Spatial Allocation of Continental Shelf Rights in the Timor Sea: Reflections on Maritime Delimitation and Joint Development

By

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Abstract

For the international lawyer, the subject 'East Timor' may be approached from different angles: e.g. self-determination, use of force, state succession, acquisition of territory. This article focuses on one of the starkest consequences of East Timor's independence: the issue of spatial allocation of continental shelf rights in the Timor Sea. The first part provides a brief historical account of relevant developments in this respect. Drawing on these developments, the second part investigates aspects concerning maritime delimitation and joint development. Factors that might be relevant for a legal determination of seabed boundaries, and the joint development solution that has been devised in the Timor Sea, are briefly examined. Whilst looking into specific aspects of the Australia/East Timor situation, it is argued that, as means for attributing jurisdiction over seabed resources, maritime delimitation is in principle to be preferred to joint development. Secondly, it is suggested that, since maritime delimitation and joint development are conceptual archetypes from which 'combined solutions' are derived, their understanding forms the bedrock for spatial allocation of continental shelf rights. Finally, it is submitted that, as illustrated by the 'Timor Sea situation', the impact of *realpolitik* might be such that extrapolations, from solutions reached in one specific setting to another setting, should not be lightly made.

I. EXORDIUM

In 1960, while under Portuguese administration, East Timor was included in the United Nations' list of Non-Self-Governing Territories. Subsequent to the revolution of 25 April 1974, Portugal undertook a process of decolonisation. An attempt was made to set up in East Timor a transitional government and a parliament empowered to prepare the East Timorese people to exercise their right to self-determination. Following armed clashes between opposing political

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factions, Portugal – which at the time faced dramatic political problems in its European territory – was forced to withdraw[2]. On 7 December 1975, Indonesia occupied East Timor's territory – claiming that it was acting to liberate the people of East Timor (at the request of its representatives). The government subsequently set up requested the integration of East Timor into Indonesia. United Nations Security Council Resolutions on this issue, which called for the withdrawal of Indonesian forces, failed to overturn the course of events.

Diplomatic talks held between Indonesia and Portugal since 1983, under the auspices of the Secretary-General of the United Nations, sought to resolve the situation in East Timor. The agreement eventually signed on 5 May 1999 between the two states paved the way for a popular consultation concerning the future of the territory and its status vis-à-vis Indonesia. On 30 August 1999, the East Timorese people freely exercised their right to self-determination, voting massively (just under 80%) in favour of becoming an independent country.

On 20 May 2002, after a complex political process that spread over forty years, East Timor finally became an independent state. From the standpoint of international law, this process raises questions that revolve around *inter alia* self-determination (in respect to which the *East Timor* case is a milestone[3]), use of force, state succession and acquisition of territory. More practically speaking, it would also lead to an examination of the role of *realpolitik* in international affairs. The present article does not directly address the foregoing issues. Nevertheless, these questions form part of the background against which the subject matter of this article ought to be seen.

This analysis reflects on the spatial allocation of continental shelf rights in the Timor Sea. It looks first into the historical developments that eventually led to the *Timor Sea Treaty*, signed between Australia and East Timor on 20 May 2002[4]. Drawing on these political-legal developments, which refer to the exercise of jurisdiction in the Timor Sea, this analysis goes on to ask some more general questions concerning maritime delimitation and joint development. While analysing some factors that might be relevant for a legal determination of a continental shelf boundary between Australia and East Timor, it attempts to examine their relevance for the political-diplomatic process

(2) The Portuguese Governor withdrew to the island of Ataúro, located a few miles off the northern coast of East Timor. Its definitive withdrawal took place only after the Indonesian invasion, on 8 December 1975.

(3) Case Concerning East Timor (Portugal *v.* Australia), International Court of Justice, Judgment of 30 June 1995, ICJ Rep. 1995, p.90.

(4) Timor Sea Treaty between the Government of East Timor and the Government of Australia, of 20 May 2002; the text can be obtained from http://www.austlii.edu.au/au/other/dfat/special/etimor/Timor_Sea_Treaty.html. Since this treaty deals only with the question of petroleum resources, the aspects related to water column jurisdiction in the Timor Sea are not examined.

that is underway between the two states. It then turns to ask some questions on joint development. Why was joint development adopted between Australia and East Timor? As means to allocate legal jurisdiction over hydrocarbon resources, should maritime delimitation and joint development be seen on an equal footing? Is the type of solution that is being shaped between Australia and East Timor viable in, and susceptible of extrapolation to, other legal-geographical settings? By way of conclusion, this article suggests that maritime delimitation should in principle be preferred to joint development – for it provides a clearer and more stable framework for resource exploitation, while not at all compromising the principle of cooperation between neighbouring states. With regard to the 'Timor Sea situation', it is submitted that the solution that was adopted between Australia and East Timor was virtually inevitable – owing to the historical background from which it emerged. For this reason in particular, it is argued that the idiosyncrasy of the problem in appraisal is such that extrapolations to other legal-geographical contexts should be tempered with caution.

II. BRIEF HISTORY

THE AUSTRALIAN THEORY OF THE TWO SHELVES

From the outset, it must be observed that the Timor Sea Treaty is perhaps best seen as the most recent stage of a political-legal process whose roots lie in the 1960s. Although this view might seem odd at first glance, the reality is that the solution incorporated therein appears as the result of a sequence of events that began 35-odd years ago. Before turning to the historical background proper, attention must be drawn to the regime of the continental shelf in the 1960s, laid down in the 1958 Convention on the Continental Shelf (CS Convention)[5]. This instrument consecrated the entitlement of states to a continental shelf on a dual basis. The extension of the legal shelf was defined in Article 1, alternatively, by recourse to the 200-metre isobath, and to the 'exploitability criterion'[6]. Article 2 added that the rights of coastal states over the continental shelf did not depend upon occupation, effective or notional, or on any express proclamation. In the *North Sea* cases, both provisions were deemed to reflect customary law. In respect of delimitation between neighbouring

(5) Convention on the Continental Shelf, adopted by the United Nations Conference on the Law of the Sea, 29 April 1958.

(6) It stated that 'continental shelf' referred "(a) to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas; (b) to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands."

states, the CS Convention used a formula that gave prominence to equidistance between the coasts of the states involved. This provision was seen as not having a customary nature[7].

Under the CS Convention regime, Australia enacted legislation in 1967 that established an 'adjacent zone' going roughly up to the 500-metre isobath on the southern side of the Timor Trough (Petroleum Submerged Lands Act). Later, in October 1970, in response to doubts raised as to the international legality of this act, and making explicit reference to the dicta of the International Court of Justice (ICJ) in the *North Sea* cases, the Australian foreign minister formulated what became known as the Australian theory of the 'two shelves':

> "The rights claimed by Australia in the Timor Sea area are based unmistakably on the morphological structure of the sea-bed. The essential feature of the sea-bed beneath the Timor Sea is a huge steep cleft or declivity called the Timor Trough, extending in an east-western direction, considerably nearer to the coast of Timor than to the northern coast of Australia. It is more than 550 nautical miles long and on the average 40 miles wide, and the sea-bed slopes down on opposite sides to a depth of over 10,000 feet. The Timor Trough thus breaks the continental shelf between Australia and Timor, so that there are two distinct shelves, and not one and the same shelf, separating the two opposite coasts. The fall-back median line between the two coasts, provided for in the Convention in the absence of agreement, would not apply for there is no common area to delimit".[8]

THE AUSTRALIA/INDONESIA 1972 SEABED BOUNDARY TREATY

The Australian 'two-shelves theory' influenced, decisively, the 1972 Australia/Indonesia seabed boundary treaty[9]. The proposition that the Timor Trough represented a separation between the continental shelves of Australia and Indonesia provides perhaps the explanation for the adoption of a boundary located much closer to Indonesia's coast than to that of Australia. The treaty-line does not reflect a strict separation along the Timor Trough, as advocated by the 'two-shelves theory'. What this theory did was to give Australia room to negotiate. The agreed boundary appears to be the result of a 'fall back position' in relation to the 'two-shelves theory' claim – minimally departing from the limit used by Australia in its 1967 legislation.

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(7) North Sea Continental Shelf Cases (F.R. Germany *v.* The Netherlands; F.R. Germany *v.* Denmark), International Court of Justice, Judgment of 20 February 1969, ICJ Rep. 1969, p.4, at paras.63-81.

(8) Australian Yearbook of International Law, 1970-73, pp.145-146. These developments follow a 1953 declaration, which reflected the views advanced by the Truman Proclamation.

(9) Agreement between the Government of the Commonwealth of Australia and the Government of the Republic of Indonesia Establishing Certain Seabed Boundaries in the Area of the Timor and Arafura Seas (Supplementary to the Agreement of 18 May 1971), of 9 October 1972 (hereinafter "1972 Treaty"); the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/AUS.htm.

The 1972 boundary (illustrated in Map 1) runs slightly southwards of the Timor Trough axis, and extends to areas where the rights and interests of what was at the time the Portuguese colony of East Timor required consideration. Hence, the line was interrupted between points A16 and A17, leaving a 'gap' that would become known as the 'Timor Gap'[10]. With the 1972 Treaty, Indonesia implicitly validated the Australian theory of the 'two shelves' (thus accepting the relevance of the Timor Trough for delimitation purposes). It appears clear that the judgment in the *North Sea* cases – to which Australia had referred in 1970 – was at the root of the solution adopted in this treaty[11].

Scholars have used the term 'Timor Gap'; and for that reason only, it will be utilised here. Nevertheless, it is important to stress that the 'gap' defined by the 1972 Treaty is unopposable to the state of East Timor. Juridically, it is *res inter alios acta* (between Australia and Indonesia). The rights and interests of East Timor are therefore protected by the *pacta tertiis* rule[12]. Nothing prevents East Timor from advancing claims extending beyond points A16 and A17. In fact, the possibility that a third state (Portugal, at the time) would claim areas beyond these points was explicitly recognised in Article 3 of the 1972 Treaty[13]:

> The lines between Points A15 and A16 and between Points A17 and A18 […] indicate the direction of those portions of the boundary. In the event of any *further delimitation agreement or agreements* being concluded between governments exercising sovereign rights with respect to the exploration of the seabed and the exploitation of its natural resources in the area of the Timor Sea, [Australia and Indonesia] shall consult each other with a view *to agreeing on such adjustment or adjustments, if any, as may be necessary in those portions of the boundary lines between Points A15 and A16 and between Points A17 and A18*.

THE CONDUCT OF PORTUGAL

To the extent that East Timor was a Portuguese colony until 1975, Portugal's reaction to Australia's 'two-shelves theory' is crucial for understanding the early developments concerning the Timor Sea. To put it briefly, if accepted, the Australian 'two-shelves theory' would mean that the Portuguese territory of East Timor would have no entitlement to continental shelf beyond the Timor Trough. At best, should a seabed boundary be negotiated with Australia, the solution would be

(10) Articles 1 and 2.

(11) Victor Prescott, «Report 6–2(2)», in Jonathan I. Charney and Lewis M. Alexander (eds.) International Maritime Boundaries, London, Martinus Nijhoff Publishers, 1993 (Volumes I and II), 1998 (Volume III), p.1207, at p.1211.

(12) Vienna Convention on the Law of Treaties (VCLT), Articles 34-35.

(13) Emphasis added. Insofar as trijunction points were in question, the reference to an agreement between Australia and Indonesia as to the position of those points is quite natural. The legal validity of trijunction points depends on the agreement of the three states involved.

similar to that of the Australia/Indonesia 1972 Treaty – Portugal would be attributed a small seabed area south of the Timor Trough. This proposition however, was strongly objected to by Portugal – whose conduct is a token of the rejection of the 'two-shelves theory'.

In the late 1960s, the *Oceanic Exploration Company* had approached the Portuguese government to obtain a concession for exploration/exploitation of oil and gas in the continental shelf off the East Timorese coast. Since the area over which the concession was being sought overlapped partially with prior Australian permits, in 1970 Portugal proposed to Australia the opening of formal negotiations on the delimitation of the continental shelf boundary. Australia replied that it preferred to wait for the conclusion of its negotiations with Indonesia, and for the Third United Nations Conference on the Law of the Sea ("UNCLOS III"). Manifesting its opposition to the *Oceanic* request, Australia reasserted its 'two-shelves theory' in a note to Portugal[14].

With the conclusion of the negotiations between Australia and Indonesia, Australia's position was strengthened; the seabed boundary delimited by the 1972 Treaty clearly benefited Australia. Not surprisingly, in 1973, Australia proposed to Portugal the opening of negotiations on the delimitation of the continental shelf. Furthermore, apparently due to the successful outcome of its negotiations with Indonesia, Australia affirmed in July 1973 that it would not accept a boundary running more than 50 nautical miles (M[15]) south of the East Timorese coast. Faced with this position, Portugal endeavoured then to deny Australia's claims any validity *inter partes*. In January 1974, it granted a concession off the coast of East Timor to *Petrotimor*, a company that was to be incorporated by *Oceanic*[16]. The area of this concession overlapped with areas over which Australia had granted permits[17], leading to an Australian protest. A dispute arose as to how delimitation was to be effected. Whereas Australia contended that the notion of natural prolongation entitled it to all

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(14) *East Timor* case, Portuguese Memorial, 18 November 1991, para.7.04.

(15) The symbol "M" is used in the *Système International d'Unités* (International System of Units) to refer to the International Nautical Mile (1852 m). This is the unit of length adopted for purposes of the Law of the Sea (Official Records, Report of the International Law Commission to the General Assembly – Eighth Session, 1956, para.32).

(16) In August 2001, *Oceanic* and *Petrotimor* filed a suit in the Federal Court of Australia, seeking compensation (approximately USD$ 1.0 bn) for the loss of petroleum rights in the Timor Sea, basing their claim on the concession granted by Portugal (cf. *The Sydney Morning Herald*, 23 August 2001, «Damages bid hits Timor Gap talks»; *Reuters*, 22 August 2001, «Oceanic launches Timor Sea legal claim»). In a judgment rendered on 3 February 2003, the Federal Court held that it lacked jurisdiction to entertain the claim. It further noted that, as a matter of 'public policy', since the question revolved around and could interfere in Australia's foreign policy, it should not adjudge on the issue. The text of the judgment can be obtained from http://www.austlii.edu.au/au/cases/cth/FCAFC/2003/3.html (cf. *The Sydney Morning Herald*, 4 February 2003, «Timor oil hearing ruled out by court»; *The Australian*, 3 February 2003, «Court dismisses $2bn claim»).

(17) Cf. supra n.14, sketch-map at p.198.

areas south of the Timor Trough, Portugal argued that, because the two states were parties to the CS Convention, Article 6 would apply – which meant that the seabed delimitation should be primarily based on equidistance. Hence, Portugal declined to enter into negotiations on continental shelf delimitation, stating that it would be preferable to wait for the results of UNCLOS III in this regard.

An essential point here is whether, at the time, Portugal held a continental shelf entitlement beyond the Timor Trough. Under the CS Convention, such an entitlement would have to be based on one of two criteria: the 200-metre isobath; the exploitability criterion. Because the 200-metre isobath off East Timor runs on average at some 2.5 M from the coast, and because at the time exploitation certainly could not be carried out at depths of over 2,000 metres, the Portuguese entitlement beyond the Timor Trough was at first glance legally non-existent. Such an approach however, is perhaps too simplistic.

