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Transboundary Resources: A View From Mexico[†]

SCOPE OF THIS STUDY

The abundant literature on the subject of transboundary resources between Mexico and the United States has focused largely on the more evident and visible of them, those which have been most essential for sustaining the pressing human needs along the border, namely, water resources. Recently, the literature has increasingly concentrated on one of the most promising sources of that resource: underground aquifers. Also, as population growth and industrialization have rapidly progressed, the effect of human activities on the environment, especially on river waters and the atmosphere, has yielded a significant number of published environmental studies. This has been the framework within which the subject of transboundary resources has been approached, in general, by writers and specialists from both sides of the border. It is thus easy to conclude that the approach has been in many ways limited, since the subject lends itself to much more. This is so simply as a result of the fact that deposits of natural resources transected by the political border between the two countries are much more varied than the ones indicated. Therefore, a need exists for a more global and comprehensive approach to the subject in general, which is the central purpose of this study.

In this writer's view, such a holistic scope is more than a mere academic convenience. There is an appreciably urgent need to initiate an analysis of the sort of general policy that might be expected from Mexico regarding the whole array of issues pertaining to the utilization and conservation of the vast natural wealth at its northern border, precisely because of the increasing demand that is to be expected for it resulting from the ever expanding social needs in the area. Thus, much more sooner than later, Mexico will need to prepare a policy which anticipates the fact that its implementation will inevitably involve not only negotiation, but also cooperation with its neighbor to the North. Therefore, such a policy will have to become an integral part of the country's foreign policy which, as always when it involves the United States, will unavoidably be at the highest priority level of the nation's political agenda.

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Considering the large dimension of the existing literature, which concentrates on international river water uses and environmental problems in the border region between Mexico and the United States, it would be highly repetitive to expound in this limited space on those concrete aspects of the larger phenomenon of transboundary resources. Thus, this article will focus primarily on those other aspects which have not received the treatment they require. The history of the bilateral border relations between the two countries has translated into an impressive amount of joint action to deal with their common rivers, having even reached a high degree of sophisticated institutionalization, as represented by the work and results of the International Boundary and Water Commission. Much progress has also been achieved in the ecological field, as exemplified by the Agreement for Cooperation on Environmental Programs and Transboundary Problems, signed by Presidents Miguel de la Madrid and Ronald Reagan on August 13, 1984 in La Paz, Baja California.¹ This example of bilateral willingness to cooperate was preceded by difficult and sorrowful chapters of environmental controversies, including: the problem of the contamination of the Mexicali Valley as a result of salinity in the waters coming from the Upper Colorado River,² and which was dealt with, albeit not resolved through, Minute 242 of the International Boundary and Water Commission of August 30, 1973;³ the concern raised by the blowout of the oil well Ixtoc-I in 1979, which led to the Agreement of Cooperation Regarding Pollution of the Marine Environment by Discharge of Hydrocarbons and other Hazardous Substances, signed in Mexico City on July 24, 1980;⁴ and the still pending problems deriving from the pollution of the Tijuana and other rivers. Again, not analyzing here the different facets of the much studied problems that have arisen and which remain regarding water resources and environmental phenomena should not be taken at all as an underestimation of their enormous importance. Such importance has been recognized already not only in the literature, but also in the different academic efforts that have been organized to deal with transboundary resources between Mexico and the United States.

One of the most serious and intensive of such efforts was undertaken by a study group of specialists from both countries, as well as from

1. Agreement for Cooperation on Environmental Programs and Transboundary Problems, Aug. 14, 1983, United States-Mexico (not yet published); see I. KAVA & A. SPRUDZS, A GUIDE TO UNITED STATES TREATIES IN FORCE 348 (1985); *Diario Oficial*, Mar. 22, 1984.

2. See generally *International Symposium on the Salinity of the Colorado River*, 15 NAT. RES. J. 1 (1975), and L. CABRERA, LA SALINIDAD DEL RIO COLORADO: UNA DIFERENCIA INTERNACIONAL (1975).

3. Minute 242, Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River, Aug. 30, 1973, United States-Mexico, 24 U.S.T. 1971, T.I.A.S. No. 7708.

4. Agreement on Pollution of the Marine Environment, July 24, 1980, United States-Mexico, T.I.A.S. No. 10021; *Diario Oficial*, May 18, 1981 and Aug. 5, 1981.

Canada and the United Nations, which met in 1976 in La Jolla, California, and in 1979 in Oaxtepec, Morelos. The group's purpose was to further the research in the field to fill a gap which participants felt the countries' official agencies had been reluctant to fill. This study group became an important and pioneering forum concerned with the problems and opportunities for the management of transboundary resources. The results of the meetings were published in a specialized periodical which has been at the forefront of the academic effort regarding this topic, the *Natural Resources Journal* of the University of New Mexico School of Law, under the editorship of Professor Albert E. Utton, himself a leading authority on the subject of transboundary resources.⁵ The most important aspect of the study group's approach was that it dealt with transboundary resources still on a fragmented or individual basis, without making an effort to produce a political, legal, or philosophical general apology for the need for the two countries to undertake coherent and coordinated action to deal with their transboundary resources. Again, because of the overwhelming potential of one of those resources, water, either surface or underground, the symposium understandably gave preferential attention to it. However, the individual papers submitted at that forum did provide the basis for initiating a more global and comprehensive study of the subject as a whole.

Another ambitious effort to deal with the subject was the Meeting of Mexico-United States Universities on Border Studies in La Paz, Baja California in 1980, sponsored by the Mexican Asociacion Nacional de Universidades e Institutos de Ensenanza Superior,⁶ which made an effort to depart from the above mentioned concentration on traditional aspects of the problems and to expand, however succinctly, into at least the listing of other nonconventional transboundary resources.

This article will attempt to provide a more comprehensive approach to the subject, without dwelling any further on the significant amount of work that has already been produced on specific aspects of it. Instead, it will take that work as a starting point.

TRANSBOUNDARY RESOURCES AND BILATERAL RELATIONS

Despite the incalculable importance of transboundary resources in the border area between Mexico and the United States, as well as the vast complexity of the matter, one may safely assert that the issue has not yet become central in the political agenda of the bilateral relations between the two countries. Rather, as pointed out above, joint or individual action

5. See generally *Symposium on U.S.-Mexican Transboundary Resources* (pts. 1 & 2), 17 NAT. RES. J. 543 (1977), 18 NAT. RES. J. 1 (1978).

6. See generally ESTUDIOS FORENTERIZOS (ANNUIES: Mexico, 1981).

has been taken, in a non-integrated fashion, tackling specific problems for utilization and conservation of isolated resources as they have arisen. There is no doubt that there is a definite lack of a planned bilateral policy to rise to the challenge that all such resources present to the two countries.

Ambassador Jorge Castaneda stressed the elements of strong interdependence between the two countries in a paper he submitted during the symposium "Mexico Today" in November 1978, just a few months before he was appointed Foreign Minister of Mexico.⁷ He emphasized U.S.-Mexican economic cooperation, and singled out the role which "shared resources," especially groundwater and aquifers on both sides of the border, can play in such cooperation. However, his perception as to the importance of such resources in bilateral relations did not quite translate into a major foreign policy initiative toward the United States to start dealing jointly and seriously with the problem. Instead, the Foreign Minister was excessively occupied during his tenure with the political and commercial questions involved in the export of oil and gas from southern Mexico to the United States. Still, the mere mention of this matter in a paper which was regarded at the time as one of the best analyses of Mexican policy toward the United States signified that there was at least an awareness, at the highest official level, of the importance of transboundary resources in the bilateral relations between the two countries. This awareness, however, still has to materialize into a well defined policy.

