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Management of shared and straddling fish stocks, biological diversity and climate change: A perspective on the legal regime of the cooperation in the Barents Sea.

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Small Master's thesis

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"Ocean: A body of water occupying about two-thirds of a world made for man-who has no gills."

Ambrose Bierce

1. Introduction

1.1 Presentation of theme and research question

The Barents Sea is an ecopolitical region bounded on the south by the north coasts of Norway and Russia, on the east by the 38th meridian, on the north by the Central Arctic Ocean, and on the west by the boundary of the Svalbard Fishery Protection Zone. Norway and Russia are the only two countries that have exclusive economic zones (hereafter EEZ) in the Barents Sea.

According to the international law of the sea, the two states have both a general obligation to *protect and preserve the marine environment*,¹ and an obligation to cooperate on matters concerning *inter alia* shared,² *straddling or highly migratory fish stocks*.³ In addition to this the two states are also obliged to cooperate for *the conservation and sustainable use of biological diversity*.⁴

To cooperate on mentioned obligations Norway and Russia has established the Joint Norwegian Russian Fisheries Commission (hereafter the joint fisheries commission) in the 70s and the Joint Norwegian Russian Commission on Environmental Cooperation (hereafter the joint environmental commission) in the 80s. The work of these two commissions and the agreements that underlies this work will be elucidated later in this thesis. These agreements and the work of the commissions is essential to understand how Norway and Russia fulfill their obligations to manage marine living resources, shared and straddling fish stocks and biological diversity under the law of the sea regime in the Barents Sea.

The Barents Sea is one of the world's most productive oceans, and is home to at least 20 million nesting seabirds during the summer time. The Barents Sea is also inhabited by 21

¹ 1982 UN Convention on the Law of the Sea (hereafter LOSC) art. 193.

² LOSC art. 63 (1).

³ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. (Hereafter FSA) art. 5 and LOSC art. 63 (2).

⁴ 1992 UN Convention on Biological diversity (hereafter CBD) art. 5.

species of marine mammals and is an important feeding ground for a range of large whales.⁵ This ocean is important both as a spawning area for a number of important fish species, and is also a very important harvesting area for the Norwegian and the Russian fishing industry, and the people living by the coast of the two countries. The major commercial fisheries in the Barents Sea target cod, haddock and saithe (ground fisheries) and Norwegian spring-spawning herring, capelin and blue whiting (pelagic fisheries). The harvesting is predominated by Russia and Norway, and the two countries have three main shared stocks, namely: cod, haddock and capelin. The most important of these fish stocks (commercially) is the Arcto- Norwegian Cod stock.

A new study by Norwegian marine scientists shows that the Barents Sea is heating up much faster than previously thought. The reason is a rapid climate change that has not been seen since the last ice age. An important part of the Arctic is transitioning to the Atlantic climate. An ice free Barents Sea, also in the north, affects social sectors such as fisheries, management, petroleum, tourism and research. Commercial fish stocks may be more prevalent, and marine scientists have shown that southern fish species such as cod already occupy the northern Barents Sea. But, a completely ice free Barents Sea, without Arctic water, can also have unfortunate consequences. As the southern species of fish come further north, this leads to increased competition for the Arctic species. How this will affect the entire ecosystem including the commercial species is not known.⁶

In addition to the climate change effects of the Barents Sea there are other stressors to the marine environment in the area such as fisheries, oil and gas exploitation, pollution, etc. and issues of governance in the Barents Sea involve growing needs for improved mechanisms to address the interplay among various elements of the complex of sectoral regimes applicable to

⁵ The International Council for the Exploration of the Sea (ICES), ICEC.

<https://www.ices.dk/explore-us/Action%20Areas/ESD/Pages/Barents-Sea-State-Marine-mammals.aspx> (visited 8 August, 2019).

⁶ Article in Aftenposten Viten, published by Fossheim, Institute of Marine Research and Primicero, University of Tromsø: <https://www.aftenposten.no/viten/i/j72q/Klimaendringene-presser-fisken-nordover> (visited 31 August 2019).

the region and for sharpness in responding to rapid changes in the conditions prevailing in the environment of the Barents Sea.

The questions that my thesis rises revolves around is the legal cooperation on shared and straddling fish stocks, biological diversity and climate change impacts in the Barents Sea, and how Russia and Norway is fulfilling their obligations to protect and preserve the marine environment in the Barents Sea. The main question in connection with this is if the cooperation is sufficient enough to handle the challenges the Barents Sea is facing, both now and in the future.

To quote Hoel at the end of this part:

*Sustainable fisheries cannot be achieved by quick fixes, only by consistent efforts over time.*⁷

1.2 Structure of the thesis

My thesis is comprised by six main chapters.

The first chapter opens up by presenting my research question and setting the theme of the thesis in its context.

The second chapter I have devoted to the legal sources and the method used in this thesis. Norway and Russia has a commitment to protect and preserve the marine environment and the shared fish stocks of the Barents Sea. The two states also have legal obligations associated with climate change impacts. The mentioned obligations have its origin in several different legal sources, and even in different legal regimes. In this chapter I will present the main sources that are relevant for my research question. I will also explain how the sources are relevant in this regard. The interaction between the different legal sources and legal systems will be analysed throughout the thesis where this is relevant.

⁷ http://www.imr.no/publikasjoner/andre_publicasjoner/kronikker/2012/det_norsk-russiske_fiskerisamarbeidet_forklaringer_pa_suksess/en (visited 25 July, 2019)

Chapter three of the thesis is dedicated to the legal frames of the cooperation in the Barents Sea. Norway and Russia have established different maritime zones in the Barents Sea in accordance with the international law of the sea, and this chapter will describe where Norway and Russia have jurisdiction in the Barents Sea. This chapter is also concerned with the relevant principles and tools of management of international law that apply in the cooperation between Norway and Russia with regards to the shared and straddling fish stocks, climate change and the biological diversity.

Chapter four describes and discusses the obligations to cooperate on shared and straddling fish stocks and biological diversity in the Barents Sea. It also describes the format of the cooperation on these matters that Norway and Russia has chosen, and how these formats fits in to the frames of the international law of the sea on the matter.

Chapter five is more concrete concerned with the climate change impacts and how to integrate climate change impacts in to the ecosystem approach to the management of shared and straddling fish stocks and marine biological diversity in the Barents Sea. The chapter starts with a brief definition of climate change and a description of the climate change effects in the Barents Sea. Further, I want to look in to the different agreements between Norway and Russia on the cooperation on fisheries and environment with regards to climate change impacts in the light of international law on the matter.

Chapter six will end the thesis with a sum up of the most important conclusions and findings of this work.

2 Sources of international law of the sea and legal method

2.1 Introduction- legal method and sources of law

The questions that my thesis rises revolves around the adequacy of the legal cooperation between Norway and Russia on shared and straddling fish stocks, biological diversity and climate change impacts in the Barents Sea.

In answering these questions some legal methodological questions has to be answered. First I have to find the relevant legal sources. Then I have to interpreted the different sources, and establish if there is an interaction between them.

When it comes to the question of which sources of international law of the sea is relevant in answering my research question, article 38 (1) of the Statute of the International Court of Justice (ICJ Statute), is recognized as *Opinio Juris* on the matter.⁸

The article decides that:

The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:

a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;

b. international custom, as evidence of a general practice accepted as law;

c. the general principles of law recognized by civilized nations;

d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

This means, according to article 38 (1) in the ICJ Statute, the recognized sources of international law which is legal to submit in a legal argumentation is; conventions, customary international law, general principles of law and finally, subsidiary sources like judicial decisions and literature.

In addition to the list of sources mentioned in the ICJ Statute, other sources of international law exist, such as binding decisions of international organizations and unilateral acts. This

⁸ Ruud og Ulfstein, *Innføring i folkerett* (2011), s. 66.

means that the list of legal sources presented in article 38 (1) is not complete, and other legal sources is also permissible in legal argumentation.⁹

The succession of the different legal sources mentioned in the ICJ Statute article 38 (1) a, b and c does not imply that there is a hierarchical relationship between them. International law is originally a horizontal system.¹⁰ This means that two states can set aside customary international law by signing a treaty, which in turn can be set aside by the states subsequent practice. Nevertheless, the natural starting point for deciding which law to apply in case of a legal conflict is to look at the conventions regulating the relationship between the parties on the matter. If there are no such conventions in place between the two parties on the matter, customary international law would be the starting point for the legal discussion. General principles of international law should just be used as the main source of law when neither conventions nor customary international law exist on the subject matter.¹¹

The relationship between the different legal sources is according to Wolfrum (...) *to be established on a case-by case basis by having recourse to the established international principles of interpretation, such as the lex specialis derogate legi generali rule or the lex posterior derogate legi priori rule.*¹²

The sources of the international law are mainly a wealth of treaties and customary law. All the same, all of the recognized sources of international law have a possibility to contribute to the body of the law of the sea and environmental law.¹³ The Vienna Convention on the Law of Treaties (VCLT) art.31 on interpretation of treaties applies when I am interpreting the treaties applicable to my research question.

⁹ Wolfrum, *Sources of international law*, Oxford public international law, Max Plank Encyclopedia of Public International Law, p. 2.

¹⁰ Ruud og Ulfstein, *Innføring i folkerett* (2011), s.67.

¹¹ Ruud og Ulfstein, *Innføring i folkerett* (2011), s. 67.

¹² Wolfrum, *Sources of international law*, Oxford public international law, Max Plank Encyclopedia of Public International Law, p. 3.

¹³ Rothwell and Stephens, *The international law of the sea* (2016), p. 22.

When interpreting the law I have to take in to consideration (...) *different bodies of law based on techniques of interpretation, taking account of one treaty or legal norm in order to assist in the interpretation or application of another treaty or norm.*¹⁴ The VCLT art.31(3) (c) supports this view and decides that in interpreting a treaty one should consider(...) *any relevant rules of international law applicable in the relations between the parties.* My research question will have to integrate different bodies of law to be answered and the analyze in chapter four will reflect this.

Further under chapter two I will briefly present the central sources of international law that I want to analyze to answer the research question. I will also explain why I am of the opinion that the legal sources are relevant for my question.

2.2 Treaties

A Treaty is an international binding agreement with the objective of achieving consent amongst states or international organizations.¹⁵ In international law, treaties fulfill the function laws have under national law. This is because they, besides other sources of law, sets law.¹⁶ In my thesis the most important source for answering the research question will be treaties. Treaties are also known by the synonyms conventions and agreements. Throughout the thesis I will use the different words for treaties interchangeably. Since there is a certain extent of synergy between the treaties governing the legal status of the Barents Sea the order of the treaties presented is random. For the sake of the systematics, I have presented the general framework and implementation treaties first and the regional agreements in place between Norway and Russia last.

¹⁴ Boyle, *Relationship between International Environmental law and Other Branches of International Law*, Oxford handbook of international environmental law, Daniel Bodansky et al (eds.), (Oxford University Press, 2014), p. 128.

¹⁵ Ruud og Ulfstein, *Innføring i folkerett* (2011), s.68.

¹⁶ Wolfrum, *Sources of international law*, Oxford public international law, Max Plank Encyclopedia of Public International Law, p. 3.