Ambassador Pardo's 1967 speech in the United Nations had shown that the exploitability criterion would sooner or later render the whole of the oceans susceptible to appropriation by coastal states. Under the CS Convention, this meant that the oceans would eventually be divided on the basis of equidistance. By the late 1960s, states were perfectly aware of this issue. A map used by Germany in the 1969 *North Sea* cases – depicting the North Atlantic Ocean divided on the basis of equidistance – is a paradigmatic illustration[18]. At the time, already, little or no doubt remained as to the future capacity of states to exploit all oceanic areas, regardless of depth. In effect, the driving force behind the process that led to the 1982 United Nations Convention on the Law of the Sea (LOSC) was an attempt to somehow limit the maritime claims of states.

In this light, an entitlement based on distance was a foregone conclusion. It also seemed clear that such an entitlement would extend much further than the territorial sea. Taking this into consideration, the existence of a Portuguese entitlement beyond the Timor Trough was not a question of *if*, but *when*. One would suggest that this was the reason why Australia sought to push forward with the boundary negotiations. It negotiated with Indonesia first because its chances of success were greater – as at time Indonesia perhaps sought to be recognised as a stable, reliable neighbour, worthy of 'going into business' with. Aware of the 'disadvantaged' position in which it had been put by the 1972 Treaty, Portugal exercised a prerogative inherent in *jus tractuum*: the

(18) *North Sea* cases, ICJ Pleadings 1968(1), pp.34, 66-67.

choice of the timing to negotiate. In a way anticipating the changes in international law, Portugal declined to negotiate in the aftermath of the agreement with Indonesia, and showed clear unwillingness to accept a boundary flowing from rapidly evanescent entitlement criteria[19].

The fact that the limits of the Portuguese concession to *Petrotimor* are based on equidistance is further evidence of the Portuguese standpoint. In this regard, attention must be drawn to one key fact: these limits purposely avoid connecting with points A16 and A17 (of the 1972 Treaty), thus denying the treaty-line – and the 'Timor Gap' – any sort of recognition. The concession-area hardly extends beyond equidistance (the exception are two extremely small areas). Its limits were defined as comprising only a part of East Timor's continental shelf, and as being subject to adjustments resulting from international accords[20]. This aspect must be seen in contrast to the limits of the grant requested by *Oceanic*, which clearly extends beyond equidistance: laterally, it appeared to follow perpendiculars to the general direction of East Timor's coast; frontally, three zones were considered – extending approximately up to the 200-metre isobath off Australia, the equidistance-line, and a line running on average at a distance of 180-odd M off East Timor's coast. This discrepancy between *Oceanic*'s request and the concession granted is further evidence of Portugal's application of the principles set down in Article 6 of the CS Convention.

What the Portuguese conduct ultimately reveals is a rejection of Australia's claim to the whole of the continental shelf south of the Timor Trough[21]. In light of the 1970s changes in international affairs concerning the law of the sea, Australia's claim amounted to an attempt to acquire maritime areas which would not belong to it in the future. In the *East Timor* case, Australia

(19) Lowe, Carleton and Ward argue that "Australia's position in the 1970s was not necessarily consistent with the jurisprudence of the [ICJ] in the North Sea Continental Shelf cases" – for "the ICJ determined that although the concept of natural prolongation of the physical continental shelf was fundamental, the result of any delimitation must take into account considerations of equity and fairness". They note that "[t]he manifest inequity and unfairness of Australia, with its entitlement to vast maritime zones around its coasts, forcing the continental shelf entitlement of Portugal / East Timor into a narrow strip north of the Timor Trough, explains the failure of Portugal to agree to the position upon which Australia insisted at that time". Cf. Vaughan Lowe, Christopher Carleton and Christopher Ward, «Opinion in the Matter of East Timor's Maritime Boundaries», 11 April 2002, communiqué from Petrotimor (22 April 2002), in http://www.ga.com/Timor_Site/leglop.html (text obtained on 05 August 2002), para.12. This view implicitly assumes the existence of an overlapping of entitlements at that time – i.e. "a single physical shelf to be divided between Portugal and Australia" (ibid. para.10). In effect, as the 1972 Treaty delimits a shelf boundary that runs south of the Timor Trough, it might be suggested that it entails the recognition that this geomorphological feature does not by itself determine the non-existence of an Indonesian entitlement beyond it.

(20) For the concession limits, cf. Decree No.25/74, of 31 January 1974, Article 2(1)(2)(3), published in Portugal's official journal (*Diário da República*, I Série, No.26, p.142). The concession contract, and a map (p.158), are included in this instrument.

(21) Lowe, Carleton and Ward observe that "Portugal appears to have taken the position that the Timor Trough was not such a geologically significant feature in this context as to divide the seabed in the Timor Sea into two separate continental shelves, north and south". Cf. Lowe, Carleton and Ward, supra n.19, para.10..

contended that the negotiations with Portugal on continental shelf delimitation did not take place for "it proved difficult to interest the then Portuguese Administration in the issue" (arguably due to its general indifference to East Timor)[22]. This contention is clearly contradicted by the events above. In effect, as recognised in a 2000 Report of the Australian Senate on East Timor, the negotiations between Australia and Portugal on a seabed treaty "failed at that time because Portugal argued for a boundary along the mid-line between Australia and Portuguese Timor"[23]. Portugal did not act indifferently. Its conduct shows that it sought to deny the Australian 'two shelves' theory any recognition (thereby preserving East Timor's future rights to its continental shelf areas). The fact that Portugal was unwilling to negotiate with Australia is explicable by the unfavourable context created by Indonesia's approach to the problem embedded in the 1972 Treaty.

THE 1989 AUSTRALIA/INDONESIA TREATY ('TIMOR GAP TREATY')

The political framework in which the 1989 Australia/Indonesia treaty (Timor Gap Treaty)[24] emerged inevitably entails references to the 'attempted' and unfinished process of decolonisation of East Timor, and the subsequent Indonesian occupation of this territory[25]. These two aspects are essential for contextualising the said treaty.

In 1979, following the Indonesian occupation, Australia and Indonesia started negotiations to 'fill the gap' in the seabed boundary left by the 1972 Treaty. Apparently, the initial purpose was simply to complete the boundary. The two states were however unable to agree on a delimitation line. By then, Indonesia had realised how prejudicial it had been to negotiate in the aftermath of the *North Sea* cases (which had placed the notion of natural prolongation at the centre of continental shelf delimitation[26]). This became clear in the words of the Indonesian foreign minister, who had

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(22) *East Timor* case, Australian Counter-Memorial, 1 June 1992, para.384.

(23) «Senate Committee Report on East Timor – 7 December 2000», by Laurie Brereton, MP (Unanimously approved), Paragraph 4.15., in http://www.aph.gov.au/senate/committee/fadt_ctte/East%20Timor/c04.doc (obtained on 20 November 2001).

(24) Treaty between Australia and the Republic of Indonesia on the Zone of Cooperation in an area between the Indonesian Province of East Timor and Northern Australia [Timor Gap Treaty], 11 December 1989 – hereinafter "Timor Gap Treaty"; the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/AUS.htm.

(25) For an overview of the Portuguese decolonisation process of East Timor, and the Indonesian occupation, cf. Miguel Galvão Teles, «Timor Leste», in *Dicionário Jurídico da Administração Pública*, 2º Suplemento, Lisboa, p.569, at pp.588-599. After the Indonesian occupation, *Oceanic* addressed the Portuguese Government in 1976, stating that it was unable to continue its activities; and it requested a suspension of its obligations by *force majeure*. This suspension was granted a few months later.

(26) The use of the notion of natural prolongation as the basis for delimiting continental shelf boundaries is questionable. Rather than a standard for the delimitation of continental shelf boundaries, this notion was – even at the time – related to the question of entitlement. As argued

been the principal member of the 1971-1972 Indonesia negotiating team. As he stated in December 1978, Australia had "taken Indonesia to the cleaners"[27]. The question is not one of wrongdoing. It simply means that the timing of the 1971-1972 negotiations clearly favoured the Australian position; and to Indonesia, at the time, the 1972 Treaty might have appeared as a balanced compromise.

In the negotiations of the Timor Gap Treaty, Australia continued to assert its entitlement to a continental shelf up to the Timor Trough. Appealing to the developments that had in the meantime taken place in UNCLOS III, Indonesia claimed by then a 200-mile entitlement. The unsuccessful negotiations on delimitation evolved to the establishment of a Zone of Cooperation, based on joint development. The Timor Gap Treaty dealt with the allocation of rights over hydrocarbon resources in the area of overlapping of claimed-entitlements. The Zone of Cooperation (Map 1) was divided into three areas (C, A, and B, from north to south). Its northern limit (the northern limit of Area C), following roughly the axis of the Timor Trough, is based on the Australian-claimed entitlement. The southern limit of Area C, and northern limit of Area A, runs close to the 1500-metre isobath, and is based perhaps on an Australian delimitation-claim. The southern limit of Area A, and northern limit of Area B, is the equidistance line, which corresponds to the Indonesian delimitation-claim. The southern limit of Area B and of the Zone of Cooperation follows the Indonesian-claimed entitlement; it is the 200-mile limit from East Timor. Laterally, southwards of the 1972 boundary, the eastern and western limits are lines of equidistance. Northwards of the 1972 boundary, the limit-lines appear to be pragmatic solutions.

The Timor Gap Treaty has caught the attention of many scholars. In some cases, it has been introduced as a comprehensive 'model' for allocation of rights concerning hydrocarbon resources in disputed maritime areas, i.e. where the entitlements of states overlap[28]. Without questioning how thoroughly devised the joint development regime of the treaty is, troubling questions emerge as to the spatial allocation of continental shelf rights. Why Indonesia accepted in 1989 an area of 50/50

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elsewhere, the conceptual approach of the ICJ in this respect may be open to question – cf. Nuno Antunes, *Towards the Conceptualisation of Maritime Delimitation: Legal and Technical Issues of a Political Process*, PhD Thesis, University of Durham (UK), 2002, unpublished, para.2.3.c).

(27) *The Sydney Morning Herald*, 21 December 1978, «Boundary threat to seabed leases».

(28) W. T. Onorato and M. J. Valencia, «International Co-operation for Petroleum Development: the Timor Gap Treaty», 5 ICSID Review: FILJ (1990) 1; W. T. Onorato and M. J. Valencia, «The New Timor Gap Treaty: Legal and Political Implications», 15 ICSID Review: FILJ (2000) 59; Victor Prescott, «Report Number 6-2(5)», in Charney and Alexander (eds.) supra n.11, p.1245; H. Burmester, «The Zone of Co-operation between Australia and Indonesia: A Preliminary Outline with Particular Reference to Applicable Law», in Hazel Fox (ed.) *Joint Development of Offshore Oil and Gas – Volume II*, London, BIICL, 1990, p.128.

revenue-split, lying fully to the north of the equidistance-line, is difficult to explain in legal terms. It is so because, in 1985, the ICJ averred the irrelevance of geological and geomorphological factors (which underlay the 'two-shelves theory') in delimitations between states whose coasts lie less than 400 M apart[29]. With it, Australia's theory had been greatly weakened.

Today, there is good reason to suggest that this treaty embodies a solution that stems from considerations that were political, rather than legal. *Realpolitik* in its purest form, one could argue. For Indonesia, the Timor Gap Treaty was a *quid pro quo* whereby it obtained the *de jure* recognition of its sovereignty over East Timor from its most influential neighbour. For Australia, this treaty represented an open door to exploiting the hydrocarbon wealth in the Timor Sea, which could have been otherwise impossible. As Australia argued in the *East Timor* case, Indonesia was the state that held actual and effective control over East Timor, and the Timor Gap Treaty allowed it to exercise the rights that it had long claimed in the Timor Sea[30].

The Timor Gap Treaty was protested by Portugal, which claimed that it continued to be the *de jure* administering power of East Timor. It was on the basis of this argument that Portugal seized the ICJ of a dispute against Australia. According to the Portuguese Application, by entering into the Timor Gap Treaty, Australia had *inter alia* infringed upon the right of the people of East Timor to self-determination and the related rights[31]. The Court considered that it lacked jurisdiction to deal with the matter – because Indonesia was not a party to the case and its conduct was in question, and that, accordingly, it could not rule on the merits of the case. Notwithstanding this, from a political perspective, it is noteworthy that the ICJ reaffirmed that East Timor remained a non-self-governing territory, and that its people had the right to free self-determination – which was then declared an *erga omnes* right.

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(29) Case Concerning the Continental Shelf (Libyan Arab Jamahiriya *v*. Malta) – hereinafter *Libya/Malta* case, International Court of Justice, Judgment of 3 June 1985, ICJ Rep. 1985, p.13, at paras.39-40.

(30) Cf. supra n.22, paras.350-412. Whether Australia's argument is legally valid, and whether the ICJ could have ruled on this issue without having to examine Indonesia's conduct, leads to a lengthy and controversial debate that, for reasons of brevity, cannot take place here.

(31) This approach reflected the principle of international law *nemo plus juris transferre potest quam ipse habet* (one does not have the power to transfer what one does not possess). Portugal claimed that Australia could not deal with Indonesia. First, Indonesia could not dispose of any rights concerning East Timor, because sovereignty was not vested in it. Secondly, since the annexation of the territory through the use of force had been unlawful, it could not be recognised under international law. Thirdly, the right to self-determination of the East Timorese people was valid *erga omnes* and any treaties involving related rights would be invalid without the consent of the East Timorese people.

THE EXCHANGE OF NOTES OF 10 FEBRUARY 2000

After the dramatic events that followed the 1999 referendum, a transitional administration was set up by the United Nations. Its functions were established by Security Council Resolution 1272 (1999). When United Nations Transitional Administration in East Timor (UNTAET) took over, a pressing matter had to be dealt with: the ongoing petroleum exploration, exploitation and production in the Timor Sea. These activities relied on the legal framework created by the 1972 Treaty and the Timor Gap Treaty. Since Indonesia had accepted that by withdrawing from East Timor it was also withdrawing from the Timor Gap Treaty, it could be said that the 'gap' was again open. Most importantly, the validity of the leases that had been issued on the basis of this treaty – either inside, or outside, the Zone of Cooperation – was open to question; in particular if, legally, East Timor is seen as not emerging as a successor to Indonesia.

Acting on behalf of East Timor on the basis of the powers conferred upon it by Resolution 1272, UNTAET concluded an agreement with Australia by Exchange of Notes, providing for *the continuity of the terms of the Timor Gap Treaty*[32]. A number of points must be stressed here. First, the agreement did not amount to the continuation of the Timor Gap Treaty; only the regime thereof was continued. Secondly, the agreement was valid for the transitional period only; its effects ceased on East Timor's independence. Thirdly, the agreement stated explicitly that it was "without prejudice to the position of the future government of an independent East Timor with regard to the Treaty". Finally, it also affirmed that in agreeing to continue the arrangements under the terms of the Timor Gap Treaty, "the United Nations [did] not thereby recognise the validity of the 'integration' of East Timor into Indonesia". Realism once more shaped the way forward in the question of resources in the Timor Sea. In all fairness however, it must be recognised that it is hard to imagine how another path could have been taken.

