This is done in the second paragraph. Nor does this definition specify what the detrimental effects are, such as harm to human health etc. Furthermore it is not specified how the pollution enters the watercourse, just that it is a result of human conduct. The ILC comments that this is meant to cover both acts and omissions.[147] The first paragraph is therefore a purely factual definition, as it covers all pollution – it does not matter if it results in "significant harm" to other watercourse States within the meaning of article 7 and article 21 (2).

The choice of words, "any detrimental alteration in the composition", implies that this provision can encompass litter pollution, as debris is undoubtedly a harmful alteration in the composition of the waters and results directly from human conduct. The ILC notes that the definition refers to the quality and purity of the water, and encompasses all substances contained in the water such as solutes, suspended particulate matter and other insoluble substances.[148]

In the second paragraph an obligation is set forth for watercourse States to "prevent, reduce and control pollution of an international watercourse that may cause significant harm to other watercourse States or to their environment (...)".[149] To this paragraph the ILC notes that the main idea behind it was that some watercourses would be somewhat polluted when ratifying the Convention, so for these cases the goal is to reduce and control. The ILC further remarks that "[t]his practice indicates a general willingness to tolerate even significant pollution harm,

[146] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 121
[147] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 122
[148] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 121
[149] UNWC art. 21 (2)

provided that the watercourse State of origin is making its best efforts to reduce the pollution to a mutually acceptable level."[150]

The States are required to exercise due diligence to uphold their obligations under this provision. The Chairman of the Drafting Committee stated that "although the Drafting Committee had not agreed to make specific reference to that effect, [the inclusion of the due diligence standard in the text, my note] the Drafting Committee had agreed that it was not an absolute obligation or an obligation of guarantee which was being imposed, but an obligation of due diligence."[151]

This will still allow some States to continue to pollute to some extent, as long as they make their best efforts to reduce it to an acceptable level. This the ILC further justifies by stating that an immediate ban of all pollution could result in excessive hardship for the watercourse State of origin, especially where the "detriment to the watercourse State of origin was grossly disproportionate to the benefit that would accrue to the watercourse State experiencing the harm."[152] However, this provision allows for the affected State to claim that the obligation has been breached, if the watercourse State of origin does not exercise due diligence in reducing the pollution to acceptable levels.

For the rivers that have not yet been polluted the goal is to prevent. The obligation to prevent pollution that can cause significant harm includes the duty to exercise due diligence to prevent the threat of such harm. This is signified by the words "may cause".[153] As for the threat of such harm, the ILC note that it is a general application of the principle of precautionary action, as discussed in the 1985 Vienna Convention for the Protection of the Ozone Layer, which addresses this in the preamble.[154] The precautionary principle aims to take "early action in order to address serious environmental threats which may emerge in cases where there is on-going scientific uncertainty concerning proof of cause and effect".[155] Hence, watercourse

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[150] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 122
[151] Summary Records of the 53rd Meeting (1997), U. N. Doc. A/C.6/51/SR.53, p. 16, paragraph 129
[152] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 122 paragraph 4
[153] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 122
[154]ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p, 119, paragraph 3, footnote 328
[155] Tanaka (2015), p. 40

States also have a duty of due diligence to properly research potential sources that may lead to pollution.

The obligations of prevention, reduction and control apply to pollution that "may cause significant harm to other watercourse States or to their environment". Pollution that does not cause "significant harm" will therefore be allowed (by this provision). Pollution that harms other non-watercourse States and their environment is not regulated by this provision.

The second paragraph of the provision urges States to harmonize their policies in order to combat pollution. This is pointed out by the ILC to be a specific application of articles 5 and 8, which urge watercourse States to cooperate.

Article 21 specifies that pollution of a watercourse is any detrimental alteration in the composition or quality of the waters, which results from human conduct. In the second paragraph, it states that States must cooperate if necessary to control, prevent and reduce pollution that may cause significant harm (and the threat of harm) to other watercourse States or their environment. The provision does not seem to take into consideration the harm the pollution can have on anyone besides the co-riparians, such as the sea.

