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Chapter 8: The Outer Limits of the Continental Shelf: Legal Aspects of their Establishment

A. Introduction

Article 76, as this study has shown, is one of the remarkable achievements of UNCLOS III. Delegates began thinking only with a definition and limits but in the end drafted a comprehensive article encompassing elements or parts of the legal continental shelf; formulae and rules to establish the limits; the submission requirements of the Commission; deposit of charts and other relevant information on the outer limits with the Secretary-General; and the proviso that the article does not prejudice the question of delimitation of the continental shelf between opposite or adjacent coastal states.

The difficulties that accompanied the drafting and adoption of Article 76 centred on the debate concerning the definition and outer limits of the continental shelf. Many delegates opted for limits of up to 200 nm. However, broad-margin states contended that their rights to the continental shelf had already been established and thus insisted on limits up to the outer edge of the continental margin. The deadlock between those opting for 200 nm and those for extended continental shelves was broken only by proposals suggesting rules and formulae to establish the limits and revenue-sharing in areas of the continental shelf beyond 200 nm.

The items concerning the definition and limits of the continental shelf were so critical to the success of the entire Conference that they necessitated the organization of their own negotiating group, Negotiating Group No. 6. This group shepherded the road to consensus and compromise. Extremely significant in the consensus achieved for Article 76 was the revenue-sharing provision under Article 84 of the Convention. The two provisions were treated as a package deal. The broad-margin states and those pushing for outer limits beyond 200 nm agreed to a revenue-sharing deal in areas of the continental shelf beyond 200 nm.

Although UNCLOS III managed to define and establish the limits of the continental shelf, many delegates remained sceptical as to whether the rules designed to establish the outer limits of the continental shelf beyond 200 nm as contained in Article 76 were workable. The reservations were not unjustified. Noting the rather scientific and technical

formulae proposed by Ireland and the USSR, delegates requested a scientific study to assist them in reaching a decision. The study, rather than clarifying the proposals, only confirmed the difficulties inherent in applying formulae and rules. These doubts were, however, somewhat contained in part because of the revenue-sharing proposal but also because of the proposal to establish the Commission, tasked to assist states in implementing or making operational the rules and formulae to establish the outer limits of the continental shelf. Therefore the mood accompanying the inclusion of Article 76 in the final text of the Convention, though somewhat reserved, was more or less positive in the belief that limits would be now established with the scientific and technical participation of the Commission.

When the Convention entered into force on 20 November 1994, one of the most highly anticipated provisions were Article 76 and Annex II. This was not only because of the complexities involved in implementing the rules and formulae in Article 76. Nor was the anticipation due only to the fact that a new organ, the Commission, was to be organized. The excitement and perhaps anxiety felt by many states, and in particular coastal states, was more than anything else attributable to the ten-year deadline for submission to the Commission of information on the outer limits of the continental shelf. Coastal states had in theory only to implement one article in the Convention in order to establish the outer limits of the continental shelf. But the anxieties felt, just before adoption of the Convention and especially in relation to the implementation of scientific and technical requirements set out in Article 76 are now being put to the test.

The Commission has been operational since 1997. Submissions have been made by several states. This study has examined the various issues relating to the development of the concept, and the establishment of the outer limits of the continental shelf. This has included reviewing the legislative history of Article 76 and Annex II; on the nature, procedure and practice of the Commission; the scientific, technical and legal interface of rules and formulae to establish outer limits; the process of establishing the outer limits of the continental shelf; and the prospects for settlement in the case of disputes relating to Article 76. This Concluding Chapter summarizes the findings and observations made in relation to these various issues.

