

JOINT DEVELOPMENT OF COMMON RESERVOIRS*

*Maria Campos Alves de Brito***

Introduction; 1. Definition; 2. Elements; 2.1. Jurisdiction; 2.2. Delimitation of the Zone; 2.3. Legal Aspects; 2.3.1. Law of the Sea; 2.3.2. International Conventions; 2.3.3. Continental shelf; 3. Joint Development and Unitization; 4. International Law and the Rule of Capture; 5. Main cases; 6. Conclusion; 7. References.

Introduction

The theme of this work is confined to the joint sharing of an oil and gas deposits. This study covers a lot of relevant questions, regarding its Exploration and Development, Jurisdiction, Environmental Law and International Law.

Lately, a lot of common deposits of petroleum or natural gas have been discovered, giving rise to an emerging legal concept of cooperation between neighboring countries.¹

Yet, many assumptions are made when there is a borderline pool between two or more countries. Once the limits of that pool are established, still the exploration and production of one country can damage the adjoining country or area.

In order to prevent this situation, it would be necessary to foster a voluntary or compulsory cooperation between countries, taking advantage of the tools of International Law in order to improve the utilization of an oil or gas pool between those regions.

In addition, the confrontation between the Universal Law of the Sea, its international treaties and conventions, and the right of sovereignty of each country, is another instigative point of this research.

Internationally, there are examples of some joint development agreements, limiting maritime zones, or determining the jurisdiction to be applied and other technical aspects that may apply. But the number of joint development agreements is still going to increase immensely in the future, and research must be made in order to find the most appropriate tools to be used in each particular case.

Around the world, there are some successful examples of implementation of an offshore joint development, such as the well-known case between Australia and East Timor, among others. There are also considerable potential areas, where this model of agreement might be applied. One example that illustrates that statement is the recent proposal between China and Japan, in which it is suggested that the two countries consider joint development of an offshore gas field to deal with Tokyo's complaint over a Chinese consortium's construction of a new natural gas rig in the East China Sea, near Japan's exclusive economic zone.

In Brazil, this is a pioneer work, and intends to introduce this institute through future studies, its regulation and utilization in our system, where a Comparative Law background will be extremely important. Even in most countries where this agreement frequently occurs, there is little research done along this theme.

The following pages will focus on the main elements of a Joint Development Agreement of offshore Oil and Gas deposit, and the law that governs each Agreement in each particular case.

At first one must clarify the definition of a Joint Development Agreement and secondly its elements, especially the importance of sovereignty.

After that, this research will present some legal questions raised by a JDA, and it will discuss how International Law can improve the development of such an agreement.

Finally after illustrating some cases, this thesis will propose a new perspective regarding the voluntary rule of capture in International Law, and the limits that must be imposed.

1. Definition

The first step would be defining what a "joint development oil and gas area" is. Petroleum and gas are both liquid minerals, fluid or gaseous, and can easily move from one area to another. Sometimes one has oil deposits extending across a national frontier or in the boundary area of two or more countries.

The purpose of this research would be the utilization of International Law tools in order to protect the fundamental principles of sovereignty.

Rainer Lagoni well defines a joint development as "the cooperation between States with regards to the exploration for and exploitation of certain deposits, fields or accumulations of non-living resources which either extend across a boundary or lie in an area of overlapping claims."²

In 1989, a research team, under the direction of a working group chaired by Sir Maurice Bathurst made a "Model Agreement with Commentary for States with alternative clauses taking into account commercial requirements of participating oil companies on essentials matters such as governing law"³

The Model Agreement is divided in three parts: the first one contains the principles of joint development; secondly, the form and functions of the agreement; thirdly its object.

But even after the "Model Agreement", some problems were raised. The arrangements relating to the exploration and exploitation of natural resources in joint development areas range from rather simple schemes of cooperation to highly complex and structured systems of jurisdiction and revenue sharing.

Despite the Model Agreement help each Joint Development Agreement must be considered unique and treated in that manner. There should never be a model or standard or ideal participation formula. This formula must fit the specific circumstances for the proposed joint area.

2- Elements

Most authors point out five main elements in an Offshore Joint Development Agreement. They are: Designation of a special zone; the re-

sources to which it applies; determination of jurisdiction (sovereignty); applicable law; and terms and conditions of the exploration.⁴

This work will briefly discuss each one of them.