3.5.2.10 UNWC Article 23: Protection and preservation of the marine environment

Article 23 tries to link the law of international watercourses with the international law of the sea.[156] It is built up in the same way as article 207 of the LOSC. The ILC comments that the article addresses the increasingly serious problem of pollution transported via international watercourses into the marine environment.[157]

However, in article 23, the Convention establishes an obligation for the watercourse States to "individually and, where appropriate, in cooperation with other States, take all measures with respect to an international watercourse that are necessary to protect and preserve the marine environment, including estuaries (…)".[158] The term "necessary" is interpreted to mean that States are to take measures tailored to the situation in question, measures that are reasonable

[156] Tanaka (2017) p. 301
[157] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 124, paragraph 1
[158] UNWC art. 23

in view of the circumstances and that the States should take all the measures that they are capable of, financially and technologically.[159]

This article establishes the responsibility the watercourse States have in relation to the potential impact pollution from the watercourses may have on the marine environment. This article is understood to impose a due diligence standard on the watercourse States.[160] The fact that this article imposes a due diligence standard is also in line with other provisions of the convention.[161] Article 7 also provides an obligation of due diligence not to cause significant harm to other watercourse States, which strengthen the notion of the existence of due diligence in article 23. The ILC commentary also refers to the comments about due diligence in the context of articles 20 and 21 when discussing article 23, which means the due diligence standard is meant to be read into all of these provisions.[162]

The previous articles 20 and 21 on control and prevention of pollution and protecting the ecosystem strengthen the obligation deriving from article 23 on protecting the marine environment. Within the cardinal principle of equitable utilisation in article 6, environmental factors can be taken into account,[163] which further strengthens the relevance of article 23. This implies that there is room to take into account a broader view of potential environmental impact, i.e. perhaps also the marine environment of the sea, not just the watercourse alone.

[159] Nollkaemper (1993) p. 48; ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), page 125
[160] Report of the Sixth Committee convening as the Working Group of the Whole, (1997), UN Doc. A/51/869, p. 5
[161] Tanzi and Arcari (2001), p. 276
[162] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, A/CN.4/SER.A/1994.Add.1 (Part 2), page 125, paragraph 3
[163] UNWC art. 6 (1) a ”ecological factors” and 6 (1) f ”conservation” and ”protection” of the water resources of the watercourse

3.5.2.11 The Precautionary Principle in article 23

Tanzi and Arcari also suggest that because of the interconnection between article 23 and articles 20-22, it can be argued that the precautionary approach also applies to the implementation of article 23.[164] This is supported by the ILC commentary where it is noted that the phrases "protect and preserve" in article 23 have the same meaning as article 20 (and therefore also 21).[165] Out of these words the precautionary principle is extracted. The ILC writes that the obligation to "protect" in article 20 is a general application of the principle of precautionary action.[166] When "protecting" the marine environment the States must use and develop the international watercourse "in a manner that is consistent with adequate protection thereof".[167] This means that the States must shield the marine environment from harm or damage, and therefore apply the precautionary principle in order not to permanently harm the marine environment.

3.5.2.12 The primary concern of article 23

The provision's primary concern is international watercourses, not the marine environment.[168] It is also noted by the ILC that this provision does not set forth an obligation to "protect the marine environment, per se, but to take measures 'with respect to an international watercourse' that are necessary to protect that environment".[169]

The Chairman of the Drafting Committee, Mr. Mahiou, commented that the Drafting Committee had been "careful not to exceed the limits of the topic".[170] The article focuses on the link between the marine environment and the international watercourses, and had "therefore left aside the obligation with regard to the marine environment of States with non-international watercourses that flowed into the sea." He further goes on to state that since international watercourses fall under national sovereignty, the obligations deriving from the law of the sea do not automatically apply to international watercourses in the same way. The