2.2.1 The Law of the Sea Convention

The United Nations Convention on the Law of The Sea is without doubt the most important source of the international law of the sea.¹⁷ It was opened for signature on 10 December 1982, and it entered in to force on 16 November 1994.

The objective of the LOSC is to provide a legal framework for all relevant issues of marine affairs that includes regulation for the exploitation and management of marine living resources.¹⁸ Both Norway and Russia are parties to the LOSC,¹⁹ and the convention is an essential source of law when I am going to analyse the legal regime of the Barents Sea with regards to its resistance to climate change impacts in chapter four of my thesis. LOSC has 46 articles devoted to the marine environment,²⁰ and it is especially the obligations to protect and preserve the marine environment,²¹ and measures for the management of shared fish stocks in the Barents Sea I will look in to when answering my research question.²²

I will also analyse the LOSC to deduce the obligations and rights of Norway and Russia with regards to the management of fish stocks and biological diversity in the EEZ and the high seas of the Barents Sea.

¹⁷ Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea*, Oxford University Press (2017), p.24.

¹⁸ LOSC, Preamble.

¹⁹ Norway signed on 10 December 1982, ratified 24 June 1996. Russia signed on 13 June 1992, ratified on 5 April, 1997.

²⁰ Redgwell, *International Environmental law*, in Malcolm D. Evans (ed.), *International Law* (Oxford university press, 2014), p.701.

²¹ LOSC art.192-193.

²² LOSC art. 63.

2.2.2 Straddling Fish Stocks Agreement ²³

In relation to straddling and highly migratory stocks the LOSC only codifies a general framework of rules, and it calls for cooperation between coastal states to give these rules further effect.²⁴ To complete the missing piece in the LOSC framework convention the United Nations Straddling and Highly Migratory Fish Stocks Agreement was adopted in 1995 to supplement the provisions of the convention in relation to straddling and highly migratory fish stocks.²⁵ Its core objective is (...) *to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks*,²⁶ and it seeks to achieve that by implementing the precautionary approach in the management of these stocks.²⁷

The FSA is relevant to my research question because some of the shared fish stocks between Russia and Norway are also straddling fish stocks in areas beyond national jurisdiction. This means that the FSA applies, and sets out the obligations for Norway and Russia with regards to the management and conservation of these fish stocks.

2.2.3 The Convention on Biological Diversity

The LOSC makes no reference to biological diversity in its text, and when the Convention on Biological Diversity was adopted by the 1992 Rio Conference the convention filled a substantial legal gap with regards to terrestrial and marine biodiversity. The convention provides that States is obligated to (...) *develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity* (...).²⁸

²³ 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks (hereafter the FSA).

²⁴ LOSC art. 63 (1) and (2).

²⁵ Rothwell and Stephens, *The International Law of the Sea*, Hart Publishing, Oxford and Portland, Oregon, 2016, p. 19.

²⁶ FSA art. 2.

²⁷ FSA art. 6.

²⁸ CBD art. 6 a).

In my thesis the CBD will be analysed with regards to the general obligations it puts on Russia and Norway to cooperate on matters concerning biological diversity in the EEZ in the Barents Sea.²⁹ I will also analyse the CBDs relationship with the LOSC. International law on the conservation of marine living resources and ecosystems is not the exclusive preserve of the LOSC or the CBD, and an understanding of the obligation to conserve marine living resources may require a consideration of both the LOSC and the CBD.³⁰

I will also analyse the CBD with regards to climate change and its impact on fish stocks (both shared and straddling) and biological diversity in the Barents Sea, to see if it has some influence on the obligations of Norway and Russia in this regard.

2.2.4 The Climate Change Convention

The regulation of the human impact on the carbon cycle to the international climate change is left to the 1992 United Nations Framework Convention on Climate Change (UNFCCC).³¹

This was one of the two framework conventions adopted at the 1992 Rio Conference. The objective of the UNFCCC is (...) *the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (...)*.³²

The climate change regime is concerned with the atmospheric effect of emissions of greenhouse gasses, not their effects on oceans. However, the UNFCCC art. 4 (1) (d) decides that states should; *Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well*

²⁹ CBD art. 5.

³⁰ Boyle, *Relationship between international Environmental law and Other Branches of international law*, Oxford handbook of International Environmental Law, Daniel Bodansky et al (eds.)(Oxford University Press (2014), p.140.

³¹ Rothwell and Stephens, *The International Law of the Sea*, Max Plank Encyclopedia of Public International Law, p.311.

³² UNFCCC art.2.

*as other terrestrial, coastal and marine ecosystems. The word sinks also includes oceans, and the obligation set out in the article has been read as meaning that not only must that parties must act to enhance the passive absorption of human made CO₂ into the oceans, but that they may also act to encourage the active sequestration of CO₂ into the oceans.*³³

It seems like there is an opinion in legal theory that it exists an uncertainty if there is an obligation to consider climate change law within the law of the sea.³⁴ In my thesis I will examine the UNFCCC and the relationship between the LOSC and the UNFCCC with regards to climate change impacts to see if it has, or should have any influence on the legal regime of the Barents Sea.

2.2.5 The UN Paris Agreement

The Paris Agreement builds upon the UNFCCC and brings all nations into a common cause for the first time to make ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.³⁵

In analysing the management of the climate change impacts in the Barents Sea I will look at the Paris Agreement to see if it could add something new in this regard since the adoption of the UNFCCC.

2.2.6 The Barents Sea Treaty

15. September 2010, Russia and Norway signed the Treaty Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean (hereafter The Barents Sea Treaty). The treaty applies to Norway's and Russia's respective EEZs and the continental shelf within and beyond 200 nautical miles.

³³ Rayfuse, *Climate change and the law of the sea*, Rosemary Rayfuse-9781781006085, p.165.

³⁴ Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea*, Stephens, *Warming waters and souring seas, climate change and ocean acidification*, Oxford University Press (2017), p.783.

³⁵ The United Nations Web page on Climate change: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> (visited 31 August, 2019).

The Barents Sea Treaty includes provisions on access to and management of natural resources, i.e. (...) *the shared fish stocks, including straddling fish stocks* (...) and hydrocarbon deposits that extends across the delimitation line.³⁶ The two states have also committed themselves to continue the cooperation through The Joint Commission,³⁷ and the treaty provides for the continuation of the 1975 and 1976 Agreements,³⁸ and is implementing the precautionary approach with regards to the straddling fish stocks.

The Barents Sea Treaty will be briefly analysed with regards to the current legal system of the Barents Sea to deduce the obligations of Norway and Russia when it comes to the management and sustainable use of the shared fish stocks and the marine biological diversity in the area.

The Barents Sea Treaty will also be examined to see if it provides the means for legal adaption to the climate change impacts in the Barents Sea.

2.2.7 Environmental agreement between Norway and Russia from 1992³⁹

Since the late 80's environmental problems have been very important in the relationship between Russia and Norway at all levels. The first governmental agreement between Norway and the Soviet Union on cooperation on environmental issues was signed in 1988. This agreement was renewed in 1992, and by the agreement the Joint Norwegian- Soviet Commission on Environmental Cooperation was continued as the Joint Norwegian–Russian Commission on Environmental Cooperation.⁴⁰

³⁶ The Barents Sea Treaty art. 4 and 5.

³⁷ The Barents Sea Treaty, art. 1 and annex 1.

³⁸ Agreement on Co-operation in the Fishing Industry Between Union of Soviet Socialist Republics and Norway, signed at Moscow on 11 April 1975, 983 U.N.T.S. 8; and Agreement Concerning Mutual Relations in the Field Of Fisheries Between Union of Soviet Socialist Republics and Norway, signed at Moscow on 15 October 1976, 1157 U.N.T.S. 147 (hereafter the 1975 and 1976 Agreements).

³⁹ My translation. The right name on the convention in Norwegian is found in note 43.

⁴⁰ Overenskomst mellom kongeriket Norges Regjering og den russiske føderasjons regjering om samarbeid på miljøvernområdet, art. VI.

The agreement focuses on *inter alia* protection and conservation of the marine environment, conservation of the living resources in the Ocean, air pollution, science, environmental accidents and governance and legislation with regards to environmental issues.⁴¹ Even though protection and conservation of the marine environment and conservation of the marine living resources in the Barents Sea is essential in this agreement, it makes no reference to the agreements concerning the cooperation on fisheries management in the Barents Sea.

In my thesis I will look at the agreement on the basis of applicable international law to derive the obligations of Norway and Russia with regards to the management and conservation of biological diversity and marine living resources in the Barents Sea.

Further I will analyse the relationship between the Barents Sea Treaty and the agreement between Norway and Russia to cooperate on environmental matters. In my opinion the two agreements give an impression of being very sectoral, and I want to analyse if my impression is right, and if so, what kind of consequences this might have for the obligation to cooperate on the management of shared fish stocks, marine living resources and biological diversity in the Barents Sea. I will also look at the agreement with regards to legal climate change adaption in the Barents Sea.

2.2.8 Fisheries Agreements between Norway and Soviet from 1975 and 1976

The Agreement between the Government of the Kingdom of Norway and the Government of the Union of Soviet Socialist Republics on cooperation in the fishing industry of 11 April 1975 (hereafter the 1975 Agreement) and the Agreement between the Government of the Kingdom of Norway and the Government of the Union of Soviet Socialist Republics concerning mutual relations in the field of fisheries of 15 October 1976 (hereafter the 1976 Agreement) established the fisheries regime applicable to the Barents Sea. These agreements

https://www.regjeringen.no/contentassets/66b54513e82d453c88f030135513d582/overenskomst_av_1992_no.pdf (visited 30 July, 2019).

⁴¹ Overenskomst mellom kongeriket Norges Regjering og den russiske føderasjons regjering om samarbeid på miljøvernområdet, art. II.

is still the essence of the fisheries regime of the Barents Sea, even with the Barents Sea treaty that was signed in 2010.

The 1975 Agreement established *inter alia* the joint fisheries commission, which is responsible for the management of shared and straddling fish stocks in the Barents Sea. The 1976 Agreement established *Inter alia* mutual fishing access to each other's EEZs.

Article 1 of Annex 1 in the Barents Sea Treaty states that mentioned agreements shall remain in force for a period of fifteen years after the Barents Sea Treaty has entered in to force.

Article 3 in in Annex 1 of the same treaty decides that (...) *Total allowable catches, mutual quotas of catches and other regulatory measures for fishing shall continue to be negotiated within the Norwegian-Russian Joint Fisheries Commission (...) in accordance with the 1975 and 1976 Agreements.*

The 1975 and 1976 Agreements is relevant for my thesis with regards to the current legal regime in the Barents Sea on how Norway and Russia is cooperating on fisheries and environmental issues. The agreements are also relevant for my analyses of the legal regime of the Barents Sea and legal adaption with regards to climate change impacts in the area.

2.3 International Custom

According to the ICJ Statutes article 38 (1) b) international customs is recognized as a source of law. As stated in the provision, there are two elements of the legal source international custom. 1) The objective; which appears in state practice, and 2) the subjective; evidence that the practice is perceived as applicable law (*Opinio Juris*).⁴²

International custom does not appear to be a very relevant source of law with regards to my research question. The obligations of Norway and Russia to manage the fish stocks and the biological diversity is primary based on conventions, agreements and legal principles, and it is mainly from these sources I will derive answers with regards to the theme of the thesis.

