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Redefining the Principle of Permanent Sovereignty over Natural Resources from a Geographical Perspective

A Case Study of Transboundary Aquifers

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Abstract

The principle of permanent sovereignty over natural resources has been a subject of debate since its emergence. Scholars have discussed its purpose and effectiveness, as well as whether there is a need to reinterpret or update it given the numerous changes that have taken place over the last few decades. This article falls under the latter category, as the author argues for the need to redefine this concept, since its current definition does not allow its practical implementation in the transboundary context. To prove this point, transboundary aquifers are selected as a case study, as well as their most recent legal instrument, the Draft Articles on the Law of Transboundary Aquifers, adopted in 2008.

Keywords

permanent sovereignty over natural resources – international water law – transboundary aquifers – geographical location – draft articles

1 Introduction

The concept of Permanent Sovereignty over Natural Resources (PSNR) has been the subject of countless studies and articles over the years. It has been used and interpreted by states in various ways, with the objective of securing and protecting their natural resources at the national level and in the transboundary context.[1] It is defined as states right to exploit the natural resources located within their territories. This classical definition emerged around the 60s and 70s as a result of the decolonization process.[2] Since then, it has attracted great controversy. Therefore, over the last decades, attempts have been made to further clarify it by either expanding or limiting its scope, with little success. So far, the debate remains unresolved and the constant misinterpretation of the term by various governments to suit their interests continues.[3]

However, upon analyzing the PSNR principle, it is evident that its definition remains nebulous. Taking into consideration such ambiguity, as well as the transboundary context, the author noticed the following. First, sovereignty over a natural resource is not permanent, as a state can only exploit it within its territory. Once it crosses political borders, it is no longer possible for the government to benefit from it; hence, sovereignty is temporary. Secondly, in practice, sovereignty is not directly over the resource. Rather, it is over the geographical location where it is located, as once it is no longer there; the state cannot anymore use it. The stable element based on which resource exploitation occurs is geographical location. To prove these claims, the author will examine Transboundary Aquifers (TBAs) as a case study. These have been subject to great scrutiny in recent decades, given their importance and the adoption of

1 Elisa Freiburg, "Land Grabbing as a Threat to the Right to Self-Determination: How Permanent Sovereignty over Natural Resources Limits States Involvement in Large-Scale Transfers of Land", 18 *Max Planck Yearbook of United Nations Law Online* (2014) pp. 507; Dorothee Cambou and Stefaan Smis, "Permanent Sovereignty over Natural Resources from a Human Rights Perspective: Natural Resources Exploitation and Indigenous Peoples Rights in the Arctic", 22 *Michigan State International Law Review* (2013) pp. 347.

2 Stephen M. Schwebel, "The Story of the U.N.'s Declaration on Permanent Sovereignty over Natural Resources", 49 *American Bar Association Journal* (1963) pp. 463; Stephan Hobe, "Evolution of the Principle on Permanent Sovereignty over Natural Resources", in M. Bungenberg and S. Hobe (eds.), *Permanent Sovereignty over Natural Resources* (2015) pp. 1–6.

3 Upendra Baxi, "Sovereign Rights, State Obligations and Natural Resources", in S. Alam, J.H. Bhuiyan and J. Razzaque (eds.), *International Natural Resources Law, Investment and Sustainability* (2018) pp. 45–55; Virginie Barral, "National Sovereignty over Natural Resources: Environmental Challenges and Sustainable Development", in E. Morgera and K. Kulovesi (eds.), *Research Handbook on International Law and Natural Resources* (2016) pp. 3–15.

the Draft Articles on the Law of Transboundary Aquifer in 2008.[4] The focus on the application of PSNR to TBAs, instead of other natural resources, is founded on the author's expertise in the field.

The article first provides an overview of the history, current developments, and criticisms of PSNR. Subsequently, it examines the relation between law, geography, and borders, highlighting how all these elements are connected. Later, the development of TBAs within international water law and the status of the 2008 Draft Articles on the Law of Transboundary aquifers in relation to PSNR are discussed. Based on this analysis, the author will highlight that 1) sovereignty over resources is not permanent in the transboundary context and that 2) sovereignty is not over natural resources.

For the purpose of this article, PSNR is considered in the broader context of territorial sovereignty.[5] Natural resources are located within lands, as such, they are subject to the authority of the state. When the term territorial sovereignty is used, the objective is to refer to said authority. Moreover, PSNR refers to the sovereignty of the state not the populations, even though, in recent years, their rights have been examined within this context.[6] Finally, this article will not address this principle in the general framework of existing international water disputes, given the strict focus on the concept itself when applied to TBAs.

2 Permanent Sovereignty over Natural Resources

The following sections will examine the history of PSNR as well as its current meaning in international law and existing criticisms. The purpose is to situate the article in the broader landscape of the literature related to this principle, which has been developing over the last few decades.

2.1 *History*

The debate on nations sovereignty over natural resources was initiated in the 19th century, wherein various countries sought to gain their independence. These efforts gained momentum after World War II.[7] However, it took

4 Gabriel Eckstein, *The International Law of Transboundary Groundwater Resources* (2017) p. 1–30; Francisco Sindico, *International Law and Transboundary Aquifers* (2020) p. 28–50.

5 Donald R Rothwell et al. *International Law: Cases and Materials with Australian Perspectives* (Cambridge University Press 2019) p. 289–319.

6 Temitope Tunbi Onifade, "Peoples-Based Permanent Sovereignty over Natural Resources: Toward Functional Distributive Justice?", 16 *Human Rights Review* (2015) pp. 356–357.