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[164] Tanzi and Arcari (2001), p. 276; McIntyre (2007), p. 309
[165] I ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, 1994, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 125, paragraph 3
[166] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, 1994, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 119 paragraph 3, footnote 328
[167] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, 1994, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 119 paragraph 3
[168] McIntyre (2007) p. 310
[169] ILC, Report of the Commission to the General Assembly on the work of its forty-sixth session, Vol II, 1994, A/CN.4/SER.A/1994.Add.1 (Part 2), p. 124
[170] ILC, Summary Records of the meetings of the forty-second session, 1990, Vol. I, A/CN.4/SER.A/1990, p. 288, paragraph 8

Committee still found it important to include the obligation to protect the marine environment, considering "that watercourses were the main source of pollution of the marine environment".[171] What can be extracted from this is that the intent is to urge the States not to pollute watercourses, and from there the marine environment will also benefit. Thus it is a provision with the watercourses in focus, and from the watercourse States' point of view with regard to the relationship with the marine environment.

The ILC further remark that the obligation in article 23 is separate and additional to the obligations set forth in articles 20-22. A watercourse state can potentially damage an estuary through pollution of an international watercourse without breaching its obligation not to cause significant harm to other watercourse States (articles 7, 20, 21, 22). Article 23 requires the former watercourse state to take the necessary measures to protect and preserve the estuary.[172]

3.5.2.13 Conclusion

Article 21 of the UNWC is not so relevant in terms of determining if the convention is designed to also consider the effect on the sea, but it does make it clear that pollution of watercourses is unacceptable. However, it is still important to mention, as less debris in the watercourses will lead to less debris in the ocean.

Article 23 of the UNWC determines that the watercourse States should have the marine environment in mind to some extent, but it is not their primary concern. The intent is to avoid pollution of the watercourses, which will also lead to less pollution of the marine environment. As the precautionary principle can be argued to be present, it follows that States must "think", do proper research before they act, and should avoid everything that could lead to pollution of the marine environment.

3.5.2.14 The UNECE Water Convention on land-based pollution

Under the general provisions in article 2, the marine environment is considered. Article 2 (6) expresses that the riparian States shall cooperate "in order to develop harmonized policies, programmes and strategies covering the relevant catchment areas, (…) aimed at the protection

[171] ILC, Summary Records of the meetings of the forty-second session, 1990, Vol. I, A/CN.4/SER.A/1990, p. 288, paragraph 8
[172] ILC, Report of the Commission to the General Assembly on the work if its forty-sixth session, 1994, Vol. II, A/CN.4/SER.A/1994/Add.1 (Part 2), p. 124

of the environment of transboundary waters or the environment influenced by such waters, including the marine environment".[173]

The geographical scope of the convention is the waters, defined in article 1 (1) and the relevant catchment areas and the marine environment in article 2 (6). Article 1 (1) excludes seawaters from the definition of "transboundary waters". However, the parties of the convention are required through article 2 (6) to protect the marine environment that is influenced by such waters. This must be interpreted to mean that the marine environment of sea must be considered where the river empties into the sea.

It should also be mentioned that article 2 (5) states that the States should be guided by the precautionary principle, the polluter-pays principle and the principle of sustainability. This also puts additional obligations on the States as to what actions can be taken without breaching their obligations and these principles.

What can be extracted from the UNECE Water Convention in regard to pollution is that there is a clear duty for the riparian States to cooperate with the coastal States in order to protect the marine environment. The mention of the precautionary principle, the polluter-pays principle and the concept of sustainable watercourses in the general obligations, and not in the preamble where they would have been merely considered when interpreting, speaks to the direction of the principles having a more substantial role and that they have been given more "weight". It must also be noted that the States are only to be "guided" by these principles, which again weakens the obligation.

3.5.3 Conclusion

Both of the watercourse conventions go beyond the scope of the LOSC. They regulate the watercourses in a manner that the LOSC cannot. It could be asked if these could be the general rules and standards that are referred to in the LOSC art. 207, but this will be addressed later on in section 3.5.4. The environmental principles can be said to be more evolved in the watercourse conventions, with more environmental principles present and clearly defined (especially in the UNECE Water Convention), which is more progressive than what one can extract from the LOSC. In this sense, it can be said that they at least honour the intention of the LOSC when it comes to the environmental obligations, even though, as seen

[173] UNECE Water Convention art. 2 (6)

above, the main obligation of the watercourse States is to protect the marine environment in the watercourses.