On the other hand, Professor Mario Ojeda has stated that the increasing incorporation of the Mexican border zone into the economy of the United States has become an element of pressure in Mexico's bargaining position in negotiations with the United States. He suggests that as the two countries engage in a joint venture to exploit transboundary natural resources on the Mexican side, the amalgamation of the Mexican border in the neighboring economy may be taken to risky levels, as a process of "denaturalization" could be thus in the making.⁸ While there is a need for a planned policy, perils exist as well.

But the need is undeniable. In attempting to satisfy it, policy makers should carefully take into account the fact that the great social, economic, cultural, political, and legal diversity between Mexico and the United States will inevitably have, as it has had often in the past, an enormous impact on the way the two countries will together approach the question of how to better utilize and conserve their transboundary resources. They

7. See generally Castañeda, *En Busca de una Posición ante Estados Unidos*, 1 LA GACETA DE TLAHELCO 5 (1979).

8. M. OJEDA, ALCANCES Y LÍMITES DE LA POLÍTICA EXTERIOR DE MÉXICO 152 (1976).

should not forget that, of more than 120 developing countries in the world, Mexico is among the few which share a border with one of the largest and most industrialized States, which puts it in a risky and, to say the least, special position in the effort to deal with its neighbor on an equal basis. Thus, what is really in the making, as far as can be realistically foreseen, is a "protective," or defensive policy.

Such an orientation will be further stimulated by historical experience, which has given definite shape to the general conception in Mexico regarding border matters. It is an already traditional conception, which may not be quite ready to adapt to new circumstances and needs, such as those pertaining to transboundary resource utilization. The traditional conception of border affairs is still heavily influenced by the centuries-long problem of border delimitation, which was settled only recently, in comparative terms, through the Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and Colorado River as the International Boundary Between Mexico and the United States.⁹ The treaty was only possible after the two States resolved the nightmarish controversy of the Chamisal, which hurt bilateral relations for several decades. Still, other border delimitation problems have emerged—at sea—as will be seen later.

As Professor Cesar Sepulveda has indicated, the history of defining and establishing a permanent border with the United States is one of prolonged conflict.¹⁰ The loss of territory to the United States in the mid-19th century, and the Chamisal problem, require the passage of some time before the nationalistic feeling that they evoked will wane, so as to give room for a more open environment for negotiators on newly identified "border problems," such as the need to start setting the basis for rational utilization of transboundary resources.

Nonetheless, historical experiences, no matter how lasting their bitter effects, cannot overshadow the reality of the need to satisfy, with the available natural resources in the area, increasing social needs. Edwin Carpenter and Larry Blackwood have undertaken a significant study on the effect that potential population growth on the border will have on the required exploitation of natural resources.¹¹ On the other hand, Professor Francisco Alba has given attention to the pressure that economic and industrial growth at the border will have on available natural resources in the region.¹² The water requirements to keep up with industrial growth

9. Boundary Treaty, Nov. 23, 1970, United States-Mexico, 23 U.S.T. 371, T.I.A.S. No. 7313; *Diario Oficial*, July 12, 1972.

10. See generally C. SEPÚLVEDA, *LA FRONTERA NORTE DE MÉXICO* (1976).

11. See generally Carpenter & Blackwood, *The Potential for Population Growth in the United States Counties that Border Mexico: El Paso to San Diego*, 17 NAT. RES. J. 545 (1977).

12. See generally Alba, *Condiciones y Políticas Económicas en la Frontera Norte de México*, 17 NAT. RES. J. 571 (1977).

in the region have also been the object of early studies.¹³ Thus, consciousness of the need for planning is already there, including awareness as to the effect that the exploitation of one resource will have on the sustained availability of another. For instance, researchers estimate that exploitation of the impressive reserves of energy resources in the Upper Colorado River basin, especially coal reserves, uranium, and oil shale, will require vast quantities of water, as most of the energy production technologies currently in use or available are large water-consuming processes. Such water will have to come from the reserves of that resource in the region, which includes the border area.¹⁴

What is needed, then, for the two countries to come together and plan ahead, for their mutual benefit, for the utilization and conservation of their transboundary wealth? Is it safe to rely on the foresight of policy makers at both sides of the border? Is it inevitable that they will only respond in the face of specific natural or demographic crises? The answers to these questions are certainly quite hard to foresee. But before anyone attempts to address them, it is undoubtedly necessary to have a comprehensive and global understanding as to the meaning of the problems transboundary resources pose and the dimensions of their potential—an understanding in which legal concepts have a definite role to play.

TRANSBOUNDARY RESOURCES: LEGAL CONCEPTIONS

One of the most authoritative experts on the subject of natural resources across international borders, Julio A. Barberis, after defining the term "resources" as meaning those elements which humans use to satisfy their needs, and specifying that they will be "natural" when they come into existence without human intervention, ventures that they are to be regarded as "shared" when they are neither those belonging to a single State nor those which belong to the international community; instead they are those that find themselves under the jurisdiction of two or more States, with the exclusion of everyone else.¹⁵

In this author's view, such a definition, which unfortunately is widely accepted, is faulty and incomplete. For many—even if they inevitably accept the natural unity of a given deposit of resources—the sovereignty of a given State over its territory and the natural wealth it contains cannot

13. See, e.g., Ayer & Hoyt, *Industrial Growth in the U.S. Border Communities and Associated Water and Air Problems: An Economic Perspective*, 17 NAT. RES. J. 585 (1977), and Zwerneman, *Economic Development in the El Paso-Juarez Area and Its Impact on Water Supply*, 17 NAT. RES. J. 619 (1977).

14. See generally Brown, Sawyer & Khoshakhlagh, *Some Remarks on Energy Related Water Issues in the Upper Colorado River Basin*, 17 NAT. RES. J. 635 (1977).

15. See generally J. BARBERIS, *LOS RECURSOS NATURALES COMPARTIDOS ENTRE ESTADOS Y EL DERECHO INTERNACIONAL* (1979).

be fragmented, much less shared. That part of a transboundary resource, whether solid or fluid, on its own side of the border belongs to and is the property of that State. Mexico is highly likely to maintain such a view, as will be seen later. It is a totally different consideration, and makes much more economic and ecological sense, for a country with such resources to cooperate with its neighbor, through jointly planned action, to utilize and conserve them. Such cooperation does not put into question the property of a country over the resources inside its borders. Thus, even when they may be regarded as "shared" from a purely geographic point of view, legally they definitely are not. Consequently, the concept of sharing, related as it is to the notion of property, is inadequate. If such resources are to be qualified on the basis of their location, a more appropriate term to be used is, precisely, "transboundary" resources. Such a concept would in fact be a great deal more attractive to a country with Mexico's legal traditions.

Barberis' definition is incomplete because he does not take into consideration all possibilities of transboundary resources. There are not only boundaries between sovereign States, but also between the jurisdiction of a State and either a zone which legally is open to the community of States as a whole, such as the high seas; or between the jurisdiction of a State or the high seas and a zone which is reserved for mankind as part of its common heritage, that is, the international seabed area (which is the "Seabed and the Ocean Floor and the Subsoil Thereof Beyond the Limits of National Jurisdiction.")¹⁶ In the above sense, the stocks of living marine species, the marine waters which may be put to an economic use such as the production of energy from them, and the minerals and hydrocarbons in the soil and subsoil of the sea, are necessarily transboundary resources if they are located in or move around areas transected by a boundary between an exclusive economic zone and high seas, or between a continental shelf and the international seabed area.