7 Ricardo Pereira & Orla Gough, "Permanent Sovereignty over Natural Resources in the 21st Century: Natural Resource Governance and the Right to Self-Determination of Indigenous Peoples under International Law", 14 *Melbourne Journal of International Law* (2013) pp. 455.

over two decades for the adoption of the PSNR principle within the United Nations General Assembly (UNGA). Chile first introduced it in 1952 in the UN commission on human rights. Subsequently, it was incorporated into several Resolutions and declarations. States had different understandings and interpretations in the wake of various developments, especially the call for a New International Economic Order (NIEO). UNGA's Resolution of 1952 recognized that underdeveloped nations have a right to freely use their natural resources to improve their economic situation. In 1958, UNGA recognized through another Resolution that PSNR is a precondition to the right to self-determination.[8]

The official adoption of this principle was via Resolution 1803 (XVII) on December 14, 1962. Through it, the international community declared that nations and people have a right to permanent sovereignty over their natural wealth and resources, which must be exercised while considering the interests related to national development and people's well-being. Each country's specific rules must apply to the exploration, development, and disposition of these resources, even if foreign capital is used. Any authorization provided to investors in this context can be withdrawn through nationalization, expropriation, or requisitioning on various grounds, including security or national interest. The mutual respect of each state's sovereign equality as well as international cooperation through investments and assistance, especially to developing countries were also covered. Finally, violation of the principle and the adoption of foreign investment agreements were mentioned.[9]

The approval of this Resolution was the result of a compromise between nations sovereign rights to use and benefit from their natural resources, and their obligations to protect foreign property under international law. This concession was needed to ensure that no states oppose its adoption, especially the United States and the Soviet Union. The initial draft had several deficiencies, which is why various amendments were suggested, even though not all were adopted.[10]

8 Fritz Visser, "The Principle of Permanent Sovereignty over Natural Resources and the Nationalisation of Foreign Interests", 21 *The Comparative and International Law Journal of Southern Africa* (1988) pp. 76–77; United Nations Digital Library, Right to Exploit Freely Natural Wealth and Resources (1953), https://digitallibrary.un.org/record/211441?ln=en; United Nations Digital Library, Recommendations Concerning International Respect of the Right of the Peoples and Nations to Self-Determination (1959), https://digitallibrary.un.org/record/206915?ln=en.

9 United Nations Human Right, Office of the High Commissioner, General Assembly Resolution 1803 (XVII) of 14 December 1962, "Permanent sovereignty over Natural Resources", https://www.ohchr.org/EN/ProfessionalInterest/Pages/NaturalResources.aspx.

10 Schwebel (n 2) p. 464–466.

Several Resolutions were further established. However, in 1972, Resolution 88 (XIII) was adopted by the UN Conference on Trade and Development. It challenged the content of the one of 1803, stating that any dispute over natural resources is subject only to the jurisdiction of the courts where these resources are located. Resolution 1803 was further questioned through later ones. For instance, Resolution 3171 (XXVIII) of 1973 did not refer to international law in general, while the PSNR principle was included in the 1974 Declaration on the establishment of the NIEO and in the 1974 Charter of Economic Rights and Duties of States.[11] Throughout the decades, PSNR has continued to develop through official documents, non-binding legal instruments, and legal scholarship.

2.2 *Current Meaning in International Law*

The PSNR principle witnessed great changes mainly because it became impossible to ignore the interdependent nature of the various states territories, where actions taken in one nation affect others.[12] As such, cooperation to guarantee the right to development, ensure the wise management of natural resources, their equitable sharing, as well as the preservation of global commons are being considered when examining and implementing this concept. Further issues have also emerged affecting it, mainly 1) indigenous peoples claims to their ancestral lands, 2) the emergence of a human right to the environment, 3) the global increase in environmental awareness, and 4) the establishment of regional schemes for economic cooperation and integration, such as the European Union.[13] Based on these, the new international environmental agreements adopted no longer focus on only maximizing the use of natural resources, but also their rational management and conservation, considering both existing and new concepts such as ecosystem approach, and the common heritage of humankind.[14] These new principles have added new goals and limitations to PSNR.

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11 Visser (n 8) p. 78–79. United Nations Conference on Trade and Development [1972] UNGA 1; A/RES/2904 (XXVII) (26 September 1972); UN General Assembly, Permanent Sovereignty over Natural Resources, 17 December 1973, A/RES/3171, https://www.refworld.org/docid/3b00f1c64.html; United Nations Digital Library, Declaration on the Establishment of a New International Economic Order (1974), https://digitallibrary.un.org/record/218450?ln=en; Charter of Economic Rights and Duties of States; General Assembly resolution 3281 (XXIX); New York, 12 December 1974.

12 Amado S Tolentino, "Sovereignty over Natural Resources – Change of Concept or Change of Perception?", 44 *Environmental Policy and Law* (2014) pp. 300.

13 *Ibid.*, p. 302.

14 *Ibid.*, p. 302.