3.5.4 What about the rules of reference?

Because there are no technical binding rules, it is interesting to study whether non-binding rules could be implicated by the more general references to GAIRS in the conventions. The significance of this question is that it would obligate the States with more specific duties within the requirement of protecting the environment.

As already stated, in relation to the LOSC article 207 there are no obvious GAIRS known. This is a somewhat empty phrase in relation to the land-based pollution. To this author's knowledge, there are no known GAIRS in relation to article 23 either. It is quite clear that the text of article 23 is modeled on the LOSC article 207, which is very common within the UN treaties. It is relevant to examine whether there are any additional soft law/standards available that could supplement the theoretical idea laid out in the articles. Therefore, it would interesting to see if, for example, the GPA could be applicable; as it has been adopted by 108 States, and lays out very specific tasks for the States to deal with marine pollution.

If the GPA were considered to be GAIRS, it would put substantial obligations on the States to implement actions suggested in the GPA. With actual measures being prescribed, being an additional inducement for the States to implement for example proper waste facilities than can dispose of the litter, it could make a difference. It would benefit the life of people in cities, but it would also benefit the marine environment. Every piece of litter that is removed from the ground will not as easily make its way into the marine environment. With proper waste collecting services and facilities, it could also be assumed that individuals would not pour their garbage out in the nearest river – because even if the States are compliant to the watercourse conventions, it is almost impossible to prevent all individuals of doing the same.

It is mentioned twice in literature that the GPA could be applicable for article 23 of the UNWC, without any further comments to elaborate. That is why the GPA was chosen for the "test". The UNWC is also "tested" to see if it can be GAIRS in relation to article 207 of the LOSC.

3.5.4.1 GAIRS

Article 23 of the UNWC and article 207 of the LOSC[174] requires the States to take into account "generally accepted international rules and standards"[175] when taking the necessary measures to protect and preserve the marine environment. It seems that the convention both reaffirms pre-existing state obligations under customary and conventional marine environmental law, and also seeks to reconcile the new bodies of law relating to international watercourses and marine environment.[176] The ILC comments that the requirement refers to both "rules of general international law and to those derived from international agreements, as well as to standards adopted by States and international organizations pursuant to those agreements".[177] The obligation therefore requires States to accept all relevant rules whether or not the state itself has ratified the convention embodying these rules, and that may also be rules that are to come.[178] Sohn also argues that the acceptance is applicable to other rules and standards that are generally accepted by States in any other form, such as "for instance, when a set of regulations or standards on marine pollution has been approved by a competent international organization or diplomatic conference and has been generally accepted by States."[179] With this interpretation States are bound by numerous regulations that different conventions dealing with land-based pollution of the sea provide, even though the States may not be part of the convention in question.

What the "generally accepted" international rules and standards are can be difficult to determine. Apart from the general provisions of the LOSC, most of the existing binding agreements are of a regional character.[180] In addition, at what time something is considered "generally accepted" is not obvious.

Some authors[181] argue that for something to be "generally accepted" in this context, it must pass the same test as is common for something to become a customary law. It can be argued that if a generally accepted "rule" must be as accepted as is necessary for a rule to become

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[174] LOSC 207 (1) reads "internationally agreed rules, standards and recommended practices and procedures", but is assumed to require the same criteria as GAIRS
[175] UNWC article 23; LOSC article 207 (1)
[176] McIntyre (2007), p. 309
[177] ILC, Report of the Commission to the General Assembly on the work if its forty-sixth session, 1994, Vol. II, A/CN.4/SER.A/1994/Add.1 (Part 2), p. 125
[178] McIntyre (2007) p. 310
[179] Sohn (1992), p. 221
[180] Tanzi and Arcari, p. 277, footnote 257
[181] Among others, W. Van Reenen in "Rules of Reference in the New Convention on the Law of the Sea, in Particular in Connection with the Pollution of the Sea by Oil from Tankers" in 12 Netherlands Yearbook of International Law pp. 3, 11-12 (1981)

part of the customary law, then it would not be necessary to mention it as "generally accepted international rules and standards", as it could just be referred to as "customary law". Therefore the threshold must be for something to be "generally accepted".

