The Scope and Content of Sovereign Rights in relation to Non-Living Resources in the Continental Shelf and the Exclusive Economic Zone

1. Introduction

Under customary international law, as reflected in the Law of the Sea Convention ('LOSC'), states enjoy sovereignty in their territory, including their internal waters, and in their territorial sea. In contrast, in the continental shelf and the exclusive economic zone states enjoy exclusive sovereign rights: a type of 'functional sovereignty', in the sense that they have to be connected to particular grounds permitted by international law. More specifically, sovereign rights have to be connected to exploring and exploiting natural resources on the continental shelf (LOSC Article 77(1)), or to exploring, exploiting, conserving and managing the living or non-living resources in the exclusive economic zone, and other activities for the economic exploitation of the exclusive economic zone, such as the production of energy from the water, currents and winds (LOSC Article 56(1)(a)).

The basic tenet of the coastal state's sovereign rights in relation to non-living resources in the continental shelf and exclusive economic zone is that the coastal state will choose whether non-living resources will be explored and exploited, and if so, who and how will explore and exploit them. But, recent case law has revealed other aspects of the content of sovereign rights, such as access to confidential information about non-living resources within national jurisdiction, and has illuminated the scope of sovereign rights, such conservation of non-living resources, and the relationship between the sovereign rights of the coastal states and the exclusive jurisdiction that they may entail with the rights of other states or community interests that international law protects.

The following sections discuss these issues in relation to non-living resources falling exclusively within the national jurisdiction of one state⁶ by focusing on LOSC and by analysing international case law. Section 2 touches on the content of sovereign rights by looking at their relationship to property, confidential information about non-living resources, conservation and exploitation rates, as well as the rights and jurisdiction that the coastal state exercises over infrastructure which is essential for the exercise of sovereign rights concerning exploration and exploitation of non-living resources. Section 3 touches on the balance between the rights of the coastal state with those of other states or other interests protected by international law with a view to delineating the scope and outer limits of the sovereign rights of the coastal state and their exclusive jurisdiction (where applicable). Section 4 provides some conclusions.

2. The Content of Sovereign Rights in relation to Non-Living Resources in the Continental Shelf and the Exclusive Economic Zone

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 $^{^{\}rm 1}$ United Nations Convention on the Law of the Sea (10 December 1982), 1833 UNTS 3 .

² Article 1, Convention on the Territorial Sea and the Contiguous Zone (29 April 1958), 516 UNTS 205 ('CTS'); LOSC Article 2.

³ R. Higgins, Problems & Process, International Law and How We Use It (OUP, 1994), p. 131.

⁴ The M/V "Virginia G" Case (Panama/Guinea-Bissau), Judgment, 14 April 2014, paras 211 and 215.

⁵ *Ibid*, para. 221.

⁶ Non-living resources straddling maritime boundaries or in areas that are un-delimited are not discussed here.

In the continental shelf, sovereign rights are inherent and exclusive. The coastal state does not need to proclaim a continental shelf. If it chooses not to explore or exploit the resources of the continental shelf, no other state may explore or exploit the resources of the continental shelf without the express consent of the coastal state. In contrast, the exclusive economic zone needs to be proclaimed, and upon proclamation sovereign rights over the exclusive economic zone are exclusive.

In LOSC, the provisions concerning the continental shelf cross-refer to provisions of the Part on the exclusive economic zone, which apply *mutatis mutandis* to the continental shelf. Where a coastal state has proclaimed an exclusive economic zone, the provisions on the exclusive economic zone and on the continental shelf together regulate the rights and duties of states within two hundred nautical miles off the coast vis-à-vis the exploration and exploitation of non-living resources.¹⁰

Under customary international law states enjoy permanent sovereignty over natural resources in areas where they enjoy sovereignty and sovereign rights. ¹¹ Permanent sovereignty over natural resources entails that states are free to dispose of their natural resources without interference in areas where they enjoy sovereignty or sovereign rights, unless they are otherwise constrained by rules of international law.

However, beyond this general proposition different aspects of the content of sovereign rights can be identified, which will be discussed in the following sequence: section 2.1 deals with the question of whether sovereign rights entail ownership for the coastal state and what the implications are for private companies; section 2.2 analyses the acquisition and use of confidential information, as an aspect of sovereign rights; section 2.3 shows that general customary international law does not require coastal states to explore and exploit particular sources of energy within their national jurisdiction, nor does it place requirements as to the rates at which such sources are to be exploited; section 2.4 discusses the manner in which the law of the sea regulates drilling, artificial islands, installations and structures, placing emphasis on the rights and jurisdiction that the coastal state enjoys and exercises over such infrastructure which is essential for the exercise of sovereign rights concerning the exploration and exploitation of non-living resources.

2.1 Sovereign Rights and Property

Sovereign rights over the non-living resources of the continental shelf are exclusive and relate only to the exploration and exploitation of the continental shelf and its resources. However, it is doubtful that the state is vested with ownership over the non-living resources of the continental shelf *in situ*. In light of the fact that the coastal state may choose to provide private investors (foreign and domestic nationals) with ownership over the hydrocarbons in its continental shelf, the question about whether sovereign rights entail ownership of the coastal state over non-living resources in the continental shelf may become important. A private entity can acquire ownership only

⁹ There is no indication in LOSC as to the form that the proclamation of the exclusive economic zone may take.

⁷ LOSC Article 77(3); North Sea Continental Shelf (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands), Judgment of 20 February 1969, ICJ Reports 1969, p. 3 at para. 19.

⁸ LOSC Article 77(2); Article 2, Convention on the Continental Shelf.

¹⁰ Under customary international law, '[a]lthough the continental shelf and the exclusive economic zone are different and distinct, the rights, which the exclusive economic zone entails over the seabed of the zone, are defined by reference to the continental shelf regime.' *Continental Shelf (Libyan Arab Jarnahiriya/Malta)*, Judgment, ICJ Reports 1985, p. 13 at 33, para. 34.

¹¹ Armed Activities on the Territory of the Congo, (Democratic Republic of the Congo v. Uganda), Judgment of 19 December 2005, ICJ Reports 2005, p. 168, para. 244.

from a rightful owner. This is especially relevant in relation to the old style concession agreements that states concluded with foreign investors, which transferred ownership of a hydrocarbon deposit *in situ*.

Higgins suggests that sovereign rights do not *ipso facto* translate into the coastal state's ownership over the deposit *in situ.* ¹² Rather the concession holder acquires ownership over the extracted produce once that is reduced to possession. ¹³ There is no clear answer under the law of the sea as to whether sovereign rights mean that the coastal state has ownership over a hydrocarbon deposit, and state practice varies. Some domestic legal orders vest the state with ownership over the offshore non-living resources in the continental shelf, while others specifically refer to sovereign rights. ¹⁴ Nevertheless, given the exclusiveness of the coastal state's rights over the continental shelf for the exploration and exploitation of resources, there is no likelihood that another state would make a claim that the coastal state does *not* have title or ownership over non-living resources in its continental shelf, given that the issue of ownership is mainly linked to the activity of exploration and exploitation of resources for which the coastal state exercises exclusive sovereign rights.

