Analysis and Examination of the Consequences of Unilateral Exploitation of Shared Oil and Gas Fields in Light of International Law

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Abstract

The objective of the present study is to analyze and examine the consequences of unilateral exploitation of shared oil and gas fields in light of international law. The research method is descriptive-analytical and based on library sources. Since the method of exploiting a shared reservoir must be agreed upon by the interested states, states must consequently negotiate with the aim of reaching an agreement, precisely similar to what exists with respect to the delimitation of the continental shelf. States must enter into negotiations in good faith and with the objective of achieving appropriate cooperative arrangements for the exploitation of the resource that include all interested states; however, these negotiations should not necessarily be directed toward joint exploitation. In principle, the states concerned have no obligation to conclude such arrangements. Rather, they are only required to negotiate about them. The International Law Commission should resume its work in this field and draft a final instrument that could be used as a guideline when states seek to develop transboundary oil and gas reserves. In doing so, the International Law Commission should overcome political pressures, examine all sources of international law studied in this research, and review its previous work, for example, on the law of transboundary aquifers. Peaceful, efficient, and cooperative exploitation of these transboundary reserves is vital for the global economy and for the social development of all states involved.

Keywords: shared oil and gas fields, international law, consequences of exploitation

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1. Introduction

In some countries, there are natural resources whose control, administration, and exploitation are entrusted to those states on the basis of the rule of permanent sovereignty over natural resources. This rule concerns any form of sovereignty over such resources, and states may exploit those resources as they deem appropriate in accordance with their own interests. Extraction from these resources requires laws and regulations, and such regulations usually determine the manner of ownership and

extraction. This organization of ownership over resources is usually carried out to prevent encroachment and ownership claims by other states.

Three different views were raised on this subject at the sixty-second session of the International Law Commission in 2010. Some argued that oil resources and similar underground resources such as water and gas, which have different functions and play different roles in relations among states, cannot be treated identically. Others, however, relying on their scientific characteristics, stated that these cases should be treated similarly and that their apparent differences and functions should not be taken into account. A large number of members of the Commission also presented a different view and emphasized the lack of competence of that Commission to determine the matter in these cases. This group strongly emphasized that, from a geological perspective, there are major differences between underground water aquifers, gas, and oil resources, just as there are also serious differences between oil and gas deposits themselves. This issue can create difficulties for the exploitation of permanent shared resources among different states. On the other hand, some states, such as Iran, Saudi Arabia, and Kuwait, have not delimited their boundaries with respect to the shared Al-Durra or Arash gas field. Therefore, the challenge in this regard is that before the International Law Commission formulates rules on this matter and determines the method of management and exploitation, states should delimit and demarcate their shared oil and gas fields in order to avoid disputes in this area. In this regard, decisions on delimitation are usually made in various treaties, memoranda of understanding between states, or agreements concluded among them; therefore, if the Commission seeks to formulate and create a rule in this field, it should also regulate delimitation. Although this measure could be effective in delimitation and in resolving disputes among states, no specific action has yet been taken in this area. On the other hand, members of the international community and states are aware that customary rules and regulations concerning oil and gas have not yet been formed. Consequently, regulation and rule-making in this field, in the absence of appropriate customary rules, may not be capable of creating the necessary motivation and practice for compliance with those rules; therefore, such an approach would not be realistic.

Another issue concerning the exploitation of shared oil and gas resources is that their exploitation is strongly dependent on politics, energy markets, and national economies. For example, countries such as Saudi Arabia, Qatar, Kuwait, Iran, Iraq, and others are heavily dependent on their oil industries; consequently, these states will certainly not accept rules that are detrimental to them. Therefore, the delimitation of maritime resources, which requires the determination of maritime boundaries as well as the determination of the exercise of state sovereignty over resources, must be consistent with scientific considerations along with various political, economic, and energy-market considerations.

In order to arrive at a clear outcome on this subject, special attention must be paid to the Charter of the United Nations and the 1982 Convention on the Law of the Sea. In addition to these instruments, particular attention may also be given to international custom regarding unilateral acts of states in the exploitation of shared gas and oil resources. In this field, there is a challenge that this study intends to address. It should be noted that when states' oil and gas fields cross a boundary line, they must cooperate with other states. For this to be realized, international custom, conventions, and international regulations in this field must be taken into account.