However, international customs may be relevant where general principles of international law

⁴² Ruud og Ulfstein, *Innføring i folkerett*, s.72.

have attained customary status. By attaining customary status it would mean that the principle is not only binding to the parties of the agreement, but also to non- parties of the agreement.

2.4 General Principles of Law

According to the ICJ statutes art. 38 c) general principles of law are recognised as a source of law in international law. By general principles it is meant principles that are prevalent in the national law of various countries. Many principles are similar in both national and international law, such as the principle of sustainable development.

The principle must be widely applied to be recognised as a principle of international law, but not every country is required to apply the principle in order for the principle to achieve this status.⁴³ General principles of law has not yet been used as an independent source of law by international courts, but the legal principles can be used as a source of argument in a legal discussion.

Some important international law principles have to be analysed in the context of the legal questions of my thesis. The principles will be analysed in chapter 4 in the thesis. The principles will also be used throughout the thesis in the legal discussions.

2.5 Literature

The ICJ statutes article 38 (1) d) classifies literature of international law as a relevant, but subsidiary source of law. The law of the sea has been considerably influenced by literature, and there have been few other bodies of law that has been influenced by the view of publicists, and the ongoing influence of Grotius proves this.⁴⁴ Judicial literature may influence a legal decision by the argumentative power of an argument. Mapping of relevant state practice and other relevant facts could also be useful in a legal discussion.⁴⁵

⁴³ Ruud og Ulfstein, *Innføring I folkerett*, s.76-77.

⁴⁴ Rothwell and Stephens, *The International Law of the Sea*, Max Plank Encyclopedia of Public International Law, p.24.

⁴⁵ Ruud og Ulfstein, *Innføring i folkerett*, pp.78-79.

In the law of the sea, there is written a large amount of legal literature. I have used legal literature in my thesis as support for my own arguments, or as a basis for showing what legal views exist on a specific issue. I have also used legal literature to provide historical background for legal developments described in my thesis.

2.6 Judicial decisions

The ICJ Statutes recognizes court decisions as sources of law, but states that they are subsidiary sources of law.⁴⁶ This is emphasized by article 59 in the ICJ statutes which states that judicial decisions are only binding between the parties. The purpose of this wording is to establish that court decisions are not binding precedents in the sense we know it from English-American law. This applies regardless of whether the decision is an advisory opinion issued to the UN or one of its organizations, is a binding decision between states or whether the decision concerns a treaty provision or a matter of customary international law.⁴⁷

Judicial decisions has contributed to the development of rules of international law, but still, the courts are bound by existing legal sources and are not free to make new rules. Up to date the ICJ has not considered which weight judicial decisions from other international courts should have in a case before it.⁴⁸

It is an important part of the legal method of International law to see if the international courts have an opinion on the interpretation of a principle or a provision before determining the content of a rule of law that are to be applied in a legal discussion. In my thesis judicial decisions will be used when I am analyzing different principles of law or different provisions in a treaty or an agreement.

⁴⁶ ICJ statutes art 38 (1) (d).

⁴⁷ Ruud og Ulfstein, *Innføring i folkerett*, s. 77.

⁴⁸ Ruud og Ulfstein, *Innføring i folkerett*, s. 78.

3. Legal framework of the cooperation in the Barents Sea

3.1 Introduction

In chapter 3 I will first give a brief overview of the sovereignty in the Barents Sea and management provisions that may be implemented in the different zones. Then I will examine the two leading tools for management of the living resources and the biological diversity in the Barents Sea. Namely, the precautionary approach and the eco-system based management.

3.2 Sovereignty in the Barents Sea

The law of the sea was mainly customary law up till the nineteenth century. Later the law evolved and joint attempts to codify the law of the sea traversed over half a century. It started with the Hague conference of 1930 and culminated with the Third United Nations Conference on the Law of the Sea's adoption of the LOSC in 1982. Some of the characteristic features of the LOSC are that it divides the ocean space in to different maritime zones. Some of these maritime zones were already considered customary international law before it was codified in the LOSC.

In the early twentieth century, some states agreed that a three nautical mile territorial sea was consistent with international law, but neither the 1930 Hague Conference or the first United Nations Law of the sea Conference could agree on the maximum breadth of the territorial sea. This was also the case for the second United Nations Third Law of the sea Conference, but at the third United Nations Third Law of the sea Conference states agreed on a maximum 12 nautical mile territorial sea. Article 3 of the LOSC codified this consensus and decides that:

Every state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles (...). The ICJ has acknowledged that the 12 nautical mile maximum is a rule of customary international law.⁴⁹

Both Norway and Russia have established a 12 nautical mile territorial sea.⁵⁰ Norway codified the breadth of its territorial sea in 2003, and Russia in 1998. Something that characterizes the

⁴⁹ The Territorial and Maritime dispute (Nicaragua v Colombia) judgement ICJ rep 624

territorial sea is that it is under the sovereignty of the coastal state that has established such a zone. In this zone, for example, foreign fishing vessels must refrain from fishing activities⁵¹ and states may enjoy the right of innocent passage.⁵² Within the territorial sea, Norway and Russia has full capacity to implement rules on marine environmental protection provisions consistent with the sovereignty over the zone. They may *inter alia* limit fishing, close fisheries and establish marine protected areas (MPAs). The coastal state is given the right to set the TAC for the fisheries, taking in to account the best scientific evidence and manage the fisheries so that they are not exposed to overexploitation.⁵³

The establishment of the 200 nautical mile EEZs of Russian and Norway made some previously parts of the high seas in the Barents Sea subject to selected sovereign rights and powers of the two coastal states in conformity with some remaining freedoms of the high seas set out in the LOSC. In 1977 the 200 nautical miles EEZ were established by the USSR and Norway.⁵⁴ Before the LOSC entered in to force, the EEZ was already considered a part of customary international law.⁵⁵

The establishment of the exclusive economic zone did not only give sovereign rights to Norway and Russia, but also an obligation to comply with the provisions set out in the LOSC with regards to the management and conservation of the marine environment and marine living resources in the area. Similar as for the territorial sea, Norway and Russia has the capacity to implement adaptive measures in relation to marine living resources, with little consideration of the interests of other states, setting total allowable catch, taking in to account

⁵⁰ *Federal Law from 31 July 1998 No. 155-FZ, on the internal waters, territorial sea and contiguous zone of the Russian Federation*, article 3. Available in Russian at: <http://base.garant.ru/179872/> (visited 6 August, 2019).

Law from 27 June 2003 No. 57 on Norwegian territorial waters and contiguous zone, § 2. Available in Norwegian at: <https://lovdata.no/dokument/NL/lov/2003-06-27-57> (visited 6 August, 2019)

⁵¹ LOSC art. 19 (2) and 42 (1) (c).

⁵² LOSC art. 17.

⁵³ LOSC art. 61.

⁵⁴ Churchill and Ulfstein, *Marine Management in Disputed Area: The Case of the Barents Sea*. London (Routledge) 1992, p.21.

⁵⁵ The ICJ expressed this opinion in the 1985 judgement Continental shelf case.

the best scientific evidence and manage the fisheries so that they are not exposed to overexploitation.⁵⁶

Further, another important maritime zone in the law of the sea that might have implications for the obligations and rights of Norway and Russia with regards to marine living resources are the continental shelf. According to LOSC article 77 (4) the marine living resources of the continental shelf is defined as (...) *sedentary species* (...).⁵⁷

In relation to fisheries and ecosystems that occur between the maritime zones of different states, or on the high sea, the framework for managing shared and straddling fish stocks, marine biological diversity and climate change is less robust. I will get back to this in chapter 4 and 5 of my thesis.

3.3 Precautionary approach

The precautionary approach (or principle) intends to improve the conservation and sustainable management of marine living resources by guiding state behavior towards preservation and sustainable management when there is scientific uncertainty.⁵⁸ The principle originates from domestic policy and legislation in the 70s, and it was first internationally featured in the World Charter for Nature in 1982. With regards to the precautionary approach's status as customary law, the courts appear undetermined. In the *Pulp Mills in the River Uruguay* case the court stated that a precautionary approach might be relevant in treaty interpretation. The court did not discuss the approach's legal status.⁵⁹

The precautionary approach is not mentioned in the LOSC, but it is mentioned in article 6 (1) of the FSA which states that:

⁵⁶ LOSC art. 61.

⁵⁷ LOSC art. 77 (4).

⁵⁸ Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea*, Luck and Fuchs, *Marine Living Resources*, Oxford University Press (2017), p.496-497.

⁵⁹ *Pulp Mills on the River Uruguay (Argentina V. Uruguay)* (Judgement) (2010) ICJ Rep14. (164).

States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment.

The precautionary approach was adopted as the leading device for global fisheries management, introducing a requirement for additional precaution when scientific evidence is uncertain, as well as a number of practical regulatory measures related to scientific research, regulation and enforcement.⁶⁰

The 1975 and 1976 Agreements does not mention the precautionary approach in the fisheries management of the shared and the straddling fish stocks of the Barents Sea, but after the precautionary approach emerged in various regional environmental agreements, and especially the FSA which was signed in 1995, the joint commission adopted the precautionary approach in to its fisheries management.⁶¹

The precautionary approach was also integrated in to the Barents Sea Treaty in article 4 (3) which states:

The Parties shall apply the precautionary approach widely to conservation, management and exploitation of shared fish stocks, including straddling fish stocks, in order to protect the living marine resources and preserve the marine environment.

3.4 Integrated ecosystem based management

There is an obvious need to develop the existing regulations on the exploitation and conservation of the marine living resources and the preservation of the biological diversity in

⁶⁰ Hønneland, *Norway and Russia: Bargaining Precautionary Fisheries Management in the Barents Sea*, Arctic review on Law and Politics, vol.5, 1/2014 pp.75-99. ISSN 1891-6252, p. 75.

⁶¹ Hønneland, *Norway and Russia: Bargaining Precautionary Fisheries Management in the Barents Sea*, Arctic review on Law and Politics, vol.5, 1/2014 pp.75-99. ISSN 1891-6252, p.77.

the oceans. In this context the integrated- ecosystem approach has risen as a tool for promoting sustainable use of the oceans.⁶²

The origins of the ecosystem approach could be traced to principle 7 of the Rio Declaration which states that:

States shall co-operate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

The central objectives of the approach include the recognition of multi species interactions, the inclusion of the non-living environment, and the awareness of the dynamic biological processes in the nature. This approach incorporates socio-ecologic considerations as a factor of the decision- making process on management measures.⁶³

In Norway and Russia's cooperation on marine biological diversity it is a goal of the cooperation to have an ecosystem based management approach to the Barents Sea, but there is still no plan for the ocean to make this happen.

4. Cooperation on the management of fish stocks and marine biological diversity in the Barents Sea

4.1 Content of the obligation to cooperate on management of shared and straddling fish stocks according to international law

The conclusion of the LOSC transformed the global regime for marine resource management, particularly by introducing new obligations to cooperate with regards to fisheries

⁶² Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea*, Luck and Fuchs, *Marine Living Resources*, Oxford University Press (2017), p.512.