From the point of view of investors, modern contractual relationships with the state for the purpose of exploring and exploiting the resources of the continental shelf take the form of licenses or contracts that do not envisage ownership over the deposit. An investment made in relation to the exploration and exploitation of a non-living resource in the continental shelf or in relation to the production of electricity from winds or currents in the exclusive economic zone may take the form of a license or contract to exploit. Under a number of bilateral and multilateral investment treaties, such arrangements may fall within the meaning of the term 'investment' thus being afforded the applicable treaty protection. Whether such protection exists, will depend on the scope of application of each treaty.¹⁵

As a separate matter, international law does not specifically address ownership over infrastructure (artificial islands, installations and structures, as well as pipelines connected with such infrastructure), which is constructed, operated and used for the exploration and exploitation of non-living resources in the continental shelf and the exclusive economic zone. As explained in section 2.4 below, the coastal state enjoys an exclusive right to construct, authorise and regulate the construction, operation and use of such infrastructure and exercises exclusive jurisdiction over them. However, this does not necessarily translate into ownership over such infrastructure. This matter is left to domestic law, ¹⁶ and states or companies may have ownership over such infrastructure, ¹⁷ but the coastal state exercises exclusive jurisdiction over it.

Having explained that the law of the sea does not specifically award to the coastal state ownership over the non-living resources in the continental shelf and the exclusive economic zone, but that sovereign rights entail exclusiveness for the exploration and exploitation of such resources having comparable results to ownership, the following section examines whether sovereign rights entail exclusive access to confidential information about the non-living resources of the continental shelf and the exclusive economic zone.

¹⁴ C. Redgwell, Property Law Sources and Analogies in International Law, in A. McHarg et al (eds.), *Property and the Law in Energy and Natural Resources* (OUP, 2010), 100-112 at 109.

¹² Higgins, *supra* note 3, at 138.

¹³ Ibia

¹⁵ See also analysis in section 3.1 below.

¹⁶ Redgwell, *supra* note 14, at 110.

¹⁷ In relation to transboundary infrastructure of this kind, states may conclude treaties.

2.2 Exclusive Access to Confidential Information

Information about the resources of the continental shelf, meaning information about the availability of the resources, the nature, extent and location of deposits, and the economic feasibility of exploiting the resources, ¹⁸ is important to coastal states for economic reasons: such information may attract numerous investors, and may influence negotiations for arranging such development. ¹⁹ The Côte d'Ivoire/Ghana boundary delimitation before the Special Chamber of the International Tribunal for the Law of the Sea ('ITLOS') has recently brought to light an aspect of the sovereign rights of the coastal state that has been underexplored in scholarship and case law: that concerning access and control over confidential information about the resources of the continental shelf.

In 2014, Côte d'Ivoire and Ghana concluded a Special Agreement to submit the dispute concerning their maritime boundary in the Atlantic Ocean, more specifically that relating of the continental shelf, to a special chamber of the Tribunal (pursuant to Article 15(2) of the Tribunal's Statute). Within the disputed area to be delimited by the Special Chamber, Ghana had awarded oil contracts to a number of companies and was planning to award new oil contracts.

Côte d'Ivoire requested the Special Chamber to prescribe provisional measures (pursuant to LOSC Article 290(1)), which would *inter alia* require Ghana to take all steps necessary to prevent information resulting from past, ongoing or future exploration activities conducted by Ghana, or with its authorization, in the disputed area from being used to the detriment of Côte d'Ivoire. ²⁰ It argued that since the term 'sovereign rights' in the LOSC has been interpreted by ITLOS in its earlier case law to include 'all rights necessary for and connected with the exploration and exploitation of the resources of the [continental shelf]', ²¹ the term also entails the exclusive access to confidential information about the resources in the continental shelf.

Ghana requested the Chamber to reject all provisional measures requested.²² It disputed the existence of an exclusive right to access confidential information under LOSC.²³

The Special Chamber was called upon and had competence only to rule on the request for provisional measures, which it consider[ed] appropriate under the circumstances to preserve the respective rights of the parties to the dispute or to prevent serious harm to the marine environment, pending the final decision' (LOSC Article 290). It thus did not need and was not competent to determine the existence and content of the rights invoked by the parties.²⁴ Pursuant to its case law on provisional measures it had

²⁰ The other provisional measures requested by Côte d'Ivoire were to require Ghana to suspend all ongoing oil exploration and exploitation operations in the disputed area; to refrain from granting any new permit for oil exploration and exploitation in the disputed area; to take all necessary steps to preserve the continental shelf, its superjacent waters and its subsoil; and to desist and refrain from any unilateral action entailing a risk of prejudice to the rights of Côte d'Ivoire and any unilateral action that might lead to aggravating the dispute. Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire), Order of Provisional Measures, 25 April 2015, para. 25.

¹⁸ Request of Provisional Measures by Côte d'Ivoire, 27 February 2015, p. 17, para. 30.

¹⁹ Ibid., p. 18, para. 33-34.

²¹ Ibid., para. 47; The M/V "Virginia G" Case (Panama/Guinea-Bissau), Judgment, 14 April 2014, para. 221.

²² Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire), Order of Provisional Measures, 25 April 2015, para. 26.

²³ *Ibid.*, para. 55.

²⁴ Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua); Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Provisional Measures, Order of 22 November 2013, I.C.J. Reports 2013, p. 354, at p. 360, para. 27.

to be satisfied that the rights invoked by Côte d'Ivoire were plausible,²⁵ and that there is 'a real and imminent risk that irreparable prejudice may be caused to the rights of the parties in dispute'.²⁶

It found that 'in the circumstances of this case, [...] Côte d'Ivoire has presented enough material to show that the rights it seeks to protect in the disputed area are plausible', ²⁷ and that the acquisition and use of information would create a risk of irreversible prejudice to the rights of Côte d'Ivoire should the Special Chamber, in its decision on the merits, find that Côte d'Ivoire has rights in the disputed area. ²⁸ The reasoning of the Chamber that acquisition of confidential information concerning the natural resources of the continental shelf is a *plausible* aspect of the sovereign rights connected to the exploration of the continental shelf was not further elaborated. However, it could be seen as a reiteration of the reasoning of the claimant (Côte d'Ivoire), which seems to be based on the 'effective interpretation' of LOSC – a technique of interpretation which finds expression in the customary rule on treaty interpretation set forth in Article 31(1) of the Vienna Convention on the Law of Treaties ('VCLT'): ²⁹ treaty terms are to be interpreted in good faith thus being given their full meaning, and have to be interpreted in light of their object and purpose of the treaty. ³⁰

The Judgment on the Merits is pending. However, the Judgment may clarify the content of sovereign rights in this respect under the LOSC. Arguably it may also inadvertently assist in the clarification of the content of sovereign rights under customary international law, assuming that the content of the sovereign rights that the coastal state enjoys in the continental shelf, which exist under treaty and custom, have identical content.

Nevertheless, the Special Chamber ordered Ghana to 'take all necessary steps to prevent information resulting from past, ongoing or future exploration activities conducted by Ghana, or with its authorization, in the disputed area that is not already in the public domain *from being used* in any way whatsoever to the detriment of Côte d'Ivoire'. What the Special Chamber did *not* do is to require Ghana to return information already acquired to Côte d'Ivoire and importantly to abstain or require entities that are acting pursuant to its authorisation from abstaining from ongoing and future acquisition and use of such information *per se* (irrespective of whether the use is or not detrimental). In this respect, the Order of Provisional Measures is characterised by some inherent inconsistency between on the one hand, the *exclusive* acquisition (and use)

²⁹ Vienna Convention on the Law of Treaties (23 May 1969) 1155 UNTS 331.