B. The Legal or Artificial Nature of the Continental Shelf

The first of these findings reiterate a conclusion reached long ago; that the continental shelf, although originally a physical concept, is principally a legal or artificial concept that developed to suit the purpose of states. This finding has been confirmed by the ICJ in several of its cases concerning delimitation of the continental shelf. Article 76 remains faithful to this interpretation. The first type of continental shelf that based on distance proclaims clearly its artificial nature. No matter what its type of submarine soil or subsoil, a coastal state will always be entitled to claim up to 200 nm of continental shelf. The second type of continental shelf refers to natural continental shelves. But, even this type, based purportedly on the principle of natural prolongation with limits up to the outer edge of the continental margin is in the final analysis, artificial. It does not correspond on a one-to-one basis to the geological feature of the same name. One aspect of its artificiality is revealed in its limits, which do not necessarily lie on the outer edge of the continental margin. The outer limits of the continental shelf beyond 200 nm lie where the application of the rules and formulae under Article 76 places them. The rules and formulae themselves likewise confirm the artificiality of the outer limits since they include distance (e.g. a limit of 350 nm for submarine ridges) and/or a combination of depth and distance formulae (e.g. a limit of 100 nm from the 2,500 m isobath).

The artificial or legal nature of the continental shelf is further confirmed in the Convention under Article 121, paragraph 3, on the regime of islands and Article 48 on archipelagos. Although not continents, islands and archipelagos are nevertheless entitled to continental shelves. Further affirmation of the artificiality of the continental shelf is found in the neutral character of the crust of the prolongation. Some scientists insist that for a natural prolongation to be acceptable as continental shelf the nature of its crust must also be continental. The legislative history of Article 76 belies this argument, however. Instead it supports the contention that as long as the land territory and the prolongation possess the same crustal nature, even the same is oceanic, the submerged prolongation may be considered the legal continental shelf of that land territory.

C. The Law Establishing the Outer Limits: a Process and a Positive Reality

Turning now to the nature of the law establishing the outer limits of the continental shelf beyond 200 nm, this study demonstrated that it has a positive reality in Article 76 and Annex II but it is in character also a process. To illustrate this I referred the various theoretical frameworks including: the policy science approach; the critical legal approach; and the functional approach.

One aspect critical to understanding the law as a process is the focus on relevant actors or participants. In the law establishing the outer limits of the continental shelf, the coastal state, possessing as it does the sovereign right to establish the limits of its own continental shelf, is the principal actor. However, there are other relevant actors mandated by the Convention to participate in the process of establishing such limits: the Commission; the Secretary-General; and various international scientific organizations. Other actors involved by reason of their responsibility to assist the Secretary-General include the Secretariat and the UN Legal Counsel. The main actors are the coastal state and the Commission. The role of third states and even that of the ISA has also been examined in reference to the issue of possible encroachment into the international seabed area due to an excessive claim, and the protection of individual rights both in the international seabed area and the high seas.

The Commission's nature as an organization is limited by its particular, two-fold mandate: 1) offering advice prior to the coastal state's formal submissions and 2) making recommendations on the submission itself. It thus has no legal personality. Its power as an organization is also limited by its mandate which only includes adoption of its own Rules of Procedure, and other instruments necessary to carry out its mandate.

In spite of the Commission's limitations, the Commission nevertheless plays a critical role in the establishment of the outer limits of the continental shelf. Of all the other relevant actors, coastal states are compelled to work most closely, when establishing the outer limits of the continental shelf beyond 200 nm, with the Commission. Even as the law confirms the coastal state's sovereign discretion to fix its limits it also requires the coastal state to submit to the Commission for assessment and recommendation the particulars of its outer limits. It also gives a coastal state an opportunity to benefit from the Commission's advice prior to making a formal submission. When a coastal state adopts outer limits based on the Commission's recommendations, these become final

and binding. When the limits adopted are not based on the Commission's recommendations, one logical conclusion assumes that the limits will always be vulnerable to challenge. If the coastal state does not agree with the recommendations of the Commission, the law requires it either to make a new submission or else to revise its submission. In other words, the law has made it clear how critical and unavoidable is the Commission's participation in a coastal state's establishment of its outer limits.