Consequently, if all such resources are to be taken into account, a definition as to their "transboundary" nature cannot be limited to those in a boundary between two States. As will be seen later, a comprehensive definition is essential in order to attempt a complete inventory of transboundary resources of interest to Mexico and the United States. Taking all of the above into consideration, the following definition of "transboundary resources" may be proposed: They are those natural resources located in an area through which a land or territorial, fluvial, lacustrine or maritime border runs, separating two sovereign States or a State and

16. Draft Final Act of the Third United Nations Conference on the Law of the Sea, Oct. 21, 1982, U.N. Doc. A/CONF. 62/121 (1982), *reprinted in* 21 I.L.M. 1245 (1982) [hereinafter cited as *Law of the Sea Convention*].

a marine zone which is beyond the limits of national jurisdiction, namely, either the high seas or the international seabed area. Those volumes or portions of such resources located within the territorial or maritime sovereignty of the State are, in general, legally subject to unilateral appropriation by that State. Those resources which are in the high seas, mostly living resources, are subject to the customary regime of freedom of fishing by each and all vessels flying the flag of any of the recognized States' members of the international community. Those which are in the exclusive economic zone or in the continental shelf of a State are subject to the "sovereign rights" of that State, but taking into account that in the case of highly migratory species, such as tuna, their exploitation shall be carried out in cooperation with the competent regional international organizations. Finally, those resources in the international seabed area belong to mankind as part of its common heritage, and can only be exploited through the international regime and mechanism which was agreed on at the Third United Nations Conference on the Law of the Sea, and which appears in the text of the 1982 Montego Bay United Nations Convention on the Law of the Sea.¹⁷ In all such cases, however, cooperation between the owners is essential to protect reciprocal rights and ensure the fulfillment of mutual duties.

One can appreciate that the above conceptualization of "transboundary resources" completely does away with the idea of "shared" resources, as the latter concept dilutes the idea of separate property. There is no legal basis in international law for "shared" property of resources, to the detriment of State sovereignty.

Barberis himself agrees that the idea of establishing a general legal regime for shared natural resources is still a doctrinary concept, which has only recently received international attention through the United Nations Conference on the Human Environment held at Stockholm in 1972.¹⁸ The first time the concept was used was in General Assembly Resolution 3129 of 1973,¹⁹ which had as its precedent the Declaration approved by the Fourth Conference of the Non-Aligned Countries of the same year. Resolution 3129 speaks of "common natural resources," but its title refers to "shared natural resources." Even the idea of common natural resources is unacceptable, as it lends itself to the notion of joint property, which is incorrect. What it does attempt to portray is the idea of joint responsibility. Here again, for a country like Mexico it is the latter meaning which can best describe the nature of such wealth in border areas. How-

17. *Id.*

18. See J. BARBERIS, *supra* note 15, at 143.

19. U.N. General Assembly Resolution on Cooperation in the Field of the Environment Concerning Natural Resources Shared by Two or More States, U.N. Doc. A/RES/3129 (XXVIII) (1974), reprinted in 13 I.L.M. 232 (1974).

ever, this preferential interpretation does not foreclose the possibility that any State that wishes to do so may exercise its sovereignty and contractual liberty to agree to a regime for its transboundary resources which, in the end, will derive into formulas of shared or joint property.

Albeit scattered, there are precedents of such regimes in international practice, even if they have not generated widely accepted practices among the rest of the international community. Even when the general rule is that the agreed boundary between two States is also valid in the subsoil, in a vertical fashion, there have been cases in which one party has allowed the other to undertake mining under the surface of its territory. This is only a practical modification of the boundary, which does not involve modification of sovereignty. The oldest case on point involved the salines of Salzburg, which in 1696 the Duke of Bavaria donated in part to the Bishop of Salzburg. Also, through the 1816 Aquisgran Treaty the Netherlands ceded to Prussia a part of the coal mines in the subsoil under Dutch territory adjacent to the border. Later, through a 1952 treaty, an "exploitation boundary," different from the political one, gave the Netherlands jurisdiction over the subsoil in two zones under the surface of the territory of the Federal Republic of Germany. Article 3 of this treaty even established that the two zones should be ruled by domestic Dutch law. Further, in 1950 Belgium and the Netherlands agreed to a boundary for the exploitation of mines along the Mosa River. The treaty established that the jurisdiction over the subsoil belonged to the State to whose surface the coal was taken, and not to the superjacent State.²⁰ It is not difficult to assert, with complete assurance, that none of these schemes would be entertained by Mexico to deal with any of its transboundary resources, either on its borders with Guatemala, Belize, or the United States.

Given the legislative history and, above all, the national experience that has fed the legislation in Mexico regulating natural resources, one would expect that any approaches based on the concept of "shared natural resources" will be resisted and even repudiated, and not only in the official world. The process of establishing permanent sovereignty over all oil resources, which were placed in foreign hands during the dictatorship of Porfirio Diaz, was the object of a first attempt in the 1917 Constitution, the foremost byproduct of the Revolution. A sorry relapse to foreign control occurred as a result of the ill-framed Bucareli Treaties of 1923. But Mexican sovereignty over its oil resources was finally accomplished through the 1938 oil expropriation, which constitutes one of the greatest chapters in the nation's recent history. It was the result of a truly national

20. For a discussion of these and related instruments, see generally Barberis, *Los Recursos Minerales Compartidos entre Estados y el Derecho Internacional*, in 8 DERECHO DE LA INTEGRACION 45 (1975).

struggle, one which can be branded as one of the most popular achievements of the country. The experience was painful for Mexican society as a whole and, as it derived from the ambition and activities of foreign corporations, with the backing of their governments, the oil chapter is and will remain a national experience tainted with a substantial amount of understandable nationalistic feeling, one which has unavoidably been transplanted to other natural resources and the need for their defense *vis-a-vis* foreign interests.

Mexico has also learned quite important lessons in the field of fisheries, as the progressive assertion of the rights of the nation over different species and in ever increasing areas of national maritime jurisdiction has always been contemplated as a struggle to force foreign fishing vessels out of such areas so that the country can exploit them exclusively. Mexican-U.S. relations have been affected historically by incidents and controversies regarding the fisheries regime along the coasts of Mexico. The latest chapter of this continued struggle has been the so-called "tuna war," which since 1978 has remained as a painful controversy between the two countries. Also, Mexico's central role in the three United Nations Conferences on the Law of the Sea, in 1958, 1960, and from 1973 to 1982, especially the latter, are definitely part of the untiring Mexican diplomatic effort, at all possible fora, to assert its permanent sovereignty over its national resources and to ensure a fair share of the world's wealth.

In negotiating about the use and conservation of transboundary resources with Mexico, the United States will obviously have to take into account the fact that it will be dealing with a country with a substantially different economic system. Although Mexico still has a market economy in general terms, that economy is one in which the State increasingly participates along with the private sector, thus leading to a so-called "mixed economy." State participation in the Mexican economy is heavily concentrated precisely in the exploitation of natural resources which, according to Article 27 of the Constitution, belong to the nation as a whole and are, therefore, under the "public domain" regime. Thus, even more important than economic differences are the legal ones. Additionally, the historical experience of the country has led it to constitutionally establish protective national zones precisely in the areas where transboundary resources are located, along its borders, where foreign private property is excluded. Consequently, in dealing with transboundary resources on its southern border, the United States will have to negotiate with a single actor, namely, the nation as represented by the federal government.

The differences in the legal systems of the two countries cannot be underestimated, for they will play a pivotal role in the question of transboundary resources. As Professor Utton has pointed out, under the com-

mon law each owner's right to water itself, or the use of water, is insecure because other pumpers may take possession of the mobile resource at any time. Thus, the individual surface owner is encouraged to exploit the groundwater resource as quickly as possible, so that the fluid and mobile water resource will not be captured by others. The resource then belongs to whoever gains possession of it, and conservation measures are risky because others may capture the resource in the meantime. In contrast, Mexico has legal authority to control groundwater withdrawals. The government can regulate extraction and establish prohibited zones if existing developments or the aquifer are in danger of being adversely affected, or if it is otherwise in the public interest.²¹

For all of the above reasons, it will be extremely important to be aware of Mexico's attitudes toward transboundary resources, which will be directly informed by its domestic legal provisions and reflected in its international law practice on the matter. In both spheres, internal²² and external, Mexico's legal concept of property will be a leading factor.