⁶³ Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea*, Luck and Fuchs, *Marine Living Resources*, Oxford University Press (2017), p.513.

conservation.⁶⁴ Under the LOSC coastal states are granted sovereign rights for the purpose of conserving, exploiting, exploring and managing the marine living resources of the water column, seabed and the subsoil of its EEZ.⁶⁵ This means that the coastal state is given substantial jurisdiction to *inter alia* regulate the allowable catch and conservation of the living resources and establishing MPA`s within its EEZ.⁶⁶

The situation with regards to exclusive sovereignty is a bit different when it comes to fish stocks occurring within the EEZ of two or more coastal states or both within the EEZs of the two states, and in an areas beyond and adjacent to it. Cod, haddock and capelin are fish stocks that occur in the EEZs of both Russia and Norway. These fish stocks are referred to as shared fish stocks in the following. In addition, the cod partly migrates to the Barents Sea Loophole, and thereby outside the EEZs of Russia and Norway. This fish stock is referred to as both shared and straddling fish stocks in the following. For both the shared stock and the straddling stock, the LOSC have provisions that require the affected states to cooperate on the management and conservation of these stocks.⁶⁷

The provisions in the LOSC on cooperation with respect to the management of the mentioned fish stocks are not very specific, and they only describe how the cooperation should be or what form the cooperation should take in a very shallow way. Further, the provisions don't say anything about the consequences of not cooperating on shared and straddling fish stocks. Taking the nature of the LOSC as a framework convention in to consideration, this is not sensational and it is some of the mentioned gaps in the LOSC the adoption of the FSA seeks to remedy.⁶⁸

⁶⁴ Rothwell and Stephens, *The International Law of the Sea*, Max Plank Encyclopedia of Public International Law, p.309.

⁶⁵ LOSC art. 56 (1) (a).

⁶⁶ LOSC art. 61 and 62.

⁶⁷ LOSC art. 63 (1) (2).

⁶⁸ Rothwell and Stephens, *The International Law of the Sea*, Max Plank Encyclopedia of Public International Law, p.341.

Nevertheless, the FSA does not have provisions with regards to cooperation on (...) *fish stocks or stocks of associated species occurring within the exclusive economic zone of two or more coastal states (...)*,⁶⁹ and with regards to these stocks, the obligation to cooperate is not further defined than that definition provided for in the LOSC article 63 (1).

Regarding a fish stock or stocks of associated species that occur both within the EEZ and in an area beyond and adjacent to the EEZ, i.e. straddling fish stocks and highly migratory fish stocks, the FSA has supplementary provisions to the LOSC on how the cooperation on these fish stocks should take place.⁷⁰ The shared fish stocks are covered by LOSC article 63 (1), and the straddling fish stocks are covered by LOSC article 188 and 63 (2) and the FSA article 8.

In the following I will first interpret the obligation set out in the LOSC on cooperation with regards to shared fish stocks,⁷¹ and then I will interpret the obligation in the LOSC and the FSA with regards to the straddling fish stocks.⁷²

On the cooperation on the management of shared fish stocks LOSC article 63 (1) decides that:

Where the same stock or stocks of associated species occur within the exclusive economic zones of two or more coastal States, these States shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks without prejudice to the other provisions of this Part.

According to the wording of the article, it imposes an obligation to try to come to terms about the arrangement of the management of the shared fish stocks. The article does not say that an agreement on cooperation has to be concluded to fulfil the obligation set out in the article, nor

⁶⁹ LOSC art 63 (1).

⁷⁰ FSA part III.

⁷¹ LOSC art. 63 (1).

⁷² LOSC art. 63 (2) and FSA art. 8.

does it give detailed rules on the management and conservation obligations, included the allocation of catch among the states.

Article 63 (1) in the LOSC does not provide us with further answer on the content of the obligation to cooperate than that the states should *seek (...) to agree (...)* on the management of the shared fish stocks and associated species, and I will analyse other legal sources of international law to find the content of the obligation.

As mentioned in chapter two general principles of law is recognized as a source of international law, and in the current discussion I want to analyse if the principle of cooperation can help to clarify the content of the rule of cooperation in LOSC article 63 (1). The principle is recognized as a general principle of international environmental law.⁷³ It is also laid down in «soft law» instruments such as the 1972 Stockholm Declaration (principle 24).⁷⁴

The term cooperation is not defined by an international treaty or a resolution of an international organization, but international case law has contributed to develop and determine the content of the principle of cooperation. In the following I want to look in to some of the cases where cooperation has been a topic. In determining the meaning of the term cooperation awareness must be given to the fact that the principle could have different meaning in different conventions, and there are always different circumstances from case to case to consider also.⁷⁵

⁷³ Mox Plant (Ireland v. United Kingdom), 2001, ITLOS, Provisional Measures Order, 3 December 2001, para 83: (...) the duty to co-operate is a fundamental principle in the prevention of pollution of the marine environment under the Part XII of the Convention and general international law(...).

⁷⁴ Declaration of the United Nations Conference on the Human Environment (1972), (hereafter the Stockholm Declaration).

<http://web.archive.loc.gov/all/20150314024203/http%3A//www.unep.org/Documents.Multilingual/Default.asp?documentid%3D97%26articleid%3D1503> (visited 16 August, 2019).

⁷⁵ Wolfrum, *Cooperation, International Law of*, Oxford Public International Law, Max Planck Encyclopedia of Public International Law (April, 2010), para. 31.

The first case I would like to examine to determine the content of the obligation to cooperate in the LOSC article 63 (1) is the Nuclear Test Case.⁷⁶ In this case the court states in paragraph 46 that:

One of the basic principles governing the creation and performance of legal obligations, whatever their source, is the principle of good faith. Trust and confidence are inherent in international co-operation, in particular in an age when this CO-operation in many fields is becoming increasingly essential. Just as the very rule of pacta sunt servanda in the law of treaties is based on good faith, so also is the binding character of an international obligation assumed by unilateral declaration. Thus interested States may take cognizance of unilateral declarations and place confidence in them, and are entitled to require that the obligation thus created be respected.

According to this case one of the most important features of the duty to cooperate, is to enter in to negotiations in good faith with another state. If a unilateral declaration is made, (whatever their source) the obligation created should be respected. The interpretation of the duty to cooperate set out in the case seems compatible with the wording of article 63 (1) of the LOSC.

Further, The International Court of Justice handled the duty to cooperate in the North Sea Continental Shelf Cases,⁷⁷ and the court expressed in paragraph 85 a) that:

(...) the parties are under an obligation to enter into negotiations with a view to arriving at an agreement, and not merely to go through a formal process of negotiation as a sort of prior condition for the automatic application of a certain method of delimitation in the absence of agreement; they are under an obligation so to conduct themselves that the negotiations are meaningful, which will not be the case when either of them insists upon its own position without contemplating any modification of it (...)

⁷⁶ Nuclear Tests Case (New Zealand v. France), Judgment, ICJ Reports 1974, para. 46. Available at:

⁷⁷ North Sea Continental Shelf Cases (Federal Republic of Germany v. Denmark/ Federal Republic of Germany v. Netherlands), Judgment, ICJ Reports 1969, para. 85 (a). Available at: <https://www.icj-cij.org/files/case-related/51/051-19690220-JUD-01-00-EN.pdf> (visited 8 August, 2019)

As I read the court's decision, the court states that there is no general obligation to reach an agreement after entering in to negotiations. This would be consistent with the wording of the cooperation required in LOSC article 63 (1). In the article the term (...) *seeks (...) to agree* (...) is used. If such an understanding of the obligation to cooperate set out in article 63 (1) of the LOSC is right, it could mean that the provision to cooperate to safeguard shared fish stocks and associated species is insufficient. Coastal states sharing a fish stock are dependent on cooperation and reaching agreements on *inter alia* the maximum of allowable catch of fish stocks to fulfil its obligations in LOSC article 63 (1) to (...) *ensure the conservation and development of such stocks* (...).

After this it is fair to conclude that case law shows us that that obligation to cooperate is essential in international law. Cooperation between states on shared fish stocks is critical. These fish stocks could collapse if one of the states sets its own quota without taking in to the account the quotas set by the other state, and acting like this could mean that the state is not fulfilling its obligations to *inter alia* (...) *protect and preserve the marine environment* (...).⁷⁸

In my opinion the provision in LOSC article 63 (1) is too general with regards to the obligation to cooperate. It does not oblige states to reach an agreement after entering in to cooperation, or give any further instructions on the cooperation than the ones mentioned earlier in this discussion. It is also the case that LOSC article 297 (3) is weakening the provision more by deciding that coastal states are not obliged to submit to judicial settlement disputes relating to sovereign rights in the EEZ with respect to living resources. This means it prevents both the exercise of sovereign rights and the duties of conservation from being the basis of complaint by another state under PART XV of the LOSC.⁷⁹

Regardless, even though the LOSC's obligations to cooperate on shared fish stocks and associated species is weak, it is clear that some coastal states are aware of the obligation to seek to reach an agreement on the management of shared fish stocks, as they see the

⁷⁸ LOSC art.193.

⁷⁹ Rothwell and Stephens, *The International Law of the Sea*, Max Plank Encyclopedia of Public International Law, p.327.

advantage of such an approach. Other states on the other hand, even if they cooperate through a regional fisheries organization, continue the national property approach to shared fish stocks, allowing “business as usual” harvesting to continue within their EEZs.⁸⁰ If the states do not reach an agreement, each state will manage the part of the stocks and associated species that occur within its EEZ in accordance with its own domestic law and policies.

On the cooperation on the management of straddling fish stocks LOSC article 118 decides that: *States shall co-operate with each other in the conservation and management of living resources in the areas of the high seas (...)*. This duty is further elaborated in LOSC article 63 (2) which decide that:

Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area.

This provision is quite similar to the wording of the provision in LOSC article 63 (1), and as regards the obligation to *seek (...) to agree (...)* in article 63 (2), I refer to what was analysed with regards to this in the discussion of article 63 (1). I consider the obligation to cooperate to have the same character in both provisions of article 63.

Anyhow, there are some differences in the words used in the two provisions of article 63 (1) and 63 (2). In article 63 (1) the obligation to *seek (...) to agree (...)* comprises (...) *the conservation and development of such stocks (...)*, while the obligation (...) *to agree (...)* in article 63 (2) comprises (...) *the conservation of these stocks (...)*. Reading the provisions in context with the other provisions in part V of the LOSC and the general provisions in part XII of the LOSC I cannot find any indication on why there should be a stricter rule on the management of the shared fish stocks than for the straddling ones. In my opinion the straddling stocks could be more prone to overfishing etc. than the shared ones (except maybe

⁸⁰ Rothwell and Stephens, *The International Law of the Sea*, Max Plank Encyclopedia of Public International Law, p.327.

the shared stocks that are also straddling stocks). Hence, I don't think there is a deliberate meaning in formulating the wording in the two provisions different, especially considering that the states are only obliged to try to enter in to an agreement on the management of both the shared fish stocks and the straddling fish stocks. Also, when reading provision (2) of article 63 in context with article 62 (1) of the LOSC that decides;

The coastal state shall promote the objective of optimum utilization of the living resources in the exclusive economic zone without prejudice to article 6.