In establishing its outer limits, a coastal state shares with the Commission the power to interpret Article 76. But this power, as many scholars insist, is not necessarily equally shared between them. The Commission possesses power of interpretation so as to fulfil its mandate under the Convention. The coastal state, on the other hand, possesses power of interpretation over Article 76 as a direct consequence of its sovereign discretion to establish its own outer limits. The ILA Committee has thus advised the Commission to be cautious in carrying out its mandate and to take care that it does not unnecessarily make impositions upon the coastal state's sovereign prerogatives. In case of doubt, therefore, the Commission has been counselled to decide in favour of the coastal state.

There have as yet been no specific examples of conflict of interpretation concerning the recommendations between the submitting state and the Commission. There was disagreement between the outer limits established by Russia in its original submission and the recommendations of the Commission. But whether Russia disagrees with the Commission's recommendations remains to be seen. Russia has not yet made either a revision or a new submission.

What in practice has caused most tension between a coastal state making a submission and the Commission itself has been the procedure of submission. Under Article 5 of Annex II, the submitting state may participate in the relevant proceedings of the Commission but without enjoying the right to vote. The Commission, however, has interpreted this provision, however, to mean excluding the submitting state from participating during its consideration of the subcommission's recommendations. Russia challenged this position during its submission but to no avail. When the Rules of Procedure were amended the Russian commissioner attempted to persuade the Commission to change its position but a majority of the Commission remained of the opinion that such a proceeding was not relevant. Some concerned states took the issue to the 15th Meeting of States Parties. The Commission accordingly made several amendments to its Rules of Procedure so as to increase the opportunities of interaction between the submitting state and the subcommis-

sion and between the submitting state and the Commission. The final deliberations of the Commission, however, remain a closed meeting which excludes the submitting state.

In addition to coastal states, third states also have an axe to grind as regards the submission process. Many have complained that the submission process is not sufficiently transparent nor does it provide sufficient information.

The tug and pull between states and organizations has been observed, explained and analyzed by many scholars, most notably those of the school of critical legal theory. International law remains rooted in state consent as the basis for its existence. After all, states, principally, and ultimately create organizations. And even those organizations mandated to participate in the creation of other organization, e.g. the European Community as a member of the Helsinki Convention, or of the Convention, are, in the final analysis, themselves, the creation of states. Despite the consent given, which is necessary for the creation of any institution in the international sphere, institutions at some point become themselves the object of suspicion by the very states that created them. Most organizations, inevitably and by necessity, do achieve a life of their own. The autonomy of institutions therefore may indeed threaten the very states that created them in the first place.

How do states and the Commission cope with this fundamental tension? This tension affects the establishment of the outer limits of the continental shelf and will definitely affect the future work of the Commission and therefore its ability to carry out its mandate. For as long as international law is based on state consent and for as long as international institutions are necessary "evils" ensuring the survival of each state and the international community, the tension as posited by scholars of critical legal theory will remain. States and the Commission must learn to work together in spite of tension inherent within such a relationship so as to implement Article 76. There need not to be an agreement on everything but at the very least the differences of opinion must be clearly acknowledged.

In reality, the situation is far from bleak. The Commission's refusal to allow coastal states to participate in proceedings deemed irrelevant has now been resolved. Concerned states applied consistent pressure on the Commission to reconsider its position. The Commission was persuaded to make amendments in its Rules of Procedure to reflect the concerns of states. The resolution of the issue took several years, a sign that both member states and the Commission were willing and able to manage the tensions existing between them.

The issue of transparency raised by third states remains and is likely to remain a problem. This is because the establishment of the outer limits remains the sovereign prerogative of a coastal state. It is not even in the authority of the Commission to make the submission process more open. Such a development would need the express consent of the submitting state for the process to be made more public.