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(32) Exchange of Notes of 10 February 2000 constituting an Agreement between the Government of Australia and the United Nations Transitional Administration in East Timor (UNTAET) concerning the continued Operation of the Treaty between Australia and the Republic of Indonesia on the Zone of Cooperation in an Area between the Indonesian Province of East Timor and Northern Australia of 11 December 1989 (with effect from 25 October 1999) – hereinafter "2000 Exchange of Notes"; the text can be obtained from http://www.un.org/Depts /los/LEGISLATIONANDTREATIES/STATEFILES/AUS.htm. On this agreement, cf. Onorato and Valencia (2000), supra n.28, pp.74-79.

THE 2001 ARRANGEMENT

The 2000 Exchange of Notes applied from 25 October 1999 until the independence of East Timor, which occurred on 20 May 2002. From the outset, it became clear to UNTAET that the problem of management of hydrocarbon resources in the Timor Sea beyond the day of independence had to be resolved in advance. This was the subject of the negotiations between Australia and the East Timorese Transitional Administration in 2000 and 2001. On 5 July 2001, Australia and East Timor signed an MOU to which is attached the Timor Sea Arrangement[33]. Since the Transitional Administration could not bind the state to be to its acts, the said MOU was devised mainly as a *pacto de contrahendo*: the two parties agreed to agree in the future. Politically, the legitimacy of this MOU was based on the fact that it was co-signed by Mari Alkatiri, member of the transitional cabinet and leader of Frentilin (thought to be the largest political party, expected to win the elections for the East Timorese parliament), and the fact that the negotiating process was to some extent conducted in consultation with other East Timorese personalities[34].

On the East Timorese side, the position expressed publicly by the members of the transitional cabinet who co-headed the East Timorese delegation, Mari Alkatiri and Peter Galbraith, was that the 1989 Treaty was null and void. Consequently, unless an agreement would be reached to enter into force after independence, a legal vacuum would exist in the Timor Sea thereinafter. Practically speaking, as far as East Timor was concerned, geographically, there would be a 'blank sheet'. All lines that had previously been agreed between Australia and Indonesia were unopposable to East Timor. In summary, the key points in the negotiations were: (1) the 1989 Treaty is null and void, and there was no question of renegotiating a treaty; and (2) the 1972 boundary is not binding upon East Timor. There were thus two questions to be addressed. In terms of the 'frontal boundary-line', East Timor claimed rights up to the equidistance line; as to the lateral limits, it did not recognise any limitative effect to the 1972 boundary, in terms of East Timorese claims[35].

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(33) The Timor Sea Arrangement is incorporated as Attachment A to the Memorandum of Understanding signed between Australia and the East Timor Transitional Administration (ETTA), of 5 July 2001 – hereinafter "2001 Arrangement"; the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/AUS.htm.

(34) Amongst the East Timorese personalities who, to some extent or another, had access to the developments in the negotiating process are, for example, Xanana Gusmão (currently President of East Timor), and Ramos Horta (currently Minister for Foreign Affairs).

(35) Peter Galbraith, Speech in the 2001 APPEA Conference & Exhibition, Hobart – Tasmania (9 April 2001), in http://search.aph.gov.au/search/ParlInfo.ASP?action=view&item=63&resultsID=1OiyoT (text obtained on 22 October 2001); *The Sydney Morning Herald*, 21

The Australian negotiating position remained virtually unchanged. Australia continued to claim an entitlement up to the Timor Trough – based on historical and geomorphological aspects. Above all, Australia's statements revealed its unwillingness to negotiate maritime boundaries with East Timor in the near future, or indeed to alter in any way the spatial framework that it had agreed with Indonesia.

The fundamental problem for Australia today concerns the political reaction that Indonesia might have should Australia accept a boundary with East Timor differing substantially from the 1972 boundary. Yet again, the driving force in the spatial allocation of continental shelf rights in the Timor Sea was *realpolitik*. The predicament was clearly recognised in the 2000 Australian Senate Report. As Gillian Triggs (Faculty of Law, University of Melbourne) has put it, speaking from an Australian standpoint, "[t]here is no doubt Indonesia will feel quite aggrieved if we have unequal boundaries in certain areas with Indonesia and we suddenly blow the boundary out and make a more equidistant one in relation to East Timor"[36]. This is the reason why Australia publicly affirmed that its intention was to take as the basis for discussion with East Timor the Timor Gap Treaty.

This analysis does not deal with the joint development regime of the 2001 Arrangement in detail[37] (or that of the Timor Sea Treaty for that matter, which for all practical purposes is no more than a revised version of the former[38]). Its key elements may nevertheless be summarised in broad strokes. Geographically speaking, this instrument applies to an area designated as the Joint Development Petroleum Area (JPDA) – which corresponds to Area A of the Zone of Cooperation of the Timor Gap Treaty (Map 2). As to duration, it is established that the agreement will be in force until there is a permanent seabed delimitation between East Timor and Australia, or for 30 years

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June 2000, «Timor deal set to deliver windfall for Dili»; *Reuters*, 26 June 2000, «E.Timor seeks mid-way boundary with Australia»; *New York Times*, 19 October 2000, «A tonic for East Timor's poverty»; *The Sydney Morning Herald*, 10 April 2001, «UN Talks Tough Line on Timor Gap Negotiations»; *The Sydney Morning Herald*, 28 April 2001, «East Timor Eyes Off Oil's Billions»; *The Sydney Morning Herald*, 3 May 2001, «Pressure Mounts for New Accord on Seabed Carve-up». By a declaration read on the day of independence, East Timor restated its right to negotiate its boundaries *ex novo*; cf. *Herald Sun*, 21 May 2002, «Oil Row Spoils Timor's Party».

(36) *Senate Report*, supra n.23, para.4.15.; *Reuters*, 6 October 2000, "Australia seeks to avoid East Timor border dispute".

(37) For an analysis of the 2001 Arrangement, cf. David M. Ong, «The New Timor Sea Arrangement 2001: Is Joint Development of Common Offshore Oil and Gas Deposits Mandated under International Law?», 17 IJMCL (2002) 79, at pp.94-103. Nevertheless, some issues will be incidentally mentioned in the second part of this article.

(38) Comparing with the 2001 Arrangement, the following differences can be identified in the Timor Sea Treaty: a new Annex G, a "Taxation Code for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion in Respect of Activities Connected with the Joint Petroleum Development Area"; the alteration in the unitisation apportionment under Annex E, which instead of 20/80 (JPDA/Australia) is now 20.1/79.9; a few new definitions in Article 1 (e.g. contractor, Production Sharing Contract); several other minor textual changes.

from the date of its entry into force, whichever is sooner[39]. In terms of resource-sharing, although it is stated that East Timor and Australia shall have title to all petroleum produced in the JPDA, 90% of the petroleum shall belong to East Timor, and 10% to Australia. The administrative and management structure consists of a three-tiered structure (unlike the Timor Gap Treaty, which had a two-tiered structure). The three bodies are the *Designated Authority* (DA), the *Joint Commission* (JC), and the *Ministerial Council* (MC). The competences for running the day-to-day activities in the JPDA are conferred on the DA, which, after a transitional period of 3 years (unless otherwise agreed between Australia and East Timor), will be the East Timorese Ministry responsible for petroleum activities (or an authority to which competences are delegated). Policy-making and regulation on petroleum activities, and control thereof, fall within the sphere of the JC, East Timor having in it one more appointee than Australia. The MC appears at the apex as a 'political body of appeal'; matters are to be referred to it before having recourse to the dispute resolution procedure based on arbitral proceedings incorporated in the treaty. Basic aspects of unitisation of the Greater Sunrise (including the Sunrise, Sunset and Troubadour fields) are also laid down – *inter alia*, it is stated that the production "shall be distributed on the basis that 20% is attributed to the JPDA and 80% is attributed to Australia"[40]. Provisions on the petroleum mining code and fiscal scheme are also very basic, and leave most issues open to future negotiation – while to some extent allowing for interim and case-by-case solutions. Pipelines, a matter concerning the transportation and marketing of natural gas, are also objects of specific treatment. Other provisions refer to the marine environment, employment, health and safety for workers, taxation law, criminal jurisdiction, quarantine and migration, hydrographic and seismic surveys, customs, petroleum industry vessel-safety, operating standards and crewing, surveillance, security measures, search and rescue, and air traffic services.

(39) The 30-year duration seems to correspond roughly to the 40-year initial duration of the 1989 Treaty, subtracted of the 10 years in which that Treaty was applied.

(40) Annex E to the 2001 Arrangement, paragraph a). The way in which Annex E deals with unitisation is surprising, to say the very least, when considering the typical contents of unitisation agreements. While stating that the 80% of production outside the JPDA belongs to Australia, it affirms also that this "shall be without prejudice to a permanent delimitation of the seabed between East Timor and Australia" – paragraph c), thus implying that, potentially, this allocation of resources can be dramatically altered by a continental shelf delimitation. This provision, however, appears to be *de facto* cancelled by paragraph d) – second part; which applies to cases in which a production sharing contract is agreed, or a license or a permit is granted, on the basis of the said 80/20 apportionment. For further comments, cf. text before and after n.104.

RECENT DEVELOPMENTS – THE TIMOR SEA TREATY

To understand the contents of the 2001 Arrangement, which are essentially those of the Timor Sea Treaty, two constraining factors must be considered. Firstly, there was a time-constraint. The initial objective was to have an accord ready to enter into force by the date of East Timor's independence (which virtually turned a delimitation agreement into an impossible task). For another, there was the need to consider the existence of ongoing petroleum activities in the Timor Sea. If agreement were not reached, there would be no legal framework for these activities. No doubt, realism shaped the 2001 Arrangement. Perhaps no other agreement was possible. Neither was Australia willing to spatially re-shape the jurisdictional framework of the Timor Sea; nor was East Timor in a position to reject an agreement based on the notion of joint development – for this could be interpreted in ways that would jeopardise its credibility as 'partner' in the petroleum investments in the area, and could dramatically delay access to much needed petroleum revenues.

Recent developments have shown that the 2002 Timor Sea Treaty is far from overcoming all difficulties. The raw reality surrounding the Timor Sea dispute has exposed the shortcomings of a treaty that, for various reasons, will not work efficiently if not backed up by strong political will, and no doubt compromise, on both sides – though this goes for any transboundary resource management scheme. As far as spatial allocation of continental shelf rights is concerned, the predicament remains in some measure unresolved. The problem is the following: should the seabed boundary between Australia and East Timor be delimited strictly on the basis of international law, the boundary will almost inevitably run to the south of the Australia/Indonesia 1972 boundary, and might even extend beyond the lateral limits of the 1989 Zone of Cooperation. Legally, Indonesia cannot question the 1972 boundary. What allegedly concerns Australia however, is not a legal problem; it is the possible political reaction of Indonesia in relation to boundaries that, when compared with the prior Australia/Indonesia situation, would clearly favour East Timor.

The fact that Australia has redefined its stance as to the jurisdiction of international judicial fora, the fact that the 2001 Arrangement did not enter into force on 20 May 2002, and the fact that East Timor continues to insist on delimiting its maritime boundaries with Australia, all suggest that the question of spatial allocation of continental shelf rights in the Timor Sea is far from being settled.

On 21 March 2002, Australia issued two declarations on the question of jurisdiction[41]: one is concerned with Articles 287 and 298 of the LOSC; the other is concerned with the 'optional clause' of Article 36 of the Statute of the ICJ. In essence, these declarations demonstrate that Australia has sought to avoid any litigation on maritime boundaries or on any issues concerning the spatial allocation of continental shelf rights in the Timor Sea[42]. Declaring the acceptance of the jurisdiction of the International Tribunal for the Law of the Sea (ITLOS) and of the ICJ, the former declares *inter alia* that, under Article 298(1)(a) of the LOSC, Australia "does not accept any of the procedures provided for in section 2 of Part XV […] with respect of disputes concerning the interpretation or application of articles 15, 74 and 83 relating to sea boundary delimitations". The latter replaces Australia's 1975 declaration, and restricts further the jurisdiction of the ICJ under the 'optional clause', excluding today, in particular:

> any dispute concerning or relating to the delimitation of maritime zones, including the territorial sea, the exclusive economic zone and the continental shelf, or arising out of, concerning, or relating to the exploitation of any disputed area of or adjacent to any such maritime zone pending its delimitation.

Not surprisingly, Australia's move – which clearly targets the situation in the Timor Sea[43] – has caused strong reactions on the East Timorese camp. Reportedly, prime-minister Mari Alkatiri has stated that Australia had "committed an unfriendly act", which was "a sign of a lack of confidence" in East Timor. He also added that East Timor was prepared to ratify the 2001 Arrangement on 20 May 2002, but that this agreement "should not compromise East Timor's position as far as maritime frontiers go"[44].

On 20 May 2002, the Timor Sea Treaty did not enter into force. Nor was it agreed to apply its regime on a provisional basis. Instead, the two states agreed that, pending its entry into force, the exploration and exploitation of petroleum in the JPDA "shall take place in accordance with the

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(41) Cf. Media Release of the Australian Department of Foreign Affairs and Trade (DFAT), Media Release, 25 March 2002 (http://www.foreignminister.gov.au/releases/2002/fa039j_02.html).

(42) Whether Australia has successfully achieved its goal is a much more complex issue, which for reasons of brevity will not be discussed here.

(43) Australia's official position is presented in general terms. Australia argues that maritime boundary disputes are "best settled by negotiation rather than litigation"; cf. statement by DFAT, supra n.41. However, there is little doubt that Australia's mention of disputes "relating to the exploitation of any disputed area of or adjacent to any such maritime zone pending its delimitation" concerns the Timor Sea. Not only does this description fully fit the situation in the Timor Sea, but it also is clear that there is no other area that fits such a description.

(44) *Upstream*, 24 March 2002, «Testing times in Timor Gap", and «Canberra muddies the waters»; *The Sydney Morning Herald*, 13 April 2002, «Canberra's 'unfriendly act' over gas field irks Timorese»; *Finance.News.com.au*, 12 April 2002, «Doubt on Timor Gap treaty».

arrangements in place on 19 May 2002"[45]. Provisions were nevertheless made for the maintenance of the 90/10-split of revenues. In addition, the parties signed an MOU establishing that they would work expeditiously and in good faith to conclude an unitisation agreement concerning the Greater Sunrise by December 2002, and to satisfy the respective requirements for the entry into force of the Timor Sea Treaty[46]. Hitherto, neither has the controversy concerning the unitisation of the Greater Sunrise been unresolved[47], nor has the Timor Sea Treaty entered into force.

The Report of the Australian Parliament on the Timor Sea Treaty, although recommending that "binding treaty action be taken", has also recommended that the Australian government "use its best endeavours in accordance with the Memorandum of Understanding signed in Dili on 20 May 2002 to conclude the International Unitisation Agreement for the Greater Sunrise fields on or before the date on which the Timor Sea Treaty is ratified and in any event before 31 December 2002"[48].

In respect of this recommendation, it might be debated whether it breaches the obligation undertaken by Australia "to work expeditiously and in good faith" to satisfy its requirements for the entry into force of the Timor Sea Treaty[49]. The answer is not straightforward. One view expressed during the hearings that led to the Report on the Timor Sea Treaty was that delaying the ratification of this Treaty pending the unitisation agreement on the Greater Sunrise "would be against the terms and the spirit of the 20 May Exchange of Notes and Memorandum of Understanding". Another view was that ratifying the Treaty separately to that agreement could lead to "undesirable outcomes for the Greater Sunrise participants and the Australian national interest", for East Timor could allow the negotiations on unitisation to drag to extract more value out of the agreement[50].