The different obligations on how to manage the shared and the straddling stocks in the LOSC does not make sense since an (...) *optimum utilization* (...) of fish stocks would require the setting of a joint TAC of each state.⁸¹

The conclusion I have reached after this is that the obligation to try to reach an agreement on the management of mentioned stocks is almost identical in both provisions of the LOSC, except that for the straddling ones there is not the obligation to develop the stock in addition to the duty to conserve the stocks. I am not sure if this difference in the wording of the two provisions would have had a practical significance if the question was brought to an international court. What I am sure of, is that cooperation is one of the most important features of successful fisheries management for shared and straddling fish stocks. This is important to be able to reach the goals of LOSC article 62 (1) to have an (... *optimum utilization of the living resources in the* (...) EEZ.

As pointed out under the analyze of article 63 (1) , case law shows that there is no general obligation to reach an agreement in international law after entering in to cooperation, and this is consistent with the wording of both provisions in article 63. The provisions of the LOSC requiring states to cooperate is fairly general and weak with respect to both shared fish stocks and straddling fish stocks. As mentioned earlier, the FSA was meant to remedy the provisions in the LOSC with regards to the straddling and highly migratory fish stocks.⁸² This means I

⁸¹ LOSC art. 62 (1).

⁸² LOSC art. 62 (1).

have to analyse the provisions on straddling fish stocks in the FSA to find the content of the obligation to cooperate with regards to these stocks.

The basic approach of the FSA is to give foundational rules and principles for the effective operation of regional fisheries agreements, and place an objective of optimum utilisation within a precautionary and ecosystem approach to marine living resource conservation.⁸³ The FSA article 8 (1) and 8 (2) decides that:

1) Coastal States and States fishing on the high seas shall, in accordance with the Convention, pursue cooperation in relation to straddling fish stocks and highly migratory fish stocks either directly or through appropriate subregional or regional fisheries management organizations or arrangements, taking into account the specific characteristics of the subregion or region, to ensure effective conservation and management of such stocks.

2) States shall enter into consultations in good faith and without delay, particularly where there is evidence that the straddling fish stocks and highly migratory fish stocks concerned may be under threat of over-exploitation or where a new fishery is being developed for such stocks. To this end, consultations may be initiated at the request of any interested State with a view to establishing appropriate arrangements to ensure conservation and management of the stocks. Pending agreement on such arrangements, States shall observe the provisions of this Agreement and shall act in good faith and with due regard to the rights, interests and duties of other States.

As we can see the FSA article 8 (1) provides further instructions on how states should seek to achieve cooperation on straddling fish stocks i.e. either through regional fisheries management organizations or through arrangements. Further article 8 (2) expands the duty of cooperation in the LOSC article 63 (2) by implementing a requirement to enter in to negotiate in good faith, especially when there is evidence that the fish stock is threatened by over-exploitation etc. It is clear from the wording of the FSA article 8 the obligation to cooperate

⁸³ Rothwell and Stephens, *The International Law of the Sea*, Max Plank Encyclopedia of Public International Law, p. 342.

on straddling stocks has been strengthened to a certain extent. Still, the words used in the provisions are not very strict. In article 8 (1) it says (...) *pursue cooperation* (...), and in article 8 (2) the words (...) *states shall enter into consultations* (...) are used.

Anyhow, it is clear that the FSA has strengthened the obligation to cooperate with regards to straddling fish stocks. The states responsible for the management of straddling or highly migratory fish stocks can be held liable if they do not comply with their obligations in the LOSC and the FSA. The fisheries provisions that applies to the high seas are subject to the dispute settlement system under LOSC part XV, as there are no such exception as for the EEZ fisheries provisions in article 297 (3).

The question that follows after this is how Norway and Russia has decided to fullfill the obligations set out in both the LOSC article 63 (1) with regards to shared fish stocks and in LOSC article 118 and 63 (2) and the FSA part II and III with regards to straddling fish stocks. I have tried to answer this question under chapter 4.2 of the thesis.

4.2 The joint fisheries commission as means of cooperation on shared and straddling fish stocks of the Barents Sea and the use of the precautionary approach in the management of the fish stocks

In this chapter I am going to analyze the 1975 and 1976 Agreements and the Barents Sea Treaty to see how Norway and Russia have fulfilled their obligations to cooperate to manage shared and straddling fish stocks set out in the LOSC article 63 (1), 63 (2) and 118 and the FSA article 8 with regards to these fish stocks .

I will not discuss the Loophole Agreement and the bilateral agreements with third countries in my thesis, but for the context of the thesis subject it is important to mention them as they explain how Norway and Russia has fulfilled their obligations set out in the LOSC and the FSA with regards to the straddling stocks. Norway's and Russia's agreements with third states regard quotas and fisheries regulations outside of the two countries jurisdiction of the straddling stocks that wanders to the high seas, i.e. the Arcto- Norwegian Cod stock.

The cooperation between Norway and the former Soviet Republic was formalized through the establishment of the joint fisheries commission.⁸⁴ According to the 1975 Agreement the joint fisheries commission is to meet annually with representatives from both countries to negotiate measures to be able to implement the agreement.⁸⁵

When Norway and the former Soviet Republic established its EEZs in the 70s a new agreement between the two countries was signed, and the 1976 Agreement gives the parties mutual access to each other's EEZ, and commits them to cooperate on the shared fish stocks.⁸⁶ This means that the agreement also applies in the fisheries protection zone around Svalbard (as mentioned, the cod migrate to this area).

The 1976 Agreement does not explicitly state that it shall apply to the management of shared fish stocks, but this could be concluded by the fact that shared fish stocks occur in the EEZs of the two countries. Article 7 b) of the 1976 Agreement is related to straddling fish stocks and article 7 C) refers to other fish stocks which have mutual dependence with the shared and the straddling fish stocks.

The main task of the joint fisheries commission is to set the total allowable catch (hereafter TAC) for the fish stocks of shared and straddling fish stocks occurring in the EEZs of the two coastal states and in the Loophole. Another important task is also and to distribute these quotas.⁸⁷ The TAC is set for the fish stocks: cod, haddock, capelin, Greenland halibut and other species.⁸⁸

After the establishment of the joint fisheries commission and the subsequent work that is done in the annual meetings of the joint fisheries commission and the established work groups

⁸⁴ The 1975 Agreement art III (1).

⁸⁵ The 1975 Agreement art. III 3) and III (2) and art. IV 1).

⁸⁶ The 1976 Agreement art. 1 and 7 b).

⁸⁷ The 1976 Agreement art. 2.

⁸⁸ The protocol from the 48th session of The Joint Fisheries Commission:

<https://www.regjeringen.no/contentassets/cb939423ea10498aac59dc3f7ac0dcd8/signert-protokoll-48.-sesjon--norsk-versjon.pdf> (visited 13 August, 2019).

under its auspices, there can be no doubt that the states through this cooperation have the intention of fulfilling the duty of the long-term conservation of the shared and straddling fish stocks in the Barents Sea.⁸⁹ Hønneland claims that Norway and Russia can be said to have fulfilled their obligations under the law of the sea regarding the shared and straddling fish stocks of the Barents Sea to the extent that they have taken measures to maintain the sustainability of the stocks.⁹⁰

As I wrote in chapter 3.3 the joint fisheries commission has also integrated the precautionary approach to its fisheries management in accordance with FSA. The joint fisheries commission adopted this approach in its work before it was codified in the Barents Sea Treaty in 2010. This approach is based on knowledge about the ecosystem, and I suggest that the management of the resources would be better if there was an integrated ecosystem- based management plan in place for the Barents Sea as a whole. Then the precautionary approach could be used in a bigger picture than only on the basis of scientific evidence. I will get back to this later under the joint environmental commissions work in this chapter, and in chapter five when analyzing the integration of climate change impacts in to the management of the resources and biological diversity of the Barents Sea.

The requirements set out for the format of the cooperation of the management of the shared fish stocks set out in LOSC article 63 (1) and for the straddling fish stocks in LOSC article 118 and 63 (2) and FSA article 8 (1).

LOSC article 63 (1) require the format of the cooperation with regards to the shared fish stocks to be: (...) *either directly or through appropriate subregional or regional organizations (...)*. LOSC article 118 requires the format of the cooperation with regards to the living resources of the high seas to require the establishment of a (...) *subregional or regional fisheries organization (...)*, and article 63 (2) of the LOSC requires the format of the cooperation with regards to the straddling fish stocks to be:(...) *either directly or through*

⁸⁹ Dahl, *Norsk fiskerijurisdiksjon overfor utenlandske fiskefartøyer*, Avhandling levert for graden Philosophiae Doctor, Universitetet i Tromsø, Det Juridiske Fakultet, desember, 2008, p.296.

⁹⁰ Hønneland, *Kvotekamp og kyststatssolidaritet, Norsk- Russisk Fiskeriforvaltning gjennom 30 år (2006)*, Fagbokforlaget, p.115.

appropriate subregional or regional organizations (...). The FSA article 8 (1) requires the format of the cooperation in relation to straddling fish stocks to be: (...) either directly or through appropriate subregional or regional fisheries management organizations or arrangements (...).

The format of cooperation to choose by when cooperating on shared fish stocks are; direct cooperation or through subregional or regional fisheries management. When it comes to the straddling fish stocks the states can choose between direct cooperation, subregional or regional fisheries organizations and arrangements when cooperating.

It is important to establish the format of the cooperation of the joint fisheries commission to establish which access the joint fisheries commission has to *inter alia* enforcement of the measures set by it to regulate the fisheries in the Barents Sea (including the Loophole). Enforcement access depends on the joint fisheries commission being an arrangement or an RFMO. A direct cooperation does not give access to enforce the measures agreed upon in the joint fisheries commission.⁹¹

My thesis is not concerned with enforcement and control. The format of the joint fisheries commission is thus subordinate to my thesis. My mission is to show how the two countries cooperate with regards to shared and straddling fish stocks, biological diversity and climate change, not their competence to enforce the regulations. Anyhow, at this end of this chapter I will refer to the different views on the format of the joint fisheries commission so that there is a context in my thesis with regards to this question.

The joint fisheries commission is not considered a RFMO. This seems undisputed both by legal authors that have analyzed the joint fisheries commission. This leaves us with two opportunities on the format of the joint fisheries commission with regards to the law of the sea. It could be considered an *arrangement* or a *direct cooperation*.

⁹¹ FSA art. 8 and 9.

Hønneland is arguing that the joint fisheries commission is an arrangement in accordance with the FSA.⁹² Dahl simply states that the joint fisheries commission is not an RFMO,⁹³ and argues that the joint fisheries commission is an arrangement according to the FSA.

It is also obvious that the Norwegian authorities are of the opinion that the joint fisheries commission is an arrangement according to the FSA. It was the proposal that came from Norway during the negotiation of the FSA that led to the concept of an arrangement coming into the FSA. In its input, Norway said:

*Of particular importance to Norway is that regional fisheries events are equated with fishery management organizations as the text reflects a consensus that formalities must be set in the functions and activities of the regional administrative bodies. It has been a central point for Norway to achieve full status for the regional arrangements, given the management tasks attached to the joint fisheries commission in the Barents Sea. (...) From the EU side the explicit fisheries commission is a legitimate regional fishing arrangement in accordance with the provisions of the Commission.*⁹⁴

4.3 Content of the obligation to cooperate on the management of marine biological diversity in international law

The conservation of living resources and the protection and preservation of the marine environment are some of the key intentions of the LOSC.⁹⁵ Despite this, and the fact that many treaties relating to the marine environment have been in place for half a century or more, the physical conditions of our oceans is still notably degraded by human activities. The

⁹² Hønneland, *Kvotekamp og solidaritet: norsk-russisk fiskeriforvaltning gjennom 30 år* (2006), p.119.