²⁵ Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire), Order of Provisional Measures, 25 April 2015, para. 40.

²⁶ Ibid., para. 41; M/V "Louisa" (Saint Vincent and the Grenadines v. Kingdom of Spain), Provisional Measures, Order of 23 December 2010, ITLOS Reports 2008-2010, p. 58, at p. 69, para. 72.

²⁷ Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire), Order of Provisional Measures, 25 April 2015, paras. 61-62 and 94.

²⁸ *Ibid.*, para. 95.

³⁰ PCIJ: Free Zones of Upper Savoy and District of Gex (France v. Switzerland), Order of 19 August 1929, PCIJ (1929), Series A, No. 22, p. 5 at 13; Acquisition of Polish Nationality, Advisory Opinion of 15 September 1923, PCIJ (1923) Ser B, No. 7, p. 6 at 16–17. ICJ: Case concerning Maritime Delimitation and Territorial Questions between Qatar and Bahrain, Jurisdiction and Admissibility, Judgment of 15 February 1995, ICJ Reports 1995, p. 6, para. 35; Application of the Interim Accord of 13 September 1995 (the former Yugoslav, Republic of Macedonia v. Greece), Judgment of 5 December 2011, ICJ Reports 2011, p. 644, para. 109; Application of the International Convention on the Elimination of all Forms of Racial Discrimination (Georgia v. Russian Federation), Provisional Measures, Order of 15 October 2008, ICJ Reports 2008, p. 353, para. 134; Territorial Dispute (Libyan Arab Jamahiriya/Chad), Judgment of 3 February 1994, ICJ Reports 1994, p. 6, para. 47. H. Lauterpacht, The Development of International Law by the International Court (Stevens, 1958), pp. 221–266; G. Fitzmaurice, Vae Viciis or Woe to the Negotiators! Your Treaty or our 'Interpretation 'of It?, 65 AJIL (1971) 373.

³¹ Emphasis added. Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire), Order of Provisional Measures, 25 April 2015, para. 108(b).

of confidential information concerning the resources of the continental shelf being a (plausible) aspect of sovereign rights over the continental shelf, and on the other hand, the acquisition and use of such confidential information by another state, irrespective of whether such use is or is not to the detriment of the sovereign coastal state. Exclusivity, as a feature of sovereign rights, means that no other state may acquire and use such information, and is independent from the manner in which confidential information may be used by another.

This approach by the Special Chamber can be explained by the facts of the case, and Côte d'Ivoire's request of provisional measures in this particular form. The dispute for which it was called to issue provisional measures had to do with maritime delimitation, which is expected to take place in the merits. At the provisional measures stage of the proceedings it is yet unclear, which of the two parties to the dispute has exclusive sovereign rights over the overlapping claims area in dispute before the Chamber. The Order of the Special Chamber in relation to the access to confidential information is essentially an exercise of balancing the future interests of either party to the dispute: either may turn out to have exclusive sovereign rights in the form of access to confidential information concerning non-living resources in the continental shelf which is to be delimited in the merits.

As a separate matter, there is no ground to argue that such confidential information cannot be made available or contracts for acquisition of such information cannot be made available to private companies, as long as the coastal state itself makes the choice to provide information to companies or contracts with companies in order to retrieve information about the resources in its continental shelf. This decision-making power emanates for the coastal state's sovereign rights concerning the exploration of the continental shelf and the exploitation of its resources.

Having depicted what recent case law has revealed concerning the exclusive acquisition and use of confidential information about the resources of the continental shelf as an aspect of the sovereign rights of the coastal state over the continental shelf (and by implication and *mutatis mutandis* of the exclusive economic zone), the following section explains that international law does not place restrictions on states vis-à-vis their choice to exploit (or not) offshore non-living resources within their national jurisdiction and vis-à-vis the rates of exploitation should they choose to exploit them.

2.3 No Restriction under International Law concerning the Sources to be Exploited and the Rates of Exploitation

Neither the law of the sea nor general international law place obligations on coastal states to exploit their natural resources in marine areas within their national jurisdiction (or onshore for that matter). Nor do they require coastal states to exploit specific non-living resources or undertake economic activities at sea within national jurisdiction (e.g. by developing renewable sources of energy within their exclusive economic zone).³² Additionally, assuming that coastal states exploit non-living resources within their jurisdiction, international law does not require them to do so on the basis of

³² EU law is an exception in that it requires EU member states to include in their energy mix energy coming from renewable sources. *Directive 2009/28/EC on the promotion of the use of energy from renewable sources* establishes a common framework for the promotion of energy from renewable sources and sets mandatory.

establishes a common framework for the promotion of energy from renewable sources and sets mandatory national targets for each EU member state for the overall share of energy from renewable sources in gross final consumption of energy in 2020 (Article 3; Annex I). Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140/16, 5.6.2009.

specific exploitation rates, and there is no obligation to conserve non-living resources (hydrocarbons) in the continental shelf and exclusive economic zone of one state.

First, in relation to living resources the LOSC expressly requires coastal states to promote the optimum utilisation of living resources within national jurisdiction (Article 62(1)). It also requires that coastal states ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation, and that such measures shall be designed 'to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield' (Article 61(3)). Additionally, in relation to resources beyond national jurisdiction LOSC provides for their conservation. More specifically, in relation to living resources on the high seas LOSC requires '[all States [...] to take [measures] as may be necessary for the conservation of the living resources of the high seas' (Article 117), and that '[i]n determining the allowable catch and establishing other conservation measures for the living resources in the high seas, [they] shall [take measures designed to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield (Article 119(1)(a)). In relation to the resources of the Area (meaning beyond national jurisdiction), LOSC prescribes that the International Seabed Authority shall adopt appropriate rules for the 'conservation of the natural resources of the Area' (Article 145).

Despite the express inclusion of some standard of exploitation rates and conservation obligations vis-à-vis living resources within and beyond national jurisdiction, and in relation to non-living resources beyond national jurisdiction, LOSC does not include similar provisions concerning non-living resources within national jurisdiction, ³³ thus allowing for the *a contrario* argument that coastal states (parties) are not obliged to conserve and exploit non-living resources within national jurisdiction in a sustainable manner or on the basis of a particular exploitation rate.³⁴

Second, as a separate matter, there is a question as to whether beyond the law of the sea, but under general customary international law, states are obliged to exploit their natural resources in a sustainable manner. This issue revolves around the question whether sustainable development constitutes a rule of customary international law – an issue about which opposing views have been voiced³⁵ - and what its content is.

The definition of the concept of sustainable development was framed in the context of the Brundtland Commission Report (1987) to mean development that 'meets the needs of the present without compromising the ability of future generations to meet their own needs'. The Brundtland Commission Report in relation to exhaustible natural resources, such as fossil fuels and minerals, explains that 'their use reduces the stock available for future generations. But this does not mean that such resources *should not be*

³⁴ See also analysis in D.M. Ong, Towards an International Law for the Conservation of Offshore Hydrocarbon Resources within the Continental Shelf?, in D. Freestone, R. Barnes and D.M. Ong (eds), *The Law of the Sea: Progress and Prospects* (OUP, 2006), pp. 93-119 at 96-107.

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³³ Albeit LOSC Article 56(1)(a) provides that coastal states have sovereign rights in relation inter alia to the conservation of both living and non-living resources, but does not specifically require coastal states to take conservation measures in that provision, but further elaborates such obligations in relation to only living resources in LOSC Articles 61 and 62.