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(45) Exchange of Notes Constituting an Agreement between the Government of the Democratic Republic Of East Timor and the Government of Australia Concerning Arrangements for Exploration and Exploitation of Petroleum in an Area of the Timor Sea between East Timor and Australia; the text can be obtained from http://www.austlii.edu.au/au/other/dfat/special/etimor/Treaty-Exchange_of_Notes.html.

(46) Memorandum of Understanding between the Government of Australia and the Government of the Democratic Republic of East Timor concerning an International Unitisation Agreement for the Greater Sunrise field; the text can be obtained from http://www.austlii.edu.au/au/other/dfat/special/etimor/MOU-EastTimor_17_May_02.html. As to the location of the Greater Sunrise, see Map 3.

(47) Cf. supra n.40; also infra n.104, and corresponding text.

(48) Parliament of the Commonwealth of Australia, *Report 49* – The Timor Sea Treaty, Joint Standing Committee on Treaties, November 2002, pp.35-36; the text can be obtained from http://www.aph.gov.au/house/committee/jsct/timor/index.htm.

(49) Exchange of Notes of 20 May 2002, supra n.45, para.9; MOU on the Unitisation of the Greater Sunrise, of 20 May2002, supra n.47, para.2. It has been reported that Australia and East Timor officials appear to be miles apart in their interpretation of what the provision in questions is supposed to achieve (*The Australian*, 16 December 2002, «Bid to save Sunrise»).

(50) *Report 49*, supra n.48, pp.34-35, paras.4.53.-4.57..

In strict legal terms, one would suggest that, insofar as the obligation to work expeditiously and in good faith to ratify the Timor Sea Treaty was in no way conditioned to an agreement on unitisation, the delaying of the entry into force of the former until the latter is finalised amounts to a breach of the said obligation. The reality is that the Treaty was not ratified by Australia before 31 December 2002, and that press reports say that Australian government sources have linked the non-ratification with the inexistence of an agreement on unitisation[51] – which has led East Timor to question Australia's stance on the issue[52].

Despite the progress made, the 'tension' between the two parties over the development of the resources has remained. In his first speech to the East Timorese parliament after the independence, prime-minister Alkatiri reaffirmed that the treaties signed under no circumstances could be seen as having resolved the seabed boundaries problem, that such treaties were without prejudice of the delimitation of such boundaries, and that East Timor would utilise all instruments and international mechanisms at its disposal to seek a solution[53]. More recently, East Timor has asserted its claims over areas of the Timor Sea outside the JPDA – which not only involves the Greater Sunrise, but might also raise questions as regards important fields lying westwards of the JPDA (e.g. Laminaria, and Corallina)[54]. There is little doubt that the situation is in somewhat of an impasse: whereas East Timor seems to want to delimit its maritime boundaries (if necessary by recourse to third party settlement), Australia is far from willing to deal with maritime delimitation – as appears to have been publicly stated by the Australian Minister for foreign affairs[55].

The legislation on maritime zones passed by East Timor – in which a 200-mile EEZ and continental shelf is claimed[56] – is to be contextualised in this light, and it provides further signs that

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(51) *The Australian*, 12 December 2002, «Timor Sea deadline let slip». There seems to be little doubt now that Australia has decided to link the ratification of the Timor Sea Treaty to the Greater Sunrise unitisation agreement in order to increase its bargaining power – *The Sydney Morning Herald*, 11 February 2003, «NT offers to help save E Timor gas deal».

(52) *Go Asia-Pacific* (report by ABC Radio Australia News), 12 February 2003, «E-Timor PM question Canberra's veracity in oil talks» (http://www. goasiapacific.com/news/GoAsiaPacificBNA_782195.htm).

(53) *Herald Sun*, 21 May 2002, «Oil row spoils Timor's party»; *News.com.au*, 21 May 2002, «Oil and gas cut far from settled».

(54) *The Australian*, 03 June 2002, «Walking an oily tightrope over a melting pot»; *Xinhua News Agency*, 17 June 2002, «Australia-East Timor boundary dispute looms»; *The Australian*, 18 June 2002, «East Timor to extend sea oilfield»; *The Sydney Morning Herald*, 18 June 2002, «Timor stakes claim for bigger slice of gas field».

(55) *The Australian*, 25 May 2002, «Downer rules border changes out of bounds»; *Herald Sun*, 25 May 2002, «Downer rules border changes out of bounds».

(56) The map attached to East Timor's legislation on maritime zones (Law 7/2002, of 20 September – the Portuguese text can be obtained from http://www.gov.east-timor.org/pageLei7.htm), referring to the "limits of the territorial sea, EEZ and continental shelf before applying Article

many jurisdictional issues remain undecided[57]. In effect, the difficulties are such that, today, very innovative solutions are being sought. For instance, East Timor has unveiled a proposal on the basis of which Australia would secure a strong role as regards the exercise of jurisdiction over aspects such as drug smuggling, immigration, security, maritime surveillance, illegal fisheries, piracy and security, in exchange for the attribution to East Timor of a share of hydrocarbon resources located in areas outside the JPDA[58]. Yet again, the political equilibrium appears to being shaped on the basis of peculiar solutions, which emerge as a political response to an equally peculiar historical-political-legal context.

That there are different understandings on how to approach this matter is clear in the Minority Report of Senator Bartlett included in the Report of the Australian Parliament on the Timor Sea Treaty. It is suggested therein, first, that Australia and East Timor should negotiate a definitive time frame, not exceeding five years, in which the seabed boundaries between the two countries will be delimited, and agree to refer their competing claims to the ICJ in the event that a fair agreement cannot be reached; and secondly, that, in negotiating the new Treaty, consideration be given to a requirement that all of Australia's revenue, together with 40% of East Timor's revenue, from petroleum resources within the JPDA be placed in a denominated interest bearing escrow account, pending the determination of the seabed boundaries.[59]

III. MARITIME DELIMITATION AND JOINT DEVELOPMENT

PRELIMINARY THOUGHTS

A detailed analysis of all legal issues entangled in the spatial allocation of continental shelf rights in the Timor Sea is well beyond the scope of this article. The following analysis only focuses

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33 of the Charter of the United Nations", represents both the 12-mile and the 200-mile limits 360º all around East Timor, i.e. the limit of the potential maritime entitlements of East Timor.

(57) *ABC News On-Line*, 12 July 2002, «East Timor is staking a maritime boundaries claim that takes in oil and gas deposits and fishing zones in Australian waters»; *WorldOil.com*, 12 July 2002, «DILI: Parliament passes claim to Sunrise»; *RIGZONE.com*, 12 July 2002, «East Timor and Australia Make Overlapping Claims in Timor Sea»; *The Australian*, 13 July 2002, «Timor leaves a gap in marine demands».

(58) *The Australian*, 30 July 2002, «Gas-field revenue plan»; *WorldOil.com*, 31 July 2002, «SYDNEY: East Timor offers gas-for-security deal»; *Dawn*, 01 August 2002, «Australia mulls over gas-for-security deal with East Timor». In fact, it might be in Australia's long-term best interest to have a strong saying in most security-related activities in areas under East Timor jurisdiction – which lie basically at Australia's front door. As East Timor will probably not have soon at its disposal the means for combating organised transnational crime (including money laundering and people smuggling), for Australia, 'exchanging gas for security' might be politically an advantageous compromise.

(59) *Report 49*, supra n.48, p.52.

on some selected issues that are concerned with the relationship between maritime delimitation and joint development from the standpoint of resolution of jurisdictional issues and cooperation between neighbouring states. Even in this respect, there is no attempt to be exhaustive. The objective is merely to expound on some specific aspects of the subject which, whilst being relevant in the context of the Timor Sea, also offer a basis for a general appraisal of the relationship between maritime delimitation and joint development.

Inasmuch as this analysis revolves around the concepts of maritime delimitation and of joint development, it is useful to define these concepts at this juncture. *Maritime delimitation* may be seen as the process that consists of establishing lines separating from each other the maritime areas in which coastal states exercise sovereignty or jurisdiction[60]. The resulting lines are 'boundaries', and they allocate exclusive authority. Thus, the spheres of sovereignty and/or exclusive jurisdiction of neighbour states are mutually confined on a spatial basis. Here, the crux is the 'discovery' of a line. Once such a line is established (i.e. it is legally determined, and technically defined), which rights and interests are attributed to each state is not in essence a bilateral issue. Such rights and interests are laid down in international law, and apply indistinctly to all states. Maritime delimitation, therefore, is essentially a matter of 'attribution of areas'.

Joint development is a concept that has primarily developed in relation to continental shelf jurisdiction – although it may easily be redefined, *mutatis mutandis*, to apply to EEZ or water column jurisdiction. It may be defined as an agreement between two or more states, designed for purposes of sharing jointly, in the proportions and terms agreed, the exclusive rights and interests (in particular as regards natural resources) over a designated area (beyond the territorial sea), wholly or partially within the maritime entitlement of the participating states[61]. Essentially, four elements must be considered: a designated area; the natural resources to be exploited; the jurisdictional and legal framework; and the terms and conditions under which the joint operations are to take place.

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(60) Lucius Caflisch, «Maritime Boundaries, Delimitation», in Rudolf Bernhardt (ed.) *Encyclopedia of Public International Law* (Volume 3), Amsterdam, Elsevier, 1997, p.300, at p.301.

(61) This definition is essentially based on: Hazel Fox *et al*., *Joint Development of Offshore Oil and Gas* (Vol.I), London, BIICL, 1989, pp.43-49; R. R. Churchill, «Joint Development Zones: International Legal Issues», in Hazel Fox (ed.) *Joint Development of Offshore Oil and Gas* (Volume II), London, BIICL, 1990, p. 55, at pp.56-58; Masahiro Miyoshi, *The Joint Development of Offshore Oil and Gas in Relation to Maritime Boundary Delimitation*, IBRU Maritime Briefing, Vol.2(5), 1999, p.2-5; Ian Townsend-Gault and William Stormont, «Offshore Petroleum Joint Development Arrangements: Functional Instrument? Compromise? Obligation?», in Gerald H. Blake *et al*. (eds.) *The Peaceful Management of Transboundary Resources*, London, Graham & Trotman / Martinus Nijhoff, 1995, p.51, at pp.51-57. It should be noted that, *mutatis mutandis*, the concept of joint development might be applied to natural resources of land territories.

Two ideas deserve particular attention. First, it is noteworthy that all four elements are to be bilaterally defined in some measure. There is no such thing as 'genuine jointness'. Jointness is what the participating states freely agree in relation to the elements aforementioned. Secondly, here, the allocation of continental shelf rights comprises more than a spatial issue. Besides the primary 'spatial variable' of joint development (the designated area), there are several substantive aspects to be agreed.

In spite of the distinctive aspects, viewing maritime delimitation and joint development as unrelated concepts is a hotbed of conceptual misunderstandings. The premise that underlies both concepts is the same: the existence of an area of overlapping maritime entitlements. The fulcrum is the fact that two states hold legal rights and interests – which are exclusive in nature – over areas that overlap. Juridically speaking, the question is one of concurrence of legal rights[62]. If the states involved wish to enjoy such rights and interests on an exclusive basis, then they are 'forced' to accept a partial 'amputation' of their potential entitlements, which is to be effected through maritime delimitation[63]. From a political standpoint, this might raise tremendous difficulties to the states involved, not least in terms of internal politics. It might entail political and economic costs that are unacceptable for either state; and disputes might arise. To soften the difficulties, states might have recourse to joint development, either autonomously, or in conjunction with maritime delimitation[64]. By pooling their rights and interests over certain areas (which can be attained in different measures), the states involved resolve (at least partially) the question of concurrence of rights by means that are politically and economically less confrontational. What is more important, such an approach allows states to maintain rights and interests over the area of potential maritime entitlements – albeit these rights and interests (especially those concerning natural resources) are no longer exclusive, their exercise and enjoyment being essentially 'joint' in nature.

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(62) The argument that an overlapping of entitlements amounts to a situation of concurrence of legal rights was put forward by the author elsewhere; cf. Antunes, supra n.26, para.4.3.d)(i).

(63) Theoretically, it is possible to conceive a situation in which only one of the entitlements involved is 'amputated'. The delimitation between Iceland and Norway (Jan Mayen) is one instance in which the overlapping of entitlements was virtually attributed to one of the states; cf. Agreement on the Continental Shelf between Iceland and Jan Mayen, of 22 October 1981 (the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATE FILES/ISL.htm). It is not exactly so because, pursuant to a recommendation of the conciliation commission, the two states have also set up a joint continental shelf zone straddling the boundary, which in some measure counterbalances the attribution to Iceland of all areas up to the 200-mile limit from its coasts.

(64) Where the limit-lines of the joint development area separate areas under joint jurisdiction from those under state jurisdiction, they acquire to some extent the character of 'boundary'.

The watchword in maritime delimitation is reasonableness. Exception made to delimitations effected by adjudication – in which reasonableness is to be construed on the basis of strictly legal foundations, the notion of reasonableness entails an equilibrium that is simultaneously political and legal. Joint development appears to be no different. Regardless of whether the joint development 'area-regime' is implemented in conjunction with a boundary, or autonomously, the prerequisite is that the states involved are satisfied with the political-legal equilibrium attained – the paramount objective of which is the exploitation and management of natural resources, especially petroleum and living marine resources[65].

No doubt, the possible outcomes of maritime delimitation bear to some extent on the joint development solution. For example, in some cases, the designated area emerged from the area of overlapping delimitation-claims – e.g. Timor Gap Treaty, United Kingdom/Denmark (Faröe Islands) Agreement, Nigeria/São Tomé and Príncipe Treaty. Taking into account that joint development is ultimately an 'answer' to the questions posed by an overlapping of entitlements, this is unsurprising. Doubtless, other considerations must be weighed-up to reach the necessary equilibrium. Spatially speaking however, the dialectic 'designated area *versus* sharing-ratio' is the crux of the matter. While noting that "the sharing ratio is likely to be keenly debated" – on the basis of arguments that "are similar to the claim of *special circumstances*", Wälde argues that "it is hard to see how to avoid, in most cases, the 50:50 formula constituting, in terms of bargaining theory, the strongest *magnetic point*". As he adds, "[a]ny other solution would require considerable justification"[66]. His

(65) Besides the cases of joint development concerning oil and gas (which are well known), there are today some examples that concern fisheries (or water column jurisdiction, which includes fisheries). With respect to fisheries however, it is necessary to consider the different nature of the resource in question – which is renewable (if properly managed), and the location/patterns of which might change (causing the designated joint area to become obsolete). The Management and Cooperation Agreement between the Government of the Republic of Senegal and the Government of the Republic of Guinea-Bissau, of 14 October 1993, establishes a joint zone that concerns also fishery resources, which are to be shared on a 50/50-basis (the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONAND TREATIES/STATEFILES/GNB.htm). The Agreement between the Government of the Kingdom of Denmark together with the Home Government of the Faröe Islands, on the one hand, and the Government of the United Kingdom of Great Britain and Northern Ireland, on the other hand, relating to Maritime Delimitation in the Area between the Faröe Islands and the United Kingdom, of 18 May 1999, sets up a Special Area mainly related to fisheries, providing for a concurrent access of both parties to it (the text can be obtained from http://www.un. org/Depts/los/LEGISLATIONANDTREATIES/STATE FILES/GBR.htm). The Treaty between the Federal Republic of Nigeria and the Democratic Republic of São Tomé e Príncipe on the Joint Development of Petroleum and other Resources, in respect of Areas of the Exclusive Economic Zone of the two States, of 21 February 2001, covers EEZ resources other than petroleum, and provides for a 60/40 (Nigeria/São Tomé and Príncipe) resource-division (the text can be obtained from http://www.sul-idariedade.jazznet.pt/jornal.html). The author would like to thank Mr Tim Daniel and Mr David Lerer (DJ Freeman, London) for their help in obtaining the text of the latter.