Moreover, global regulatory frameworks that emerged and developed since World War II have challenged the implementation of PSNR principle. Examples include international investment laws with a focus on the protection of the ones in a foreign state. The latters have intensified since the 1990s through mechanisms like bilateral treaties limiting state sovereignty. Such regulation is needed for the protection of investments and investors through stable and predictable legislations.[15] Another important regime clashing with this concept is international trade law. This can be seen in cases where it was invoked within the World Trade Organization's (WTO) Dispute Settlement Body (DSB), mainly for disputes: *China – Measures Related to the Exportation of Various Raw Materials* (*China – Raw Materials*) and *China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum* (*China – Rare Earths*).[16] In these cases, China imposed export-restricting measures on specific raw materials and rare earths, mentioning the need to protect human life, health, and the preservation of exhaustible natural resources. Among the many findings, the WTO's DSB ruled that even though states have a right to exploit their natural resources in accordance with PSNR, this principle cannot be used to violate trade obligations agreed upon by China.[17]

Besides, some concerns have been raised regarding what exactly the PSNR principle means in practice. For instance, there is an ongoing debate on which party has rights over the natural resources – be it the government or the citizens – which has led to the emergence of the concept of people's-based PSNR.[18]

In sum, the principle has progressively developed over the last decades through its interplay with various fields such as environmental law, foreign investment regulation,[19] and international trade rules. This has resulted in its redefinition. However, despite all these developments, states remain the sole actors with the sovereign right to manage their own natural resources in accordance with international and national legislations, while ensuring that

15 Alejandro Gonzalez Arreaza, "Natural Resource Sovereignty and Economic Development in the WTO in Light of the Recent Case Law Involving Raw Materials and Rare Earths", 26 *Review of European, Comparative & International Environmental Law* (2017) pp. 270.

16 China – Measures Related to the Exportation of Various Raw Materials (5 July 2011), WT/DS394/R; China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum (26 March 2014), WT/DS431/R.

17 *Ibid.,* Arreaza (n 15) p. 271.

18 Onifade (n 6) p. 356–357.

19 Nico Schriver, "Fifty Years Permanent Sovereignty over Natural Resources", in M. Bungenberg & S. Hobe (eds.), *Permanent Sovereignty over Natural Resources* (2015) pp. 15–28.

no damage is caused to the neighboring countries, as evidenced by the recent International Law Association (ILA) Draft Resolution No. 4/2020, entitled 'ILA Guidelines for Sustainable Natural Resources Management for Development'.[20]

2.3 *Criticism*

The PSNR principle has been criticized for various reasons. Firstly, its practical implementation is not sound. It provides states with the right to exploit natural resources, which must be protected at all times. Nonetheless, it usually grants minimum environmental protection in a context of poor governance practices. This is further worsened in situations where local communities have claims over the same natural resources.[21] Secondly, the development of the concept has led to questioning the idea that PSNR is solely associated with nations, even though natural resources belong to citizens. This means that a different approach to their governance is required.[22] Such a change is also needed because the legitimacy of a state's decision concerning the management of a natural resource for the benefit of its inhabitants is not guaranteed. In particular, the population under dictatorships do not have a say on this topic.[23] Moreover, the benefits of natural resources are often unjustly allocated by states, which affects citizens and marginalized groups.[24]

According to Armstrong, ensuring citizens basic rights is not sufficient justification for the PSNR, as constraints over the resources are required in specific circumstances.[25] Moreover, the principle allows nations to offer benefits to the population of the regions where the resource is located, even in cases where outsiders may claim ownership over it.[26] These two factors create further complications, especially when it comes to global challenges such as climate change. For instance, rainforests play an important role in absorbing

20 Draft Resolution No. 4 /2020: The Role of International Law in Sustainable Natural Resources Management For Development; The 79th Kyoto Conference of the International Law Association held in Kyoto, Japan, 29th November to 13th December 2020; Marie-Claire Cordonier Segger & Nico Schrijver, "ILA Guidelines for Sustainable Natural Resources Management for Development", 68 *Netherlands International Law Review* (2021) pp. 315.

21 Chris Armstrong, "Against 'Permanent Sovereignty over Natural Resources", 14 *Politics, Philosophy & Economics* (2015) pp. 145.

22 Ioannis Kouris, "Sovereignty over Natural Resources", *Critical Review of International Social and Political Philosophy* (2020) pp. 18.

23 Petra Gumplova, "Sovereignty over Natural Resources – A Normative Reinterpretation", 9 *Global Constitutionalism* (2020) pp. 32.

24 *Ibid.*, p. 34–35.

25 Armstrong (n 21) p. 145.

26 *Ibid.*

greenhouse gases, yet they are situated within specific territories where the state may decide to cut them down.[27] A similar problem exists in the context of fossil aquifers; Marin-Nagle argued for considering them as common heritage of humankind, even though they are normally subject to domestic rules.[28] Another challenge concerns looting, plundering, and exploitation of natural resources. In *Armed Activities on the Territory of the Congo Case*, the International Court of Justice has ruled that such activities do not violate PSNR since they were not alluded to when the principle was developed.[29]

For all these reasons, PSNR has been criticized, given states emphasis on their rights rather their actual duties. These include, inter alia, 1) ensuring the well-being of the people, 2) considering indigenous peoples rights, 3) cooperation, 4) conservation and sustainable use of nature resources, and 5) respect for international law.[30] However, not all these obligations are being complied with.

2.4 *Summary*

The PSNR principle has evolved since its inception as a result of various factors, including criticisms. This article advocates for the redefinition of the concept in the transboundary context, considering the geographical reality as well as the developments in specific global regulatory frameworks.

3 Law, Geography, and Borders

The traditional Westphalian legal order is heavily based on geography separating the political borders of states as sovereign entities. Thus, the latter is essential for sovereignty, as a nation must have exclusive authority over its territory. Accordingly, geography is considered one of several elements that

27 A Banai, "Sovereignty over Natural Resources and its Implications for Climate Justice", 7 *WIREs Climate Change* (2016) pp. 243–244.

28 Renee Martin-Nagle, "Fossil Aquifers: A Common Heritage of Mankind", 2 *Journal of Energy and Environmental Law* (2011) pp. 40–60.