³⁵ Supporting that sustainable development is a rule of international law: P. Sands, International Law in the Field of Sustainable Development, 65 BYIL (1994) pp. 303-381; P. Sands and J. Peel, A. Fabra and R. MacKenzie, *Principles of International Environmental Law* (CUP, 2012), pp. 206-217. Supporting that sustainable development is not a rule of international law: A.V. Lowe, Sustainable Development and Unsustainable Arguments, in A.E. Boyle and D. Freestone (eds.), *International Law and Sustainable Development* (OUP, 1999), pp. 19-37; P. Birnie, A. Boyle and C. Redgwell, *International Law and the Environment* (OUP, 3rd, 2009), pp. 199-202.

³⁶ Report of the World Commission on Environment and Development: Our Common Future (Brundtland Commission Report'), Chapter 1, section 3, para. 27 and Chapter 2, para. 1.

used.'37 Although the report continues to encourage that such exhaustible resources should be exploited in 'sustainable depletion rates', in relation to which there is no evidence that customary international law specifically requires such 'sustainable depletion rate' for hydrocarbons and minerals within one state's jurisdiction (offshore and/or onshore), the Report suggests that sustainable development (irrespective of its legal value) does not prevent states from exploiting such exhaustible resources.

A number of non-binding declarations have since included a reference to sustainable development,³⁸ but there is no evidence that such non-binding instruments expressed the opinio juris of states that adopted them thus providing either evidence of an existing rule of customary international law, or the necessary element for the formation of a new rule of customary international law.

The legal value and the content of sustainable development has arisen in contentious proceedings before a number of international courts, tribunals and quasijudicial bodies. However, this case law does not offer support to the argument that under international law states are obliged to conserve non-living resources within the continental shelf and the exclusive economic zone or to exploit them sustainable or on the basis of a particular depletion rate.

In 1997, in Gabcikovo-Nagymaros the International Court of Justice (ICJ') dealt with a dispute between Slovakia and Hungary concerning a 1977 bilateral treaty on a joint project to build a hydroelectric facility on river Danube. The dispute was couched in terms of termination of the treaty (under the law of treaties) and in terms of the secondary rules on state responsibility. However, in the part where the Court determined how the parties had to negotiate with a view to reaching an agreement about the modalities for the execution of the Court's Judgment (pursuant to the 1993 Special Agreement by which the parties to the dispute agreed to submit the dispute to the jurisdiction of the ICJ), the Court considered that the provisions of the 1977 Treaty (Articles 15 and 19) impose on the parties a 'continuing – and thus necessarily evolving – obligation to maintain the quality of water and to protect nature, taking into account [...] new norms [...].³⁹ The Court went on to explain that international law included at the time of the judgment obligations of 'vigilance and prevention [...],' and that 'new norms and standards have been developed [that] have to be taken into consideration, [be] given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development.'40

The Court did not pronounce that 'sustainable development' is a rule of international law. It referred to it as a 'concept' and acknowledged the existence of rules of international environmental law that it did not specifically identify (beyond vigilance, prevention), which allows for the interpretation of its reasoning that a number of norms and standards may exist under the umbrella or label of 'sustainable development' without sustainable development having a specific normative value per se. 41 Nor did it explain the precise content of the 'concept of sustainable development'. In any event, given the facts of the case, the Court connected the 'concept' to a shared water resource.

³⁷ Emphasis added. Brundtland Commission Report, Chapter 2, para. 12

³⁸ e.g. Rio Declaration on Environment and Development, 1992.

³⁹ Gabčvkovo-Nagymaros Project (Hungary/Slovakia), Judgment of 25 September 1997, ICJ Reports 1997, p. 7, para. 140.

⁴⁰ *Ibid.*, para. 140.

⁴¹ A.V. Lowe, Sustainable Development and Unsustainable Arguments, in A.E. Boyle and D. Freestone (eds), International Law and Sustainable Development (OUP, 1999) pp. 19-37.

Since then, other international tribunals and quasi-judicial bodies have referred to the 'principle of sustainable development'. The first case - *Indus Waters Arbitration* (*India/Pakistan*) - relates to an international watercourse (a shared water resource), as *Gabcikovo-Nagymaros* did. The second case - *China-Rare Earths* - relates to the exploitation of non-living resources within the national jurisdiction of one state, and is thus more relevant for the present analysis.

In 2013, in the *Indus Waters Arbitration (India/Pakistan)* the Arbitral Tribunal dealt with the interpretation and application of a bilateral treaty between India and Pakistan in relation to two hydroelectricity projects on a shared watercourse between these two states. In the Partial Award, it interpreted the bilateral treaty taking into account rules of customary international law, and more specifically the obligation to prevent transboundary environmental harm and the obligation (that the ICJ had identified in *Pulp Mills*)⁴² to undertake 'an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource'. ⁴³ In this context, the Tribunal made reference to the 'principle of sustainable development', ⁴⁴ thus marking a jurisprudential shift from the use of the term 'concept' to that of the term 'principle'.

However, its pronouncement does not robustly support the existence of a rule of customary international law on sustainable development that requires state to exploit non-living resources within national jurisdiction in a sustainable manner or in accordance to particular depletion rates. First, the Tribunal did not explain why it considered that sustainable development is a 'principle'. Nor did it provide any evidence that sustainable development is a rule of international law. Second, its pronouncement was incidental: it did not need to refer to a principle of sustainable development to reach the conclusion that under customary international law states are obliged to undertake an environmental impact assessment, where there is risk of significant transboundary harm, especially in relation to a shared resource. This obligation exists under customary international law independently from any discussion about sustainable development, as the ICI found in Pulp Mills, to which in fact the Arbitral Tribunal in Indus Waters referred. Third, even assuming arguendo that such a principle exists under custom, this case along with Gabcikovo-Nagymaros, could be seen as authorities determining the existence of such rule in relation to shared resources, and particularly international watercourses, but not necessarily non-living resources within the exclusive jurisdiction of one state: in the continental shelf and in the exclusive economic zone.

In contrast, in 2014, a WTO Panel and the WTO Appellate Body touched on sustainable development in relation to the exploitation of non-living resources in *China-Rare Earths*. The Panel Report, which was not repealed by the Appellate Body Report in this respect, 6 by virtue of the general rule of treaty interpretation set forth in VCLT Article 31, and more particularly pursuant to the means of interpretation found in paragraph (3)(c) of this rule, suggested that sustainable development is a 'principle of international law'. The Panel took into account this 'principle' in order to interpret the

⁴² Case concerning Pulp Mills on the river Uruguay (Argentina v. Uruguay), Judgment of 20 April 2010, ICJ Reports 2010, p. 14 at 83, para. 204.

⁴³ Indus Waters Kishenganga Arbitration (Pakistanv. India), Partial Award, 18 February 2013, para. 449-450.

⁴⁴ Ibid, paras. 449-450.

⁴⁵ Panel Report, *China* — *Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum*, circulated on 26 March 2014.

⁴⁶ Appellate Body Report, *China — Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum*, circulated on 7 August 2014.