D. Establishing the Outer Limits of the Continental Shelf: the Scientific, Technical and Legal Interface

The positive reality of establishing outer limits is embodied in the ten paragraphs of Article 76. This study has shown that implementation of Article 76 relies heavily upon scientific concepts and technical means. The definition and limits of the continental shelf, as has many times been underscored, remain legal concepts. As such, the establishment of outer limits can be fully implemented only through a combination of science, technology and law.

Chapter 5 specified the particular issues and terms relevant to establishing outer limits; a thorough understanding of many of these issues and terms requires a combined application of science, technology and law. The first issue concerned the test of appurtenance which the Commission requires the submitting state to pass before its submission is evaluated. The test of appurtenance means simply that the coastal state must first prove that it has a natural prolongation of its land territory beyond 200 nm. Although Article 76 contains no reference to this matter, the test of appurtenance does make legal sense because the Commission has no competence to evaluate claims of only up to 200 nm. The Commission would be violating its mandate if it relied blindly on a coastal state's claim to have a natural prolongation beyond 200 nm: a test of appurtenance must for this reason be undertaken. In its Guidelines, the Commission announced that it had taken paragraph 4 (a) as the basis of its formula to test whether or not a claim appertains to a coastal state or not. The legislative records of UNCLOS III do not specify a formula to test a coastal state's claims. In the cases before the ICJ, the parties presented evidence from geology and geomorphology in support of their claims. The ICJ never asked that their claims be satisfied on the basis of a given formula. While the Commission is not prohibited from recommending use of a certain formula for the test of appurtenance, similarly, it should not refuse a submission where the test of appurtenance is

based on another means or on means similar to those employed in the ICJ cases.

The second issue concerned the application of alternative formulae and rules to establish the outer limits. The Commission, supported by many scientists, is of the view that the formulae and rules could be combined in order to establish the limits. Some lawyers, however, refer to the formulae and rules as alternatives. The text, spirit, and purpose of Article 76 may be used in support of either interpretation. Note that a combined application of the formulae and rules is not necessarily prohibited and may in fact help a coastal state to maximize its claims.

The foot of the slope may be located in two ways: firstly, by locating the point of maximum change in the gradient at its base and secondly, by another means in the absence of evidence to the contrary. The first option may be based on geomorphology; the second option, in the view of the Commission and many scientists is possible using the science of geophysics. The Commission has interpreted these two options not as alternatives but rather in terms of a general-exception rule. The general rule is to locate the point of maximum change in the gradient at its base. The exception is to locate it by another means in the absence of evidence to the contrary. The Commission's interpretation, however, does not enjoy either from the text of Article 76 as from the legislative records. Coastal states should therefore be allowed discretion to choose the formula that best suits their claim.

With respect to the location of the 2,500 m isobath, the Commission declared that in the case of multiple, complex or repeated isobaths, it would take the first 2,500 m isobath from the baselines from which the territorial sea is measured as its reference point. The text of Article 76, however, does not require the coastal state to take the first 2,500 m isobath. On the other hand, the Commission could justify its position in that underlying purpose behind the 2,500 m isobath requirement is to limit the continental shelf.

For those coastal states whose submissions include ridges, the question of ridges arguably presents the most of difficulties. The problem of ridges involves three terms in Article 76: oceanic ridges, submarine ridges, and submarine elevations. One problem associated with oceanic ridges, for example, is that some lie within the continental shelf and not in the oceanic abyss. Some scientists and the ILA Committee have therefore concluded that oceanic ridges, *per se*, cannot be denied as part of a legal continental shelf.

The problem with submarine ridges and submarine elevations is how to distinguish between them. The distinction is important because the maximum outer limits are different for each feature: for submarine elevations the limits may be up to 100 M from the 2,500 m isobath and for submarine ridges, the outer limits are no more than 350 nm from the baselines from which the territorial sea is measured.