On the other hand, competitive actions among states in exploiting shared oil and gas fields can intensify disputes and lead to a lack of coordination and agreement. States must therefore avoid such conduct on the basis of the aforementioned instruments and international custom. How states can be guided toward these requirements should be discussed extensively in the dissertation, with detailed attention to agreements, international instruments, and state practice. Since state practice has been mentioned, it is necessary to refer to an issue and challenge in this field that has itself become a source of many disputes concerning the joint exploitation of oil and gas fields in maritime boundaries: the preservation of reservoir integrity. There must be balance in exploitation so that one state, by virtue of its advanced technology, is prevented from extracting more and violating the rights of another state in an inequitable manner. The proposal that this study can offer is the conclusion of oil and gas agreements and the joint development of oil and gas fields, which is the most appropriate method for their exploitation. This approach both secures the maximum interests of the parties and can also be politically beneficial for the international community. A difficulty in this regard concerns financial resources, which may be abundant in one state and problematic in another; this challenge must also be resolved because it can create difficulties for the optimal exploitation of oil and gas interests. The innovative aspect of this research lies in examining the legal consequences arising from the unilateral exploitation of oil and gas fields, a subject on which no study has so far been conducted.

2. Research Method

The present research is theoretical and fundamental in nature, and its method is descriptive-analytical. Thus, first, this research is descriptive because it initially describes unilateral extraction in international law and the legal foundations of shared fields. Second, it is analytical because it analyzes, critiques, and examines the challenges and consequences arising from unilateral extraction from oil and gas fields.

3. Shared Oil and Gas Resources

A resource means any natural container in which oil and gas are found. The use of the term "resource," instead of each of the terms "reservoir," "field," or "oil basin," which are discussed below, is due to its applicability in place of each of these three terms. There is considerable controversy regarding the use of the descriptor "shared" for oil and gas resources in their natural state. Each of the descriptors "shared," "common," "transboundary," and "international," when placed after the word "resources," conveys a specific meaning used by proponents of particular regimes governing natural resources. What is certain is that "common resources" and "shared resources" indicate the use of joint ownership rights by two or more states or persons over a natural resource, the result of which is the prohibition of possession by non-owners. The term "transboundary resources" more strongly and equally distances the mind from the idea that the resources belong to one state or to all states. Finally, the expression "international resources" emphasizes the international character of the resource and the priority of its subjection to international rules over national rules. Among the terms presented, the more common combination is "shared resources." Of course, some of those who have used it have strongly emphasized that its literal meaning should not be intended; rather, this term, or the other aforementioned terms, merely expresses a geographical or geological reality, and it is not correct to infer belonging or ownership from it (Kashani, 2014).

4. Oil and Gas Resources in a Shared Maritime Boundary

Because of their chemical composition, oil and gas resources do not observe the rules of maritime boundaries. In fact, coastal states may be able to exploit a reservoir from either side of a defined boundary. When coastal state A advances to the drilling stage in a reservoir, the oil and gas resources in the area, including the resources located on the side of coastal state B, are drained toward the point at which the reservoir has been pierced by the drilled well. The efforts made by states to address this issue at the global level through the creation of universal norms have all ended in failure. The efforts of the International Law Commission, which were particularly relevant in this field after receiving state views and practice, concluded that this matter is primarily bilateral and political, accompanied by different levels of technical difficulty in specific areas (United Nations Working Group on Shared Natural, 2010). Furthermore, there is no article or paragraph in the Convention on the Law of the Sea written directly for the purpose of addressing oil and gas resources located across a defined maritime boundary. Nevertheless, paragraph 3 of Articles 74 and 83 of the Convention has mistakenly been invoked as a general norm applicable to situations in which existing oil and gas resources cross an established maritime boundary line.