GATT, and more particularly the term 'conservation' found in the general exceptions provision (GATT Article XX(g)).⁴⁷

However, the reasoning of the Panel is misplaced. First, it alludes to 'international agreements' in order to sustain the existence of such a principle, while the instruments it refers to are all non-binding declarations, 48 and does not address how these non-binding instruments either reflect or have lead to the formation of a rule of customary international law. Second, the Panel and the Appellate Body did not explain whether and did not suggest that the content of sustainable development requires (rather than allows) states to conserve and to exploit their resources on the basis of specific depletion rates. The language of the Panel Report suggests that permanent sovereignty over natural resources and sustainable development permit a state to take conservation measures, but does not use any language suggesting that these two 'principles' require them to do so. In fact, the dispute was couched in terms of the general exceptions of GATT Article XX(g). China was arguing that it was permitted under GATT Article XX(g) to take measures prima facie inconsistent with the other provisions of GATT, since its measures 'relat[ed] to the conservation of exhaustible natural resources [and that] such measures are made effective in conjunction with restrictions on domestic production or consumption'. There is no evidence from the Panel and Appellate Body Reports⁴⁹ that China put forward the argument that it was required, as opposed to permitted, pursuant to sustainable development to conserve the exhaustible natural resources in question.

As a result, these cases do not support the proposition that sustainable development (even assuming arguendo that it is a rule of general international law) imposes obligations on states to include or exclude particular sources of energy from their energy mix, to abstain from exploiting particular non-living resources, including renewable sources of energy, and in any event that it prescribes some standard concerning the rates of depletion of exhaustible non-living resources (such as hydrocarbons and minerals) located exclusively within the jurisdiction of one state.

However, this assertion does not mean that other international obligations may not limit the manner in which states may explore and exploit such resources, and thus indirectly have an impact on which resources are to be exploited and at which rate.⁵⁰

Given that the exploration and exploitation of non-living resources within national jurisdiction takes place from relevant infrastructure, the following section examines the content of sovereign rights in this respect along with the (exclusive) jurisdiction that the coastal state exercises over infrastructure that is essential for the exploration and exploitation of the non-living resources the continental shelf and the exclusive economic zone (or for other economic activities in the exclusive economic zone, including the production of energy from renewable sources).

2.4 Drilling, Artificial Islands, Installations and Structures

In relation to drilling specifically, which is the main – yet not the sole - method by which the exploration and exploitation of hydrocarbons on the continental shelf takes place, under LOSC, the coastal state has the exclusive right to authorize and regulate it on the continental shelf for all purposes, meaning beyond the purpose of exploring and exploiting the resources of the continental shelf (LOSC Article 81). For instance, a

⁴⁷ Panel Report, China — Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum, circulated on 26 March 2014, para. 7.262.

⁴⁸ Ibid, paras. 7.263-7.264.

⁴⁹ The written pleadings under the DSU proceedings are not made publicly available.

⁵⁰ See analysis in section 3.2.2 below concerning the obligation to protect and preserve the marine environment.

coastal state may withhold consent for marine scientific research by another State or competent international organization if it 'involves drilling into the continental shelf' (LOSC Article 246(5)(b)).

More generally, exploration and exploitation of non-living resources on the continental shelf and the exclusive economic zone take place from artificial islands, installations, and structures, which are regulated by LOSC Articles 60 (Part on the exclusive economic zone) and 80 (Part on the continental shelf). Article 80 incorporates the rules of Article 60 concerning artificial islands, installations and structures on the continental shelf. Article 60 also regulates artificial islands, installations and structures for the production of electricity of renewable sources of energy.

In the continental shelf and the exclusive economic zone, the coastal state has the exclusive right to construct, to authorize and to regulate the construction, operation and use of artificial islands in general, and of installations and structures for the purposes for which it enjoys sovereign rights in the exclusive economic zone and the continental shelf, and as a separate matter installations and structures which may interfere with the exercise of the rights of the coastal state in the zone (LOSC Article 60(1)). The freedom of the high seas to construct artificial islands and other structures (LOSC Article 87(1)(d)) does not apply to the EEZ (LOSC Article 58(1)). This exclusive right is partly the corollary of the sovereign rights that the coastal state has in the continental shelf and the exclusive economic zone, but goes beyond sovereign rights: the right to construct artificial islands is not connected to the coastal state's sovereign rights. However, the focus of the analysis here is sovereign rights over non-living resources.

As a separate matter, the coastal state has exclusive (prescriptive and enforcement) jurisdiction over artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws.⁵⁵ Although the use of the two different terms 'exclusive right' and 'exclusive jurisdiction' suggests that these are two different issues, the Convention does not explain this difference. It has been argued that the fact that the coastal state installs or authorises the construction, operation and use of such infrastructure in the exclusive economic zone does not entail (at least in theory) that it has sovereign rights over such infrastructure *per se*, since such proposition may suggest that sovereign rights would extend to the exclusive economic zone as a physical space, whilst the whole regime of the exclusive economic zone reflects the very compromise between the sovereign rights of the coastal state and the rights and interests

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⁵¹ A contrario interpretation of LOSC Article 58(1), which refers to some but not all freedoms of the high seas listed in LOSC Article 87.

⁵² The Geneva Convention on the Continental Shelf did not provide the coastal state with an exclusive right to construct and authorise the construction, operation and use of installations and devices. Those not directly connected with the continental shelf resources could be constructed by any state, subject to the consent of the coastal state concerning any research relating to the continental shelf (GCCS Article 5(8)).

⁵³ Coastal states may prohibit the construction, operation and use of artificial islands, installations and structures in the exclusive economic zone that are connected to marine scientific research ((LOSC Article 246(5)(c)).

⁵⁴ For jurisdiction over artificial islands and installations and structures in the EEZ: D.J. Attard, *The Exclusive Economic Zone in International Law* (OUP, 1987), pp. 87-93. For reasons behind the difference of jurisdiction over artificial islands and installations and structures: B. Kwiatkowska, *The 200 Mile Exclusive Economic Zone in the New Law of the Sea* (Martinus Nijhoff Publishers, 1989), pp. 112-113.

⁵⁵ In the exclusive economic zone, the coastal State has jurisdiction to apply customs laws and regulations in respect of artificial islands, installations and structures (LOSC Article 60(2)). '[T]he Convention does not empower a coastal State to apply its customs laws in respect of any other parts of the exclusive economic zone not mentioned [in Article 60(2)]'. M/V "SAIGA" (No. 2) (Saint Vincent and the Grenadines v. Guinea), Judgment, ITLOS Reports 1999, p. 10, para. 127.

of other states in navigation and communication.⁵⁶ In practice, the difference between exclusive jurisdiction over artificial islands, installations and structures and sovereign rights may be seen as minimal, since they are both exclusive (Article 60(2)). Although the exclusive jurisdiction over such infrastructure is general (while the right to construct and authorise the construction, operation and use of such infrastructure is partly connected to sovereign rights – but not for artificial islands), it is exclusive jurisdiction exercised over infrastructure specifically (at least partly) connected to sovereign rights.⁵⁷

Coastal states may, where necessary, establish reasonable safety zones around artificial islands, installations and structures (which cannot exceed 500 metres around them), and is obliged to maintain permanent means for giving warning of their presence must be maintained (Article 60(3)), and to give due notice of the extent of safety zones (Article 60(5)).