29 Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda), Judgment, 2005 I.C.J. Rep. 168, 251–52 (Dec. 2005); Shawkat Alam & Abdullah Al Faruque, "From Sovereignty to Self-Determination: Emergence of Collective Rights of Indigenous Peoples in Natural Resources Management", 32 *The Georgetown Environmental Law Review* (2019) pp. 67.

30 Nico Schrijver, *Sovereignty over Natural Resources: Balancing Rights and Duties* (1997) p. 306–344.

defines a state.[31] Its importance can be traced back to the emergence of maps, considered as proof of the existence of a country. Therefore, it played a leading role in the rise of nation states, including modern ones.[32] Before that, independent institutions assumed the responsibility of lawmaking within small spaces (e.g., cities), while large territories remained unregulated.[33] The connection between law and geography occurred as humans were looking to organize, from a political perspective, the existing spaces on earth,[34] as there is an intrinsic relation between these elements and political power.[35]

The pillars of international law, organizations, and the international community are territoriality and jurisdictions, as they are part of national identities and cultures, even in the post-Westphalian world.[36] Several legal principles and concepts, such as sovereign equality and noninterference, are rooted in geography.[37] The relation between this notion and the law is complicated because of the existence of rules based on its colonial past, the different and contradictory conceptualization of spaces and boundaries, as well as their legal implications and significance.[38] While nations influence globally may have decreased due to globalization and the emergence of non-state actors, state consent remains the basis of international law, where the geographical location plays an important role in the decision to abide by transnational rules.[39] In fact, there is a long list of cases before tribunals concerning borders.[40] In this context, states make territorial claims based on nine categories: 'treaties, geography, economy, culture, effective control, history, *uti possidetis*,

31 Daniel Bethlehem, "The End of Geography: The Changing Nature of the International System and the Challenge to International Law", 25 *European Journal of International Law* (2014) pp. 13.

32 Tayyab Mahmud, "Geography and International Law: Towards a Postcolonial Mapping", 5 *Santa Clara Journal of International Law* (2007) pp. 536–540.

33 Paul Schiff Berman, "From International Law to Law and Globalization", 43 *Columbia Journal of Transnational Law* (2005) pp. 508.

34 L M Alexander, "Geography and the Law of the Sea", 58 *Annals of the Association of American Geographers* (1968) pp. 177.

35 Matteo Nicolini and Thomas Perrin, "Islands and Insularity: Between Law, Geography, and Fiction", 14 *Pólemos* (2020) pp. 209.

36 U Baxi, "Some Newly Emergent Geographies of Injustice: Boundaries and Borders in International Law", 23 *Indiana Journal of Global Legal Studies* (2016) pp. 19.

37 Bethlehem (n 31) p. 13.

38 Keebet von Benda-Beckmann, "Anthropological Perspectives on Law and Geography", 32 *Political and Legal Anthropology Review* (2009) pp. 266.

39 Carl Landauer, "Regionalism, Geography, and the International Legal Imagination", 11 *Chicago Journal of International Law* (2011) pp. 582.

40 *Ibid.*, p. 558.

elitism, and ideology'.[41] Geography's importance to sovereignty can be noticed through various disputes regarding sovereign rights over a given territory. Examples include the territories of Palestine, Sudan, and the South China Sea.[42] Moreover, geographical provisions are included within treaties. For instance, the agreement on Trade-Related Aspects of Intellectual Property Rights includes Geographical Indications (GIs) in section 3.[43] It defines GIs as 'indications which identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation, or other characteristic of the good is essentially attributable to its geographical origin'.[44]

The important interplay between law and geography[45] resulted in the emergence of the legal geography discipline.[46] Currently, a clash is taking place between those calling for a shift from the notion of state sovereignty, on the basis of geography, given the existence of various cross border challenges (mainly international environmental concerns and the increasing role of non-state actors), and those who point out that such dilemmas have always existed, while state sovereignty on the basis of geographic delimitation has remained the norm, despite them.[47] Some legal geographers have criticized the abstract nature of doctrinal law,[48] while others, like Orzeck and Hae, argue that there are obstacles facing legal geography's ability to produce holistic

41 Brian Taylor Sumner, "Territorial Disputes at the International Court Of Justice", 53 *Duke Law Journal* (2004) pp. 1779.

42 Bethlehem (n 31) p. 14. See, International Court of Justice, Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, https://www.icj-cij.org/en/case/131; Adeeb Yousif & Daniel Rothbart, Sudan and South Sudan: Post-Separation Challenges (School of Conflict Analysis and Resolution (S-CAR), George Mason University, in December 2012), https://www.beyondintractability.org/casestudy/yousif-rothbart-sudan-south-sudan; The South China Sea Arbitration (Phil. v. China), Case No. 2013–19, Award (Perm. Ct. Arb. 2016); The South China Sea Arbitration (Phil. v. China), Case No. 2013–19, Award on Jurisdiction and Admissibility (Perm. Ct. Arb. 2015).

43 Wahyu Sasongko, "Geographical Indications Protection under the New Regulation in Indonesia", 9 *Journal of Social Studies Educational Research* (2018) pp. 403.

44 Agreement on Trade-Related Aspects of Intellectual Property Rights, came into effect on 1 January 1995. (Art. 22 (1)) of Section 3: Geographical Indications.

45 Nicholas Blomley and Gordon L Clark, "Law, Theory, and Geography", 11 *Urban Geography* (1990) pp. 434.

46 Luke Bennett and Antonia Layard, "Legal Geography: Becoming Spatial Detectives", 9 *Geography Compass* (2015) pp. 406.