Saudi Arabia and Bahrain were the first states to cooperate with respect to mineral resources located within their delimited maritime boundaries (Charney & Alexander, 1993). The relevant states agreed to jointly develop an area rich in hydrocarbons that was located entirely on the Saudi continental shelf (Charney & Alexander, 1993).

Other existing agreements address issues arising from the presence of oil and gas resources differently: some emphasize the preservation of the integrity of deposits (Bankes, 2016), while others establish a framework concerning the actual use of a shared resource. Given that most delimitation agreements are silent in this regard, difficulties may arise if a shared field is discovered after final delimitation (Bankes, 2016). After the discovery of deposits that are transboundary in nature, if the existing delimitation agreement does not address the matter, a specific agreement will provide the relevant reference rules, since each of the relevant states has sovereign rights to develop the newly identified deposits. Of course, states may remedy this deficiency in the delimitation agreement by subsequently agreeing to a provisional unitization agreement.

5. Agreements Involving the Participation of Two States in the Exploitation of a Shared Resource

The Japan–South Korea Agreement of 1974 on exploration and extraction in the designated joint development zone provides that subzones divided by units appointed by the two governments shall be administered under a joint operating agreement, which in turn entrusts exclusive operational control over the relevant subzones to a single entity. Strategic control over hydrocarbon exploitation in the joint zone by the two governments requires both of them to approve the joint operating agreements. Although the establishment of a joint commission is often envisaged in such agreements, practical reference to it is limited and is designed only for communication and coordination purposes.

The France–Spain Agreement of 1974 was signed only one day before the Japan–South Korea Agreement (Cameron, 2006). The area designated under this agreement was divided into French and Spanish sections, and sovereign rights and jurisdiction were divided equally. License holders engaged in exploration activities on each side of the area were encouraged to conclude a joint venture agreement with the representative of the other party on an equal basis in financing operations in proportion to their shares. Any subsequent amendment to the joint venture agreement or licensing system on one side of the area had to be brought to the attention of the other party (Cameron, 2006).

Under the 1992 Malaysia–Vietnam Memorandum of Understanding, Malaysia and Vietnam agreed to appoint their oil companies. As a result, Malaysia's Petronas and PetroVietnam undertook to carry out oil exploration and extraction operations in the designated area of the continental shelf where disputed claims existed. Both parties also agreed to require their national oil companies to conclude a commercial agreement concerning oil exploration and extraction in the designated area. The commercial agreement would be subject to the approval of the two governments.

6. Exploitation Agreements Establishing a Joint Authority

The Saudi Arabia–Sudan Agreement is the first example of the exploitation model involving the establishment of a joint authority. This example created a joint commission with powers and functions far greater than those envisaged under the 1974 Japan–South Korea Agreement and the 1995 Argentina–United Kingdom Agreement. The main differences between the two types of commissions mentioned relate to the legal status of the commission itself and its legal powers, particularly with respect to the licensing regime for the joint area. Under Article 8, the joint commission, as a legal person in Saudi Arabia and Sudan, has legal personality and legal capacity so that it can perform all assigned functions where necessary. The commission is able, in accordance with the conditions it prescribes, to examine and decide on applications for licenses and concessions relating to the exploration and exploitation of natural resources of the seabed in the joint area. The operational area of this agreement covers a zone in the middle of the Red Sea located 1,000 meters from the baseline of each of the two states (Ong).

The Guinea–Senegal Agreement of 1993 and its 1995 Protocol, as well as the Malaysia–Thailand Agreements of 1979 and 1990, are other examples.

7. Unitization Agreements

There are four examples of unitization agreements concerning the exploitation of shared oil reservoirs in the North Sea. These agreements derive their legal validity from the delimitation agreements signed between the United Kingdom and Norway on March 10, 1965, and between the United Kingdom and the Netherlands in October 1965. Article 4 of the Norway–United Kingdom Delimitation Agreement was the first provision to expressly envisage the condition of finding a shared oil reservoir at the intersection of the boundary between the two states, and it was subsequently followed in many similar agreements across the world. According to Article 4 of the delimitation treaty between the two states, as stated earlier, the two governments were obliged to conclude an agreement for the exploitation of that shared reservoir. The two governments approved a set of arrangements prepared by the consortium, and the agreement was signed in the same year (Lagoni, 1979).