In the safety zones, coastal states may take appropriate measures to ensure safety of the structures, but also the safety of navigation (Article 60(4)). This obligation emphasises the balancing act between the sovereign rights and jurisdiction of the coastal state in the exclusive economic zone and the rights of other states in this maritime zone. The outer limits of the coastal state's sovereign rights and exclusive jurisdiction vis-à-vis infrastructure, which is essential for the exercise of their sovereign rights, is further discussed in section 3 below, which analyses the balance between the coastal state's exclusive jurisdiction over such infrastructure, and other interests, including freedom of navigation.

3. Delineating the Scope of Sovereign Rights and Exclusive Jurisdiction of the Coastal State: the Balance with Other Interests

Sovereign rights interact with other interests reflected in international obligations. Other interests can be classified as individual interests, which are reflected in obligations that are owed in a bilateral/reciprocal manner between states,⁵⁸ and with community interests, which are reflected in obligations owed indivisibly and collectively among states transcending the individual interests of the subjects to which the obligations are owed.⁵⁹ This classification determines who has standing to invoke responsibility for a breach of such obligations.⁶⁰ It may thus arise as an admissibility objection before an international court or tribunal. It also determines who has standing to invoke responsibility by recourse to countermeasures under the law of state responsibility (where these are not excluded by *lex specialis*).⁶¹

3.1 Individual Interests of Other States

The right of the coastal state to authorise drilling in the territorial sea is subject to the obligation not to hamper the right to innocent passage, which translates to

⁵⁸ B. Simma, Bilateralism and Community Interest in the Law of State Responsibility, in Y. Dinstein (ed.), *International Law at a Time of Perplexity: Essays in Honour of Shabtai Rosenne* (Nijhoff, 1989), pp. 821–844 at 822–823.

⁵⁶ R-J Dupuy, Chapter 5 - The Sea Under National Jurisdiction, in R-J Dupuy and D. Vignes (eds), A Handbook on the New Law of the Sea (Martinus Nijhoff Publishers, 1991), pp. 247-313 at 291.

⁵⁷ Contrast Article 60 paragraphs 1 and 2.

⁵⁹ Text of the draft articles on responsibility of States for (in footnotes) internationally wrongful acts with commentaries thereto, Report of the Commission to the General Assembly on the work of its fifty-third session, ILCYB 2001, Vol. II, pp. 31–143 at 126, para. 7.

⁶⁰ See analysis in D. Azaria, Treaties on Transit of Energy via Pipelines and Countermeasures (OUP, 2015), pp. 101-110.

⁶¹ Ibid., 24-25. For lex specialis: ibid., 159-166; B. Simma, Self-Contained Regimes, 16 NYIL (1985) 112-136.

bilateralisable obligations under LOSC (and custom), as it reflects the individual interest of each flag state (LOSC Article 24). ⁶² Beyond the territorial sea, the water column will either be the high seas, where the coastal state has not proclaimed an exclusive economic zone, or in cases it has proclaimed an exclusive economic zone, the freedom of navigation and of laying pipelines and cables apply in the exclusive economic zone (LOSC Article 58(1)). However, owing to the common nature of the high seas *per se*, the duties of states on the high seas are *erga omnes partes* under LOSC, and *erga omnes* under customary international law. Thus, the balance between the right to exploit non-living resources in the continental shelf and the exclusive economic zone with the freedom of navigation is discussed in section 3.2 below, where community interest obligations are analysed.

Beyond the law of the sea, obligations (under treaty) concerning the protection of foreign investors are also reflective of individual interests of states as the predominant interest that they address is the protection of nationals abroad. 63 Although the law of the sea does not touch on the protection of foreign investors, the scope of application of bilateral or multilateral investment treaties, such as the Energy Charter Treaty ('ECT'), may include investment made in the continental shelf and the exclusive economic zone, including in the form of licences or contracts for the exploitation of hydrocarbons or the production of electricity by renewables structures. For instance, under ECT Article 1(6)(f), any right conferred by law or contract or by virtue of any licences and permits granted pursuant to law to undertake any Economic Activity in the Energy Sector, meaning an 'economic activity concerning the exploration, extraction [and production] of Energy Materials and Products' in the Area of a Contracting Party. The term 'Energy Materials and Products' in Article 1(4) which cross-refers to Annex EM includes inter alia oil, gas and electricity. Thus non-living resources in the continental shelf are included, along with the production of electricity, which may take place from renewable energy infrastructure in the exclusive economic zone. Moreover, contrary to LOSC, where the term 'Area' means marine spaces beyond national jurisdiction, the term 'Area' in the ECT means only to space within national jurisdiction of the ECT Contracting Parties, including territory and 'the sea, sea-bed and its subsoil with regard to which that Contracting Party exercise sovereign rights and jurisdiction' (ECT Article 1(10)). In other words, although sovereign rights over non-living resources in marine spaces within national jurisdiction mean that the coastal state is free to dispose of these resources and regulate their exploration and exploitation at its will, coastal states may undertake obligations concerning the treatment of investors within their national jurisdiction which may limit the manner in which they treat the activity of the investor and by implication the exploration and exploitation of the non-living resources therein.

Having examined how sovereign rights may be limited by individual interests of other states, as reflected in international obligations, the following section touches on community interest obligations of coastal states.

3.2 Community Interest Obligations

⁶² L.A. Sicilianos, The Classification of Obligations and the Multilateral Dimension of the Relations of International Responsibility, 13 *EJIL* (2002) 1127-1145 at 1133–1134; D. Guilfoyle, Interdicting Vessels to Enforce the Common Interest: Maritime Countermeasures and the Use of Force, 56 *ICLQ* (2007) 69-82 at 76.

⁶³ G. Gaja, The Concept of the Injured State, in J. Crawford, A. Pellet, and S. Olleson (eds.), *The Law of International Responsibility* (OUP, 2010), pp. 943–947 at 944. In relation to the investment protection obligations under the Energy Charter Treaty more specifically: D. Azaria, Community Interest Obligations in International Energy Law: A European Perspective, 5(2) *Cambridge Journal of International and Comparative Law* (forthcoming)(2016).

A number of community interest obligations restrain the sovereign rights of coastal: for instance, freedom of navigation; the obligation to preserve the marine environment; and the obligation to share in the proceeds of the exploitation of the resources in the continental shelf beyond 200 nautical miles, when this exists.

3.2.1 Freedom of Navigation

Freedom of navigation, a freedom of the high seas (LOSC Article 87(a)), applies in the EEZ (LOSC Article 58(1)). While the coastal state has the exclusive right to construct, authorise and regulate the construction or operation and use of artificial islands, installations and structures and safety zones around them, these cannot be established where interference may be caused to the use of recognized sea-lanes essential to international navigation (LOSC Art 60(7); Article 5, Geneva Convention on the Continental Shelf). Corollary of this obligation are also the obligations to give due notice must of the construction of such infrastructure along with the extent of their safety zones, as well as their removal.