According to Professor Ricardo Mendez Silva,²³ Point Four of the historical United Nations General Assembly Resolution on Permanent Sovereignty Over Natural Resources,²⁴ which has become a leading flag of the developing countries in their struggle for a new international economic order, was the result of a Mexican proposal. That point established that the exploitation of natural resources of each country shall be carried out in accordance with its national laws and regulations. This provision was later reiterated in General Assembly Resolutions 2158²⁵ and 2692,²⁶ of November 25, 1966 and December 11, 1970 respectively. All of those resolutions originated with Resolution 626 of December 21, 1952,²⁷ on the right to freely exploit natural resources and wealth, and Mexico was a leading promoter of their adoption. Since then, the principle of permanent sovereignty over natural resources has become a cardinal element

21. See generally Utton, *International Groundwater Management: The Case of the U.S.-Mexican Frontier*, 57 NEB. L. REV. 633 (1978).

22. As stated, the concept of property in Mexican constitutional law is the result of national historical experiences, and has been greatly influenced by the legal tradition of the country, a tradition which differs from the one underlying the U.S. legal system. See generally Novoa Monreal, *La Evolución del Derecho de Propiedad ante los Actuales Textos Constitucionales Latinoamericanos*, in 1 ESTUDIOS DE DERECHO ECONÓMICO 41 (1977).

23. See generally Méndez Silva, *La Soberanía de los Pueblos sobre sus Recursos Naturales*, 16-17 BOLETÍN MEXICANO DE DERECHO COMPARADO 17 (1973).

24. U.N. General Assembly Resolution on Permanent Sovereignty Over Natural Resources of Developing Countries, U.N. Doc. A/RES/3016 (XXVII) (1973), reprinted in 12 I.L.M. 226 (1973).

25. U.N. General Assembly Resolution on Permanent Sovereignty Over Natural Resources, U.N. Doc. A/RES/2158 (XXI) (1966), reprinted in 6 I.L.M. 147 (1967).

26. U.N. General Assembly Resolution on Permanent Sovereignty Over Natural Resources and Expansion of Domestic Sources of Accumulation for Economic Development, U.N. Doc. A/RES/2692 (XXV) (1971).

27. U.N. General Assembly Resolution on the Right to Freely Exploit Natural Wealth and Resources, GAOR Supp. (No. 20), U.N. Doc. A/2361 (1953).

of Mexican foreign policy. It is thus not surprising that the principle has also become central in the conception of the new international economic order, of which Mexico has been a principal protagonist. The principle has since been incorporated in Article 2 of the United Nations Charter of Economic Rights and Duties of States, initially proposed by President Luis Echeverría, and adopted through General Assembly Resolution 3281 on December 12, 1974.²⁸ The same principle has been incorporated in fundamental multilateral instruments such as the International Covenant on Economic, Social and Cultural Rights,²⁹ and in the International Covenant on Civil and Political Rights,³⁰ both in force since 1976, having been adopted through General Assembly Resolution 2200 of December 16, 1966,³¹ and in force for Mexico but not yet for the United States.

There is no doubt as to the strong official devotion in Mexico to the concept of permanent sovereignty over natural resources, and this will play an important role in negotiations on transboundary resources with any country.³² On the other hand, the International Law Commission, the subsidiary organ of the United Nations General Assembly entrusted with the codification and progressive development of international law, has been working on a scheme for a draft convention to deal with international watercourses as "shared natural resources" in order to rule their non-navigational uses.

The progressive work of the commission has been the subject of deliberation by States through the Sixth Committee of the General Assembly. There, the concept of a "system of international watercourse," over which two or more States exercise sovereignty,³³ has prevailed over the concept of an "international hydrographical basin" embraced in Articles I and II of the Helsinki Rules,³⁴ approved by the International Law Association in 1966. In the view of the States participating in the debates at the Sixth Committee, the latter concept has a doctrinal element which may overlook the special characteristics and circumstances of individual cases, and it

28. U.N. General Assembly Resolution, the Charter on Economic Rights and Duties of States, U.N. Doc. A/RES/3281 (XXIX) (1975).

29. International Covenant on Economic, Social and Cultural Rights, Jan. 3, 1976, U.N.G.A. Res. 2200 (XXI), 21 U.N. GAOR Supp. (No. 16) 49, U.N. Doc. A/6316 (1967), *reprinted in* 6 I.L.M. 360 (1967).

30. International Covenant on Civil and Political Rights, Mar. 23, 1976, U.N.G.A. Res. 2200 (XXI), 21 U.N. GAOR, Supp. (No. 16) 52, U.N. Doc. A/6316 (1976), *reprinted in* 6 I.L.M. 368 (1967).

31. U.N. General Assembly Resolution, International Covenant on Economic, Social and Cultural Rights, International Covenant on Civil and Political Rights and Optional Protocol to the International Covenant on Civil and Political Rights, U.N. Doc. A/RES/2200 (XXI) (1967).

32. *See generally* LA SOBERANÍA DE LOS ESTADOS SOBRE SUS RECURSOS NATURALES. (A. Gómez Robledo ed. 1980).

33. For a discussion of the concept of a "system of international watercourse," *see generally* Hayton, *Progress in Co-operative Arrangements*, in *EXPERIENCES IN THE DEVELOPMENT AND MANAGEMENT OF INTERNATIONAL RIVER AND LAKE BASINS* 65, U.N. Doc. ST/ESA/120 (1983).

also focuses too much on the surrounding territory of the basin. The "system" concept has been thus regarded as being more global, which lends itself to include not only rivers, lakes, and their affluents, but also other components such as channels, streams, and aquifers, including groundwater.

The draft articles which the International Law Commission has so far produced are designed to provide for the management and conservation of such non-navigational systems, as well as for "system agreements" to be concluded among the system States in order to implement the general rules of the convention. Those rules establish the nature of such systems as "shared natural resources," as well as the principle that there is a duty to utilize them equitably and reasonably. They prohibit unilateral activities which may cause harm to other States in the system, and address other matters as well.³⁵

Given its legal system and experience, there is little doubt that Mexico will tend to view more favorably the above concept of "shared natural resources," given the fact that it is so closely linked with the principle of sovereignty. Nonetheless, Mexico will probably try to influence a change in the terminology employed to describe such resources. Already in that direction are the comments made by the Mexican representative to the Sixth Committee in 1970.

On December 14, 1979, the General Assembly of the United Nations adopted its Resolution 34/99 on the development and strengthening of good neighborliness between States,³⁶ an item which had been initiated by a group of States under the leadership of the Romanian Delegation. This resolution was followed by others in which it was envisaged that the concept of good neighborliness should be developed in a "proper international document."³⁷ In its 38th Session the General Assembly transferred the item to the agenda of its Legal Committee (the Sixth).

The Legal Committee took up that matter and proposed that the General Assembly adopt its Resolution 38/126 of December 1983,³⁸ which calls upon all States to define the appropriate framework to develop the concept in the aforesaid international document. The framework should take into account, among other proposals, the working paper submitted by the

34. See *Helsinki Rules on the Uses of the Waters of International Rivers*, in INTERNATIONAL LAW ASSOCIATION, REPORT OF THE FIFTY-SECOND CONFERENCE 484 (1966).

35. See Evensen (Special Rapporteur), *Primer Informe sobre el Derecho de los Usos de los Cursos de Aguas Internacionales para Fines Distintos de la Navegación*, Comisión de Derecho Internacional, Naciones Unidas, U.N. Doc. A/CN.4/367.