(66) Thomas W. Wälde, «Financial and Contractual Perspectives in Negotiating Joint Petroleum Development Agreements», in Hazel Fox (ed.) (1990), supra n.61, p.156, at pp.159-160; italic emphasis replaces emphasis by inverted commas in the original.

references to the "considerable justification" required to depart from the 50:50-share, and to arguments of the type of "special circumstances", appear to confirm the parallel between maritime delimitation and joint development in respect of their political-legal equilibrium. Such a justification could indicate, for example, either the existence a 'weak' legal basis for entitlement, or the political-economic need for a 'speedy' solution. In any event, one would suggest that the sharing-ratio is intimately dependent on how the designated area relates to the overlapping of entitlements, and to the possible outcomes of maritime delimitation – should *realpolitik* not determine the solution at a given time.

THE TIMOR SEA CONTEXT

That the *tabula rasa* rule allowed East Timor to repudiate *in toto* the Timor Gap Treaty raises no difficulty. First, East Timor appears to claim not to be a successor to Indonesia – as seems to be evidenced by the fact that its Constitution declares that the day of proclamation of independence was 28 November 1975[67]. This not only signifies that East Timor could not have succeeded to Indonesia in the Timor Gap Treaty, but also entails that this treaty was null and void (for it was founded on the exercise of powers which Indonesia did not possess). Inevitably, the question of the lawfulness of the Indonesian conducted between 1975 and 1999 would have to be addressed; but that is outside the scope of this analysis[68]. Secondly, and subsidiarily, the Timor Gap Treaty is not a boundary treaty that falls within the *ratio legis* of Article 11 of the 1978 Vienna Convention on Succession of States in respect to Treaties (VCSST). Nor can the designated area to which this instrument refers be viewed as 'territory' for purposes of Article 12 of the VCSST.

That, theoretically speaking, East Timor could have refused any solution based on joint development for the Timor Sea area is also indisputable. As noted above however, the problem had

(67) Preamble; Section 1(2).

(68) Several arguments can be put forward in support of the suggestion that the East Timor has not succeeded to Indonesia. In brief, to assume that East Timor succeeds to Indonesia amounts to sanction legally the Indonesian occupation; this would have complex implications on the consecration of the rule of law in international affairs – in particular the non-use of force. Moreover, it would be inconsistent with a number of resolutions of the UN General Assembly. In addition, if the other option – succession to Portugal – is not accepted, the political status of East Timor between 1975 and 1999 will not be easy to conceive on juridical grounds. Indeed, the stance taken by UNTAET during the negotiations that preceded the 2001 Arrangement is indicative of refusal of the idea of succession to Indonesia. By affirming that it did not recognise the validity of the integration of East Timor into Indonesia, that the 'Timor Gap Treaty' was null and void, and that there was no question of renegotiation of the 1989 treaty, the United Nations appears to have implicitly asserted the unlawfulness of the Indonesian occupation.

a two-fold parameterisation that conditioned the whole problem. First, for a number of essentially political but also economic reasons, Australia seems to have been, and to continue to be, unwilling to consider a strict maritime delimitation solution for the Timor Sea dispute. Third-party adjudication could have been sought; but this approach appears to be no longer possible without Australia's specific consent, as a result of its 2002 declarations on jurisdiction – made two months before East Timor became an independent state. Secondly, East Timor was in no position to either jeopardise its status as a credible partner for future investments (by refusing to agree on a solution that would deal with the problem of the existing investments[69]), or to forsake (in the immediate future) the revenues from ongoing and future exploitation of natural resources in the 'Timor Gap'.

Political and economic compromise, and a great deal of pragmatism, was absolutely essential to reach agreement in relation to the Timor Sea Treaty. In two recent analyses, carried out before and after the 2001 Arrangement, Ong has concluded that a joint development solution was inescapable[70]. Whilst agreeing with this point, one nonetheless respectfully disagrees with the suggestion that such an approach was mandated by international law – in particular to the extent that the term 'mandated' might be interpreted as having any degree of legal imperativeness. In addition, these analyses may have overlooked the fact that the solution devised in the Timor Sea Treaty does not appear to have fully settled (at least for the time being) the issue of the spatial allocation of continental shelf rights in the Timor Sea. A number of important questions appear not to be answered. With the Timor Sea Treaty, should it be considered that East Timor has relinquished its continental shelf rights over all areas outside the JPDA, in particular those eastwards and westwards of its limits? If not, what is the status of the resources from fields such as Laminaria and Corallina? Since these fields lie some 2 M west of the westward limit of the JPDA – therefore, clearly within

(69) Should one would take the view that the Indonesian occupation of East Timor was unlawful, that would lead to question Indonesia's capacity to enter into any agreements that would relate to the grating of interests in the areas that belonged to East Timor. In short, one would have to question the legitimacy of the grants under which the ongoing exploitation was taking place. For an analysis of the question of previously granted interests from the perspective of subsequent creation of joint development zones, cf. Ian Townsend-Gault, «The Impact of a Joint Development Zone on Previously Granted Interests», in Hazel Fox (ed.) (2000), supra n.61, p.171. A final point in this respect concerns the 1974 Portuguese grant to *Oceanic* (*Petrotimor*) – which covers the area of the Timor Gap Treaty, and how the Federal Court of Australia will deal with the questions posed by the lawsuit that was filled by *Oceanic* (cf. supra n.16).

(70) David M. Ong, «The Legal Status of the 1989 Australia-Indonesia Timor Gap Treaty Following the End of the Indonesian Rule in East Timor», 31 NYIL (2000) 67, at pp.120-122; Ong, supra n.37, pp.103-105.

the overlapping of entitlements, is Australia's unilateral exploitation of such resources lawful?[71] Should these resources be depleted, and – hypothetically – should a future delimitation allocate such areas to East Timor, can East Timor expect redress through any means (e.g. compensation)? In terms of allocation of continental shelf rights in the Timor Sea, these are some of the highly relevant questions that must be asked.

Let us turn then to the examination of some of the relevant issues that intertwine with the questions aforementioned. First, it provides a (necessarily brief) overview of a number of key factors that could be relevant for legal determination of the continental shelf boundary between Australia and East Timor. Secondly, drawing on the conclusions reached in the previous point, it seeks to analyse the dialectic 'designated area *versus* sharing-ratio' as it emerges in the Timor Sea Treaty. By way of conclusion, it briefly deals with a number of issues related to the production of petroleum resources – which are perhaps the most significant expression of continental shelf rights, and offers for consideration a few reflections on how maritime delimitation and joint development compare as means for managing petroleum resources.

CONTINENTAL SHELF DELIMITATION BETWEEN AUSTRALIA AND EAST TIMOR: BRIEF OVERVIEW

In the *East Timor* case, whilst referring to its rights in the Timor Sea, Australia referred *inter alia* to its considerably longer coastline and to geomorphology as factors relevant for appraising the extension of its rights[72]. However briefly, it is thus necessary to investigate how relevant these factors could be for the allocation of continental shelf rights in the Timor Sea[73]. In essence, the argument concerning coastal length and proportionality is as follows: (a) Australia's coastline is considerably longer than that of East Timor; (b) an equitable solution must take this fact into account, by reflecting a reasonable degree of proportionality; (c) this entails an adjustment of the 'provisional equidistance-line' to reflect the existing disproportionality (i.e. the line would have to

(71) Because the Greater Sunrise fields lie partially within the JPDA, and because its exploitation thereof depends on an unitisation agreement, the unilateral exploitation thereof by Australia is less likely to occur in the future.

(72) Cf. supra n.22, para.385.

(73) For a comprehensive analysis of the delimitation between Australia and East Timor – which examines issues concerning *inter alia* coastal length and proportionality, natural prolongation, basepoints unrepresentative of coastal relationship, macrogeography, access to natural resources, and third states' rights, cf. Antunes, supra n.26, Chapter 9.

be ‘moved’ towards East Timor). Subscribing to this viewpoint, Ong makes particular reference to the outcome of the *Libya/Malta* case[74].

With the greatest respect, it must nevertheless be observed that the argument rests on the assumption that there is a legally relevant disparity between the length of Australia’s coastline and East Timor’s coastline. The problem is that what seems to be at first glance a straightforward fact of uncontentious implications does not withstand proper scrutiny, when the refinements brought to maritime delimitation law by the *Jan Mayen* case are taken into account[75]. In this case, the ICJ had to consider two coasts with considerably different length: those of Greenland and of Jan Mayen. One of the conclusions at which the Court arrived has crucial implications in the Timor Sea context. Considering that only a part of Greenland’s coast was relevant for delimitation purposes, the Court endorsed the view that the relevant coastal stretch was defined by the two most extreme basepoints that contributed to the computation of the equidistance-line between Greenland and Jan Mayen[76]. The relevant coastal length was subsequently measured along a series of straight-line segments (which avoided the indentations of Greenland’s coastline). Should a similar approach be followed in a delimitation between Australia and East Timor, the disparity of coastal length between these two states would be roughly 2.2:1 (Australia:East Timor). As the adjustments of the provisional equidistance-line in the *Libya/Malta* and *Jan Mayen* cases were founded on much larger disparities – i.e. 8:1 (Libya/Malta) and 9:1 (Greenland:Jan Mayen), it is (to say the very least) far from certain that a similar adjustment would be required in a delimitation between Australia and East Timor.

With respect to geomorphology (or in other words, natural prolongation), the issue concerns the impact of the Timor Trough on the delimitation between Australia and East Timor. Historically, there is no doubt that Australia has sought to assert the ‘paramount relevancy’ of the Timor Trough in the allocation of continental shelf rights. In relation to Portugal, however, such attempts were unsuccessful. Hence, to the extent that East Timor seems to claim that it is not a successor to Indonesia – which means that only the Portuguese conduct is relevant here, such claims of historical consolidation are unopposable to East Timor.

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(74) Ong, supra n.37, pp.85-89. *Libya/Malta* case, supra n.29, paras.76-79, in particular para.79.(B)(C)(D).

(75) Case Concerning the Maritime Delimitation in the Area between Greenland and Jan Mayen (Denmark *v.* Norway), International Court of Justice, Judgment of 14 June 1993, ICJ Rep. 1993, p.38.

(76) Ibid., para.20.

The question is whether, today, the Timor Trough is legally relevant for the determination of a continental shelf boundary between Australia and East Timor. Simply put, prior case law suggests that the Timor Trough would be given no relevance whatsoever. As the Court clearly stated in the *Libya/Malta* case, "since the development of the law enables a state to claim that the continental shelf appertaining to it extends up to as far as 200 M from its coast, whatever the geological characteristics of the corresponding seabed and subsoil, there is *no reason to ascribe any role to geological or geophysical factors* within that distance either in verifying the legal title of the states concerned or *in proceeding to a delimitation as between their claims*"[77]. Inasmuch as the distance between Australia and East Timor in the Timor Sea is always clearly less than 400 M, such an approach would lead to warrant no legal relevance to the Timor Trough. Not surprisingly, this view is supported by scholarship. For instance, Charney affirmed that, if a tribunal charged with delimiting the continental shelf boundary between Australia and East Timor by reference to delimitation law would "take into consideration the natural prolongation of the sea-bed of the area within the 200-nautical-mile zones, it would be acting contrary to a long list of international decisions by the ICJ and courts of arbitration and, consequently, contrary to international law"[78].

Further weight is lent to the proposition that the Timor Trough should not be attributed any relevance in the delimitation between Australia and East Timor by the fact that the existence of a clear geological separation at the Timor Trough has been recently challenged. A recent study has suggested that "the southeastern Indonesian island arc shows a transition from normal subduction of oceanic lithosphere south of Java to a *completed accretion of an island arc terrain to a continental margin at Timor*"[79]. Taking this view into account, the existence of a geological detachment between Timor and the Australian margin appears to be, today, no longer an 'incontestable' fact.

Proportionality and geomorphology are arguments that refer only to what might be called the 'frontal equidistance-line'. The problem however, is that the delimitation issue between Australia and East Timor raises further, equally complex issues, which involve 'lateral equidistance-lines'. Since it is out of the question to suggest that a continental shelf boundary between these states

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(77) ICJ Rep. 1985, para.39, emphasis added.

(78) Jonathan I. Charney, «International Maritime Boundary for the Continental Shelf: The Relevance of Natural Prolongation», in N. Ando et al. (eds.) *Liber Amicorum Judge Shigeru Oda*, The Hague, Kluwer Law, p.1011, at p.1029.

(79) Joachim F. Genrich *et al.*, «Accretion of the Southern Banda Arc to the Australian Plate Margin Determined by Global Positioning System Measurements», in 15(2) Tectonics 288, at p.293, emphasis added.

should be a line joining points A16 and A17 of the Australia/Indonesia 1972 boundary, it becomes necessary to determine how the 'frontal-boundary' between Australia and East Timor should be joined with the 1972 boundary. This problem concerns the continental shelf entitlement of Indonesia, south of the 1972 boundary, *vis-à-vis* East Timor. From a practical standpoint, one would suggest that Indonesia's potential rights south of the 1972 boundary may be seen as having been 'ceded' to Australia[80]. Should this view be accepted, the 'lateral-boundaries' (joining the 'frontal-boundary' with the 1972 Australia/Indonesia boundary) should be delimited as if Australia were 'invested' in Indonesia's legal position. Although the resulting lines would separate Australia's and East Timor' zones, they would be determined as if the question were one of continental shelf delimitation between Indonesia and East Timor.

Following on from the above, one of the questions that would have to be addressed would be the 'cut-off effect' that results from the convergence of the two 'lateral equidistance-lines' between Indonesia and East Timor The distance between the two points at which these 'lateral equidistance-lines' intersect the 'frontal equidistance-line' (i.e. the two equidistant trijunction points Australia-Indonesia-East Timor – T1 and T2) is some 30% less than the distance between the 'initial points' (eastwards, the midpoint between Jaco and Leti; and westwards, the land boundary terminus at the mouth of the river Masin)[81]. South of the 1972 boundary, the eastern 'lateral equidistance-line' is controlled by small insular features: Lakor and Meatij Miarang[82]. In the west, the 'convergence' is caused by the effect of a prominent headland: Tanjong We Toh. Doubtless, the 'convergence' of the two 'lateral equidistance-lines' amounts to a 'cut-off effect'. What may be questioned is whether this 'cut-off effect' signifies that the 'lateral equidistance-lines' would constitute an inequitable solution. If so, these lines would somehow have to be adjusted, in order to avoid inequity. This article does not seek to investigate what lines could be adopted as an equitable solution between Australia and East Timor. Notwithstanding this, one would argue that the 'convergence' of the 'lateral equidistance-lines' in question amounts to an inequitable 'cut-off effect' – which would have to be weighed-up in the delimitation.