After the governments of Venezuela and Trinidad and Tobago signed a delimitation agreement in 1990, they issued a joint statement on August 12, 2003, declaring their intention to engage in bilateral cooperation in the energy sector and, in particular, undertook to conclude an agreement concerning shared cross-border oil resources. On the same day, the two parties issued a memorandum of understanding relating to the procedure for unitization of hydrocarbon reservoirs, which expanded activities along the boundary delimitation line.

8. Different Solutions for Addressing the Problem of Shared Transboundary Oil and Gas Deposits

In general, state practice provides three different solutions for addressing the problems that arise when states seek to develop transboundary oil and gas resources (Cameron, 2006).

First, the rule of prior appropriation applies, meaning that the first party to extract the resources has the right to exploit the entire deposit. The application of this rule, which is known particularly in the United States as the rule of capture, entails competitive drilling and, consequently, economic and physical waste of resources. Today, the domestic laws of most states provide for cooperative or unitized exploitation of shared oil deposits. Second, in the absence of a specific agreement between states in this field, the rule of sovereignty over the subsoil applies. In terms of outcome, this approach is similar to the rule of appropriation, although it is based on the reasoning of sovereignty. Since this rule also leads to competitive drilling and waste of resources, it probably does not represent the most efficient solution.

The third alternative is the application of the principle of cooperation. This principle states that, in such circumstances, states must cooperate in good faith through multilateral or bilateral arrangements for the equitable exploitation of such deposits, taking into account the sovereignty and interests of all states involved. However, this principle only establishes broad parameters for the commencement of negotiations and does not provide clear guidance when negotiations fail to produce an agreement. The manner in which this principle is most commonly used among states to achieve agreements concerning the exploitation of shared deposits is discussed below.

As stated above, the first type of agreement can be divided into four subgroups:

(a) The first subgroup, which some writers have called geological cooperation, can be found, for example, in the 1960 bilateral agreement between Czechoslovakia and Austria for the exploitation of shared natural gas deposits in the Vysoka–Zwerndorf border area. The key provisions of this cooperation agreement are as follows: first, neither state has jurisdiction to treat the shared deposit as a whole; second, each state develops its proportional share on the basis of annual calculations. The parties must exchange information from time to time concerning the production of the previous month and the condition of the deposit. This geological cooperation requires limiting each state's production through information exchange and regular consultation.

(b) The second subgroup can be found, for example, in the 1962 supplementary agreement to the Ems-Dollart Treaty between the Netherlands and the Federal Republic of Germany. This agreement promotes joint operations by concession holders on both sides. The states agreed on an initial dividing line, and each exercises jurisdiction on its own side. Concession holders on both sides are required to cooperate strongly with each other by concluding agreements concerning reserve calculations, production, revenue sharing, risk premiums, and dispute settlement.

(c) The third case requires the use of a single operator to manage the shared deposit on behalf of all parties. This practice can be observed both in international law and in the domestic laws of many states. Its principal objectives are to prevent the waste of resources or duplication of drilling facilities, wells, and production installations and, in relation to intergovernmental cooperation, to ensure the peaceful exploitation of mineral deposits, particularly in areas disputed by two or more states. Examples of these agreements include the two agreements between Japan and South Korea and the cooperation between Norway and the United Kingdom in the North Sea.

(d) The fourth subgroup can be observed when the parties exercise joint authority over the mineral resources of a particular area. Examples of such agreements have been concluded among several Middle Eastern countries. The unique feature of this type of agreement is that, unlike the first three subgroups, states here have joint ownership rights and exclusive interests in the shared field or deposit. This may take the form of a joint governing authority over the area itself or the form of equal sovereign rights conventionally recognized over the natural resources of a particular area.