The ILA Committee on Coastal State Jurisdiction Relating to Marine Pollution[182] discussed this phrase in relation to provisions of the LOSC concerning vessel-source pollution. The ILA Committee rules out that GAIRS could be equated with customary law. The high threshold required for a custom to become established is not required for GAIRS.[183] The Committee goes on to explain that GAIRS "cannot be construed to mean only legal instruments in force for the states concerned", as it would be unnecessary to tell States to apply legal instruments to which they are already bound. That means GAIRS can cover non-binding agreements. Furthermore it stresses that the central element is looking at State practice to determine if the rule or standard has reached a generally accepted character.[184] It is therefore required to be a "legally binding pattern of behaviour which the participants would not otherwise have to follow"[185] for it to be characterized as GAIRS. The regulation in question should additionally have a connection to the subject matter.[186] The standard in question must also have precise content.[187] Rules of reference are supposed to "give primacy to international rules and standards"[188], and through this secure international consistency. Vague provisions can cause various interpretations and are not ideal being considered GAIRS.[189]

It is relevant to mention that these international rules and standards are only to be taken "into account". This is the "weakest of the qualifications used to indicate the obligations of States in respect to internationally agreed measures, and it gives expression to the sovereignty of the States concerned over all land-based sources of marine pollution."[190] Tanzi and Arcari argue that in the UNWC the intent may not have been to impose on watercourse States a "straightforward application" of rules and standards from different agreements, but rather

[182] The title of the Committee is broad, but it is specified that the vessel-source pollution was chosen as the field of study, ILA Conference Report (2000), p. 2
[183] ILA Conference Report (2000), p. 36
[184] ILA Conference Report (2000), p. 37
[185] ILA Conference Report (2000), p. 38
[186] Jensen (2016), p. 73. Jensen is here discussing whether the Polar Code can qualify as GAIRS under the LOSC art. 211, but the same elements can be used when assessing the GPA.
[187] Oxman (1991), p. 148
[188] ILA Report (2000), p. 32
[189] Henriksen (2015), p. 378
[190] Nordquist, Yankov and Rosenne (1991) on article 207, note 207.7(a), p. 132., referencing art. 207 in the LOSC with similar terminology

modestly ensuring that the measures States are taking are consistent with the pertinent rules and standards laid out for the protection and preservation of the marine environment.[191]

3.5.4.2 Can the UNWC be considered to be GAIRS in the context of LOSC art. 207?

The idea of considering the UNWC to be GAIRS in the context of article 207 has been launched, although only by one author, Raubenheimer, in her doctoral thesis.[192] It is therefore interesting to apply this test, and see if it actually could be considered to be GAIRS.

According to article 207 (5) the rules and standards that are implemented must be designed to "minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine environment."

The first requirement is easily satisfied in this context; the UNWC clearly satisfy the qualifications needed for it to pass as a rule, standard or recommended practice, being as it is in fact a global convention.

The next demand is if the regulation matches the subject matter of the "standard" in question. The subject matter of article 207 is preventing land-based pollution, which must be viewed in the light of the whole Part XII's mission, which is prevention and protection of the marine environment. The UNWC's scope is the uses of international watercourses and the protection and preservation related to the uses of those watercourses. At first glance it is not necessarily an obvious link. The UNWC does, however, have a provision (article 23), which has been highlighted earlier in this thesis, which demands that the States protect the marine environment. The UNWC's mandate lies within the international watercourses, but this, as seen above, also impacts the marine environment. Accordingly, the UNWC can be said to also prevent land-based pollution of the marine environment, and is therefore regarding the same subject matter.

When it comes to the preciseness of the article in question, the main intention behind the relevant provision is clear enough. A watercourse State must take all measures necessary to protect and preserve the marine environment. What this entails is not specifically defined, but as seen earlier, the article is one of due diligence, which require that the State must do everything in its power to research and ensure it does no harm. It must also be noted that, as earlier mentioned, the intent behind the article is not the marine environment per se, but to

[191] Tanzi and Arcari (2001), p. 278
[192] Raubenheimer (2016), p. 95

take all measures regarding the marine environment of the watercourse, which again will lead to a less polluted marine environment of the sea as well. This is not the obvious interpretation, but it is accessible to find this out. It can therefore be considered to be clear.