36. U.N. General Assembly Resolution on Development and Strengthening of Good Neighborliness Between States, U.N. Doc. A/RES/34/99 (1980).

37. Later resolutions included G.A. Res. 36/101, U.N. Doc. A/RES/36/101 (1982), and G.A. Res. 37/117, U.N. Doc. A/RES/37/117 (1982).

38. G.A. Res. 38/126, U.N. Doc. A/38/659 (1983).

Romanian Delegation on September 22, 1983,³⁹ which incorporated the observations made during the past three years by various member States in response to the above mentioned resolutions.

On July 7, 1982 the United States sent to the U.N. Secretary General its observations on the topic, in response to General Assembly Resolution 36/101.⁴⁰ The United States asserted that it maintained excellent relations with its neighbors, especially Mexico and Canada, and emphasized that no troops were stationed along their respective borders. However, the United States did not elaborate on the possible contents of substance that could be given to the concept of good neighborliness. On the other hand, the observations of Mexico did advance the concept of economic, scientific, and technological cooperation as essential steps toward good neighborliness.

More importantly, the Romanian working paper embodies more concrete concepts, based on the general idea of cooperation, such as economic cooperation at the border zone on the basis of equality of rights, equity, and mutual benefit in the exploitation of "common resources." It goes further to call on neighboring States to cooperate on maritime problems inherent to neighborliness, such as the delimitation of maritime zones, and common exploration and exploitation of resources which constitute a physical unity, when common actions prove to be more advantageous than individual ones. The working paper elaborates on matters pertaining to the protection of the environment in the border area.

As one may appreciate, the debates in the Legal Committee of the General Assembly, which have now been oriented toward the regulation of the utilization of transboundary resources as part of the idea of good neighborliness, will constitute in the future an appropriate forum where both Mexico and the United States will have an opportunity to contribute to the development of legal bases in the field of transboundary resources. The above description of Mexico's standing on the matter at the international level does indicate that its policy regarding transboundary resources will be the result of a balancing exercise between two concepts: permanent sovereignty over natural resources versus shared natural resources. Such a policy will probably conceive of those resources as "transboundary" instead of as "shared," with all the implications that such precision will have on the country's conception of property and of sovereignty.

However, a note of warning must be given here. The foreseeable attachment of Mexico to its concept of sovereignty should not be mistakenly linked with any theory of "absolute sovereignty." Mexico's record

39. U.N. Doc. A/38/440.

40. G.A. Res. 36/101, *supra* note 39.

in dealing with the conventional transboundary resources at its border with the United States shows that its concept of sovereignty is flexibly "relative." Notwithstanding its most stringent nationalistic or xenophobic tendencies, derived from historical experience, Mexico has recognized the need to accept, undertake, and even propose initiatives for joint action and cooperation with the United States, when they have been needed to rationally utilize or conserve a given resource. After all, as Professor Cesar Sepulveda has clearly pointed out, Mexico and the United States can be given the deserved credit for having contributed, with their practice, to the development of international fluvial law.⁴¹ The two countries together were smart enough to pass beyond the obstacle represented by the built in intolerance of the so-called Harmon Doctrine,⁴² and to develop a bilateral practice of cooperation. This cooperation has been coupled with the necessary institutionalized mechanism of the International Boundary and Water Commission, which has not only served as a model for other countries, but has also set important precedents for the development of international practice in the field.

Mexican-U.S. experience in the field has contributed to some of the guiding international principles ruling the use and conservation of transboundary resources, namely: the duty of each country at either side of the border, when exploiting its part of the resource, conceived as a natural unity, to refrain from producing a sensible harm; the principle of equitable and rational utilization; and the duty to undertake previous consultations and to exchange information. Barberis points out that such principles constitute the elements of a "law of neighborhood."⁴³

From this author's point of view, Mexico is even prepared to contribute further to the development of such principles in order to dissipate any doubt as to the fact that they have already escaped being a mere proposition *de lege ferenda*. It was precisely Mexico which proposed, at the Third United Nations Conference on the Law of the Sea, the formula which appears in Article 300 of the Montego Bay Convention, and which reads: "States Parties shall fulfill in good faith the obligations assumed under this Convention and shall exercise the rights, jurisdiction and freedoms recognized in this Convention in a manner which would not constitute an abuse of right."⁴⁴ Both concepts, good faith and abuse of rights, should be directly incorporated in the legal regime of transboundary resources. If Mexico were prepared to invoke them regarding the law of

41. See C. SEPULVEDA, *supra* note 10.

42. For a discussion of the Harmon Doctrine, see Simsarian, *The Diversion of Waters Affecting the United States and Mexico*, 17 TEX. L. REV. 27, 59 (1938).

43. J. BARBERIS, *supra* note 15, at 149, citing Andrassy, *Les Relations Internationales de Voisinage*, in 2 RECUEIL DES COURS (1951).

44. Law of the Sea Convention, *supra* note 17, art. 300.

the sea, there is every reason to believe that it will uphold them when dealing with its transboundary resources, for its own obvious benefit, as well as that of its neighbors. If such concepts were to guide the bilateral practice in the field between Mexico and the United States, they would certainly provide the regime of transboundary resources with its final legal foundation.

CLASSIFICATION OF TRANSBOUNDARY RESOURCES: THE NEED FOR AN "INVENTORY"

A classification of transboundary resources must be undertaken on the basis of the four compartments which could constitute the natural environment of a given border region, namely: those resources which are found in dry continental or insular territory or land, surface or underground; continental or insular water bodies, surface or underground; marine areas, including the water column, the soil, and the subsoil; and the atmospheric space. A further compartment could be added if we take into account the modern use of the cosmic, ultraterrestrial or outer space regions, which sophisticated technology has turned into a resource. Through satellites outer space can be utilized for communication signals which, when they reach the earth's surface, do not discriminate regarding artificially created State borders. In a few words, we are dealing with the whole spectrum of the human environment in a specific border region.

Barberis, once again, has produced one of the most comprehensive, albeit not entirely complete, classifications of transboundary or, as he calls them, shared resources: international rivers; hydrocarbon deposits; migratory animals; animals whose habitat includes the territory of more than one State; and the atmosphere.⁴⁵ However, other transboundary resources must be taken into consideration. This author proposes the following classifications:

(a) Land resources: (1) Minerals, including: mines; hydrocarbon deposits; and geothermal deposits. (2) Flora, including: naturally protected areas, such as wetlands, forests, and recreational parks. (3) Fauna, including: migratory animals, and animals in a transboundary habitat.

(b) Continental or insular water deposits: international rivers, streams, and affluents; international lakes, dams, and reservoirs; freshwater fisheries and other fauna in international rivers, lakes, dams, and reservoirs; algae and other flora in international lakes, dams, and reservoirs; minerals carried by or dissolved in the waters of international rivers; and groundwater.

(c) Marine resources: marine water; marine currents; marine winds; marine tides and waves; ocean thermal energy; minerals dissolved in

45. J. BARBERIS, *supra* note 15, at 11.

marine waters; marine living stocks and associated species; anadromous stocks; catadromous species; sedentary species; highly migratory species; submarine hydrocarbon deposits; submarine mineral deposits in the soil and in the subsoil; and submarine geothermal deposits.

(d) Atmospheric resources: air; winds; and the ozone layer.

(e) Outer space resources: communication signals, and solar radiation.

It should be understood that this attempt at a more complete, although surely not yet exhaustive, classification is based on the following fundamental criteria: that all resources included in each of the items on the list should be allocated in a transboundary fashion or area, and that the boundary in question may be separated into either a sovereign State's territory or areas under its national jurisdiction, or into areas beyond the limits of national jurisdiction, such as the high seas or the international seabed area.