47 Carl Landauer, "The Ever-Ending Geography of International Law: The Changing Nature of the International System and the Challenge to International Law: A Reply to Daniel Bethlehem", 25 *European Journal of International Law* (2014) pp. 31–34.

48 Alex Jeffrey, "Legal geography II: Bodies and Law", 44 *Progress in Human Geography* (2019) pp. 1012.

knowledge.[49] Lawyers have been also criticized for their focus on maps and geography,[50] especially as current transborder developments are more disruptive. For instance, along the borders of states lie modern infrastructures, including highways, pipelines, and undersea internet cables.[51] Further research on the relation between law and geography is needed to inform the stakeholders when to intervene and how to consider this relation.[52]

While this section highlighted the importance of geography from a legal perspective considering territorial borders, the following ones will examine this interplay in the context of TBAs.

4 Transboundary Aquifers as a Case Study

This section will argue that the PSNR concept does not hold water in the context of TBAs, given that the groundwater contained within constantly flows from one territory to another, whereas states have permanent sovereignty over the geographical location, but not the resource itself.

4.1 *Development of Transboundary Aquifers within International Water Law*

Early binding and non-binding international water instruments mainly addressed transboundary surface water, as groundwater was considered secondary despite being covered within their scope.[53] This is because states had a clearer vested interest in the protection of surface water for non-navigational purposes. At the time, several factors led to this outcome, including the hidden nature of shared groundwaters, the lack of scientific understanding of this resource, and the absence of technological and scientific means to evaluate its state.[54] Indeed, the 1966 Helsinki Rules on the Uses of the Water of

49 Reecia Orzeck and Laam Hae, "Restructuring Legal Geography", 44 *Progress in Human Geography* (2020) pp. 832.

50 Nikolas M. Rajkovic, "The Visual Conquest of International Law: Brute Boundaries, the Map, and the Legacy of Cartogenesis", 31 *Leiden Journal of International Law* (2018) pp. 287–288.

51 *Ibid.*, p. 268–270.

52 Robyn Bartel, "Legal Geography, Geography, and the Research-Policy Nexus", 54 *Geographical Research* (2016) pp. 238.

53 Raya M. Stephan, "Evolution of International Norms and Values for Transboundary Groundwater Governance", in A.R. Turton et al. (Eds.), *Governance as a Trialogue: Government-Society-Science in Transitio*n (2007) pp. 147–165.

54 Anthony J. Jakeman et al., "Integrated Groundwater Management: An Overview of Concepts and Challenges", in A.J. Jakeman et al (eds), *Integrated Groundwater Management: Concepts, Approaches and Challenges* (2016) 3–20.

International Rivers excluded certain types of groundwaters,[55] resulting in the adoption of the 1986 Seoul Rules on International Groundwaters, which also covered previously excluded ones.[56] These non-binding instruments were followed by the 2004 Berlin Rules[57] on Water Resources, thereby updating the Helsinki Rules and covering TBAs.[58] The international community's interest in the regulation of shared groundwaters grew progressively in tandem with the increasing awareness and scientific understanding of the importance of this resource.

Still, the conventions adopted in the 1990s – i.e., the Convention on the Law of the Non-navigational Uses of International Watercourses of 1997 (Watercourses Convention [UNWC]) and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes of 1992 (Water Convention) – had several shortcomings. These treaties did not consider the particularities of shared groundwater resources, despite covering them within their scope.[59] The UNWC also excluded certain types, mainly confined aquifers.[60] Moreover, by the time both agreements were adopted, the international community had asserted the dominance of the principle of limited sovereignty for natural resources over the concept of absolute sovereignty. This approach led some nations to reject the signing of the UNWC – which has a global scope, in contrast to the Water Convention, which only covered Europe at the time. Nations did not sign the UNWC, as the international community in both conventions asserted that a country has a limited sovereignty over its shared water resources (including groundwaters). This meant that states have to abide by this approach to protect and share the water resources. Yet, since neither conventions included provisions addressing the particularities of

55 Helsinki Rules on the Uses of the Water of International Rivers, adopted by the International Law Association at the fifty-second conference, held at Helsinki in August 1966.

56 The Seoul Rules on International Groundwaters; adopted by the international law association at the sixty-second conference held at Seoul in 1986.

57 International Law Association Berlin Conference. The Berlin rules on water resources (2004).

58 The International Law Association (ILA), an academic institution, adopted all these instruments.

59 Groundwater is more vulnerable than surface water when it comes to pollution and contamination while it is extremely more difficult to clean a polluted groundwater source. It is also much more difficult to monitor due to the considerable depths in which it is located. Eckstein (n 4) p. 81–82.

60 G Eckstein & Y Eckstein, "A Hydrogeological Approach to Transboundary Ground Water Resources and International Law", 19 *American University International Law Review* (2003) pp. 201.

shared groundwaters, a process for the drafting and adoption of a new instrument addressing solely this resource was initiated.[61]

4.2 *Shared Groundwaters in the Draft Articles on the Law of Transboundary Aquifers*

In 2008, the UNGA adopted the Draft Articles on the Law of Transboundary Aquifers. This instrument is the sole mechanism addressing shared groundwaters as separate from surface water. It is intended to be adopted as a convention, similar to other existing water treaties, and has several objectives.[62] Through it, the international community finally acknowledged the importance of groundwater as an important resource with its own distinct characteristics. Hence, its establishment was generally hailed as a great achievement. Despite that, it has many shortcomings that have been heavily scrutinized by lawyers and experts, resulting in calls for its amendment.[63]

One of this instrument's weaknesses is its focus on the term 'aquifer' instead of 'groundwater'.[64] In fact, it makes no mention of *groundwater*, opting instead to use *aquifer* when referring to it. Yet, there is a vast difference between both concepts.[65] An aquifer is defined in the Draft Articles as a 'permeable water-bearing geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation'.[66] It defined TBAs or a TBA system as an 'aquifer or aquifer system, parts of which are situated in

61 Christina Leb, *Cooperation in the Law of Transboundary Water Resources* (2013) p. 42–70; Stephen C McCaffrey, "The Progressive Development of International Water Law", in F.R. Loures & A. Rieu-Clarke (eds), *The UN Watercourses Convention in Force: Strengthening International Law for Transboundary Water Management* (2013) pp. 10, 17.