Other ridge-related problems involve the mid-ocean archipelagos that sit on ridges that are tectonically oceans and not continents. The problem is not whether they are natural prolongations of the islands that sit on them; the artificial concept of natural prolongation is in this case easily to resolve. More problematical is which outer limit rule should be applied in such a situation: is it the submarine elevation rule of up to 100 M from the 2,500 m isobath, the 350 nm from the baselines from which the territorial sea is measured, or the rule of up to 200 nm.

The Commission, supported by some scientists, advocates an interpretation taking into consideration the geological and geomorphological history of ridges and/or elevations. The ILA Committee, on the other hand, while not disagreeing with the Commission's approach points rather to an examination of the legislative history.

The technology used to implement the rules and formulae has not been specified. The Commission therefore has discretion in indicating which technology best applies. In the Guidelines the Commission has classified the types of technology it considers admissible in light of their effectiveness and costs.

E. The Process of Establishing the Outer Limits of the Continental Shelf

Submission to the Commission is only one part of the process of establishing the outer limits of the continental shelf beyond 200 nm. The process begins with the coastal state making a unilateral delineation of its outer limits. Information on the limits adopted on the strength of this unilateral activity, as well as data and materials to support such limits, are then submitted to the Commission. For those coastal states that ratified the Convention before its entry into force, their deadline for submission is 2009, or ten years after the Commission's Guidelines have been published. The Meeting of States Parties pushed back the deadline after many states expressed concern about implementing the scientific

and technical requirements of Article 76 without guidance from the Commission.

A submission is first assessed by a subcommission composed of seven (7) members of the Commission. The subcommission makes it recommendations to the Commission. The latter then makes its own recommendations based on the recommendations of the subcommission.

The most extensive criticisms of the submission process came from submitting states and third states. Submitting states, as mentioned earlier, complained of being excluded from participating in a very critical stage of the submission process: when the Commission reviews the recommendations of the subcommission and then makes it own recommendations. As already noted, the Commission has ruled out the possibility of submitting states participating in this part of the process. This is the phase where the Commission deliberates until it reaches a decision on the recommendations it will make to the coastal state. Such an explicit exclusion need not be considered unusual: many organizations deliberate on their final decisions in private.

On the other hand, one can also sympathize with the position of coastal states bearing in mind that the Commission's role is not to be an arbiter or decision-maker. Its role is rather, as one scholar put it, to be a scientific or technical assessor. It is supposed to assist the coastal state in its duty to implement Article 76.

The Commission has since then increased the number of opportunities for the submitting state to interact with it and the subcommission. Although the submitting state remains excluded from participating in the Commission's final deliberations, the interests of both, the Commission and the submitting states, are now met in the amended procedure.

Third states, on the other hand, have complained of being excluded from the submission process. Complaints have also been made concerning a lack of transparency and a lack of sufficient information about submissions and the subsequent recommendations of the Commission. A lack of transparency and a lack of information are intentional considering that the submission process was never intended to be public. Establishment of outer limits is not like a case before a court or tribunal; except for the Commission's participation, it remains in principle a unilateral act, involving only the coastal state concerned.

At the moment, the Commission's Rules of Procedure allow third states to submit comments only if these allege a delimitation dispute with the submitting state. The Commission should consider allowing states which possess individual interests in the international seabed area or

rights to protect in the high seas to submit their comments, for they likewise have a legal interest in ensuring that the limits established are in accordance with Article 76. The protection of such interests can be guaranteed only when third states with a legal interest are allowed to submit comments; or when the submission process is made transparent; and/or when at least, sufficient information is given concerning the limits submitted by coastal states and the recommendations made by Commission.

Once the Commission has made its recommendations, the coastal state has the option of whether or not to adopt the outer limits of the continental shelf based on those recommendations. If it does decide to do so, the outer limits become binding and final to the coastal state. "Final" here means that the limits established cannot be changed. "Binding" means that the coastal state is now under an obligation to exercise its rights over the continental shelf only within those limits. Outer limits adopted on the basis of the Commission's recommendations do not become final and binding to third states and the international community as neither of these groups is a party to the submission process.