2.1. *Jurisdiction*

When dealing with countries, sovereignty rights and principles cannot be ignored. Usually, their sovereignty extends to the soil and sub-soil of both land and territorial sea.

The territorial sea sovereignty ends at the dividing line of the continental shelf, sometimes, not even extending through its boundary line (even if it is a legal operation,), the principle of territorial integrity can be violated if the operations conducted on one side of the boundary could cause any damage on the other side.⁵

As mentioned above, the deposits of Oil and Gas require special considerations, because of their *sui generis* characteristics such as equilibrium of rock pressure and water and gas pressure. That means that the extraction of natural gas or petroleum at one point can change the conditions of the whole area.

In this respect, Lagoni states that: "A possible result is that other states can not extract the minerals from their part of the deposit, even if the first state has extracted only that portion originally situated in its territory or continental shelf. In addition, without knowing the geological make-up of the whole deposit, no one can determine whether a State has suffered material damage from another's exploration".⁶

In order to prevent this kind of problem, some countries (especially Arab States) established what they called a "security zone", which is the area parallel to the boundary line on the continental shelf.

However, if the State has sovereignty over its territory, what happens if a private company, authorized by the local government, causes any damage while exploring the licensed area? In this case, the country must answer for the company's mistake, as long as they knew that another's country's rights could be infringed. The Sovereignty Principle can never be violated, and this is the most difficult point in a Joint Development Agreement.

2.2. Delimitation of the Zone

The zone for the Agreement is located on the seabed and subsoil area. International Law defines this area as the continental shelf, as this research will later explain. It can also be located at the territorial waters and exclusive economic zones (EEZ).

The delimitation of the agreed area includes the geographical aspects, which means, the exact location of the area to be joint. In most cases, however, precise geographical areas are defined in connection with resources.

Most often, one can describe the exact coordinates of an area, its latitude and longitude and other geological elements. However, it is important to note that all involved parties must agree on the respective result.

One should also remember that such cooperative arrangements can cover broad geographical areas. The 1988 CRAMRA⁷ Convention encompasses the entire Antarctic continent and surrounding continental shelf areas. This means that the geographical scope of any such arrangement need not be restricted to a given deposit or specific area but can be extend to broad regions of land and marine spaces.

2.3. Legal Aspects

The legal framework of a Joint Development Agreement must define the provisions of the agreement, given the law applied. The issue of resource deposits has often been raised in the litigation of ocean boundaries before international courts and tribunals, but it still has not carried particular weight in the adjudication of such disputes.

“International law looks at the nature of the maritime area and the nature of States’ rights to the area and it is by international standards that the validity of the claims of States to exercise civil and criminal jurisdiction over the area will be judged”.⁸

This point is extremely relevant because International Law is not enough for the whole control of offshore petroleum operations. Its national legal system as well as the local law must be considered, in order to prevent future conflicts.

The legal exercise over offshore activities has different ways to show itself. The manner of exercise of legal power can be affected by the constitution of that country's legal system.⁹

The fact that many deposits of natural resources extend across national boundaries led to important developments in the law applicable to such situations. Article 4 of the 1965 agreement between Norway and the United Kingdom has provided a model clause for resource deposits of this kind, requiring the parties to seek agreements on the most effective manner to undertake exploitation and the manner in which the proceeds should be apportioned.¹⁰ This clause is contained today in numerous agreements and it has also, in part, inspired Article 142 of the Law of the Sea Convention, requiring due regard to the interests of coastal Countries when activities in the seabed area relate to deposits lying across the limits of national jurisdiction, eventually entailing liability.

Articles 80 and 60 of the 1982 Convention on the Law of the Sea are very relevant to adequate the Coastal State rights to International Law rules.

2.3.1. Law of the Sea

The "Law of the Sea" (UNCLOS) is a body of international rules and principles developed by countries to regulate ocean space, as reflected in some Conventions. Australia participated in all three United Nations conferences on the Law of the Sea (1958, 1960 and 1973-82) and became party of UNCLOS in 1994.