62 Stephen C McCaffrey, "The International Law Commission Adopts Draft Articles on Transboundary Aquifers", 103 *The American Journal of International Law* (2009) pp. 272.

63 Gabriel Eckstein & Francisco Sindico, "The Law of Transboundary Aquifers: Many Ways of Going Forward, but Only One Way of Standing Still", 23 *Review of European, Comparative & International Environmental Law* (2014) pp. 32; Raya Marina Stephan, "The Draft Articles on the Law of Transboundary Aquifers: The Process at the UN ILC", 13 *International Community Law Review* (2011) pp. 223.

64 An aquifer is a 'body of porous rock or sediment saturated with groundwater". The latter access it as 'precipitation seeps through the soil. It can move through the aquifer and resurface through springs and wells'. National Geographic, Aquifers, https://www.nationalgeographic.org/encyclopedia/aquifers/

65 Stephen C McCaffrey, *Comments on the International Law Commission's Draft Articles on The Law of Transboundary Aquifers* (2006) (Mar. 30, 2008) pp. 4.

66 Draft articles on the Law of Transboundary Aquifers, text adopted by the International Law Commission at its sixtieth session, in 2008. Article 2 (a).

different states'.[67] Hence, it equated groundwater with a geological formation, which is inaccurate, as this resource flows within that formation also in the transboundary context, whereas the aquifer is a geological location situated in a specific geographical area.[68]

The second controversy is related to the principle of sovereignty. Article 3 mentions that 'each aquifer state has sovereignty over the portion of a transboundary aquifer or aquifer system located within its territory'.[69] This is seen as a regression from the developments that had taken place in international water law over the last few decades, especially due to the adoption of a limited sovereignty approach within water conventions. By focusing on the aquifer, the Draft Articles equated groundwater to oil and gas, as countries have sovereignty over the ground beneath their territory – where these resources are located.[70] What makes this more confusing is that the second part of the article stated that sovereignty shall be exercised in accordance with international law and this instrument.[71] Hence, in this case, sovereignty is not absolute but limited, as a nation must comply with conventions and principles when exercising it because international law currently limits the latter in the transboundary context.[72]

The two shortcomings mentioned above highlight the interplay between geography and sovereignty, as well as the law's equating groundwater to a geological formation by focusing only on the aquifers wherein water is located. This has led to the reemergence of the principle of absolute sovereignty over natural resources, in contrast to the limited sovereignty approach adopted within international water law. Accordingly, states would consider groundwater as part of their territory, rather than as a flowing resource across borders requiring transboundary regulations.

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67 *Ibid*., p. Article 2 (b).

68 Kerstin Mechlem, "Past, Present and Future of the International Law of Transboundary Aquifers", 13 International Community Law Review (2011) pp. 219.

69 Draft Articles (n 66) Article 3.

70 Attila Tanzi, "Furthering International Water Law or Making a New Body of Law on Transboundary Aquifers – An Introduction", 13 International Community Law Review (2011) pp. 200–204; Margaret J. Vick, "International Water Law and Sovereignty: A Discussion of the ILC Draft Articles on the Law of Transboundary Aquifers", 21 *Pacific McGeorge Global Business & Development Law Journal* (2008) pp. 203–205.

71 Draft Articles (n 66) Article 3.

72 Nadia Sanchez Castillo, "Differentiating between Sovereignty over Exclusive and Shared Resources in the Light of Future Discussions on the Law of Transboundary Aquifers", 24 Review Of European Community & International Environmental Law (2015) pp. 5.

4.3 *Transboundary Aquifers and Permanent Sovereignty over Natural Resources*

As stated in the previous section, the Draft Articles used the term 'aquifer' instead of 'groundwater',[73] even though water is constantly flowing from one country to another.[74] As mentioned earlier, the focus on the geological formation instead of the resource itself was considered a regressive step. This perspective has been criticized because it establishes that a state cannot have sovereignty over groundwater but only over an aquifer, which is the geological formation where this resource is located, despite the fact that it is constantly flowing across borders.[75]

While international water lawyers are correct in their assessment and criticism, this approach unintentionally makes an important point. In the context of shared groundwaters, a state will only be able to use the resource located beneath its territory, within the geologic formation. Once it crosses the borders, it no longer has the capacity to exploit it, but rather the right to use the new water coming in, which will also cross political borders eventually. This implies that a state's power can only be exercised when a resource is located within its jurisdiction. This view is included within international water conventions such as the UNWC, which focuses on the term 'territory of a state', highlighting a state's competences.[76] Based on this analysis, a state does not have sovereignty over the groundwater in general but rather the geographical area located within its territory, where the resource exists for limited period.