⁹³ Dahl, *Norsk fiskerijurisdiksjon overfor utenlandske fiskefartøyer*, Avhandling levert for graden Philosophiae Doctor, Universitetet i Tromsø, Det Juridiske Fakultet, desember, 2008, p.296.

⁹⁴ Den norske delegasjonen til FN-konferansen om vandrende og langtmigrerende fiskebestander, *Rapport fra den norske delegasjonen som oppsummerer konferansens femte sesjon (1995)*, according to Dahl in Dahl, *Norsk fiskerijurisdiksjon overfor utenlandske fiskefartøyer*, Avhandling levert for graden Philosophiae Doctor, Universitetet i Tromsø, Det Juridiske Fakultet, desember, 2008, p.297.

⁹⁵ LOSC preamble.

treats range from *inter alia* over-fishing, climate change, exploitation of hydrocarbons and habitat degradation.⁹⁶

The LOSC has established an extensive framework for the protection and preservation of the marine environment in part XII. The provisions of this part were supposed to cover all areas of ocean space, including the areas beyond national jurisdiction. Article 192 of the LOSC sets out the general obligation for states to protect and preserve the marine environment, and the provision applies in all maritime zones. Further article 197 decides that states shall:

(...) co-operate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this convention, for the protection and preservation of the marine environment, taking in to account characteristic regional features.

The provisions in part XII of the LOSC reflect the need for an integrated system of ocean governance in which global and regional organizations of States would have to cooperate to make international rules and procedures to protect and preserve the marine environment.⁹⁷

As mentioned under chapter 2.2.3 of my thesis, the LOSC makes no reference to biological diversity in its text, and when the CBD was adopted by the 1992 Rio Conference the convention filled a substantial legal gap with regards to marine biodiversity. Because of these deficiencies in the international law the CBD implemented a general provision with regards to cooperation on the conservation and sustainable use of biological diversity *(...) in respect of areas beyond national jurisdiction and on other matters of mutual interest, for the conservation and sustainable use of biological diversity.*⁹⁸

⁹⁶ Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea*, Scott, *Integrated Oceans Management, A New Frontier in Marine Environmental Protection*, Oxford University Press (2017), p.462-463.

⁹⁷ ⁹⁷ Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea*, Warner, *Conserving Marine Biodiversity in Areas Beyond National Jurisdiction, Co-Evolution and Interaction With the Law of The Sea*, Oxford University Press (2017), p. 753.

⁹⁸ CBD art.5.

As we can see the LOSC and the CBD is clearly overlapping with regards to cooperation on matters concerning the marine environment and biological diversity. The big difference with regards to the two provisions on the obligation to cooperate is that the LOSC does not mention cooperation with regards to marine biological diversity in its provisions. The words used in the LOSC are the *marine environment*, and it is not defined in the LOSC.⁹⁹ The CBD both mentions biological diversity in the provision on cooperation, and provides a definition for what is recognized as biological diversity.¹⁰⁰

It is not that the LOSC does not concern about biological diversity at all. In managing the shared and straddling fish stocks the states are obliged to take in to consideration *associated species*.¹⁰¹ According to Wolfrum and Matz this is LOSC first step towards an ecosystem approach,¹⁰² but the provisions in the LOSC are fairly general in character and it is difficult to deduce a general obligation to take in to account the ecosystem as a whole when considering processes and activities in the EEZs or the high seas. It is important in this regard, to mention that even if the part XII of the LOSC does not explicitly refer to fishing activities which requires regulations to fulfil the obligations set out in this part, the provisions is fully applicable also on such activities.

After this it is obvious that all activities, also fishing activities, should be considered within an ecosystem approach. This is confirmed by the International Tribunal of the Law of the Sea in 1999.¹⁰³

⁹⁹ LOSC art. 197.

¹⁰⁰ CBD art 2: "*Biological diversity*" means the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.

¹⁰¹ LOSC art. 63 (1) and (2).

¹⁰² Wolfrum and Matz: *The Interplay of the United Convention on the Law of the Sea and the Convention on Biological Diversity*, Max Planck UNYB (2000), p.450.

¹⁰³ Southern Bluefin Tuna Case (New Zealand v. Japan: Australia v. Japan) Order of 27 August, 1999, Request for provisional measures, ILM 38, para 70: (...) *the conservation of the living resources of the sea is an element in the protection and preservation of the marine environment (...)*

Clearly, each agreement is relevant for the purpose of interpreting the other.¹⁰⁴ In this regard it is important to point to the preamble of the CBD that holds that one of the goals of the convention is to:

(...) enhance and complement existing international arrangements for the conservation of biological diversity and sustainable use of its components (...).

This is consistent with the LOSC, which recognizes that developments in international marine environmental law are also taking place in other fora. Under article 237 of the LOSC, agreements relating to the marine environment do not have to conform to part XII of the LOSC. The criterion is that the agreement must be carried out in a manner consistent with the objectives and general principles set out in the LOSC. This means that the CBD could prevail over the LOSC as *Lex Specialis* if the conditions in the LOSC article 237 are met.

The LOSC and the CBD has a similar purpose, and is not contradictory to each other with regards to the conservation and preservation of the marine environment and biological diversity. The CBD extends the commitment in the LOSC with regards to the marine environment by *inter alia* defining that the duty to cooperate applies to the entire ecosystem.¹⁰⁵

In my opinion this indicates that the content of the obligation to cooperate on matters concerning the marine environment and biological diversity is the same as the one I concluded with in chapter 4 under the analyze of the obligation to cooperate with regards to shared and straddling fish stocks. The obligation to cooperate on the management on the marine environment set out in the LOSC and marine biological diversity set out in the CBD is that the states shall enter in to cooperation in good faith with the aim of reaching an agreement on cooperation on marine biological diversity.

¹⁰⁴ Boyle, *Relationship Between International Environmental Law and Other Branches of International Law*, Oxford International Handbook of the Law of the Sea, Daniel Bodansky et al (eds.), (Oxford University Press) (2014), p.139.

¹⁰⁵ CBD art.5 and 2.

4.4 The joint environmental commission as means of cooperation on marine biological diversity: the goal of achieving an ecosystem-based management of the Barents Sea

In this chapter I am going to analyze the environmental agreement between Norway and Russia from 1992 and the Barents Sea Treaty to see how Norway and Russia have fulfilled their obligations to cooperate on the management of the marine environment and marine biological diversity in the Barents Sea set out in the provisions of the LOSC article 197 (marine environment) and the CBD article 5 (marine biological diversity).

The requirements of the format of the cooperation of the management of the marine environment and the biological diversity are set out in LOSC article 197 and CBD article 5. Both provisions state that the format of the collaboration should be (...) *directly or (...) thorough competent international organizations*. The format of the cooperation is not further elaborated through other conventions, like the format of the cooperation in the FSA for the straddling fish stocks.

The question after this is how Norway and Russia have chosen to cooperate to fulfill the obligations related to the marine environment and marine biological diversity set out in the LOSC and the CBD.

In 1993, the joint environmental commission was established to manage and implement cooperation in the environmental sector in accordance with the treaty signed the previous year.¹⁰⁶ The pollution from the nickel plant in Pechenga was the most important issue in the cooperation on environment between Norway and Russia in the early years, and in the early 1990s, mapping of radioactive pollution became a central area of work. From the mid-1990s, the aim was to make the joint environmental commission a forum for broader institutional cooperation between Norway and Russia in the field of environmental protection to implement the provisions of the CBD. Biological diversity and cultural heritage protection

¹⁰⁶ Overenskomst mellom kongeriket Norges Regjering og den russiske føderasjons regjering om samarbeid på miljøvernområdet, art. VI.

https://www.regjeringen.no/contentassets/66b54513e82d453c88f030135513d582/overenskomst_av_1992_no.pdf (visited 23 August, 2019).

were included, as well as the training program "Cleaner Production", which mainly involves courses for Russian engineers in waste minimization and clean technology. In recent years the Joint Environmental commission have emphasized the marine environment more than before, and according to Rowe, Hønneland and Moe this is very reasonable.¹⁰⁷

According to the environmental agreement between Norway and Russia from 1992 article VI, the cooperation on the environmental work between Norway and Russia are to be headed and coordinated by the joint environmental commission. The same article decides that the commission should meet no less than every other year, and that guidelines and rules for the cooperation should be made.

The guidelines and rules for the cooperation is still not made, and according to the Norwegian Riksrevisjonen one of the findings of the investigation of the cooperation is that it is necessary to make guidelines and rules to strengthen the cooperation to ensure that the goals of the 1992 environmental agreement is reached.¹⁰⁸ The protocols of the joint environmental commission from the recent year's shows that the meetings in the joint environmental commission occur with almost regular frequency and in accordance with the provision in the 1992 environmental agreement on this matter.¹⁰⁹

¹⁰⁷ Rowe, Hønneland and Moe: *Evaluering av miljøsam arbeidet mellom Norge og Russland*, Rapport utarbeidet på oppdrag av Miljødirektoratet, FNI Rapport 7/2007, p. iii.

¹⁰⁸ *Riksrevisjonens undersøkelse av det norsk-russiske bilaterale miljøsam arbeidet – en parallellrevisjon med Den russiske føderasjons riksrevisjon*, Dokument 3:8 (2018–2019), p.8.

¹⁰⁹ The protocols from the meetings are unpublished, and I got a hold of them by addressing the Ministry of Climate and Environment in Norway. The protocols showing the frequency of the meetings recent years are:

Protokoll fra det 16. møte i Den blandede norsk-russiske miljøvernkommissjonen, Moskva 27.januar 2011.

Protokoll fra det 17. møte i Den blandede norsk-russiske miljøvernkommissjonen, Svanhøvd, 17.-18.september 2012.

Protokoll fra det 18. møte i Den blandede norsk-russiske miljøvernkommissjonen, Moskva, 1.-2.desember 2015.

Protokoll fra det 19. møte i Den blandede norsk-russiske miljøvernkommissjonen, Oslo, 30.mai 2017.

Protokoll fra der 20. møte i Den blandede norsk-russiske miljøvernkommissjonen, Moskva, 19.februar 2019.

On matters concerning the biological diversity and the marine environment in the Barents Sea, the 1992 environmental agreement article II decides that the cooperation in the joint environmental commission should involve *inter alia*: conservation of the marine environment, monitoring of the state of the marine environment and assessments of the environmental impact of activities in the Barents Sea.