What is important for the purposes of this article is that virtually all categories included in the classification could be physically present in a transboundary fashion, at the border, land or maritime, between Mexico and the United States. The most visible exception could perhaps be international natural lakes and their resources, which are absent at that border. Otherwise, there would be no natural impediment for the possible presence of all other resources on the list along the 2,000 mile land border, and along the more than 600 nautical mile maritime border already agreed on between the two countries. It is an entirely different, albeit relevant, matter whether or not the existence of each of the resources on the list has been positively identified at the Mexico-U.S. border area. This article will attempt to indicate some of those resources in order to expand the scope of identification, which has so far been limited to conventional water resources and pollution. Limited attempts at such expansion have been made, for instance, by Antonio Gonzalez de Leon, who refers to: energy resources, including hydrocarbons in the eastern portion of the border, and geothermal deposits in the western side, among which the Cerro Prieto project deserves mention; land based and submarine minerals; and the living resources of the sea.⁴⁶ Ernesto Jauregui adds to the list solar radiation (during a typical summer month the area receives an average of 550 langley's a day), and other energy resources derived from winds.⁴⁷ There is some Mexican international practice in the case of some of those other resources, even at the bilateral level with

46. See generally González de León, *Factores de Tensión Internacional en la Frontera con Estados Unidos*, in *LA FRONTERA DEL NORTE* 7 (G. Salazar Roque ed., 1981). See also Lagoni, *Oil and Gas Deposits Across National Frontiers*, 73 AM. J. INT'L L. 215 (1979), and Onorato, *Apportionment of an International Common Petroleum Deposit*, 17 INT'L & COMP. L. Q. 84 (1968).

47. See generally Jáuregui, *Recursos Naturales y Medio Ambiente en la Frontera Norte de México*, in *ESTUDIOS FRONTERIZOS* 51 (1981).

the United States. Regarding others, there are only initial indications as to their presence at the border.

According to Christopher Henry and Robert Morton, there are geothermal resources in the Mexican-Texas border region, including convective systems, some of which have sufficient heat to produce electricity, and which could be used for industrial or home heating.⁴⁸ Those systems favor the development of thermal energy and the production of unconventional gas. Juan Eibenschutz points out that in the western portion of the border there are significant geothermal resources, which may produce not only electricity, but also potassium chloride. Aside from Cerro Prieto, which has an operating capacity of 180 megawatts, two more plants with a capacity of 220 megawatts each were being built for operation in 1983 and 1984 respectively. Eibenschutz reports that there has already been some exchange of technical information across the border about this wealth, and that agreements have been signed with the San Diego Gas and Electric Company and with South California Edison for the export of a total capacity of 275 megawatts.⁴⁹

The Mexican government's Secretaria de Desarrollo Urbano y Ecologia has designated several regions at the northern border as part of a special system of naturally protected areas. Both the United States and Mexico are parties to the Panamerican Union's Convention on Nature Protection and Wildlife Preservation, adopted in Washington on October 12, 1940.⁵⁰ This convention regulates the establishment of the concepts of national parks, national reserves, national monuments, and migratory species. Only the latter are conceived of as specifically transboundary resources. The parties agree to adopt all legislation and necessary measures to protect and to provide for the conservation of the above natural resources, especially migratory species. Although the convention does not deal concretely with the adoption of joint or bilateral measures, whenever those resources are located in border areas, it might be construed as facilitating those measures.

Neither Mexico nor the United States is a party to the Convention on Wetlands of International Importance Specially as Waterfowl Habitat, adopted in Ramsar on February 2, 1971.⁵¹ However, Mexico has identified such wetlands, some of which are located in the border area, at Tamaulipas, Coahuila, Chihuahua, Sonora, and Baja California Norte.

48. See generally Henry & Morton, *Transboundary Geothermal Resources of Texas and Mexico*, 22 NAT. RES. J. 973 (1982).

49. See generally Eibenschutz, *Recursos Geotérmicos en la Frontera Noroccidental*, 22 NAT. RES. J. 991 (1982).

50. Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, Oct. 12, 1940, 36 Stat. 1354, T.S. No. 981, reprinted in 3 BEVANS 630 (1969); *Diario Oficial*, May 29, 1942 [hereinafter cited as Convention on Nature Protection].

51. 996 U.N.T.S. 0 (1976).

On February 7, 1936 Mexico and the United States signed the Convention for the Protection of Migratory Birds and Game Mammals, which entered into force on March 15, 1937.⁵² This convention was supplemented by an agreement through an exchange of notes in Mexico City on March 10, 1972, which entered into force the same date.⁵³ The convention refers to those migratory birds which cross the border between the two countries, and provides some measures for their conservation. The same measures are extended, by virtue of Article V of the convention, to game mammals, and they provide for the establishment of closed seasons and refuge zones, and the issuing of hunting permits. They also totally prohibit hunting certain species and hunting from airplanes, and regulate the transportation of some species across the border. All of these provisions are aimed at the conservation and rational utilization of such natural resources for purposes of sport, food, commerce, and industry. The convention includes a list of migratory birds to which it applies, which was expanded through the 1972 Supplementary Agreement. For the last fifty-two years the convention has provided for the protection of sixty-three families of migratory birds, thus constituting an example of bilateral cooperation to deal with transboundary resources with an ecologically oriented mind.

In October of 1983 the General Committee for the Conservation of Wildlife, which is formed by representatives of both Mexico and the United States and which oversees the implementation of the 1936 convention, decided to seek an institutionalization of the committee as a permanent mechanism.⁵⁴ The new body would then be dedicated to the conservation of all species of wildlife and their habitat in the border area, and would not be restricted to migratory birds and game mammals. The mechanism would be limited to the preparation of joint projects on the basis of cooperation for the prudent and rational management of those resources. It would not be its purpose to provide for joint utilization activities at either side of the border. The General Committee also follows the implementation of the 1940 Washington Convention described above,⁵⁵ which in its turn also has an annex which lists species whose habitats are in the border area.

It is probably because of the existence of the above bilateral instruments

52. Convention on Protection of Migratory Birds and Game Mammals, Feb. 7, 1936, United States-Mexico, 50 Stat. 1311, T.S. No. 912, reprinted in 9 BEVANS 1017 (1972); *Diario Oficial*, May 15, 1937.

53. Protection of Migratory Birds, Mar. 10, 1972, United States-Mexico, 23 U.S.T. 260, T.I.A.S. No. 7302.

54. The committee is formed by representatives of the United States Federal Wildlife Services of the Department of the Interior and the Dirección General de Flora y Fauna Silvestre of the Mexican Secretaría de Desarrollo Urbano y Ecología.

55. Convention on Nature Protection, *supra* note 50.

that neither Mexico nor the United States has signed the 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals.⁵⁶ However, were they to become parties to that convention, they would have a more global juridical basis for bilateral cooperation, on a wider range of living species.

According to Article 56 of the 1982 Montego Bay Convention on the Law of the Sea, coastal States have, within their exclusive economic zones, sovereign rights for the purpose of exploring, exploiting, conserving, and managing natural resources.⁵⁷ The coastal States also have sovereign rights as to other activities within the zones, such as the production of energy from the water, currents, and winds. Ocean Thermal Energy Conversion (OTEC) is a technique about to be developed to exploit the thermal resources of tropical seas. These resources are found along the coasts of only three developed countries (the United States, Japan, and Australia), and of about seventy-three developing countries, including Mexico. These resources can be developed into electrical energy, and could thus be important for the progress of many of the concerned States.