As explained in section 2.4 above, the coastal state also enjoys exclusive (prescriptive and enforcement) jurisdiction over such infrastructure in the exclusive economic zone and on the continental shelf. But, the question about the outer limits (and thus by implication scope and content) of its enforcement jurisdiction becomes pertinent, owing to the potential effect on freedom of navigation. This question lies at the heart of the *Arctic Sunrise Arbitration*. In light of the facts of the case, the arguments were couched in terms of environmental protest, which the Arbitral Tribunal recognised as an aspect of freedom of navigation.⁶⁵

Arctic Sumrise, a Greenpeace vessel carrying the flag of the Netherlands, launched 5 inflatable boats, which entered the safety zone of and attempted to board Gazprom's platform in Russia's exclusive economic zone engaging in environmental protest. The next day Russia boarded and seized the vessel within its exclusive economic zone, but outside the 500 metres safety zone surrounding the platform. The Netherlands protested against Russia's conduct and initiated arbitration for seeking the release of the vessel and crew, a declaratory award of the Tribunal that Russia had breached its obligations under LOSC and customary international law, a formal apology, assurances and guarantees of non-repetition and compensation for losses owing to Russia's measures. They also succeeded in convincing ITLOS to issue provisional measures. Russia did not participate in any of these proceedings.⁶⁷

The following analysis focuses on the Award on the Merits and only on the (four) aspects of the arbitration that are relevant to the discussion here concerning the content of sovereign rights and the exclusive jurisdiction concerning infrastructure that is necessary for the exercise of such sovereign rights.

First, the Netherlands argued that it had standing to invoke Russia's responsibility for a breach of freedom of navigation because freedom of navigation corresponds to an erga omnes partes obligation. The Tribunal considered it unnecessary to establish that the Netherlands has standing in this respect, given that the Netherlands was the flag state

⁶⁴ Convention on the Continental Shelf (29 April 1958), 499 UNTS 311.

⁶⁵ Arctic Sunrise Arbitration (Kingdom of the Netherlands v. Russian Federation), Award on the Merits, 14 August 2015, para. 227.

⁶⁶ Ibid, para. 4.

⁶⁷ The Arctic Sunrise Case (Kingdom of the Netherlands v. Russian Federation), Order on Provisional Measures, 22 November 2013.

and had standing on this ground as an injured state (specially affected by this violation).⁶⁸ However, the Netherlands' argument adds to state practice in support of the community nature of freedom of navigation. In 1973, Australia had argued in the contentious proceedings it brought before the ICJ against France that the latter's nuclear tests in the Pacific Ocean obstructed navigation on the high seas thus violating freedom of navigation, and that Australia had standing to invoke France's responsibility owing to the erga omnes nature of the obligation violated.⁶⁹

Second, according to the Tribunal the coastal sate exercises exclusive (prescriptive and enforcement) jurisdiction within the 500 metres safety zone, provided that such measures are aimed at ensuring the safety of navigation and of the structures. However, the commission of an alleged unauthorised entry into a safety zone or of terrorist offences within the safety zone do not provide a basis under international law for boarding a vessel in the exclusive economic zone (outside the safety zone) without the consent of the flag state. This is permitted only on the basis of the right of hot pursuit, the conditions of which were not met in this case.

Third, the Tribunal examined whether the coastal state (Russia) had a right to enforce its laws regarding non-living resources in the exclusive economic zone in order to justify the boarding of Artic Sunrise.⁷² It recognised that there is no provision in LOSC explicitly permitting the coastal state to board vessels in its the exclusive economic zone in relation to its sovereign rights regarding non-living resources, as is the case for living resources (LOSC Article 73).⁷³ But, it found that the coastal state has 'enforcement rights' regarding non-living resources in the exclusive economic zone. However, it did not find it necessary to examine the full extent of such enforcement rights, because Russia's conduct was unconnected to sovereign rights in this case.⁷⁴ Therefore, one issue that remains open, and it is likely that it will lead to future disputes, since the Tribunal did not address it: whether under LOSC enforcement of the laws of the coastal state concerning non-living resources in the exclusive economic zone can be exercised only through hot pursuit (which needs to meet a set of stringent requirements under LOSC Article 111) or independently of it. Given that LOSC prescribes for enforcement in the exclusive economic zone and the continental shelf of laws applicable in the exclusive economic zone and the continental shelf on the basis of hot pursuit (LOSC Article 111(2)), the a contrario argument could be made that such enforcement can only take place on the basis of hot pursuit. This argument may be supported by the Tribunal's reasoning (in relation to the other grounds discussed above) that connected enforcement in the exclusive economic zone to hot pursuit, but the Tribunal's silence in relation to this issue may nonetheless render such argument weak.

Fourth, the Tribunal concluded that the protection of the sovereign rights over non-living resources (in the exclusive economic zone and the continental shelf) is a legitimate aim that allows the coastal state to take appropriate measures to prevent interference in the exclusive economic zone with such sovereign rights.⁷⁵ This finding is

⁶⁸ Arctic Sunrise Arbitration (Kingdom of the Netherlands v. Russian Federation), Award on the Merits, 14 August 2015, para. 186.

⁶⁹ Memorial on Jurisdiction and Admissibility submitted by the Government of Australia, 23 November 1973, *Nuclear Tests (Australia v. France*), ICJ Reports 1974, para. 462.

⁷⁰ Arctic Sunrise Arbitration (Kingdom of the Netherlands v. Russian Federation), Award on the Merits, 14 August 2015, para. 211.

⁷¹ *Ibid*, paras. 244 and 278.

⁷² Arctic Sunrise Arbitration (Kingdom of the Netherlands v. Russian Federation), Award on the Merits, 14 August 2015, paras. 279-285.

⁷³ *Ibid*, paras. 280-281.

⁷⁴ Ibid, para. 284.

⁷⁵ *Ibid*, paras. 324-332.

important concerning the scope and content of sovereign rights over non-living resources, because it distils some understanding about the manner in which the balance of rights and duties of the coastal state and of other states in the exclusive economic zone is to take place, as reflected in the 'due regard' obligations established in LOSC for both the coastal state (Article 56(2)) and other states (Article 58(3)) in their activities in the exclusive economic zone, and that of rights and duties of the coastal state and of other states concerning activities in the continental shelf by prohibiting the coastal state from *unjustifiably* interfering with navigation (Article 78(2)).

According to the Tribunal, appropriate measures to prevent interference with such sovereign rights in the exclusive economic zone and mutatis mutandis the continental shelf must be reasonable, necessary and proportionate in order to be lawful.76 Although it is not made precise in the Award which basis within LOSC the Tribunal used to reach such conclusion, its finding is based on the interpretation of LOSC Articles 56(2), 77 and 78. Due regard must be given to the rights of other states, including the right to protest, 77 and the exercise of the rights of the coastal state over the continental shelf must not infringe or result in any unjustifiable interference with the rights of other States. This lead the Tribunal to conclude that even if the boarding and seizing of Arctic Sunrise were conducted in the exercise of Russia's sovereign rights over the continental shelf, they would not have complied with LOSC, because they would have infringed and unjustifiably interfered with freedom of navigation and other rights and freedoms of the Netherlands in the exclusive economic zone of Russia.⁷⁸ Thus, sovereign rights may be a ground that allows the coastal state to take preventive enforcement measures in the exclusive economic zone that interfere with freedom of navigation, but such measures have to comply with the requirements of reasonableness, necessity and proportionality.

3.2.2 Preservation and Protection of the Marine Environment

Another community interest with which sovereign rights of the coastal state need to be balanced is the protection of the marine environment. Under LOSC, states are obliged to protect and preserve the marine environment (Article 192). Their sovereign rights to exploit their natural resources are expressly subject to this obligation (Article 193). Additionally, in relation to pollution from seabed activities within national jurisdiction, parties to LOSC are obliged to adopt domestic legislation and enforce such legislation to prevent, reduce and control pollution of the marine environment arising from such activities (Articles 208 and 214).