This idea is even integrated within groundwater agreements adopted at the basin level. The Guarani aquifer treaty between Argentina, Brazil, Paraguay, and Uruguay addressing the Plata basin highlights this logic.[77] According to article 2: 'Each party exercises sovereign territorial control over their respective portions of the Guarani Aquifer System'.[78] The parties in this provision are already acknowledging that sovereignty is over the portion of the aquifer located beneath their territories, where groundwater exists for a limited period. Article 3 enumerates the rights of the parties, mainly 'the management,

73 Draft Articles (n 66) Articles 2 & 3.

74 McCaffrey (n 63) p. 4 & Mechlem (n 69) p. 219.

75 *Ibid.*, Tanzi (n 70) p. 200–204; Vick (n 70) p. 203–205; Castillo (n 72) p. 5.

76 Convention on the Law of the Non-navigational Uses of International Watercourses of 1997, Articles 2, 3, 5, 7, 8, 26, 28, 32, 33.

77 The Guarani Aquifer Agreement between the Republic of Argentina, the Federative Republic of Brazil, the Republic of Paraguay and the Oriental Republic of Uruguay, signed in 2010.

78 Guarani Aquifer Agreement (n 77) Article 2.

monitoring, and sustainable utilization of the Guarani Aquifer System water resources', based on 'reasonable and sustainable uses criteria, respecting the obligation of not causing significant harm to the other parties or the environment'.[79] Yet, this provision expressly mentions that these sovereign rights can only be exercised in the respective territory of each state.[80] Again, this highlights that a nation's right to use the resource is limited to a specific geographical location, namely, its territory, beneath which the resource is located for a limited period. There are other provisions within this agreement that also show this reality.[81]

5 Implications for International Law

Based on this analysis, the author will draw two implications. Firstly, sovereignty over a shared resource is temporary and, secondly, sovereignty is not over said resource but the geographical location.

5.1 *Sovereignty over the Resource is not Permanent in the Transboundary Context*

The term 'permanent sovereignty' means that a state has an everlasting right – based on its territorial jurisdiction – to exploit and use the resources that are located within its territory. Nations have been using various types of natural resources, including surface water, groundwater, oil, gas, and coal.[82] In the past, this interpretation provided much needed support to developing countries seeking independence and helped organize resource management and extraction in the transboundary context, despite several countries misinterpretations of this notion to serve their interests.[83] Hence, it is necessary to identify a rationale for the definition to protect states domestic natural resources and regulate their extraction across borders.

79 Ibid., Article 3.

80 Ibid.

81 These include Articles 1, 5, 6, 9, 10, 11, 13.

82 Pedro J Martinez-Fraga & C Ryan Reetz, *Public Purpose in International Law: Rethinking Regulatory Sovereignty in the Global Era* (2015) p. 293–317; Daniel Augenstein, "Paradise Lost: Sovereign State Interest, Global Resource Exploitation and the Politics of Human Rights", 27 *European Journal of International Law* (2016) pp. 669.

83 Sangwani Patrick Ng'ambi, "Permanent Sovereignty over Natural Resources and the Sanctity of Contracts, from the Angle of Lucrum Cessans", 12 *Loyola University Chicago International Law Review* (2015) pp. 153.

However, in such situation, states sovereignty is not permanent, but temporary. TBAs perfectly exemplify this reality. When two or more nations share groundwaters, according to the PSNR principle, they have sovereignty over it. Yet, the ability to extract and exploit this resource is limited by the time during which it is located within its territory. Once it crosses political boundaries, a state no longer has the right to use it. Rather, it can exploit new groundwaters flowing into its land. This may not make a difference from a geological perspective but has important legal implications. This means that a nation has sovereignty over a resource for as long as it is located within its jurisdiction allowing its use for various purposes. In the transboundary context, this implies that such sovereignty is not permanent but temporary. This is also, why nations must respect various obligations such as good management and pollution prevention.[84] They must abide by these rules to avoid clashing with the rest of the countries sharing the aquifer.

This in contrast to cases where a given resource is entirely located within the territorial jurisdiction of one state. The latter does not cross political boundaries and a nation has absolute power to exploit and use it in any way it sees fit. Hence, the state has the 'permanent' component of 'permanent sovereignty' covered; accordingly, it has PSNR within its territorial jurisdiction.[85] It is in this context that international principles such as the one of non-intervention are invoked to ensure a government's right to manage all of its internal affairs (including the domestic governance of its natural resources) without outside interference.[86] This has led scholars to call for considering domestic aquifers as a common good of humankind, given their importance to human survival as well as states poor governance practices. From this perspective, the international community should assume the responsibility of managing them.[87] Hence, the PSNR principle is suitable for domestic resources, but not transboundary ones, as sovereignty over the latter is temporary.

84 Christina Leb, "One Step at a Time: International Law and the Duty to Cooperate in the Management of Shared Water Resources", 40 *Water International* (2014) p. 21.

85 See on state sovereignty, Ersun N. Kurtulus, *State Sovereignty: Concept, Phenomenon and Ramifications* (2005) p. 11–34; Thomas J Biersteker & Cynthia Weber, "The Social Construction of State Sovereignty", in T.J. Biersteker & C. Weber (eds.), *State Sovereignty as Social Construct* (1996) pp. 1–21.

86 Maziar Jamnejad and Michael Wood, "The Principle of Non-intervention", 22 *Leiden Journal of International Law* (2009) p. 345.

87 Martin-Nagle (n 28) p. 39.

5.2 *Sovereignty Is Not Over Natural Resources*

UNGA's Resolution 1803 concerning PSNR stated that 'The right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned'.[88] This Resolution gives nations the right to use their natural resources in any way they see fit. Thus, sovereignty was embedded in the law for decades. Yet, this interpretation has been subject to criticism and reinterpretations.[89] Upon the analysis of the case study, the author argues that sovereignty is not over the resource. States do own the latters within their territories, but this is because of their geographical location. In essence, the PSNR does not apply.