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(80) Although Indonesia has not formally ceded its rights *vis-à-vis* East Timor, in reality, practically speaking, Indonesia cannot claim any seabed rights and interests south of the Australia/Indonesia boundary – due to practical effect of the 1972 Treaty. This description may be understood by recourse to Map 1.

(81) The 'initial points' are some 158 M apart, and the two equidistant trijunction points Australia-East Timor-Indonesia are some 110 M apart.

(82) In effect, some 68% of the eastern 'lateral equidistance-line' south of the 1972 boundary is 'controlled' by basepoints on Meatij Miarang, which is little more than an surfacing reef.

The first ground on which this proposition is founded relates to the assessment of coastal geography – i.e. it concerns the effect of islands and of prominent coastal features on the course of equidistance-lines. Geographically speaking, taking into account the general direction of all islands in the wider Timor Sea region, Lakor and Meatij Miarang to the east, and Tanjong We Toh to the west, appear as 'frontage-jaws' that flank the East Timorese façade – lying at angles of 30-plus degrees with the direction of the archipelago's coast, and causing the equidistance-lines to converge. By comparing the area-attribution effected by the two 'lateral equidistance-lines' with that effected by two perpendiculars to the general direction of the coast (starting at the initial points of the 'lateral equidistance-lines'), the 'cut-off effect' is materialised in a 'loss' for East Timor of over 7,000 square km (or over 2,000 square M)[83]. To put it into perspective, that is, to objectify the 'cut-off effect', it suffices to note that the area of the JPDA is roughly 35,000 square km (or 10,200 square M).

In addition, it is necessary to consider the impact of the equidistant 'lateral-boundaries' on the access to natural resources. In the *Jan Mayen* case, whilst acknowledging that the parties were "essentially in conflict over access to fisheries resources", the Court stated that it had "to consider whether any shifting or adjustment of the median line […] would be required to ensure equitable access to the capelin fishery resources"[84]. The Court's reasoning offers a sound basis to argue that a similar view may be taken as regards other types of resources. In general, where natural resources are extremely significant to the states involved, it must be examined whether it is possible, *in casu*, to grant equitable access to such resources by both states. No doubt, the adjustment of the equidistance-line required to concretise such equitable access ought to be seen in light of the 'factor-matrix' *in concreto*, i.e. it is necessary to analyse how such adjustment 'fits' into the framework provided by all legally relevant factors.

One would suggest that the equitable access to hydrocarbon resources in the Timor Sea can, and should, be weighed-up for purposes of assessing the reasonableness of using strict equidistant 'lateral-boundaries' between Australia and East Timor, south of the 1972 boundary. It should be noted that the eastern 'lateral equidistance-line' cuts across the Greater Sunrise fields, and that the

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(83) This figure considers the areas that lie eastwards and westwards of each 'lateral equidistance-line' up to the perpendiculars to the general direction of the coast, south of the 1972 boundary and north of the 'frontal-equidistance-lines'.

(84) ICJ Rep. 1993, para.75.

western 'lateral equidistance-line' runs some 2 or 3 M east of the Laminaria-Corallina fields. Even if only small adjustments are introduced, thus, the impact on petroleum resource-allocation is massive. Without entering into a detailed debate on the precise course of the 'lateral-boundaries', it is fair to argue that giving East Timor no access to the Laminaria-Corallina fields, and only some 18% of the resources of the Greater Sunrise fields, falls well short of an equitable resource-sharing – thus being on its own a reason for deeming unreasonable the strictly equidistant 'lateral boundaries'. To suggest otherwise would be a striking proposition, especially when it is taken into account that the resources in question lie roughly twice as close to East Timor as to Australia, and the overall distribution of petroleum resources in this area.

A third factor has to be considered in the delimitation between Australia and East Timor: macrogeography. The 'discovery' of a reasonable boundary-line, i.e. a line that achieves an overall balance of equities, might in a certain measure depend on the context within which the delimitation is effected. As asserted in the *Guinea/Guinea-Bissau* arbitration, an 'equitable solution' cannot "ignore the other delimitations already made or still to be made in the region"[85]. In the present instance, there is one fact that must be duly weighed-up: unlike Australia and Indonesia, East Timor's jurisdiction can never reach 200 M from the coast. Its geographical location is such that its potential entitlement will have to be 'amputated' from all directions – a predicament that does not occur with either Australia or Indonesia. Most importantly, the maritime zones to be attributed to East Timor off its northern coast are primarily territorial sea areas. Only partially, and even then only marginally, will East Timor be attributed areas beyond 12 M. Such a marked macrogeographical disadvantage must be weighed-up in the overall balancing-up of equities. In the absence of objective reasons to the contrary, one would suggest, the continental shelf delimitation off its southern coast should – within the limits imposed by delimitation law – maximise the areas attributed to East Timor.

JOINT DEVELOPMENT AND THE CONTINENTAL SHELF RIGHTS IN THE TIMOR SEA

To some authors, who argue that a joint development arrangement has a "functional nature" – since it is "a legal mechanism for the attainment of the production of natural resources", joint

(85) Dispute Concerning the Delimitation of the Maritime Boundary (Guinea *v.* Guinea-Bissau), Award of 14 February 1985, 25(2) ILM (1986) 251, at para.93.

development is "*not* the solution to a jurisdictional problem"[86]. This suggestion is unpersuasive. No doubt, joint development arrangements aim at creating a legal framework for exploiting natural resources. This, however, cannot obfuscate the central problem: joint development arrangements have appeared as an answer to situations in which there is a positive conflict of potential jurisdictions. To this extent, joint development is to be seen as an 'alternative' to maritime delimitation. As Churchill rightly notes, "there is probably a rule of international law which prohibits states from exploiting seabed resources in disputed areas"[87]. Pointing in the same direction, Ong refers to an "obligation of mutual restraint" – unilateral action ought to be refrained "when it risks depriving other states of the gains they might realise by exercising their sovereign right of exploitation"[88]. The same idea is conveyed by Robson, when referring to an obligation "to refrain from unilateral development where a risk of irreparable prejudice to rights […] is involved"[89]. It is clear that what spurs states to accept joint development arrangements is the fact that, legally, they are impeded from exploiting resources in areas where potential entitlements overlap – and where there is, thus, at least a 'latent dispute'. By framing the issue in this 'levelled' fashion, one has little choice but to subscribe to the view that, in principle, joint development should be a 'last resort approach' – i.e. a solution that is "second best to an agreed boundary"[90].

The brief, foregoing account concerning continental shelf delimitation is, therefore, essential for contextualising the question of joint development and the Timor Sea Treaty. As suggested above, the possible outcomes of maritime delimitation are not unrelated to the solutions based on joint development. For this reason, the concretisation of reasonableness in maritime delimitation, or the factors upon which a reasonable solution is to be founded, perhaps should constitute a beacon for appraising joint development arrangements – especially, although not exclusively, as to the dialectic 'designated area *versus* sharing-ratio'.

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(86) Townsend-Gault and Stormont, supra n.61, p.53, italic in the original.

(87) Churchill, supra n.61, p.57.

(88) David Ong, «Joint Development of Common Offshore Oil and Gas Deposits: 'Mere' State Practice or Customary International Law?» 93(4) AJIL (1999) 771, at p.798.

(89) Charles Robson, «Transboundary Petroleum Reservoirs: Legal Issues and Solutions», in Gerald H. Blake *et al*. (eds.), supra n.61, p.3, at p.8.

(90) D. H. Anderson, «Strategies for Dispute Resolution: Negotiating Joint Agreements», in Gerald H. Blake *et al*. (eds.) *Boundaries and Energy: Problems and Prospects*, London, Kluwer Law,1998, p.473, at p.475. This author clearly presents joint development solutions as one of the options available in dispute resolution.

Unappealing perhaps at first glance, this view is often adopted. For instance, whilst analysing the Timor Sea situation, Ong affirmed: "It is interesting to note here that despite the fact that a 90:10 split of the common hydrocarbon deposits in the Timor Sea could perhaps have been achieved by the usual method of negotiating a single continental shelf boundary, this was nevertheless eschewed in favour of the *same division* of revenues agreed within the context of a new joint development regime."[91] His suggestion is that a 90:10-split could have been utilised as basis for an area-division effected through delimitation. He goes on to argue that, *in concreto*, the 'frontal equidistance-line' should be "suitably modified", and that a boundary based on such a adjustment would "in fact cut across the oil and gas fields currently being primed for exploitation, especially the Bayu-Undan gas project" – which lies within the JPDA[92]. In practice, Ong seems to suggest that the continental shelf delimitation would divide the JPDA in such a way as to attribute 90% of it to East Timor, and the remainder 10% to Australia.

In view of the considerations made as to the continental shelf delimitation, one would have to disagree. First, insofar as this article argues that there is no legally relevant coastal length disparity between Australia and East Timor, and that no adjustment of the 'frontal equidistance-line' is required, from a strictly legal perspective there appears to be no ground for delimiting the boundary in a way that attributes to Australia 10% of the JPDA. Secondly, Ong's proposition seems to take no account of 'lateral-boundaries'. He seems to assume that the 'lateral equidistance-lines' (i.e. the limits of the JPDA) would be adopted as continental shelf boundaries. If it is so, then one ought to ask why were the considerations concerning the reasonableness of such potential boundary-lines not appraised (as done in relation to the 'frontal equidistance-line')? This question is all the more relevant since the simple adjustment of the 'frontal equidistance-line' northwards would attribute to East Timor areas that lie well beyond the 'lateral equidistance-lines'. Thirdly, it should be added that, even if, for the sake of argument, a 90:10 JPDA-division (based on an adjustment of the 'frontal equidistance-line' similar to that of the *Libya/Malta* case) would be accepted as a boundary solution, the Bayu-Undan field would most probably lie fully within the area to be attributed to East Timor.

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(91) Ong, supra n.37, p.85, emphasis added.

(92) Ibid., p.89.

Without prejudice to the general proposition that the potential outcome of delimitation bears in some degree on joint development solutions, it must be emphasised that a number of signs suggest that, in the Timor Sea Treaty, the 90:10-split was tempered with other important considerations. For Australia, the question of petroleum production-split has a lesser significance – bearing in mind its fundamental political-economic goals. From a political perspective, what Australia sought was an agreement that would not alter the 'lines' previously drawn in the Timor Sea area. Economically, Australia's primary interest is focused upon the downstream petroleum linkages – in particular, as regards its economic development strategy for the Northern Territory[93]. In effect, should a pipeline to, and the associated gas processing plant in, Darwin be built, the estimated figures for downstream revenues add up to (at the very least) twice the expected upstream revenues for East Timor (considering the 90:10 production-split). For East Timor, the 'partnership' with Australia through the Timor Sea Treaty also brings important benefits. From an economic standpoint, having Australia as an 'investment-partner' appears as somewhat of a 'guarantee' to the petroleum industry – promoting the investment in the development of the Timor Sea resources. Politically speaking, it entails a preferential link with a key regional power. These pragmatic, *realpolitik* considerations appear to have been weighed-up in the agreements so far reached.

No doubt, the 90:10 production-split appears to hint at the existence of a 'better entitlement' of East Timor over the JPDA. Were it not for this fact, it is unlikely that Australia would accept such a resource-sharing solution. Importantly, there are other aspects in the Timor Sea Treaty, notably at the level of the devised management structure, which reinforce this suggestion. After a transitional period, the DA will be East Timor's government ministry responsible for petroleum activities. Moreover, in the JC, East Timor will have one more appointee than Australia[94].

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(93) The importance is such that the Northern Territory government has offered to mediate between the Commonwealth government and East Timor to overcome difficulties that are involved in the ratification of the Timor Sea Treaty; cf. *The Sydney Morning Herald*, 11 February 2003, «NT offers to help save E Timor gas deal». Cf. also *The Sydney Morning Herald*, 10 August 2002, «A new dawn for the territory»; *Hoover's*, 9 August 2002, «NT government uses China gas deal in national interest argument»; *Hoover's*, 5 May 2002, «Sunrise gas field fires up the politics of northern development»; *ABC News Online*, 10 March 2002, «Sunrise takes shine off NT government gas pipeline plan»; *ABC News Online*, 14 February 2002, «Senator critical of offshore Timor Sea gas processing facility»; *ABC News Online*, 25 December 2001, «Timor Sea gas to benefit NT, developer claims»; *The Advertiser*, 20 November 2001, «Dark clouds threaten Sunrise gas partners»; *FinancialTimes.com*, 24 October 2001, «Disputes threaten lucrative Timor Gap pipeline». As to the economic impact of the gas resources, cf. e.g. the report *Impact of the Sunrise Gas and Methanex projects on the Northern Territory and Australian economies*, Centre for International Economics, Canberra & Sydney, September 2000.

(94) Article 6.

With respect to the concept of joint development as a mechanism for resolving jurisdictional issues, and indeed as an instrument for promoting resource exploitation in disputed areas, two points must clearly be made. In no measure should joint development be seen as a panacea for all problems concerning maritime resources. Nor should it be assumed as being intrinsically easier to deal with, when compared to maritime delimitation.

Indeed, the Timor Sea example provides food for thought in this regard – as several problems concerning continental shelf rights and the exploitation of petroleum resources are yet to be resolved. A first problem can be expressed through a crucial question: Are East Timor's seabed rights confined to the JPDA? The reality is that the continental shelf entitlement of East Timor overlaps with that of Australia (and with that of Indonesia for that matter) in areas that lie well beyond the JPDA-limits. Inasmuch as the Timor Sea Treaty regime is without prejudice to the question of continental shelf delimitation, in principle, there is no reason to assume that East Timor's rights are confined to the JPDA[95]. What might be questioned is whether implementing the Timor Sea Treaty will not crystallise a 'pattern' of petroleum exploitation that will be taken into account, in the future, if and when a continental shelf boundary between the two states is delimited by adjudication[96]. According to public statements made by East Timorese representatives in relation to recent negotiations, East Timor's view is that, should maritime delimitation law be applied, it would be attributed the whole of the JPDA. The same statements indicate that East Timor also takes the view that its rights extend beyond the JPDA[97]. What must be noted is that the adoption of a joint development solution has not resolved this controversy. In fact, it might have given rise to further difficulties – especially because Australia continues to act as if the areas outside the JPDA

(95) Article 2.

(96) In the *Tunisia/Libya* case and in the *Eritrea/Yemen* arbitration, the pattern of oil concession was deemed to be a consideration relevant for the delimitation of the boundary; Case Concerning the Continental Shelf (Tunisia *v*. Libya), Judgment of 24 February 1982, ICJ Rep. 1982, p. 18, at paras.91-96, 117, 133.C(2).; Permanent Court of Arbitration, Award of the Arbitral Tribunal in the Second Stage of the Proceedings – Maritime Delimitation (Eritrea *v*. Yemen), 17 December 1999, paras.75-86, 132; the text can be obtained from http://pca-cpa.org/PDF /EY%20Phase%20II.PDF. Whether this approach has changed with the view taken recently in the *Cameroon/Nigeria* case – as regards the need for "an express or tacit agreement" – remains to be seen; cf. Land and Maritime Boundary between Cameroon and Nigeria (Cameroon *v.* Nigeria), Judgment of 10 October 2002, para.304 (the text can be obtained from http://www.icj-cij.org/icjwww/idocket/icn/icnframe.htm).