In the central part of the Gulf of Mexico, in areas where the line delimiting the marine areas of national jurisdiction of Mexico and the United States had been agreed upon through the Exchange of Notes of November 24, 1976,⁵⁸ and which was included in the still pending 1978 Treaty of Maritime Delimitation between the two countries,⁵⁹ the potential for OTEC has been identified. Thus, this resource clearly satisfies the requirements of classification as a transboundary resource. The area's geography will undoubtedly require mutual support and cooperation, for technical, economic, and ecological reasons.⁶⁰ It should be remembered that, in Mexico, energy resources and their production fall clearly within the exclusive realm of the State. This is a fundamental matter for the United States and its nationals, whether they are physical or juridical persons, to consider if they decide to initiate OTEC activities in the maritime border area.

Article 63 of the Law of the Sea Convention deals with stocks of living resources occurring within the exclusive economic zones of two or more coastal States, or both within the exclusive economic zone and an area beyond and adjacent to it, such as the high seas.⁶¹ For these typical

56. Reprinted in 19 I.L.M. 15 (1980).

57. Law of the Sea Convention, *supra* note 17, art 56.

58. Agreement Concerning Certain Maritime Boundaries, Nov. 24, 1976, United States-Mexico, 29 U.S.T. 196, T.I.A.S. No. 8805.

59. Treaty on Maritime Delimitation, May 4, 1978, S. EXEC. Doc. No. F-H, 96th Cong., 1st Sess. 4-6.

60. See Departamento de Asuntos Económicos y Sociales Internacionales, *Guía para la Conversión de la Energía Térmica del Océano (CETO) en Beneficio de los Países en Desarrollo*, U.N. Doc. ST/ESA/134.

61. Law of the Sea Convention, *supra* note 17, art. 63.

transboundary resources coastal States have the duty to seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks. These stocks have not yet become evident in the maritime border between Mexico and the United States. However, Massachusetts Institute of Technology research fellow Patrick H. Hefferman has indicated that there are a number of fisheries across the Baja California Norte-California border that have been harvested by boats from both States and which are ecologically important to them.⁶² They include the northern anchovy, abalone, and lobster, which are ecologically interdependent fisheries, and which migrate across the border. Traditionally, the Mexican government has not been open to discussions with U.S. representatives on the matter. However, recent talks between fisheries officials from both countries have envisaged joint scientific research regarding those species. If such research should prove that there is a need for joint conservation measures to protect cross-border fisheries, the Mexican government would undoubtedly give a further illustration of its readiness to take action with a full ecologically minded approach.

Article 64 of the Convention deals with highly migratory species, namely, tuna.⁶³ It provides that the coastal State and other States whose nationals fish in the region for tuna shall cooperate directly or through appropriate international organizations, with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. A second paragraph of this article clearly provides that the latter rules apply in addition to other provisions of the part of the convention dealing with the exclusive economic zone. This means that such species are unquestionably subject to the sovereign rights of the coastal States and are not, in any way, to be regarded as free or even as "shared" resources. This has been the Mexican position, shared by all coastal States in the eastern Pacific Ocean, through whose waters tuna migrate. The United States is not one of those coastal States because tuna in that region, especially yellow fin tuna, migrate from northern Chile to the Baja California Peninsula. However, the United States has attempted a different interpretation in order to ensure access by its boats to the resource; it asserts that tuna do not belong to the coastal State.

The difference has led to a real controversy, labeled the "tuna war," which led Mexico to abandon the Inter-American Tropical Tuna Commission, where its sovereign rights could not be guaranteed. As a result, the United States enacted domestic legislation banning the import of tuna

62. See generally Hefferman, *Conflict Over Marine Resources*, in MEXICO-UNITED STATES RELATIONS 168 (S. Kaufman Purcell ed. 1981).

63. Law of the Sea Convention, *supra* note 17, art. 64.

from Mexico. In any case, tuna are not a transboundary resource in the border between Mexico and the United States, but tuna are a transboundary resource between Mexico and the rest of the international community, given the fact that they migrate across the boundary between the Mexican exclusive economic zone and the high seas, where the United States has freedom of fishing. Unfortunately, the United States has adopted a very inflexible position, which does not lead in any way to cooperation. When the United States established an exclusive economic zone in 1983, jurisdiction over highly migratory species was specifically excluded.⁶⁴

The occurrence of submarine oil and gas deposits in the different regions of the world, many of which are located in transboundary areas, has been the subject of initial identification. Such deposits are in practically all regions of the world's continental shelves, whether in the North Sea, the Gulf of Alaska, the Canadian Arctic waters, the Atlantic continental margin in North America, the Caribbean Sea and the Gulf of Mexico, Lake Maracaibo and the Gulf of Venezuela, the South American Atlantic continental shelf, the West African continental margins, the Mediterranean and Aegean Seas, the Northwest Australian shelf, the continental shelf areas of the Far East, the South China Sea, the Sunda shelf, the Baltic Sea, the Barents and Kara Seas, or other areas.⁶⁵

Most of these areas include the adjacent or opposite continental shelves of more than one State, which probably accounts for the enormous difficulties encountered at the Third United Nations Conference on the Law of the Sea, and the inability of its participants to come to a consensual agreement on the articles of the 1982 Convention dealing with the principles for the delimitation of such zones of neighboring jurisdiction. In real life, the diplomatic difficulties at the conference are only an expression of actual bilateral and, sometimes, subregional controversies among States which do not contribute to the maintenance of regional peace, security, and stability. It must be remembered that when the convention's adoption was put to a vote at the conference on April 30, 1982, two of the only four States which, among a total of 141, voted against it were States with continental shelf delimitation controversies with their neighbors, namely, Turkey and Venezuela. Many of those controversies have been taken to court, giving the International Court of Justice a heavy workload which, it is hoped, will eventually form the international jurisprudence on the matter, despite the fact that each case has been and will be tried individually, and with the limited effects established in Article 50 of the Court's statute.⁶⁶

64. See generally A. SZÉKELY, *MÉXICO Y EL DERECHO INTERNACIONAL DEL MAR* (1979).

65. See S. BROWN, N. CORNELL, L. FABIAN & E. WEISS, *REGIMES FOR THE OCEAN, OUTER SPACE AND WEATHER* 63-73 (1977).

66. Statute of the International Court of Justice, 59 Stat. 1055, T.S. No. 993, *reprinted in* 3 BEVANS 1179 (1969). See also Charney, *Ocean Boundaries Between Nations: A Theory for Progress*, 78 AM. J. INT'L L. 582 (1984).

As recently as October 29, 1983 Sweden and Denmark issued a Joint Communiqué concerning the delimitation of their continental shelves and fishing zones. The delimitation is based on the median line, with the deviations necessary for practical and other reasons. It seems that the agreement was facilitated by the fact that Danish exploration around the area of Heleserrne found no existence of hydrocarbon deposits. Continental shelf delimitation negotiations between Venezuela and Colombia have also been dictated by the potential of hydrocarbon deposits.

The International Court of Justice has dealt with the following cases on continental shelf delimitations: the *North Sea Continental Shelf Case* (W. Ger. v. Den.),⁶⁷ the *North Sea Continental Shelf Case* (W. Ger. v. Neth.),⁶⁸ the *Aegean Sea Continental Shelf Case* (Greece v. Turk.),⁶⁹ the *Case Concerning the Continental Shelf (Tunisia-Libyan Arab Jamahiriya)*,⁷⁰ the *Case Concerning the Delimitation of the Maritime Boundary in the Gulf of Maine Area* (U.S. v. Can.),⁷¹ and the *Case Concerning the Continental Shelf (Libyan Arab Jamahiriya/Malta)*.⁷²

Professor Utton recognizes a similarity in characteristics between oil and gas on the one hand, and international aquifers on the other, as "shared" natural resources. He states that, just as it would be unreasonable to permit a State to deal with the waters of an international stream without regard to the needs of its co-riparian, it would be likewise unreasonable for nations that share a common petroleum structure to attempt to exploit it without cooperating. Thus, he declares that cooperative development best serves the self interest of the "co-owners" of an oil field by minimizing economic and physical waste that would otherwise result. Such cooperation requires the administrative structure and the legal framework for developing a divided petroleum deposit as a unit. Thus, he favors "unitization," given the migratory feature of oil and gas, which can be best administered by some sort of bilateral commission, a mechanism that would work on the basis of consultation and mandatory powers.⁷³ In other words, if an International Boundary and Water Commission has been possible and successful between Mexico and the United States, Utton's thoughts seem to suggest that a similar mechanism would be feasible and desirable to exploit transboundary submarine hydrocarbons.