The second group of agreements concerns transboundary deposits that may be discovered in the future. The distinguishing feature of such agreements is that they generally include a mineral-deposit clause. The first clause of this type was included in an agreement between Great Britain and Norway in 1965. In fact, Article 4 of that agreement states:

If any petroleum substance or petroleum field, or any single geological structure or field of any other mineral deposit, including sand or gravel, extends across the dividing line and the part of such structure or field situated on one side of the dividing line is exploitable wholly or partly from the other side of the dividing line, the contracting parties, in consultation with

the license holders, if any, shall seek to reach agreement on the manner in which the structure or field shall be most effectively worked and exploited and on the manner in which the proceeds derived from it shall be allocated (Lagoni, 1979).

Apart from the aforementioned classification of bilateral cooperation concerning transboundary oil and natural gas deposits, there are many other cases as well. In this respect, cross-border unitization and joint development agreements have become the most widely used types of cooperation in recent years. Both types of agreement involve a specific form of integration. This concept has its roots in the United States, where private ownership of oil and gas has often resulted in fractional ownership of oil in a shared deposit. The concept of unitization may be defined as the joint and coordinated operation of an oil or gas reservoir by all owners of rights in separate parts overlying the reservoir or reservoirs. Its main idea is to preserve the unity of the reservoir and avoid competitive drilling and production with the consequent economic and physical waste. It prevents unnecessary drilling of wells, provides an opportunity to share development infrastructure and maximize ultimate oil recovery from a field, gives all owners of rights in the shared reservoir a fair share of production, and minimizes surface use of the field (Weaver & Asmus, 2006).

9. Judicial Practice Relevant to Designing an Appropriate Legal Regime for Determining the Status of Shared Oil Wells

The North Sea Continental Shelf cases concerned a series of disputes relating to the delimitation of the continental shelf between the Federal Republic of Germany and Denmark on the one hand, and between the Federal Republic of Germany and the Netherlands on the other. The parties submitted the disputes to the International Court of Justice and requested the Court to state the applicable principles and rules of international law (Ong). In this case, the International Court of Justice did not consider a unitized method as a special circumstance for drawing the final boundary; rather, it held that it should be taken into account in the delimitation process (Ong). However, at the beginning of the process, the Court confirmed the necessity of preserving the integrity of the oil well for the economic and efficient exploitation of oil. The two treaties recently concluded to regulate transboundary resources in an area that had not then been delimited were considered by the International Court of Justice to be equally justifiable and appropriate, particularly in relation to preserving integrity in areas of overlap. It was also noted that the principle of joint exploitation may have broader application in agreements concerning overlapping continental shelves, particularly in cases where states have justifiable claims, as may be observed in relation to the continental shelves of the United Kingdom and Norway (Ong).

In the Conciliation Commission on the Continental Shelf Area between Iceland and Jan Mayen, on May 28, 1980, the governments of Iceland and Norway concluded an agreement concerning matters related to fisheries and the continental shelf. During the negotiations for this agreement, the government of Iceland declared that Iceland had the right to a continental shelf area beyond the 200-mile economic zone. Since no consensus was reached on this issue during the negotiations, the parties decided to refer it to the Conciliation Commission (Ong). After studying all relevant facts, documents, and arguments submitted by the parties, the Commission proposed the establishment of joint development arrangements for an area in which there were significant prospects for hydrocarbon production. Here, rather than creating mere maritime boundaries, the Commission supported joint development (Ong).

In the Tunisia–Libya Continental Shelf case, Tunisia and Libya submitted their question to the International Court of Justice so that it could determine the precise principles and rules of applicable international law for the delimitation of the continental shelf between them. In its 1982 judgment, the International Court of Justice stated that delimitation must be carried out in accordance with equitable principles and taking into account all relevant circumstances. Subsequently, the parties to the maritime boundary disputes amicably created a joint exploration zone in the Gulf of Gabes area and established the Libyan–Tunisian Joint Exploration Company (Bastida, 2006).

10. Responsibility for Breach of an Obligation Arising from Joint Extraction

Article 26 of the 1969 Vienna Convention on the Law of Treaties provides that obligations stipulated in treaties are binding; that is, an obligation that has been accepted entails the duty to perform it in good faith. Of course, the precise content of this behavioral obligation, based on international custom arising from the principle of good faith, is not easily determinable. In

other words, the general proposition is acceptable, but good faith, which has a high degree of abstraction, does not have an immediate and clear meaning in every specific case. To better understand the message and effect of these clauses, it is necessary to conduct a content analysis of them.