The last requirement for the article to be considered to be GAIRS is that the States practices the obligation. The UNWC has 43 parties. It is primarily European States that are members. The US has not signed, and neither have the "worst" river polluting countries such as China and India.[193] One could argue that 43 is a valid number, but in the light of how many countries there are, and the fact that there exists a severe issue with pollution deriving from rivers[194], it must be argued that not enough States are practicing the vision that was set out for the UNWC in terms of protecting the marine environment.

The conclusion is therefore that the UNWC could become GAIRS in the future, when more States are gathered behind it. As for now, it cannot be considered to qualify as GAIRS.

3.5.4.3 Can the GPA be considered to be GAIRS in the context of UNWC art. 23 and the LOSC art. 207?

Tanzi and Arcari have proposed that the GPA could be considered as GAIRS. McCaffrey have also suggested that this could be true, although he references Tanzi and Arcari. [195] Therefore it is interesting to see whether the GPA qualifies as GAIRS in the context of these conventions. The GPA was adopted at an intergovernmental conference attended by 108 States and was "designed to be a source of conceptual and practical guidance to be drawn upon by national and/or regional authorities in devising and implementing sustained action to prevent, reduce, control and/or eliminate marine degradation from land-based activities."[196]

The GPA is presented to be of guidance, which certainly can qualify as a "standard", as there is no requirement for GAIRS to arise from binding agreements. However, the fact that States joined in knowing it was only recommendation could be an argument for it not to qualify as GAIRS. On the other hand, this is not necessarily relevant, if State practice shows that it is being followed. Additionally, article 23 of the UNWC is about "protection and preservation of the marine environment", and the GPA is focused on the protection of the marine

[193] Lebreton et al (2017), p. 3
[194] Lebreton et al (2017), p. 3
[195] Tanzi and Arcari (2001), p. 277; McIntyre (2007), p. 309
[196] The GPA, p. 9

environment from land-based activities, meaning that it has required connection to the subject matter of the UNWC.

The standard in question must also have precise content. The preciseness of the GPA must therefore be assessed. There are several terms in the GPA that are not defined, such as "best environmental practices" and "best management practices".[197] One can assume this vagueness is due to the fact that the best possible practices are developing rapidly and continuously, but it nevertheless fails to be precise.

Part V, which introduces recommended approaches by source category, presents itself as a guide for the States to look to when implementing their own action plans.[198] When assessing Part H, that concerns litter, it comes across as quite precise.

The targets are concrete in terms of what should be accomplished at what time, and the activities are also very concrete when suggesting implementation of waste bins, introducing campaigns to increase knowledge and establishing services for collecting solid wastes[199], to name a few. It is for example suggested that a measure the States should take is implementation of "improved management programmes in small rural communities to prevent litter escape into rivers and the marine and coastal environment".[200] What the improved management plans need to entail is open to interpretation, but one can assume actions such as those previously mentioned could be satisfactory, i.e. information campaigns, installing waste bins and ensuring there are waste collecting services. On the other hand, the GPA proposes that the States must ensure "the proper operation of solid-waste-management facilities on shore from all sources, including shipping and harbour wastes", and what "proper operation of solid-waste-management"[201] is, is open to interpretation, but one can imagine it is any facility that is able to dispose of the litter in an adequate manner.

Another example is the call for countries to dispose of sewage, wastewater and solid wastes "in conformity with national or international environmental and health quality guidelines"[202],

[197] The GPA, paragraph 26 (a), p. 15
[198] The GPA, paragraph 91, p. 34
[199] The GPA, paragraph 146 (b), (d), (g), p. 55-56
[200] The GPA, paragraph 146 (f), p. 56
[201] The GPA, paragraph 146 (c), p. 56
[202] The GPA, paragraph 96 (c), p. 35

without specifying which guidelines this is supposed to refer to.[203] The GPA is giving the States freedom to do as they see fit, and as a result, can be seen as overly vague.