The joint environmental commission is working through working groups established through two-year working programs. For now the working groups are *inter alia*: working group on the marine environment and working group on biological diversity.¹¹⁰ This work is important since there is a need to balance and manage the exploitation of the resources of oil, gas and marine living creatures to protect the Barents Sea ecosystems function and productivity. According to Hansen the joint environmental commission has recognized these challenges in the Barents Sea and (...) *endorsed joint working groups to prepare the scientific basis required to make plans for ecosystem-based management for the whole Barents Sea and to propose development and harmonization of joint monitoring to examine environmental changes and management effects on the environment (...).*¹¹¹

The importance of ecosystem-based management was also a theme on the last meeting of the joint environmental commission. Here the parties stated that (...) *the marine environment is a high priority area of cooperation in Norwegian-Russian environmental cooperation, and that the development of ecosystem-based management of the Barents Sea is a goal (...).*¹¹²

¹¹⁰ Arbeidsprogram for det norsk-russiske miljøvern samarbeidet (godkjent på det 20.møtet i Den blandede norsk-russiske miljøvernkommissjonen, Moskva, 19.februar 2019)
<https://www.regjeringen.no/contentassets/66b54513e82d453c88f030135513d582/arbeidsprogrammet-2019-2021---signert-norsk.pdf> (visited 23 August, 2019).

¹¹¹ Hansen: *Norwegian–Russian environmental cooperation in the Barents Sea. Toward development of a coordinated ecosystem based management*, Article in the Barents Observer, 11 August, 2015 (visited 23 August, 2019).

¹¹² Protokoll fra der 20. møte i Den blandede norsk-russiske miljøvernkommissjonen, Moskva, 19.februar 2019, pkt. 2.1.

Norway and Russia has clearly chosen to cooperate to manage the marine biological diversity and the marine living resources through a direct cooperation, and must have been said to have fulfilled the obligation set out in the LOSC and this CBD in this regard. It is important to point out that the management of the resources in the Barents Sea is dependent on a link between the fisheries management and the management of the marine biological diversity.

This leads to the next question that rises in my thesis: does the 1992 environmental agreement and the Barents Sea treaty, including the fisheries agreements from 1975 and 1976, provides for such a link, so that Norway and Russia actually can fulfill the obligations set out in the LOSC and the CBD with regards to preserving and protecting the marine environment and marine biological diversity. A link like this is necessary so that we can see the impact of the different sectors on the different parts of the Barents Sea ecosystem. I will also return to ecosystem-based management in Chapter 5 of the Master's thesis.

The 1992 environmental agreement does not establish a formal link to the fisheries agreements from 1975 and 1976. It mentions the marine environment, but makes no reference to the joint fisheries commission and cooperation with the joint environmental commission.

In the 16th meeting of the joint environmental commission the Norwegian side pointed out that with the new Barents Sea Treaty the intensity of efforts to protect the marine environment in the Barents Sea must increase, and that the environmental framework for sound management of resources in the Barents Sea must be defined.¹¹³ This is the only link I have found in the protocols from the joint environmental commission between 2011- 2019 that can recall anything that points to collaboration between the joint environmental commission and the joint fisheries commission with regards to the marine environment.

Further I have analyzed the provisions in the Barents Sea Treaty to see I could find something on cooperation on marine biological diversity in the Barents Sea. The preamble of the agreement is recalling the obligations to conserve and manage the marine living resources of the Barents Sea, and article 4 (3) of the treaty decides that:

¹¹³ Protokoll fra det 16. møte i Den blandede norsk-russiske miljøvernkommisjonen, Moskva 27.januar 2011.

The Parties shall apply the precautionary approach widely to conservation, management and exploitation of shared fish stocks, including straddling fish stocks, in order to protect the living marine resources and preserve the marine environment.

This is the only provision in the treaty that is pointing to preservation of the marine environment as such. The provision does implement the precautionary approach for the conservation, management and exploitation of the shared and straddling fish stock in order to preserve the marine environment, but it does not take the holistic ecosystem based approach that is essential to fulfill the goal set out in the joint environmental commission of an ecosystem- based management of the Barents Sea.¹¹⁴

The question that rises after this is what Norway and Russia has done to cooperate on the ecosystem- based management of the Barents Sea with regards to shared and straddling fish stocks and biological diversity.

The cooperation on marine scientific research has been going on for more than a century and the two countries have a lot of knowledge about the ecosystem in the Barents Sea. More than 1800 occasional expeditions have been organized both by Norway and Russia, and since the 1960s the collaboration between the Institute of Marine Research (IMR, Bergen) and the Knipovich Polar Research Institute of Marine Fisheries and Oceanography (PINRO, Murmansk) has been strengthened by developing and carrying out joint surveys.¹¹⁵

According to the Norwegian Ministry of Climate and Environment there is cooperation between the joint environmental commission and the joint fisheries commission. Admittedly, this rarely happens at the top level, but at the expert level there is good cooperation between

¹¹⁵ Eriksen, Gjørseter, Prozorkevich, Mauritzen, Shamray, Dolgov, Stiansen, Kovalev and Sunnanå: *From single species surveys towards monitoring of the Barents Sea ecosystem (2018)*, Institute of Marine Research, Polar Research Institute of Marine Fisheries and Oceanography, p. 2.

the two commissions. This is especially true within the Norwegian-Russian marine environment cooperation, which is under the joint environmental commission.¹¹⁶

The Ministry of Trade, Industry and Fisheries and the Institute of Marine Research participate in the Norwegian-Russian marine environment group under the joint environmental commission to ensure good coordination with the work of the joint fisheries commission. In four out of five projects on the marine environment, experts from both the environmental and fisheries sectors participate: Three projects on comprehensive marine management and a project on reduction of marine litter in the Barents Sea. As an example, the project HAV-3 in the work program for the joint environmental commission is worth mentioning. The project has agreed on a set of indicators for coordinated environmental monitoring of the Barents Sea. Several of these indicators are part of the cooperation of the joint fisheries commission and there is active dialogue between the participants in the two commissions here.¹¹⁷

It is clear that there is a link between the work of the joint environmental commission and the joint fisheries commission at the expert level to work at reaching the goal of an ecosystem-based management of the Barents Sea. Such a link is necessary so that the fisheries management can be implemented in an ecosystem based management of the Barents Sea. I could not find anything in the treaty law of the Barents Sea requiring such a link, but indirect, the Barents Sea Treaty and the 1992 environmental agreement could be read as encouraging such an approach since both treaties is talking about protecting the marine environment.

Russia has decided that the Barents Sea is going to be a pilot for the development of an integrated ecosystem- based management system for Russia as a whole, but has still not adopted a management plan.¹¹⁸ Norway has drawn up integrated ecosystem plans for all of its

¹¹⁶ Correspondence with Senior Adviser Ingrid Lillehagen at the Norwegian Climate and environmental Agency by e-mail of 27 August, 2019.

¹¹⁷ According to senior adviser Ingrid Lillehagen at the Ministry of Climate and Environment in e-mail of 27 August 2019.

¹¹⁸ The integrated management plan for the Barents Sea – Lofoten area including an update of the delimitation of the marginal ice zone was upgraded in 2015:

<https://www.regjeringen.no/contentassets/d6743df219c74ea198e50d9778720e5a/en-gb/pdfs/stm201420150020000engpdfs.pdf> (visited 24 August 2015), p.10.

sea areas, and this includes a plan for Barents Sea–Lofoten area adopted in 2006.¹¹⁹ Since the Barents Sea is one ecosystem it is important that not only Norway's part of the Barents Sea is managed by a holistic management plan. One of the purposes of Norwegian-Russian cooperation on the marine environment is (...) *the development of ecosystem-based management of the Barents Sea*(...)¹²⁰ This has, as mentioned above, developed into cooperation with a view to achieving ecosystem-based management of the whole Barents Sea.

I think it is necessary to prioritise the work on the marine environment at a higher level in the two commissions, in addition to the cooperation at the expert level, to give this work the right priority. A couple of propositions in this regard is that that when the joint environmental commission is going to make guidelines and rules for its work, it could provide for a formal link pointing to cooperation with the joint fisheries commission. Further, the joint fisheries commission could address the cooperation with the joint environmental commission at its meetings.

It is also clear that Russia should adopt a management plan for its part of the Barents Sea as soon as possible, so that the ecosystem in the Sea could be seen as a whole when Norway and Russia is managing fish stocks, giving permission to drill for oil etc. If the cooperation between the joint environmental commission and the joint fisheries commission was prioritised at a higher level, maybe these plans would have progressed faster.

¹¹⁹ The integrated management plan for the Barents Sea – Lofoten area including an update of the delimitation of the marginal ice zone was upgraded in 2015, and are to be found here:

<https://www.regjeringen.no/contentassets/d6743df219c74ea198e50d9778720e5a/en-gb/pdfs/stm201420150020000engpdfs.pdf> (visited 24 August 2015).

¹²⁰ Protokoll fra der 20. møte i Den blandede norsk-russiske miljøvernkomisjonen, Moskva, 19.februar 2019, pkt. 2.1.

5. Climate change effects on fisheries and marine biological diversity: integrating climate change impacts in to the management of the shared and straddling fish stocks and biological diversity in the Barents Sea

5.1 Introduction

In chapter 5 I would like to analyse what kind of legal obligation international law of the sea and climate change law poses on Norway and Russia to integrate climate change impacts to its fisheries management and the conservation of marine living resources and biological diversity in the Barents Sea. First I will start with a definition of climate change, and then I will say a bit about the climate changes occurring in the Barents Sea. Further I will analyse the international law on the subject, and then I will look at the agreements between the two countries regulating fisheries and environment. At last I will look at the options for the legal tools to integrate climate change impacts into the management of the marine living resources and the biological diversity of the Barents Sea.

5.2 Climate change: definition

Climate change is defined by the American Metrological Society as: *Any systematic change in the long-term statistics of climate elements (such as temperature, pressure, or winds) sustained over several decades or longer.*

*Climate change may be due to natural external forcings, such as changes in solar emission or slow changes in the earth's orbital elements; natural internal processes of the climate system; or anthropogenic forcing.*¹²¹

Climate change emerges from both anthropogenic (human effects) and natural causes. The UNFCCC has restricted its definition of climate change to causes emerging directly or indirectly from human activity only. The convention regards climate variability as changes associated with natural causes.¹²²

¹²¹ Glossary of Meteorology, http://glossary.ametsoc.org/wiki/Climate_change (visited 29 July 2019)

¹²² UNFCCC art.1 (2)

5.3 Climate change effects in the Barents Sea

The Barents Sea contains some of the most valuable fish resources in the world, including the world's largest cod stock.¹²³ Fisheries managers, politicians and the public are demanding answers from scientist about the outcome from climate changes, including fish stock development. Eide says it is (...) *difficult to predict future development of Arctic marine ecosystems and, even more so, how these are affected by human interactions (...)*.¹²⁴ Effects of climate change on the population of commercial fish are also widely recognized. Fish and fisheries ecosystems are naturally subject to climate related variability which drives fluctuations in productivity. Climate change related changes in water temperature, ocean acidity and ocean currents are predicted to amplify these natural variations leading to greater changes in productivity levels and to changes in species distribution.¹²⁵

The main human made (anthropogenic) climate changes is a consequence of increased release of greenhouse gasses to the atmosphere. This leads to a small and steady temperature increase every year, and is accumulated over the years. This will eventually lead to a significant change in the global climate, and especially in the Arctic where the rate of change in temperature is double that of the global average. In addition to the human made climate change, we have natural variability in the climate that will continue in the future.¹²⁶

The Intergovernmental Panel on Climate Change (IPCC) published a report in October 2018 with a strong warning about consequences if we can't limit global warming to 1.5°C and in September 2019 a new special report will be announced: *Special Report on the Ocean and*

¹²³ Hønneland, *Norway and Russia: Bargaining Precautionary Fisheries Management in the Barents Sea*, Arctic Review on Law and Politics, vol. 5, 1/2014 pp. 75-99. ISSN 1891-6252, p.75.