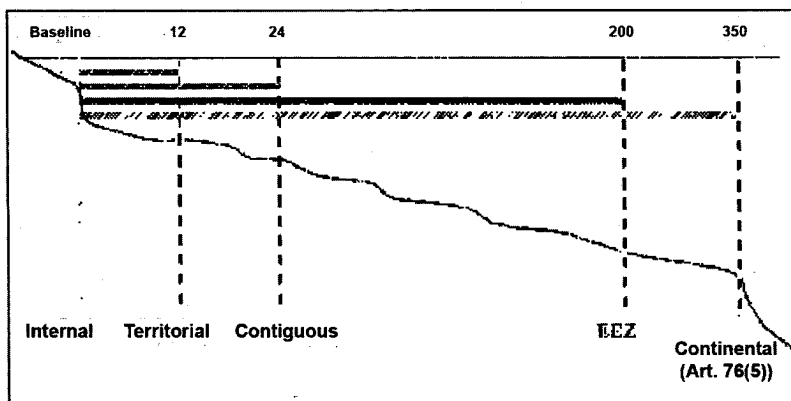
An international agreement regarding the sea became necessary when many nations realized the wealth of resources available - especially fisheries and mineral resources. These *marine resources* are not endless and need managing that is effective and sustainable.

Mostly, International Law is applied through the Law of the Sea. With the improvement of technology, the ocean's exploration increased tremendously, and so, Customary International Law of the Sea began to change until it reached some codified forms as the 1958 and 1960 Conventions, and especially with 1973-1982 United Nations Convention, which introduced the Economic Exclusive Zone Concept.

With recent discoveries of offshore petroleum and gas deposits, a

joint regime took place, and the Law of the Sea protects and regulates countries' rights.

The following graphic can illustrate a division of the Law of the Sea:



1- Internal waters and the territorial sea can be considered an extension of the continent, where the country has sovereignty; most countries consider the territorial sea extension up to 12 nautical miles.

2- Contiguous zone, up to 24 nautical miles, where the country doesn't have all sovereignty rights to explore, but it has the power to manage and conserve this zone;

3 - Exclusive economic zone, which covers an area extending 200 nautical miles from the baseline of the territorial sea, and according to the 1982 convention;

4 - Continental shelf, where the state has sovereign rights for exploration, and can reach until 350 nautical miles from the baselines of the territorial sea; so, the 1982 convention grants to the coastal state the exclusive right to authorize drilling on the continental shelf.

2.3.2. International Conventions

The first Convention, the 1958 Geneva Continental Shelf Convention, provides that the Coastal State is entitled "to construct and ope-

rate on the continental shelf installations for the exploitation of offshore resources", and also establishes a 500-meter safety zones.

Further, the 1982 Convention regulated coastal construction, operation and use of: a) artificial islands; b) installations structures for the purposes provided in Article 56 and other economic purposes; c) installations and structures which may interfere with exercise of the rights of the coastal State in this Zone. (Article 60)

Article 60 also states that: "The coastal State shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations."

2.3.3. *Continental shelf*

The 1958 Convention states that: "Continental Shelf Convention sets out the rule that in the absence of agreement to the contrary and in the absence of the existence of "special circumstances" which might justify another boundary, the boundary between opposite or adjacent is to be median line between their respective coasts."¹¹

However, the International Court faced some difficulties to delimit maritime boundary adopting the equidistance principle. Some authors argued that was it not the most fair way to delimitate the Continental Shelf, defending an equitable solution, which led to the 1982 provision: "The delimitation of the continental shelf between States with opposite or adjacent coasts shall be effected by agreement on the basis of International Law as referred to in Article 38 of the Statute of the International Court of Justice in order to achieve an equitable solution"

That means International Court must take into account others special circumstances, instead of just considering the median line. The criticism is that since the Court is authorized to decide *ex aequo et bono*, is not bound by legal rules and may instead follow their concept of what is 'equitable'.

3. Joint Development and Unitization

As defined above, Joint Development occurs when two or more countries decide to pool their rights over a deposit, exploring and exploiting minerals. On the other hand, unitization is the aggregation of two or more separately owned oil-producing properties to form a single property, to be managed as a single entity under an arrangement for sharing costs and revenues.¹²

Unitization deals with the exclusive jurisdiction of countries, and a Joint Development Agreement focused on national frontiers.