As previously seen, the ILA's main focus when determining when something is "generally accepted" is the practice by States. The United Nations Environment Programme (UNEP) reports that over 90 countries have "established framework national programmes of action, with many incorporating issues into their existing planning processes."[204]

90 countries is a substantial number of States that are taking the GPA into account, even though they are not bound to do so. At the same time, it is still not a lot compared to the total number of States. As the GPA is designed in a manner where the States can be guided, and implement elements that fit their national legislation, rather than implementing new laws to fit the GPA, it is difficult to conclude that the GPA is GAIRS. But one could perhaps conclude that the objectives and principles of the GPA could be considered GAIRS or at least that they will become GAIRS in the future, where States are bound to have an action plan in place and follow the main steps, but not necessarily follow the very detailed recipe offered.

3.5.5 The nature of State's obligations

Obligations of due diligence are obligations of conduct, as opposed to obligations of result. If a State has done all that can be expected of it, but still pollutes – the State has not breached the obligation of exercising due diligence and cannot be held responsible. If an absolute obligation were to be breached, the State would be held responsible for the breach of the obligation, as this is measured in the result. For a State to be held responsible for the breach of a due diligence obligation, there needs to be an occurrence of "illegal" pollution, and insufficient actions taken by the State beforehand.

In the Pulp Mills on the River Uruguay case, the ICJ stated that one of the treaty obligations was "an obligation to act with due diligence" and stated:

> "It is an obligation which entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercise of

[203] VanderZvaag et al (1998), p. 188
[204] UNEP Progress of the implementation of the GPA for the period 2012-2017 (2017), UNEP/GPA/IGR.4/2, p. 10, paragraph 56

> administrative control applicable to public and private operators, such as monitoring of activities undertaken by such operators…"[205]

The ILA also commented in its Draft Articles on Prevention of Transboundary Harm from Hazardous Activities (2001) in relation to article 3 where the State must take "appropriate measures to prevent significant transboundary harm". The ILA then commented that:

> "The obligation of the State of origin to take preventive or minimization measures is one of due diligence. It is the conduct of the State of origin that will determine whether the State has complied with its obligation under the present articles. The duty of due diligence involved, is not intended to guarantee that significant harm be totally prevented, it is not possible to do so. In that eventuality, the State of origin is required (…) to exert its best possible effort to minimize the risk."[206]

Due diligence is a concept that haunts all of these conventions in question. It has already been mentioned to some extent in relation to the LOSC art. 194, but it is as shown also present in articles 21 and 23 of the UNWC.

In the UNECE Water Convention, the general obligations in article 2 and the article 3 on prevention, control and reduction of transboundary impact, are obligations of due diligence. If a State does cause transboundary impact, although it has carried out all possible measures beforehand, it will have to take appropriate actions to control and reduce the impact (often in cooperation with the victim State).[207]

The obligations are of a due diligence character, which means that even if there are concrete obligations identified, it does not necessarily mean that pollution will give rise to responsibility.

3.6 Conclusions

In this Chapter it has been determined that the "meeting point" between the two regimes is not especially clear, but can be said to be either the baseline or the interface where sea waters meets fresh water. In any case, the switch of authority is not addressed in either regime. This could be characterized as a gap in the regulation. Yet both regimes have several provisions

[205] Pulp Mills on the River of Uruguay (Argentina v Uruguay), 2010, paragraph 197
[206] ILC, Report of the International Law Commission on the work of its fifty-third session, 2001, A/56/10, p. 154, paragraph 7
[207] UNECE Water Convention implementation guide (2013), ECE/MP.WAT/39, p.11

urging the States to cooperate, which functions as a link between the two regimes and to some extent take care of the problem of the gap.

The obligations that control pollution in the watercourse conventions are not primarily concerned with the marine environment of the sea, but it is clear that it should be considered. The provisions urge States not to pollute the watercourses to protect the marine environment of the watercourses, which again lead to less pollution of the sea. These obligations are of due diligence nature. The obligations of protecting the marine environment in the LOSC are broader in scope and are also of due diligence nature.