Unlawfulness arises from the general conditions governing the performance of the relevant international obligations. Paragraph 11 of the 1957 Lake Lanoux arbitral award states that obligations accepted by states take highly diverse forms, and their different content varies depending on how they are defined and the procedure envisaged for their implementation. However, the reality of accepted obligations cannot be denied, and an implied guarantee can be envisaged from their unjustified breach. Examples include unusual delays in conducting negotiations or providing responses, disregard for previously established procedures, or systematic rejection of proposals or opposing interests, which, in general, may specifically arise from the subject matter of international obligations in the direction of breaching the rule of lawfulness. In this regard, it is necessary to refer to another legal question concerning the basis of the obligation to negotiate in matters related to international responsibility (Kashani, 2014).

Many treaty clauses concerning shared resources consist of simple and very general obligations to seek agreement. For example, the contracting parties declare that, in certain circumstances, they consider themselves bound to reach an agreement on finding the best and most effective ways to explore and exploit the relevant structures or resources. However, there are also more explicit agreements with stronger obligations. As Lauterpacht stated, where there is an express treaty clause requiring negotiation, compliance with it is compulsory; and particularly where the parties have agreed, it is for an arbitral or judicial body either to hear the dispute arising from interpretation or to compel the implementation of the treaty. For example, the parties declare that, under specified conditions, they must exchange all relevant information and must seek to reach an agreement on the method of effective exploitation of these resources and their equitable sharing. Article 5 of the 1977 Indonesia–India Agreement and Article 5 of the 2005 France–Canada Agreement specifically and intrinsically contain a clause concerning shared resources, and depending on the case, it may constitute a bilateral obligation with original content or, conversely, may be restrictive or very restrictive. The question now is whether, at this normative level, there is not a specific and mandatory case that could serve as a possible basis for an unlawful act due to non-compliance by a state. If such an effect is not attributed to the clause, can any difference be considered between the existence and non-existence of the clause? In general, the dominant idea in model clauses concerns finding an agreement between the parties on the best and most efficient method of exploiting a shared reservoir. According to this idea, the obligation is variable and often includes a set of acts or omissions. Obligations are defined even by the very general characteristics of their wording. Article 4 of the 1971 United Kingdom–Denmark Delimitation Agreement states that the contracting parties shall use all efforts to reach an agreement concerning the exploitation of shared reservoirs. Nevertheless, a model clause goes beyond a simple requirement of consultation because it expressly envisages an agreement and imposes a real obligation to negotiate on the interested parties. It is a matter of opening negotiations in order to reach an agreement. At the same time, it must be accepted that negotiation for the exploitation of a shared reservoir, in the absence of any specific obligation or requirement binding the two states, can be completely clear and definite, particularly if the relevant states act in good faith and have a genuine concern to negotiate toward a solution (Kashani, 2014).

In this regard, there is also a permanent reciprocal obligation to study the situation under discussion. The formal expression of this permanent obligation can be seen in the Icelandic Fisheries cases, in paragraph 72 of the judgment of the International Court of Justice concerning the conservation of fishery resources competitively exploited by the interested states. In that particular case, the Court established a duty and described it as an obligation to continue reviewing the situation of fishery resources and to conduct collective examination, on the basis of scientific information and other available data, of measures required for the maintenance, development, and equitable exploitation of the resources. Certainly, international obligations such as paragraph 72 above, which are recognized in the international law of offshore fisheries, are not automatically transferable or directly applicable to the field of shared reservoirs (Ong).

International arbitral tribunals, when adjudicating disputes between states and oil companies, have repeatedly had the opportunity to invoke and interpret these standards. A complete example of these standards can be seen in the award concerning the dispute between Kuwait and an American company. In that dispute, the government of Kuwait requested the arbitral tribunal to examine the American company's method of production and also to express an opinion on the damage caused to oil and gas

deposits by that company due to the abnormal intrusion of quantities of water into the production operations area, which reduced extraction and increased production costs. Kuwait attributed responsibility to the company for failing to apply certain applicable technical standards. The arbitral tribunal emphasized that the source of these standards is either competent authorities or the contracts of the parties in which those standards have been incorporated; in the latter case, the standards have a contractual character and must be referred to. In this dispute, the arbitral tribunal stated that Kuwait had later enacted its law on the conservation of oil deposits and had included precise and strict regulations in it, which could not be extended to the current circumstances of the dispute (Weaver & Asmus, 2006).