These obligations are obligations of conduct, and more specifically of due diligence. They are breached not when harm to the marine environment or pollution occurs, but when states do not act diligently. They also require states to draw up a legal framework within their domestic legal order with a view to ensuring that the marine environment is preserved and protected and pollution is prevented, reduced and controlled, and to enforce this framework on private operators, including the investors that operate in the exclusive economic zone and on the continental shelf.⁷⁹ Furthermore, LOSC provides for procedural obligations (of monitoring, undertaking environmental impact assessments and reporting) concerning risks or effects of pollution of the marine

⁷⁷ *Ibid*, para. 328.

⁷⁶ *Ibid*, para. 326.

⁷⁸ *Ibid*, para. 321.

⁷⁹ On the content of due diligence obligations and the requirement on states vis-à-vis private operators: Case concerning Pulp Mills on the river Uruguay (Argentina v. Uruguay), Judgment of 20 April 2010, ICJ Reports 2010, p. 14, para. 197. See also analysis in D. Azaria, Treaties on Transit of Energy via Pipelines and Countermeasures (OUP, 2015), pp. 60-62.

environment or significant harmful changes to the marine environment (LOSC Articles 204-206). Importantly, the obligations in LOSC Part XII do not introduce restrictions on the basis of a transboundary effect on the environment or on the basis of a jurisdiction criterion: within or beyond national jurisdiction (as the general obligation under customary international law concerning the prevention of significant transboundary harm does).⁸⁰

Obligations within LOSC for the protection of the marine environment regulate and place restrictions on the the manner in which states exercise their sovereign rights over non-living resources, and thus indirectly have an impact on which resources are to be exploited and how they will be exploited. Permanent sovereignty over natural resources is explicitly subject to the obligation to preserve and protect the marine environment. As a separate matter, the obligation of customary international law to prevent significant transboundary harm and the procedural obligations that it entails (to notify, to undertake an environmental impact assessment and to monitor) may restrict the choice of resources to be exploited and the manner in which they will be exploited.⁸¹

3.2.3 Contributions relating to the exploitation of the continental shelf beyond 200 nautical miles

Sovereign rights of coastal states parties to LOSC concerning non-living resources in the extended continental shelf are limited by the obligation The coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles, when this exists (LOSC Article 82(1)). The payments and contributions are to be made every year with respect to all production at a site after the first five years of production at that site. For the sixth year, the rate of payment or contribution will be 1 per cent of the value or volume of production at the site. The rate will increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter (LOSC Article 82(2)). In fact this arrangement practically encourages coastal states to exploit as soon as possible and within five years a deposit in their extended continental shelf in order to avoid making payments after the fifth year, implicitly rejecting any sustainable rate of depletion in relation to such resources.

Developing states that are net importers of mineral resources produced from the continental shelf are exempt from the revenue-sharing requirements (LOSC Article 82(3)). The payments or contributions are to be made through the International Seabed Authority, which shall distribute them to LOSC parties, 'taking into account the interests and needs of developing States, particularly the least developed and land-locked among them' (LOSC Article 82(4)).

The obligation to make contributions from the exploitation of the extended continental shelf builds on the regime of the Area and its resources, which together constitute common heritage of mankind (LOSC Article 136), and strikes a balance

⁸⁰ P. Birnie, A. Boyle and C. Redgwell, *International Law and the Environment* (OUP, 2009), pp. 137 and 167. Contra: P. Sands and J. Peel, A. Fabra and R. MacKenzie, *Principles of International Environmental Law* (CUP, 2012), pp. 201.

⁸¹ In this respect, Boyle and Freestone persuasively argue that although international law does not require states to develop sustainably, it does require them to make development decision that are 'the outcome of a process which promotes sustainable development'. A. Boyle and D. Freestone, Introduction, in A. Boyle and D. Freestone (eds.), International Law and Sustainable Development (OUP, 1999), pp. 1-18 at 17. For customary nature of procedural obligations: Case concerning Pulp Mills on the river Uruguay (Argentina v. Uruguay), Judgment of 20 April 2010, ICJ Reports 2010, p. 14, paras. 204-205; Corfu Channel Case, Judgment of 9 April 1949, ICJ Reports 1949, p. 4 at 22. LOSC also contains relevant procedural obligations: Articles 204-206.

between the sovereign rights of the coastal state and the *erga omnes partes* regime of the Area. The regime of the Area and its resources reflects the community interest of LOSC parties: there is no individual interest of LOSC parties primarily protected by such obligations and institutional equipment. What is created is a matrix of rules primarily protecting a community interest of treaty parties, especially given that the Area and its resources fall beyond any party's national jurisdiction, backed by an international organisation, which oversees the exploitation of the Area and its resources, and implements the LOSC regime. By necessary implication the obligation to make payments or contributions in kind relating to the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles, is owed indivisibly between LOSC parties and reflects a community interest. It is an *erga omnes partes* obligation. 82

This community interest obligation restricts the permanent sovereignty over natural resources, which applies in relation to resources over which coastal states exercise sovereign rights, in that coastal states (LOSC parties) are not unlimited in disposing of the profits from the exploitation of such resources, but rather are obliged to share some of these proceeds with other LOSC parties through the institutional arrangements provided for in LOSC (the Authority).

4. Conclusion

Non-living resource activities activities within national jurisdiction have been a driver for the making of the law of the sea. It can be expected that their importance for coastal states, including the increasing importance placed on renewable sources of energy, especially given their economic and energy security (of supply and of demand) interests, will continue to shape the future clarification and development of the law, including through dispute settlement. Existing case law continues to offer evidence of such clarifications as to the content of sovereign rights (e.g. in relation to acquisition and control of confidential information about non-living resources in the continental shelf) and their scope as it is determined by reference to the relationship between sovereign rights over non-living resources and the interests of other states or community interests.

In the LOSC, the techniques for resolving these tensions vary. At times, the Convention subjects the right to exploit non-living resources to other obligations (e.g. the obligation to protect and preserve the marine environment; the obligation to make payments or contributions in respect of the exploitation of non-living resources in the continental shelf beyond 200 nautical miles; and the obligation not to unjustifiably interfere with freedom of navigation in the exercise of sovereign rights relating to the continental shelf). In other cases, it introduces obligations on states to take into account particular interests, to pay due regard to the rights of other states (e.g. navigation). How and when such balances are struck depend on a case-by-case examination, practically allowing for future determinations either through third party resolution or by some form of agreement between parties to a dispute. As a general observation, the rules concerning sovereign rights over non-living resources in the continental shelf and the exclusive

⁸² The obligation is not *erga omnes*, because there is no evidence in LOSC or the circumstances of its conclusion that these provisions were intended to create obligations or rights of third states vis-à-vis LOSC; nor is there any evidence that any third state has accepted such obligations or assented to such rights, even assuming that such intention was established. The customary rule set forth in VCLT Article 36 requires the intention of parties to create a right for third states and the (tacit) assent of the beneficiary states. The rule set forth in VCLT Article 35 concerning obligations for third states requires the intention of parties to create obligations for third states and the acceptance in writing of the third state(s) in question. For importance of circumstances of the treaty's conclusion for assessing the intention to create rights or obligations for third states: *Free Zones of Upper Savoy and District of Gex (France v. Switzerland)*, Order of 19 August 1929, PCIJ (1929), Series A, No. 22, p. 5 at 20.

economic zone offers evidence that permanent sovereignty over natural resources is not a rule *jus cogens*.