Furthermore it has been tested to determine if there are any relevant GAIRS that can be applied in the context of article 207 of the LOSC and article 23 of the UNWC. It is not possible to conclude anything definitively, but the possibility of the GPA being applicable is present. The conclusion is therefore that there are still no agreed upon GAIRS, and that the provisions urging States to take GAIRS into account remain somewhat "hollow". What exact legislation States are supposed to implement in order to protect the marine environment is still unclear.

4 Concluding remarks

The marine environment is vulnerable to harm, and is exposed to and hurt by the massive amount of plastic that enters into the ocean. It is therefore necessary with measures in place that can regulate and prohibit, or at least ensure that only the smallest amount of pollution ends up in ocean. Although the marine environment is protected of land-based pollution by the LOSC, it is not enough when looking at the current quantum of plastic that is subjected into the sea every year. Article 207 lacks substantial material that could fill out the obligation imposed on the States. It is therefore necessary to see how litter pollution of the marine environment is protected by the river regime, considering how much plastic that derives from rivers every year.

So to what extent does the river regime regulate pollution of the marine environment? The watercourse agreements both consider the marine environment, however, in a subtle manner. The main obligation for the watercourse States is to protect the marine environment of the watercourses, which again will lead to less pollution of the ocean. Although the UNWC article 23 explicitly concerns protection of the marine environment, it is stated by the ILC that it is not the marine environment per se, but in fact the marine environment of the

watercourses that is meant, but that the marine environment should be mentioned considering the amount of pollution deriving from watercourses. It is clearly not enough considering the amounts of pollution that enters the marine environment via rivers. However, the obligations concerning the marine environment are of a due diligence character, which means that even if there is pollution deriving from the river within a State, it does not necessarily invoke responsibility. This will depend on the actions the State did to prevent the pollution, and whether or not there were more they could have done. Additionally, as previously mentioned, the due diligence bar is somewhat difficult to determine, and even more so when there are several States that can or are contributing to the damage. An important aspect of this is the differentiated interests a watercourse State and a coastal State has. Subsequently there is less of an incentive for the watercourse States to take actions to protect the marine environment of the sea; this is especially relevant in terms of economic advantages.

As seen in Chapter 2, even where States have ratified both of the watercourse conventions there are not necessarily exact measures in place to prohibit or deal with the pollution. This is the case for the two transboundary rivers situated in Norway. The Ennningsdals river has no known international agreements that relate to control and prevention of pollution. As for the Pasvik river, there is a trilateral cooperation in place which monitor and control pollution. As far as this author could discern, this project mainly concerns itself with pollution of heavy metals, not litter. This could be an area of concern, if there is no organ monitoring such pollution or sources of such pollution, which consequently means that nobody are aware of the potential amounts.

It has been determined that the two global water conventions can coexist and even complement each other. The two regimes will not be conflicting, as the conventions are in "furtherance" of the general principles of the LOSC. It is clear that the two regimes have evolved differently, and the interconnection is not considered in either treaty. This seems to be a gap in the system, but the provisions on cooperation can function to address this problem to some extent, although it is assumed this obligation only applies for States bordering the same seas. It is however a general principle in the environmental law that States must cooperate when necessary to protect the environment, which could be done more extensively than it is being done today.

Therefore, a broader regulation setting the standard of addressing the problem of the river-ocean interface and the pollution entering the marine environment this manner could be

useful. The LOSC article 207 does address this, however, explicitly naming rivers as a source for land-based pollution of the marine environment, but as seen, the actions that States are required to take are not clear. As shown above, there are no known GAIRS as exists within other fields of the environmental law. If there had been GAIRS to fill out the UNWC article 23 and the LOSC article 207, it would make for a more substantial obligation and perhaps one would have seen more action taken.

It is clear that the river regime has an important role to play in the plastic pollution of the marine environment, and it could be necessary to urge more States to be more proactive in their implementation of regulations. The regulations in place today are not as effective as one would wish them to be.

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