¹²⁴ Eide, *Climate change, fisheries management and fishing aptitude affecting spatial and temporal distributions of the Barents Sea cod fishery*, DOI 10.1007/s13280-017-0955-1, p.1.

¹²⁵ Rayfuse, *Climate Change and the law of the sea*, Rosemary Rayfuse- 9781781006085, pp.158-159.

¹²⁶ Jakobsen and Ozhigin, *The Barents Sea, Ecosystem, Resources, management, Half a century of Russian-Norwegian cooperation* (2011), p.779.

Cryosphere in a Changing Climate.¹²⁷ Since IPCC's first assessment report in 1990 (AR₁) there have been major advances in the understanding of the climate change's impacts on our oceans. The understanding comprises sea level rise, impacts on the marine ecosystems and ocean acidification (the oceans absorb CO₂ from the atmosphere).

The latest state of knowledge is found in IPCC's report (AR₅) released in 2013-2014. The AR₅ reports that the oceans are undergoing a biophysical transformation that is unprecedented in human history, and according to Stephens: *This process challenges two of the central assumptions upon which the law of the sea is based; that oceans will continue to provide a predictable and benign environment which allows clear jurisdictional boundaries to be drawn (from stable baselines along the coast), and that the oceans will carry on supporting a range of vital human uses (such as fishing)*.¹²⁸

Isfjorden (Svalbard), which only two decades ago was categorized as a fjord with Arctic marine ecosystem is now more of an Atlantic marine ecosystem. The Northern Barents Sea may soon complete the transition from a cold Arctic to a warm and well mixed Atlantic dominated climate regime, and such a shift would have unknown consequences for the Barents Sea ecosystem.¹²⁹

5.4 Legal responses to climate change effects in the Barents Sea

The LOSC was concluded at a time where there was little appreciation of the impacts of anthropogenic global warming of the oceans, and does not mention climate change in anyone of its provisions. Neither does the FSA or the CBD. I have also analysed if the climate change regime could provide us with further information on the management of climate change impacts of the oceans. Article 2 sets out the objective of the UNFCCC. The article reads:

¹²⁷ The IPCC and the Sixth assessment cycle:

https://www.ipcc.ch/site/assets/uploads/2018/11/AR6_brochure_en.pdf (visited 28 August 2019).

¹²⁸ Rothwell, Elferink and Stephens, *The Oxford Handbook of The Law of the Sea, Warming waters and Souring Seas, Climate Change and Ocean Acidification*, Stephens, Oxford University Press (2017), p.778.

¹²⁹ The Barents Observer; <https://thebarentsobserver.com/en/ecology/2018/07/northern-barents-sea-warms-dramatically> (visited 28 August 2019).

“The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.”

The UNFCCC convention clearly has an atmospheric and not oceanic focus. The UN Paris Agreement seems to seek a remedy for this fact, and recognizes the importance (...) of *ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth, and noting the importance for some of the concept of "climate justice", when taking action to address climate change (...) in its preamble.*¹³⁰

Further, article 2 (1) of the convention states that the aim of the convention is to (...) *strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty (...) by (...) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production (...).*¹³¹

After this it is clear that the Paris Agreement has enhanced the focus on climate changes impacts on the ecosystems in the ocean, and demands for the parties to the agreement to increase the ability to adapt to (...) *the adverse impacts of climate change (...).*¹³² In addition to this, Norway and Russia have both a general obligation to *protect and preserve the marine environment,*¹³³ and an obligation to cooperate on matters concerning *inter alia* shared,¹³⁴

¹³⁰ 2015 UN Paris Agreement preamble.

¹³¹ 2015 UN Paris Agreement art 2 b).

¹³² 2015 UN Paris Agreement art 2 b).

¹³³ 1982 UN Convention on the Law of the Sea (hereafter LOSC) art. 193.

¹³⁴ LOSC art. 63 (1).

*straddling or highly migratory fish stocks*¹³⁵. The two states are also obliged to cooperate for *the conservation and sustainable use of biological diversity*.¹³⁶ The general obligations set out in these conventions means that if Norway and Russia is going to be able to protect and preserve the marine living resources and the biological diversity in the Barents Sea, they need to consider the climate change impacts on these resources in their management of them.

The Barents Sea is one ecosystem, and if it is not seen as one in the management of it, it could have catastrophic consequences with regards to fish stocks, marine living resources and biological diversity in the area. From a marine environmental perspective, climate change are but one of many anthropogenic stressors to the marine environment. A comprehensive review by the International Programme on the State of the Ocean in 2013, in partnership with the International Union for the Conservation of Nature, concluded that: *(...) human activities have led to intense multiple stressors acting together in many marine ecosystems (...) with the major threats (...) arising from overexploitation of biotic resources, climate change effects forming the so called “deadly trio” (ocean warming, acidification and hypoxia/anoxia) and pollution (...)*. These stressors are producing localized ecosystem decline, and threaten to cause global oceanic ecosystem collapse.

The fisheries agreements from 1975 and 1976 in place between the two countries does not mention climate changes at all, nor does the Barents Sea Treaty or the 1992 environmental agreement. Still Norway and Russia is bound by the general obligations set out in the LOSC, the FSA and the CBD to protect and preserve the marine living resources and the biological diversity in the Barents Sea. They are also bound by the obligations set out in the 1975 and 1976 agreements and the 1992 environmental agreement which they have entered into between them to fulfill the obligations to preserve fish stocks and biodiversity in the Barents Sea. In this context I refer to the collaboration on the management of shared and straddling fish stocks and biological diversity I have written about in chapter four.

¹³⁵ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. (Hereafter FSA) art. 5 and LOSC art. 63 (2).

¹³⁶ 1992 UN Convention on Biological diversity (hereafter CBD) art. 5.

As I see it there is no need for further agreements to integrate climate change in the management of the shared and straddling fish stocks and the biological diversity of the Barents Sea. The effects that climate change causes, or is expected to cause, can be integrated into the overall ecosystem-based management of the Barents Sea. Then, the ecosystem-based management of the Barents Sea will be climate informed and yet another of the stressors of the ocean is included in the total picture for the ocean. This will also be in compliance with the goal of the joint environmental commission expressed in the latest commission meeting to of develop an ecosystem based management of the Barents Sea.

The climate change management of the Barents Sea needs to be integrated in the joint environmental commissions work at a high level to achieve the joint environmental commission's goals of an ecosystem based management plan of the whole Barents Sea. The same arguments go for climate change impacts as for the management of fisheries as mentioned in chapter four. According to the Norwegian Ministry of Climate and Environment the joint environmental commission established a task force on climate in 2014, but this task force is currently not operative. One of the goals for the joint environmental commission is to reduce climate adapted management of common populations of endangered and vulnerable species and their habitats. The investigations from the Norwegian Riksrevisjonen shows that there is a long way to go before the goals of the cooperation of the management of the oceans is reached,¹³⁷ and in this perspective the environmental commission should consider to activate the task force on climate again.

Norway and Russia have the right agreements in place as between them to integrate the climate changes in the management of the fish stocks and the biological diversity of the Barents Sea, but they have not yet the tool (the ecosystem- based management plan for the Barents Sea) to address the interplay among various elements of the sectoral regimes applicable to the Barents Sea.

¹³⁷ Article in High North News dated 26 March 2019: <https://www.highnorthnews.com/nb/riksrevisor-norge-og-russland-blir-ikke-enige-om-hvor-mye-naturen-taler-av-utslipp-av-tungmetaller> (visited 31 August 2019).

6. Conclusion

The Barents Sea is rich in resources, both living and non-living and represents both huge possibilities and challenges for Norway and Russia who is the only countries that have EEZs in the sea. With the increased changes in the Barents Sea caused by *inter alia* climate change, it is essential that we manage the sea areas based on the best possible knowledge where the effects of all the sectors use of the ocean is represented.

My analysis of the cooperative regimes between Norway and Russia, through the joint environmental commission and the joint fisheries commission, shows that the cooperation between the Norway and Russia is good, but at different levels. This cooperation have in some respects helped to fulfill some of the requirements set by international law for the conservation of the marine living resources, including the shared and straddling fish stocks and the marine biodiversity in the area. I think it is fair to say that Norway and Russia has fulfilled the obligation to cooperate on these subjects, according to the international law of the sea and international environmental law.

Even though the Norway and Russia can be said to have fulfilled the obligations set out in the international law with regards to cooperation on marine living resources and biological diversity, there still remains a big question: Is the cooperation between Norway and Russia sufficient enough to handle the challenges the Barents Sea is facing. If it's not, that could mean that the marine living resources and the biological diversity is not given the protection and preservation it needs to be used in a sustainable way.

Fisheries cooperation between Norway and Russia is generally good, and the joint fisheries commission is using the precautionary approach in its quota determination. When it comes to the cooperation between the two countries in the joint environmental commission, the case is a bit different. As the Norwegian Riksrevisjonen has pointed out, there are some insufficiencies in this cooperation. The environmental cooperation is good in some areas, but has some shortcomings for an adequate management of living resources and biodiversity in the Barents Sea. The work of the joint fisheries commission is not included in the work of the joint environmental commission at the highest level (and vice versa), and the goal of

managing the Barents Sea after an integrated ecosystem-based approach is still not reached. This means that the fisheries management of the Barents Sea is only based on the knowledge of scientific basis, and not on an integrated ecosystem-based management of the Barents Sea. The same goes for the climate change impacts. This could mean that a fast adaptation to climate change impacts is difficult to achieve, if the question is not addressed adequately at a high level in the joint environmental commission and the joint fisheries commission and addressed in a joint management plan for the Barents Sea.

In my opinion the cooperation under the two commissions at on the technical (scientist) level is extremely important, and lays the ground for the best possible management of the Barents Sea. But this is not sufficient: we need to implement all factors that affect the environment in a management plan for the whole Barents Sea, in accordance with the goal of the joint environmental commission. To achieve this I think there is a need for the joint environmental commission to start working closer with the joint fisheries commission at a high level. It is also a pressing need to start working on the implementation of climate change effects of the Barents Sea in the integrated ecosystem- based management of the Barents Sea at a high level. The changes are happening faster than anticipated, and not all of the consequences can be foreseen. To integrate these changes in the management could make the two countries better prepared to handle the effects of the climate changes.

After this I have reached the conclusion that the cooperation of Norway and Russia on the management of the shared and straddling fish stocks and the biological diversity of the Barents Sea fulfills the obligations to cooperate on these issues in the international law on the matter

Norway and Russian have the cooperative structure they need to make this cooperation sufficient, and the challenges and missing links to see the Barents Sea as a whole could be addressed within these structures.

There is an urgent need to establish a management plan for the whole Barents Sea, so that all the stressors of the ocean could be taken in to consideration when managing *inter alia* the fish stocks and impacts of climate change. As long as there is no plan, it would be difficult for the

joint environmental commission to reach its goal of an ecosystem based management approach to the Barents Sea.

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