However, so-called "joint operating agreements" for the development and production of transboundary oil and gas in the marine subsoil may not prove acceptable to Mexico, as they involve the appointment of an

67. See generally 1969 I.C.J. Nos. 51 & 52, reprinted in 8 I.L.M. 340 (1969).

68. *Id.*

69. See generally 1976 I.C.J. No. 62, reprinted in 15 I.L.M. 985 (1976).

70. See generally 1982 I.C.J. No. 63, reprinted in 21 I.L.M. 22 (1982).

71. See generally 1984 I.C.J. No. 67, reprinted in 23 I.L.M. 1197 (1984).

72. See generally 1985 I.C.J. No. 68, reprinted in 24 I.L.M. 1189 (1985).

73. See generally Utton, *Institutional Arrangements for Developing North Sea Oil and Gas*, 9 VA. J. INT'L L. 66 (1968).

entity as the "operator," who will manage activities for the common benefit of the States involved. Naturally, this sort of joint venture would dilute the nature of PEMEX as Mexico's monopolistic State institution in the field. Also, these agreements may be viewed negatively in Mexico, as they are based on a concept of "shared natural resources," which implies also a concept of shared sovereignty. However, the experience in the Norwegian sector of the North Sea may open the way for this kind of scheme, for it also includes the additional complexity of participation of State entities such as the British Gas Company, BNO, and Statoil.⁷⁴

On May 4, 1978 Mexico and the United States signed a Treaty on Maritime Delimitation,⁷⁵ which formalized the contents of an Agreement Concerning Certain Maritime Boundaries, carried out through an exchange of notes in Mexico City on November 24, 1976.⁷⁶ Despite the fate of the 1978 treaty, which has been approved by the Mexican Senate but not by the U.S. Senate, the 1976 agreement remains in force.

As stated, the Mexican Senate approved the 1978 treaty on December 20 of that year,⁷⁷ and thus Mexico is ready to ratify it. However, when President Carter sent the treaty to the U.S. Senate for its advice and consent, an unexpected problem emerged. During Senate Foreign Relations Committee hearings on June 30, 1980 Princeton Geology Professor Hollis D. Hedberg advised against ratification of the treaty. He regarded it as contrary to the interests of the United States, arguing that the line drawn to measure the Mexican exclusive economic zone was illegal and gave Mexico an important portion of the central part of the Gulf, where an enormous potential of mineral and hydrocarbon deposits had been identified. The delimitation line had been drawn from some islands off the Yucatan Peninsula in the Gulf of Mexico. Hedberg suggested that the line should be measured from the continental coast of the Yucatan Peninsula, and that the central portion of the Gulf should be equally divided by the two countries.⁷⁸ In response, U.S. State Department Legal Advisor Mark B. Feldman asserted that Hedberg was completely wrong, and that the drawing of lines from islands was an internationally recognized principle which even the United States had used to its benefit in other geographical areas.⁷⁹ Because of Hedberg's statement, which was subsequently

74. See P. SWAN, OCEAN OIL AND GAS DRILLING AND THE LAW 66-81 (1979).

75. Treaty on Maritime Delimitation, *supra* note 63.

76. Agreement Concerning Certain Maritime Boundaries, *supra* note 62. For a discussion of the agreement and the treaty, see generally Székely, *A Commentary With the Mexican View on the Problem of Maritime Boundaries in United States-Mexican Relations*, 22 NAT. RES. J. 155 (1982). See also Schmitt, *The Problem of Maritime Boundaries in U.S.-Mexican Relations*, 22 NAT. RES. J. 139 (1982).

77. *Diario Oficial*, Jan. 22, 1979.

78. See generally Hedberg, *Ocean Floor Boundaries*, 204 SCIENCE 135 (1979).

79. CONG. REC. S12737 (Sept. 17, 1980) (statement of Mark B. Feldman).

supported by other geologists, it took the Foreign Relations Committee until December 20, 1980 to recommend Senate approval of the treaty. However, with such precedent, the Senate has abstained from taking action on this bilateral instrument. Some senators even suggested that the treaty should be withdrawn from their consideration until such time as some studies on the matter, undertaken by the United States Geological Survey, are completed. Unfortunately, the Senate has been clearly misled by information which is totally erroneous, and provided by a "political geologist" not knowledgeable on the applicable law. If Mexico had not had the right to measure its 200 mile exclusive economic zone from the said islands (Cayo Arenas and Cayo Arcas), and it had to do so from the continental coast, the portion in the central Gulf which would have been otherwise inside Mexican jurisdiction would then become a part of the high seas. Therefore, the proposal for dividing such portion between the two countries is preposterous, as it would have constituted an illegal appropriation, on the basis of the most elementary rules of customary and conventional international law, especially the 1958 Geneva Convention on the High Seas,⁸⁰ and the agreement arrived at by consensus at the Third United Nations Conference on the Law of the Sea,⁸¹ which Mexico has already ratified.⁸²

It is obvious that Professor Hedberg's illegitimate and illegal proposal would make the hydrocarbon and mineral deposits in the central Gulf of Mexico a transboundary resource between Mexico and the United States. However, international law supports Mexico's position in the sense that these resources, which are located in the so-called Sigsbee Knolls, belong to Mexico. Because the resources are within the subsoil of Mexico's exclusive economic zone, the nation has sovereign rights over them. In any case, since they are in a zone adjacent to the international seabed area, the resources are transboundary between Mexico and mankind's common heritage.

It may be possible that continued studies could eventually identify the existence of some other transboundary mineral and hydrocarbon deposits in the maritime boundary established by the 1978 treaty. In that case it would be necessary for the two countries to jointly agree on a regime for their exploitation and conservation.

Several analyses have involved the need to contemplate alternative regimes, through collective action, for the exploitation of scarce resources in the world which, for the sake of economic efficiency, should be regarded as an activity to be shared by States at the North-South, East-

80. Convention on the Continental Shelf, April 1958, 15 U.S.T. 471, T.I.A.S. No. 5578.

81. Law of the Sea Convention, *supra* note 17.

82. *Diario Oficial*, Feb. 18 and June 1, 1983.

West, and South-South levels.⁸³ This may be a sound objective for the distant future, for which the evolving practice of States in dealing with their transboundary resources will be an important experimental laboratory. So far, developing countries like Mexico have fought for a new international economic order whose foundation is not necessarily a sound division of labor among the members of the international community in the exploitation of the world's natural resources. Instead, they seek a perfected application of the *status quo*, but on a more just and equitable basis, and founded on the concept of permanent State sovereignty over natural resources.

As Mexico has proved in the past, precisely in dealing with transboundary water resources with the United States, such a concept of sovereignty need not be taken to irrational or absolute extremes. This is especially true when there is so much room and need for joint cooperation, for mutual benefit, in good faith, and without abuse of rights.

83. See, e.g., R. ARAD, U. ARAD, R. MACCULLOCH, J. PINERA & A. HOLLICK, *SHARING GLOBAL RESOURCES* (1979).