(97) Cf. supra n.35, 44, 53, 54, 57, and 58. Subscribing to the view that East Timor's rights extend beyond the JPDA, cf. Antunes, supra n.26, para.9.5; Lowe, Carleton and Ward, supra n.19. Apparently holding the view that East Timor's rights would encompass the whole of the JPDA, cf. Onorato and Valencia (2000), supra n.28, p.80; Victor Prescott «The Question of East Timor´s Maritime Boundaries», 7(4) *IBRU Boundary and Security Bulletin* (1999) 72, at pp.75-76.

southwards of the 1972 boundary, and which lie within the overlapping of entitlements with East Timor, unquestionably belong to it.

The second problem illustrated by the Timor Sea situation concerns the difficulties in devising a comprehensive regime for joint development. After more than two years of negotiations, Australia and East Timor are far from reaching a comprehensive, workable solution. No agreement has yet been reached as to the petroleum mining code or the fiscal scheme generally applicable to the JPDA. These aspects are two of the cornerstones of joint development, at least from the point of view of the certainty and predictability required by the petroleum industry. The first point to make is that setting up adequate joint development regimes demands time and skill. Under certain conditions designed to meet the requirements of the petroleum industry, the answer could be an approach based on *ad hoc* agreements for each project. But can it realistically be expected that small, poor states, with no experience as a petroleum producing state, holds the expertise necessary to deal with all issues involved? Can such states effectively participate in the design of legal-financial regimes that are expected to maximise its revenues, to offer the petroleum industry an attractive investment environment, and at the same time to be acceptable to the other state involved? For this reason alone, one would suggest that joint development is a solution that should be judiciously pondered.

The Timor Sea situation raises further problems, related to the practical implementation of joint development solutions. Since the petroleum resources in this area appear to be primarily gas, there are specific questions relating to offtaking, marketing and pricing that need to be addressed, and which do not have to be considered in the same way for oil. In principle, the gas will have to be taken ashore somehow – in this case, plans have been made to pipeline it to Darwin. The recourse to a floating LNG plant has also been considered, because it could become economically more viable in the near future, whilst opening more flexible offtake-solutions[98]. Recent reports, however, suggest that both options are for the time being considered commercially unviable[99]. Should a pipeline to

(98) *FinancialTimes.com*, 16 August 2002, «Decision due on gas field project»; *The Sydney Morning Herald*, 16 May 2002, «Sunrise partners to look again at Darwin alternative»; *The Age*, 16 May 2002, «Woodside to make study»; *Rigzone*, 7 May 2002, «Shell and Woodside committed to Timor Sea LNG project»; *FinancialTimes.com*, 20 February 2002, «Shell plan to float gas in Timor Sea approved»; *The Australian*, 19 November 2001, «Timor venture on hold»; *The Sydney Morning Herald*, 19 November 2001, «Woodside, Phillips to back $4b floating plant».

(99) The way for developing the Greater Sunrise is yet be decided. To Shell, a key partner in the project, pipelining the gas to Darwin appears not to be an option; and the economic viability of a floating LNG is now doubtful. Reports mention that Shell is now keeping both options open, whilst stating the development will go ahead "at the earliest opportunity to the benefit of all stakeholders, including both host governments". However, for the Northern Territory's government, building a floating LNG is out of question. Reportedly, its Chief Minister

Darwin ultimately be built, questions relating to the jurisdiction over the pipeline and issues such as construction costs, taxation, priority-use of the pipeline, transportation tariffs, or the valuation of the gas would have to be tackled – if only because they essentially affect the upstream revenues. This shows how reaching an agreement on joint development (or on delimitation for that matter) might not be enough to overcome all hurdles. Further specific agreements, and consequently time and skill to negotiate them, might be required to deal comprehensively with the allocation of rights.

Another peculiar aspect in the 'Timor Sea situation' that illustrates this question concerns unitisation – that is, an arrangement between all parties with an interest in a petroleum reservoir under which terms for its development as a unit are agreed before development operations begin, and by virtue of which the parties' interests are pooled, and their rights and obligations determined[100]. In essence, unitisation is a 'legal mechanism' whereby petroleum reservoirs straddling a 'jurisdictional line' are developed as a single unit. This happens, typically, where boundaries have been delimited between states (e.g. as happens in the North Sea[101]). Unlike joint development, which refers to activities undertaken under a single regulatory regime, unitisation involves more than one license or contract (i.e. one from each side of the boundary or 'jurisdictional line' in question), which entails an apportionment of the reservoir between the participants involved.

The provisions on the Greater Sunrise unitisation in Annex E to the Timor Sea Treaty are striking[102]. Clearly departing from virtually all state practice, the apportionment of reserves is made *grosso modo*, and is not founded on any precise determination of the reserves. Further, there are no provisions that regulate such a determination. Nor are there specific provisions on redetermination and reapportionment. These issues, usually regulated in unitisation, are only crudely addressed, or not at all addressed, in the said Annex E. It is thus unsurprising that the two states are attempting to negotiate a posteriori an unitisation agreement for the Greater Sunrise[103].

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has stated: "We don't care who has the licence for Sunrise – we want it onshore. It means jobs for Territorians." Cf. *The Australian*, 7 September 2002, «Shell's options open»; *WorldOil.com*, 6 September 2002, «Sydney: Shell dismisses Sunrise departure rumours»; *The Australian*, 6 September 2002, «Shell poised to dump Sunrise». Also *WorldOil.com*, 2 September 2002, «Darwin: Sunrise FLNG costs spiral»; *The Australian*, 2 September 2002, «Floating gas plant blows out».

(100) Robson, supra n.89, p.6. As to the typical scope of a unitisation agreement, cf. ibid. p.7.

(101) Cf. e.g. Frigg Field Reservoir Agreement (United Kingdom and Norway), 10 May 1976; the Statfjord Field Reservoirs Agreement (United Kingdom and Norway), 16 October 1979; Markham Field Reservoirs Agreement (United Kingdom and The Netherlands), 26 May 1992.

(102) Cf. supra n.40.

(103) Cf. text before and after n.46. The rounds of negotiation that took place in July, August and December 2002, and in January 2003, have not led to an agreement, which apparently is hampering the ratification of the Timor Sea Treaty by Australia (cf. text supra with n.48-52).

To be feasible however, this agreement must circumvent one fundamental point: the fact that East Timor has not recognised the JPDA eastern 'lateral-limit' as a limit to its seabed/subsoil rights. Somewhat oddly, the unitisation that is being negotiated between Australia and East Timor precedes the establishment of a continental shelf boundary (or a 'jurisdictional line' with an equivalent legal impact). No doubt, the two states can reach agreement on how to proceed to the exploitation of the Greater Sunrise fields, and on how to apportion the reserves thereof. Nevertheless, that agreement will substantially depart from prior state practice in unitisation – which usually deals with a field that straddles a boundary, and which entails an apportionment of reserves on the basis of the spatial allocation of jurisdiction effected by that boundary[104]. What is somewhat incongruent is to press forward with an agreement that apportions rights over petroleum reservoirs located within an area of overlapping entitlements, without previously clarifying the exact rights of each state over those resources. In the case under appraisal, the problem revolves around the allocation of rights in areas outside the JPDA, in its immediate vicinity. The reality is that Australia seems to be unwilling to compromise here – i.e. it appears that it wants to retain under its jurisdiction all areas outside the JPDA. And this is due to the fact that its primary economic interest lies in the development of the Greater Sunrise (as became clear during the hearings that took place in the Australian Senate[105]).

Further, it should be pointed out that a problem that would typically emerge in continental shelf delimitation – i.e. that of unitisation – continues to exist alongside a solution based on joint development. Should the two states have delimited their continental shelf boundaries, they would probably have to devise only one resource exploitation regime – that of unitisation. In the Timor Sea, the peculiarity of the situation is derived from the fact that the limits of the area to which the joint development regime will apply stem from a decision also influenced by *realpolitik* elements, rather than only from consideration of the potential jurisdictional areas that would be legally

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(104) It is true that the division of resources of the Greater Sunrise might be provisionally made. And after a final boundary is delimited, the two states might go on to effect a redetermination of the resources, which could have a retroactive effect. This process, however, is likely to raise considerable difficulties. These problems are clearly patent in reports that suggest that East Timor would consider stopping the development of the Greater Sunrise oil and gas reserves if Australia would not negotiate new maritime boundaries; cf. *ABC News Online*, 2 August 2002, «East Timor threatens Australia over maritime boundaries».

(105) For the transcripts of the Senate Joint Stand Committee on Treaties, search in http://www.aph.gov.au. The fact that so much relevance is being put on unitisation of petroleum resources is not at all surprising. For example, in the Nigeria/Equatorial Guinea boundary treaty the unitisation and development of hydrocarbon resources became a condition for the ratification of the boundary – cf. Articles 6(2), 7(3) of the Treaty between the Federal Republic of Nigeria and the Republic of Equatorial Guinea concerning their maritime boundary, of 23 September 2000; the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATEFILES/NGA.htm.

attributed to each state. Even assuming that Indonesia has *de facto* 'ceded' its rights to Australia, an equitable delimitation of the continental shelf boundary would be likely to divide the Greater Sunrise fields between Australia and East Timor on a rough 50/50-basis. The creation of a JPDA that, in Australia's view, attributes to it some 82% of these fields gives rise to questions. In effect, if the JPDA area had not been influenced by the existence of a previous regime, and if it had been defined by reference to the area of overlapping potential entitlements, the 'joint-area' would be likely encompass the whole of the Greater Sunrise fields. Should this be the case, the question of unitisation of the Greater Sunrise fields would never emerge. What would be debated would be the revenue-split in this 'new' area; for the petroleum resources to consider in the joint development would be different. As it happens, twice the work, effort and time are necessary. Instead of having to agree on a joint development regime only, the two states have also to deal with the question of unitisation. What this demonstrates is that joint development solutions should be appraised on their own merits *in concreto*. As said, it must not be seen as a 'miraculous solution' for all jurisdictional problems, or as having 'unmatchable' advantages.

IV. FINAL REFLECTIONS

Spatial allocation of maritime jurisdiction has always had great significance for coastal states. Where the potential maritime entitlements of states overlap, this matter acquires particularly complex political-legal nuances, especially if it intertwines with the question of access to natural resources, namely petroleum and fisheries. The problem is particularly acute if such resources either straddle, or lie in the close vicinity of, conceivable boundaries or 'jurisdictional lines'. Maritime delimitation, no doubt, has become the 'traditional' answer to problems of spatial allocation of jurisdiction in areas of overlapping entitlements. It is by far the most common answer. States however, have lacked neither ingenuity, nor pragmatism, in 'finding' other answers – whereby the exclusive nature of jurisdiction is tempered (to one degree or another) with 'cooperative' considerations, some of which stem from *realpolitik*. Whilst aiming at circumventing, attenuating, and/or postponing the impact of boundary delimitation, these approaches steer the question away from a strictly 'confrontational perspective'. Joint development, unitisation, 'buffer zones' (in one

case at least associated with a moratorium on resource exploitation[106]), and 'special areas', are amongst the concepts devised to provide such hybrid approaches[107]. The fundamental issue however, remains unchanged: it concerns the allocation of jurisdiction *lato sensu* over a designated maritime area.

The example offered for consideration in this article refers to continental shelf rights, in respect of which the access to hydrocarbon resources is essential. In effect, the events outlined in the first part show that, from the outset, the question of continental shelf jurisdiction in the Timor Sea was inextricably interwoven with the question of access to hydrocarbon resources. The conduct of Australia, Portugal, and East Timor seems to have been primarily oriented to ensuring (to the extent possible) access to those resources. As to Indonesia, although this was an important issue, the focus lied perhaps elsewhere (on having its sovereignty over East Timor recognised *de jure* by Australia). The said events also demonstrate that, as far as the creation of a joint development regime in the Timor Sea is concerned, the weight of the 'variable' *realpolitik* is not irrelevant. True in relation to the 1989 Timor Gap Treaty, this was no less true in relation to the Timor Sea Treaty – although for different reasons. In respect of the latter, recent events appear to suggest that the question of petroleum resources is far from being definitively settled. Further, the question of Australia's unilateral exploitation of resources in the area of overlapping entitlements gives rise to legal questions, especially as these resources lie much closer to East Timor than to Australia.

With respect to maritime delimitation and joint development, the situation in the Timor Sea lends weight to the proposition that, in principle, maritime delimitation is to be preferred to joint development[108]. Hitherto, the 1972 Australia/Indonesia continental shelf boundary has stood the test of time. Regardless of whether that boundary is 'fair', the truth is that no serious disputes between

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(106) The Treaty between the Government of the United States of America and the Government of the United Mexican States on the Delimitation of the Continental Shelf in the Western Gulf of Mexico beyond 200 Nautical Miles, of 9 June 2000, establishes that, in a 2.8 M-corridor centred on the boundary-line ('buffer zone'), no exploitation of petroleum resources will take place in the 10 years following the entry into force of the treaty (Article 4); the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/ STATEFILES/ USA.htm.

(107) An interesting example of how the exclusiveness of maritime delimitation might be tempered is advanced by the Tribunal that decided the *Eritrea/Yemen* arbitration – i.e. the immemorial *lex pescatoria*, which appeared as a "superimposed and law-tight layer of normativity" (cf. Nuno Antunes, «The 1999 Eritrea-Yemen Maritime Delimitation Award and the Development of International Law», 50(2) ICLQ (2001) 299, at p.306), and which was irrelevant for the decision on the maritime boundary (cf. 1999 Eritrea/Yemen Award, supra n.96, paras.109-111). Further, the freedom of states here is almost boundless. For example, states could agree to set up a condominium regime in a designated area lying within their overlapping of entitlements (although this would require a large measure of mutual political trust).

(108) Cf. text before n.90.

Australia and Indonesia have arisen, and that Indonesia's conduct has not legally challenged the boundary. Australia's argument that Indonesia might react strongly to an agreement with East Timor that considerably departs from the 1972 boundary is political in nature, and cannot provide the basis for legal appraisals. The fact that East Timor has apparently chosen to consider such an argument in its negotiations with Australia should equally be seen in political terms. From a political standpoint, it might be conceded, it was truly difficult to escape some solution based on joint development. All of this however, cannot obfuscate the fact that the joint development solution devised between Australia and East Timor created difficulties that would not have existed had a maritime boundary between the two states been delimited.

Further, whatever the arguments put forward in the debate on how to deal with disputes concerning areas of overlapping maritime entitlements, it is important not to lose sight of the fact that, in the overwhelming majority of cases, states have preferred maritime delimitation to joint development. Importantly, maritime delimitation does not exclude cooperation – as can be illustrated by the 'cooperative arrangement' incorporated in the Honduras/United Kingdom (Cayman Islands) treaty. Hand in hand with the delimitation of a maritime boundary, the two states have established a 'fishing enclave', lying within Honduran jurisdiction, to which qualified access is granted to Cayman Islands' traditional fishermen[109]. Unitisation, and the setting up of 'special resource enclaves', are two examples of how cooperation is possible side-by-side with delimitation. The latter is indeed another option for addressing the Greater Sunrise field predicament – for it would allow attributing to East Timor a more beneficial revenue-sharing, whilst allowing Australia to retain jurisdiction over the areas beyond the JPDA. Abstractly speaking, therefore, the proposition that a maritime boundary is *prima facie* preferable to a joint development solution can hardly be questioned.