11. Responsibility for Breach of Bilateral Cooperation Agreements in Exploitation

If, following the model clause concerning the discovery of a shared oil and gas reservoir in a delimitation treaty, or independently of it, two states succeed in concluding an appropriate agreement for exploiting the shared reservoir, whether in the form of international unitization, joint development, or any other arrangement, in principle the details of the parties' relations are drafted with regard to the technical procedures commonly used in the oil industry. Any violation of such arrangements may, in itself, give rise to the responsibility of the wrongdoing state. The obligations included in these agreements are undoubtedly substantive rights and obligations, and their enforcement may be demanded immediately. In most of these agreements, a dispute-settlement forum is designated, and either party, or both, may request settlement of the dispute by that forum. Such forums also adjudicate the dispute according to the law governing the relations of the parties and issue an award.

Responsibility Based on Breach of a Rule Derived from General Principles of Law or Custom

Proponents of international capture believe that the right of each state to drill within its own territorial domain, whether on land or at sea, arises from the principle of sovereignty, which in principle no one can deny. The holder of this right is permitted, within national boundaries, to take any action for its economic growth and development. If this manner of exercising sovereign rights causes damage to a neighboring state, whether to the property of persons or to mines, no responsibility attaches to the acting state, because the acts of the acting state are carried out within the framework of lawful conduct, and a state engaged in a permitted and lawful activity cannot be considered responsible. This view, however, is not accepted today. Even assuming that the drilling action of the acting state is lawful, causing damage to a shared resource or creating conditions that cause damage to the nationals of another state or to the territorial integrity of another state constitutes an unlawful act that exposes the acting state to responsibility. In this case, of course, the responsibility of the actor is responsibility arising from breach. Today, this is accepted in many rules of international environmental law, and its example was reviewed in the Trail Smelter case between the United States and Canada. Several questions arise here and must be answered. First, must the acting state drill with the consent, or at least the notification, of the neighboring state? The answer to this question, in light of the above points, is negative. Second, if the acting state takes all necessary precautions and, by drilling from its own territory, extracts the contents of the reservoir, has it committed an unlawful act and will it have responsibility? The proponents of the first theory answer this question negatively, relying on the arguments reviewed in the sixth section and in the preceding lines. Another question is whether, if the act of the acting state causes damage to the neighboring state, it should be prohibited from continuing its activity, or whether the acting state has the right to continue exercising its sovereign rights and exploiting the shared reservoir, ultimately paying damages to the neighboring state. Here too, the answer is that the victim state cannot prevent the commencement and continuation of operations and may only receive compensation from the acting state, because the acting state is exercising sovereignty within its exclusive domain.

In contrast to the aforementioned view stand the proponents of the existence of an international customary rule requiring negotiation and cooperation. They believe that partner states in a shared reservoir, where no contrary treaty or obligation exists, are not permitted to exploit the shared reservoir unilaterally and without the consent of the partner state. This group believes that, in light of the general provisions of the Convention on the Law of the Sea, bilateral state practice, the inclusion of the clause concerning discovery of a shared reservoir, agreements concerning the method of exploitation of shared resources, general principles of law, and resolutions of the United Nations General Assembly, the primary duty of partner states in the reservoir is cooperation in conducting negotiations and reaching an agreement for exploitation. Of course, the form of this agreement is not uniform and depends on the will of the parties. The decisive element here is unilateral extraction by one state from the shared reservoir without obtaining the prior consent of the states interested in the reservoir. The question arises whether

unilateral extraction constitutes a breach of a rule of customary international law, in the sense that the act of the acting state would be an unlawful act and an infringement by the interested state of a protected right of the other party. Under existing international law concerning shared oil and gas resources, compensation is the result of the non-performance of a specific international obligation in this regard. In other words, international responsibility derives its logic from the violation of rights by one of the states, and this violation of rights, whether or not it causes damage to another state, gives rise to the international responsibility of the violating state. In this regard, since we are speaking of the existence of a customary rule, every state whose right is violated by another state is, de jure, a state to which the rule of customary international law is owed and attributed, and this obligation exists for all states. Therefore, from this perspective, exploitation without regard to the rights of the neighboring state in a shared resource entails the responsibility of the exploiting state (Kashani, 2014).