Specifically regarding TBAs, the author highlights that a state can exploit natural resources as long as they are located within its territory; hence, their use is based on geographical location. Once the shared groundwater crosses the border, the government can no longer do so.[90] There are many more cases that can prove this claim. These include shared oil and gas fields and shared surface water, wherein nations only have sovereignty over the geographical location and not the resource. In these situations, a state can exploit these resources as long as they are located in its territory.[91] However, other examples exist at various levels (transboundary/domestic resources) to prove this reality.

For instance, the recent developments regarding indigenous people's rights over their ancestral lands and the natural resources located within them perfectly highlight this point. Even though these lands are situated within the territory of a state, the fact that they belong to indigenous peoples makes the resources (e.g., forests, water, and minerals) subject to dispute between governments and these persons. In fact, these natural resources were the reason

88 United Nations, General Assembly Resolution 1803 (XVII) of 14 December 1962, "Permanent Sovereignty over Natural Resources", https://www.un.org/unispal/document/auto-insert-208292/.

89 Gümplová (n 21) p. 7; Petra Gümplová, "Restraining Permanent Sovereignty over Natural Resources", 53 *Enrahonar. Quaderns de Filosofia* (2014) pp. 93.

90 McCaffrey (n 62) p. 4; Mechlem (n 68) p. 219; Tanzi (n 70) p. 200–204; Vick (n 70) p. 203–205; Castillo (n 73) p. 5.

91 See for instance, Thomas A. Reynolds, "Delimitation, Exploitation, and Allocation of Transboundary Oil & Gas Deposits Between Nation-States", 1 ILSA Journal of International & Comparative Law (1995) pp. 135–170; Stephen C McCaffrey, *The Law of International Watercourses* (3d ed. 2019) p. 63–97.

for the extermination of indigenous peoples in the past.[92] According to the jurisprudence of the Inter-American Court of Human Rights:

> members of tribal and indigenous communities have the right to own the natural resources they have traditionally used within their territory for the same reasons that they have a right to own the land they have traditionally used and occupied for centuries. Without them, the very physical and cultural survival of such peoples is at stake.[93]

Even when a state assumes ownership of natural resources within its territory through domestic laws, the rights of indigenous people must be respected. These rights include 'the right to a safe and healthy environment, the right to prior consultation and, in some cases, informed consent, the right to participation in the benefits of the project, and the right of access to justice and reparation'. Hence, geographical location often determines whether a nation can exploit natural resources even when they are located within its territory in case they are in areas subject to specific laws and rights.[94]

6 Conclusion

The PSNR principle has been instrumental for nations seeking to gain control over their natural resources or exploit them without outside interference. In that sense, it is necessary to acknowledge its benefits, despite the many controversies surrounding it.[95] Indeed, in a way, one can argue that this concept has prevented military conflicts from occurring. This is not to say that armed and non-armed disputes over natural resources do not take place.

92 Inter-American Commission on Human Rights, Indigenous and Tribal Peoples' Rights over their Ancestral Lands and Natural Resources; Norms and Jurisprudence of the Inter-American Human Rights System. VIII. Indigenous and Tribal Peoples' Rights over Natural Resources, http://cidh.org/countryrep/indigenous-lands09/Chap.VIII.htm#:~:text=%5B492%5D%20According%20to%20the%20Inter,used%20and%20occupied%20for%20centuries.

93 Cf. I/A Court H.R., *Case of the Yakye Axa Indigenous Community v. Paraguay. Merits, Reparations and Costs*. Judgment of June 17, 2005. Series C No. 125, par. 137, and I/A Court H.R., *Case of the Sawhoyamaxa Indigenous Community v. Paraguay. Merits, Reparations and Costs*. Judgment of March 29, 2006. Series C No. 146, par. 118.

94 Inter-American Commission on Human Rights (n 92).

95 See for instance, Lillian Aponte Miranda, "The Role of International Law in Intrastate Natural Resource Allocation: Sovereignty, Human Rights, and Peoples-Based Development", 45 *Vanderbilt Journal of Transnational Law* (2012) pp. 785.

Nonetheless, this concept has many limitations and has been subject to several reinterpretations. This article analyzes its practical implementation in the transboundary context. Its findings show that it does not hold up to scrutiny for two reasons. First, sovereignty over resources is temporary, as highlighted in the TBAs case study. Sovereignty over a given resource (e.g., shared groundwaters) ends when it crosses states political borders. Second, sovereignty is not over the resource itself but over the geographical location where the resource lies for a limited period.

The argument made by the author implies a need to rethink the PSNR principle and update it to reflect the present circumstances, especially given that new global commons are emerging. One way of doing that is through the adoption of a new UNGA Resolution, similar to Resolution 1803, which updates the principle while considering the relevant literature on this topic. This will not be an easy task, as states prefer the concept's current interpretation as it best suits their economic interests.

Hence, there is a need to address various questions vis-à-vis the PSNR principle. For instance: Would updating or reinterpreting it lead to a more effective management of natural resources in the transboundary context? Would such procedure require a significant, sustained effort over several decades and, if so, would it be worth it in the end? What are the potential benefits from adopting a new definition? What is the relationship between PSNR and other well-established principles related to shared resources? These questions and many more require serious debate at the international level to understand whether such shift is likely to enhance the management of transboundary natural resources.