The coastal state cannot go to a court or tribunal in order to directly challenge the Commission's recommendations. If the coastal state disagrees with the Commission, it is required by the Convention to submit a new or revised submission. There is nothing in the Convention that limits the number of new or revised submissions that a coastal state may make. In theory, the process of submitting new submissions and revisions may continue indefinitely.

The coastal state is then required to deposit with the Secretary-General charts and other relevant information, including geodetic data, which permanently describe the outer limits of its continental shelf. The Secretary-General is obliged to give due publicity to the charts and other relevant information submitted.

The deposit of charts and other relevant information may not necessarily be the final act by a coastal state in establishing its outer limits. Paragraph 10 of Article 76 provides that none of the paragraphs in Article 10 prejudice delimitation of the continental shelf between states. This means that the deposit of charts with the Secretary-General may not necessarily result to a permanent description of the outer limits of the continental shelf. The status of the charts and other relevant information can only be conditional until such time as the final settlement of a dispute that relates to those limits.

F. Dispute Settlement Mechanisms

The Convention provides many ways for states parties to settle their disputes relating to the application or interpretation of its provisions. In general, parties to a dispute may opt for a non-judicial or a judicial settlement. In a non-judicial settlement, parties retain control of the means of settling the dispute. Many disputes relating to maritime boundaries are settled in a non-judicial manner.

Parties have recourse to a judicial settlement. Under the Convention, a judicial settlement basically consists of procedures that entail binding decisions. Parties have the option to choose between procedures: the ICJ; the Tribunal; or an arbitral tribunal.

Another judicial route open to parties is only possible at the Tribunal: advisory proceedings. Advisory proceedings boast certain advantages for disputing states. They are non-binding but at the same time they allow parties to take advantage concerning their dispute of international legal expertise on the law of the sea.

The Commission's recommendations cannot be subjected directly to judicial review. However, there may arise instances in which the recommendations are challenged either by the parties to the dispute, or by at least one of the parties in a delimitation case, or in a case concerning the rights of third states in the international seabed area and in the high seas. Only in such a situation, then, shall a court or tribunal be compelled to assess the Commission's recommendations.

Experts are in agreement that third states representing the interests of the international community in the international seabed may submit a case against a coastal state that may have established outer limits that are not in accordance with Article 76 or not based on the Commission's recommendations. However, the basis of standing of third states remains debatable. Some argue that the principle of *actio popularis* as the basis for such an action applies; while others state that there is no need for such an action to be based on *actio popularis*. Third states which allege individual legal interests, such as delimitation disputes, high seas freedoms or individual interest in mining sites in the international seabed area, have legal standing to bring a case to a court or tribunal.

The ISA, because of its limited mandate, also lacks standing to submit a case in a court or tribunal so as to protect against encroachment of the international seabed area.

The Commission cannot be requested or compelled to appear before a court or tribunal either as a party or as an expert. It lacks the legal per-

sonality to do so. Its mandate is limited to providing advice and making recommendations to the coastal state on the outer limits of the continental shelf beyond 200 nautical miles.

Since it cannot appear as a party to any case, the judgment of a court or tribunal will not be binding on the Commission. Nevertheless many believe it is in the best interest of the Commission to consider very seriously any judgment or advisory opinion made or given concerning its recommendations; otherwise its recommendations risk always being subject to further challenge.

G. Conclusion

The challenges associated with the law establishing the outer limits of the continental shelf did not disappear with the inclusion of Article 76 and Annex II in the Convention. Article 76 did not succeed in removing unpredictability. To the contrary, the undefined terms, the involvement and interests of actors other than the coastal state, the unique natural (geological, geographical, and geomorphological) setting of each submission, and the different technologies used in the collection of data, combine to ensure that the law on the establishment of the outer limits will continue to be complicated, dynamic and evolving.