12. Conclusion

The central argument of the present study, based on the necessity of establishing the general principle of international cooperation in dealing with shared natural resources, led to the conclusion that, at present, this principle can be reformulated as two procedural rules of customary international law applicable to a shared reservoir as follows. The first rule is the obligation to cooperate in order to reach an agreement concerning the exploration and extraction of shared oil or gas reservoirs, even if such cooperation does not necessarily lead to the joint exploitation of those resources. The second rule is that, if such an agreement is not reached, there is an obligation of reciprocal restraint or abstention with respect to unilateral exploitation of the reservoir. Although these two obligations create a situation that establishes a legal basis for a gradual approach to shared reservoirs, it still cannot be said that joint exploitation, in itself and specifically, has been made mandatory by international law. Therefore, to achieve such an objective, an act expressing the political will of the states involved must be demonstrated in the matter.

The absence of a rule under the title of international capture means that interested states are prohibited from unilateral exploration of the reservoir, including any part of it located on their own side, whether across a land or maritime boundary. Even unilateral estimative activity or other exploratory activities related to the reservoir are subject to the prohibitive rules established below concerning notification, consultation, and negotiation with other interested states. Given the prohibition of capture and unilateral exploitation, an opportunity is created to articulate the prescriptive elements of the general obligation. That is, every interested state will be obliged, in good faith, to notify, inform, and consult other states regarding a shared reservoir. This obligation is more firmly established when a boundary agreement has been concluded, particularly in cases where it contains a clause concerning the discovery of a transboundary mineral reservoir and, on that basis, the parties are obliged to take a series of specific measures.

A more precise explanation of this obligation may even require that such consultations be based on the principle of an equitable share of the extracted resources. The most progressive form of applying this principle is undoubtedly a joint exploitation agreement. States must enter into negotiations in good faith and with the aim of reaching appropriate cooperative arrangements for the exploitation of the resource, arrangements that include all interested states. However, these negotiations should not necessarily be directed toward joint exploitation. In principle, the relevant states have no obligation to conclude such arrangements. Rather, they are only required to negotiate about them. Nevertheless, since the method of exploiting a shared reservoir must be agreed upon by the interested states, states must consequently negotiate with the aim of reaching an agreement, precisely similar to what exists with respect to the delimitation of the continental shelf.

Therefore, it should be maintained that where the sovereign rights of each of the interested states appear indivisible because of the fluid nature of the resource, the opposing state must provide appropriate and sufficient reasons to justify its refusal to examine the option of joint exploitation. With this solution, the burden of proof shifts in favor of the presumption of joint exploitation, thereby making it far more difficult for an uncooperative and opposing state to halt negotiations on cooperative arrangements for the exploitation of the shared reservoir by resorting to an effective veto. The presumption established in favor of joint exploitation may be applied whenever a shared hydrocarbon resource is discovered, whether it is located at the intersection of a boundary or in a disputed boundary area. It appears that, in such a situation, the effective observance of the sovereign rights of the interested states will be supported only by recourse to negotiations concerning a legal regime of joint exploitation accepted by all of them. The presumption supporting joint exploitation is specifically applicable to states whose

interests are clearly affected by the invoked rule in this regard and to states whose practice conforms to it. The International Court of Justice believes that such practice should be given particular weight and validity in assessing the legal status of an invoked customary rule. Therefore, it is not unlikely that states in the North Sea, the Persian Gulf, and Southeast Asian regions, which have pioneered state practice in joint exploitation, may be subject to a regional customary international rule in this regard.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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