The origin of unitization was the "Rule of Capture" in the United States: "the owner of a mineral right covering migratory substances can extract and appropriate them by drilling". So, this rule led to a wasteful drilling and exploitation of oil deposits.¹³

But Unitization and Joint Development Agreement share some elements in common such as the setting up of a development program, or the disposition of production and accounting and tax payments.¹⁴

4. International Law and the Rule of Capture

If some countries the Rule of Capture under their Jurisdiction still applies, in International Law, there is no place for such a rule. A Joint and coordinated development of common petroleum deposits is the only fair and workable rule that could be effectively applied.¹⁵

Indeed, Joint Development must be seen as a compulsory process based on political consideration and legal duty of countries who share a common deposit of oil and gas. Onorato wrote: "Wherever the circumstances that give rise to the claim of a common interest between States in a single petroleum reserve, the legal role for its apportionment remains consistent. Joint Development is mandated."¹⁶

Unfortunately, under International Law rules a Joint Development Agreement is not allowed: to impose it, as a matter of legal duty, is an unlawful act. The only position International Law can have is to oblige an abstention from unilateral development where risk of irreparable prejudice to rights or of physical damage to the seabed or subsoil is involved.¹⁷

5. *Main cases*

Internationally, there are several cases where Joint Development Agreement was already applied, most of them at the Persian Gulf area, which is an area of deep instability, but where an important Joint Development Offshore Agreement took place.¹⁸

A few Agreements in Europe, Africa and North America can also be mentioned.¹⁹ But, it is not possible to describe each one of them, so this thesis will illustrate a JDA application: the "Timor Gap Case".

In 1989, Australia and Indonesia signed a JDA, called "Timor Gap Treaty". This treaty divided the Timor Gap region into three sections in which petroleum production in the largest area, Area A, closest to East Timor, was to be equally shared by the two countries, resulting in a Joint Development Area. They did not obey International Law rules regarding delimitation of the Gap.

In 1999, after East Timor's independence, the National Council of Timorese Resistance (CNRT) representing oil affairs, announced East Timor would seek a revision of the Timor Gap Treaty, delimiting new maritime boundaries.

In 2001, East Timor and Australia signed a new Timor Sea Arrangement. But they are still in discussing final resolutions as of today. Also, many questions have recently been raised about the proposed treaty, and an important point can not be ignored: the settlement of a fair maritime boundary following principles of International Law.

Another area that deserves attention is the Gulf of Mexico. The Gulf of Mexico has been the principal offshore source of U.S. oil, and lately Mexico is seeking a revision of its boundaries. This case is another opportunity to improve the Joint Development Agreement, which is already taking place, but a new international legal-political framework for exploration and exploitation of the mineral resources underlying the deep seas is needed, that is, the high seas beyond the outer limits of the continental shelf as redefined in accordance with the International Law recommendations.

Another example is a very recent case: the proposal between China and Japan, recommending that the two countries consider joint development of an Offshore Gas field to deal with Tokyo's complaint over

a Chinese consortium's construction of a new natural gas rig in the East China Sea, near Japan's exclusive economic zone.

Unfortunately, this research can not describe all details in the latest example, but research in the near future will continue to be done in order to improve data in this field.

6. Conclusion

This work does not intend to fully explore the Joint Development Agreement theme, but tried to demonstrate the main questions around this topic.

Even though, all points regarding this area were not fully explored, the principal idea regarding International Law can be investigated.

As showed above, an inadequate exploration can lead to serious consequences, not only regarding Environmental Effects, but also regarding International Conflicts, which could threaten world peace.

It is true that no country can be obligated to sign any Agreement, against their will otherwise an International Law principle would be violated.

This theory is supported by Supreme International Law Rules. If one invokes those major principles, sovereignty rights could be restrained in the name of worldwide interests. After all, International Security and Natural Resources are necessary for humanity's greater good.

Therefore, a simple JDA could prevent a drastic war. One can not forget an agreement of this nature deals with a large sum of money, and with non renewable resources, such as Oil and Gas.

A JDA is not as simple as it seems. The formula, not entirely precise, is usually reached through the give and take of long negotiation sessions between countries. With the advent of technology, complex questions can be analyzed, as well as the revenues on the proposal agreement. Even considering that some countries would receive less than others, they would be technically "winning", because overall production could increase." While the share is potentially smaller, the pie becomes bigger".²⁰

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** Mestre em Direito Internacional e Integração Econômica pela Faculdade de Direito da Universidade do Estado do Rio de Janeiro (UERJ), ex-bolsista do Mestrado do Programa de Recursos Humanos da Agência Nacional do Petróleo MCT/ANP nº 33 e advogada no Rio de Janeiro.

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18 e.x. Saudi Arabia and Bahrain/ Qatar and Abu Dhabi/ Saudi Arabia and Qatar.

19 Norway and United Kingdom/ France and Spain

20 Martin & B. Kramer, Williams & Meyers Oil and Gas Law §§ 921.1-921.16

8. Notas

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