Notwithstanding this position of principle, there is a second conclusion to which the example of the Timor Sea points: there might be instances in which joint development becomes a better option – notably if it leads to 'defusing' a (potential) dispute over a maritime boundary (in particular

(109) Treaty between the Government of the Republic of Honduras and the Government of the United Kingdom of Great Britain and Northern Ireland concerning the delimitation of the maritime areas between the Cayman Islands and the Republic of Honduras, of 4 December 2001 – Area of Misteriosa and Rosario banks, established under Article 3 and Annex B; the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATE FILES/GBR.htm.

if at its heart lies a disagreement over the access to, and/or division of, natural resources), and/or attaining a political balance *in casu* that would be unattainable through maritime delimitation alone.

Here, however, a word of caution is necessary. As the Timor Sea situation illustrates, thirdly, the reasons behind the decision to enter into a joint development agreement can be so idiosyncratic that extrapolations to other contexts should not be lightly made. The decisions in this respect are political, often with pure *realpolitik* ingredients. Whether the area of overlapping entitlements is best dealt with through maritime delimitation, or through joint development – or through another type of solution (e.g. a solution based on 'cooperative' arrangements other than joint development, or a combined solution), is a question to which only the states directly involved can answer, on the basis of mutual consent. Specific normative standards do not exist. From another perspective, this means that, even if states are unable to agree on a maritime boundary, they are under no legal obligation to enter into a joint development solution. To suggest that there is an obligation to cooperate through joint development solutions in cases in which negotiations on maritime boundaries are unsuccessful would require a demonstration that, it is argued, has hitherto not been provided. Even if, for the sake of argument, one would concede that there is some level of obligation to cooperate in the exploitation of resources in areas of overlapping entitlements, that would fall short of entailing a binding recourse to joint development. The aforementioned treaty between Honduras and the United Kingdom (Cayman Islands) provides a clear illustration for this point.

There is a fourth conclusion to be drawn from the Timor Sea situation: the taken-for-granted notion of joint development has no clear contours. To speak of 'genuine jointness' (or any equivalent term), is clearly misleading. 'Jointness' is whatever the states involved want it to be, taking into account political, economic and legal considerations. One would argue that the densification of this notion revolves around two paramount 'variables': the dialectic 'designated area *versus* sharing-ratio', and the legal framework for undertaking the exploitation of resources. The Timor Gap Treaty and the Timor Sea Treaty are examples of how a balance may be struck. Joint development however, might consist equally of, for instance:

- 50/50-sharing of revenues of petroleum resources, the jurisdiction over the area in question being solely exercised by one of the states involved (1958 Bahrain/Saudi Arabia treaty)[110];

(110) Cf. Bahrain-Saudi Arabia boundary agreement, of 22 February 1958, Second Clause; the text can be obtained from http://www.un.org/Depts/los/LEGISLATIONANDTREATIES/STATE FILES/BHR.htm. According to sources related to the petroleum industry, the revenue-

– 50/50-sharing of fishery resources – which is governed by the law of one of the states, and a 85/15-sharing of continental shelf resources – to which applies the law of the other state (1993 Senegal/Guinea-Bissau treaty)[111]; or
– combination of a single boundary that allows one state to exercise its maximum jurisdiction with a joint continental shelf zone that straddles the said boundary unevenly – roughly 72:28, benefiting the same state (1981 Iceland/Norway agreement)[112].

International law contains no specific provisions on the establishment of joint development regimes. Only general prescriptions apply – for example, obligation to resolve disputes peacefully, obligation to negotiate in good faith (which entails readiness to compromise), due regard to the rights and legitimate interests of the other party in the area of overlapping entitlements. With respect to the dialectic 'designated area *versus* sharing-ratio', there is good reason to suggest that considerations relating to the overlapping of entitlements and to the probable outcomes of a legal determination of maritime boundaries are likely to become its crux. With respect to the legal framework for resource management and development, again it all depends on the circumstances *in casu*. The idea of a spectrum of possible solutions, combining different elements in different ways (e.g. boundary-lines, a regime of 'jointness', special areas, 'buffer zones' or 'moratorium zones'), thus springs to mind. The concrete answer, the advantages/disadvantages of which only the states involved can weigh-up, depends on a number of intertwined aspects.

Consider the Timor Sea situation. On the one side, Australia is a developed and rich state, with a petroleum industry, which is probably a 'petroleum net-importer'. On the other side, East Timor is an undeveloped and poor state, with no experience or infrastructures in the petroleum world, which is likely to become a 'petroleum net-exporter'. Whereas the former might be ready to forego significant upstream fiscal benefits and petroleum rent, if that means maximising its economic petroleum linkages (in particular through downstream developments), the latter benefits

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split between the two states has been changed, although no formal change of the treaty occurred. Apparently, the whole 100% of the revenues are at present being attributed to Bahrain (although this could not be confirmed).

(111) Cf. Treaty supra n.65, Article 2; cf. Protocol of Agreement Relating to the Organisation and Operation of the Agency for Management and Co-operation between the Republic of Senegal and the Republic of Guinea-Bissau, of 12 June 1995, Charney and Alexander (eds.), supra n.11, p.2260, Article 24. The proportions mentioned are subject to revision in the event of relevant resource discoveries being made. The proportions in which the continental shelf resources are to be divided between the two states also seems to have changed in this instance. Apparently, Senegal has accepted a change to the revenue-split, which now seems to be 80/20.

(112) Cf. supra n.63.

perhaps the most if it maximises its upstream revenues (i.e. mineral rent and taxation). To design a framework that reconciles this 'incompatibility' might be a daunting task, especially for undeveloped states – owing to the specific expertise that is required to attain such an objective. Further, since these diverging interests have to be agglutinated with those of the petroleum industry, the task is even more intricate. Three sets of interests have thus to be reconciled. For the industry, what ultimately counts is the stability and predictability of the framework devised, which must offer a springboard for reasonable return on long-term investments. A 'higher-risk framework' might be tantamount to the inclusion of a compensating financial factor, which the industry necessarily reflects on the revenues obtained by states. Here, the stability inherent in boundary-based solutions might be a factor to weigh-up; boundaries have a 'definitive nature' that 'joint areas' do not necessarily possess – although admittedly, the substantive framework offered to the petroleum industry remains the key element in this equation.

All in all, states ought not to hastily jump into a joint development solution. Prior assessment of the difficulties involved is essential. The *prima facie* preference shown here for solutions involving the delimitation of boundaries stems from a key point: although it might take longer to negotiate them (this usually raises difficulty with the petroleum industry), the legal setting created thereby is often clearer and more stable than that resulting from solutions not incorporating the delimitation of boundaries. No doubt, it might be concluded that joint development is the best approach – especially as means of not aggravating an ongoing, or of dealing with a potential, boundary dispute, and/or to expedite the exploitation of certain resources. Should that be the case, a proper empirical analysis of the 'precedents' (background, framework devised, and implementation) is perhaps the only reliable approach to the negotiation of a joint development agreement. Even then, analogies should be cautiously 'validated'.

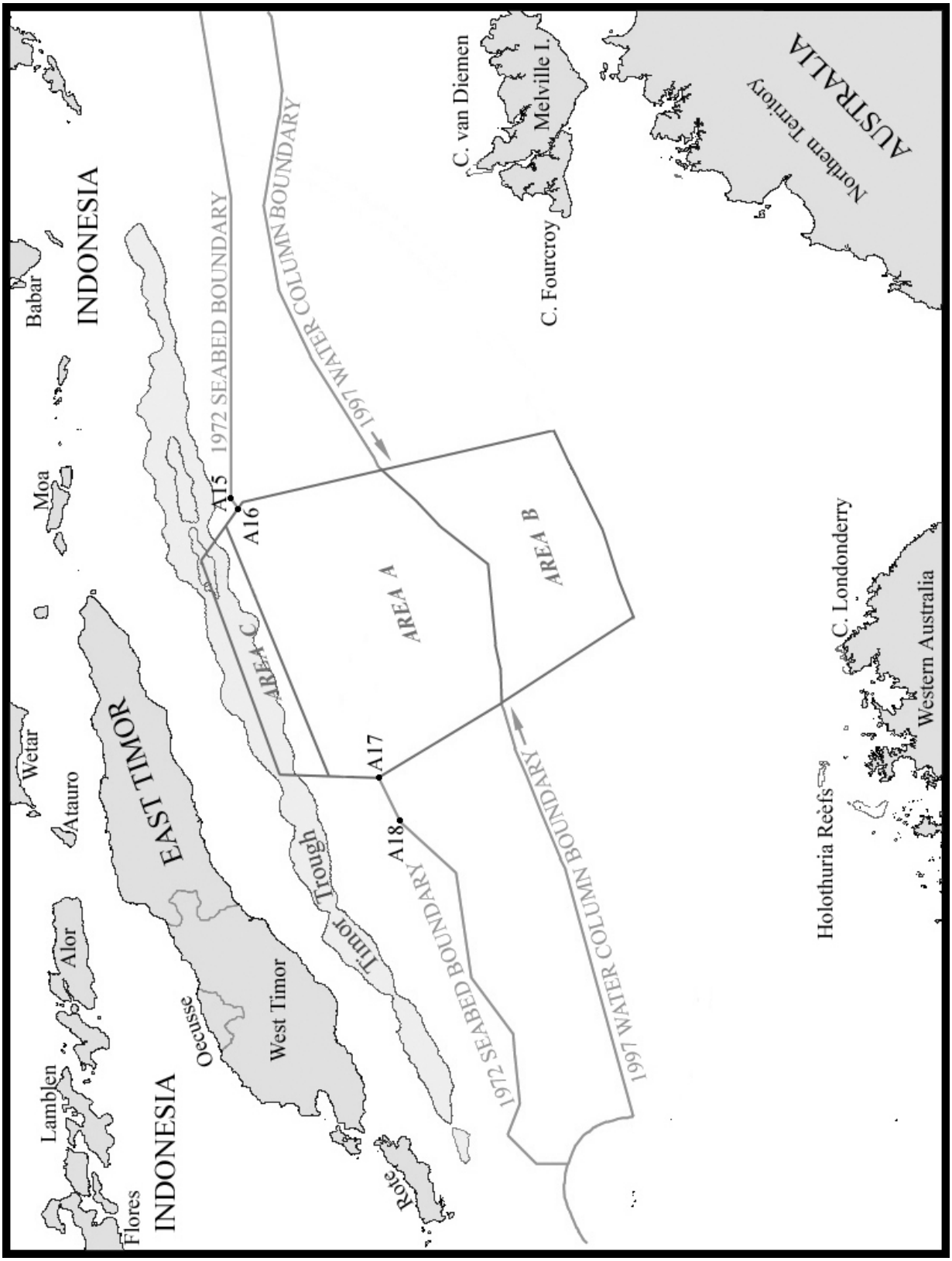
A last word concerns Article 83(3) of the LOSC. According to it, pending delimitation, and without prejudice thereof, states are obliged to "make every effort to enter into provisional arrangements of a practical nature". As far as natural resources are concerned, this reference to "arrangements of a practical nature" is often taken as a pointer to joint development. Nevertheless, it ought to be observed that such an obligation falls short of imposing on states any obligation to enter into an arrangement of some sort. Further, although it is recognised that an arrangement would be desirable in many instances, it must nevertheless be added that options other than joint development

are available (e.g. a moratorium on the exploitation of resources in a 'fringe area' – whilst allowing a unilateral exploitation in all other areas; or an arrangement allowing unilateral or joint exploitation of a specific reservoir or field in the area of overlapping entitlements).

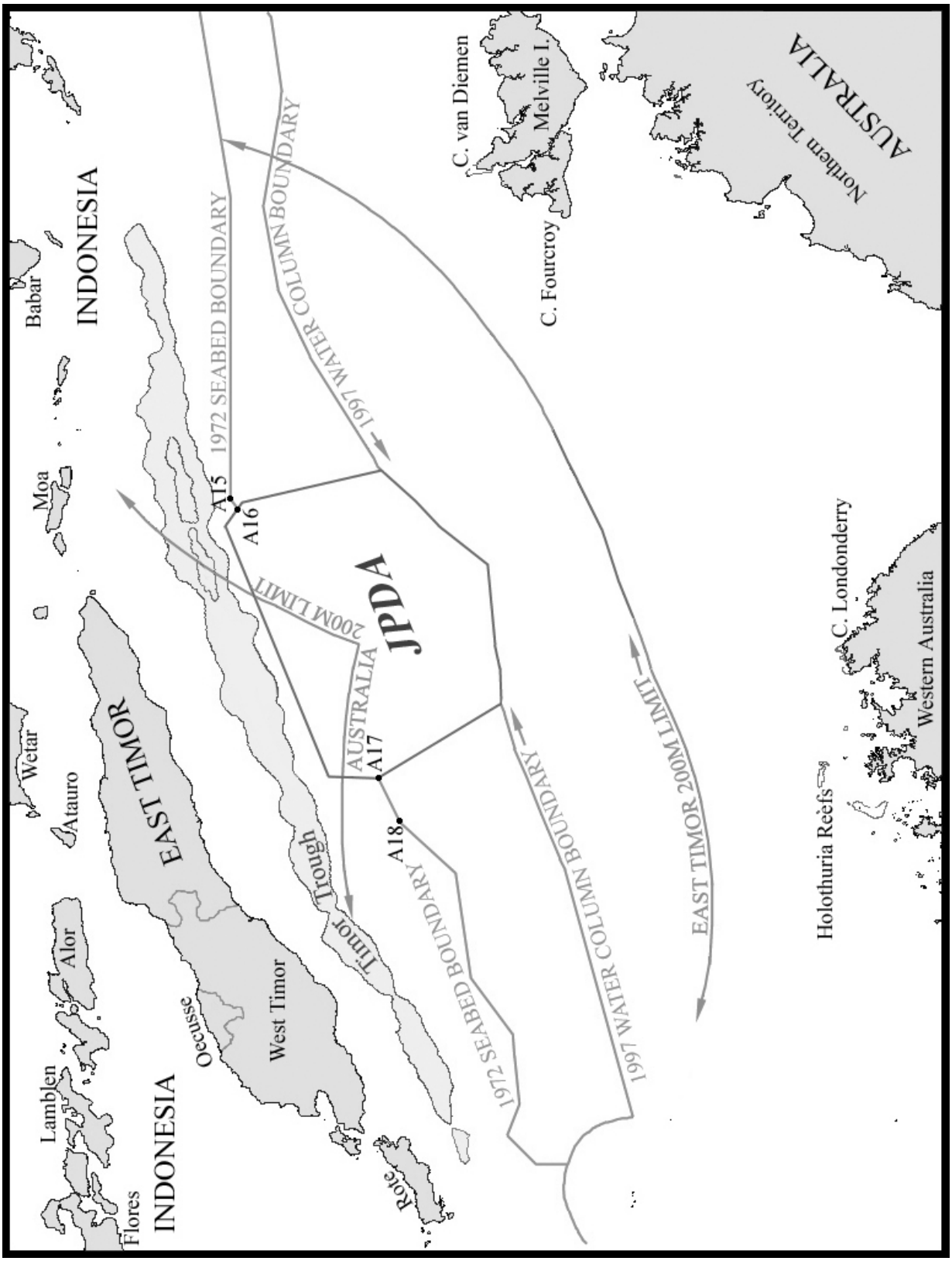
Above all, one would suggest that it is not always possible to foresee comprehensively all consequences, *de jure* and *de facto*, of adopting such provisional arrangements. As Bedjaoui recently noted, law is the science of security[113]. In the realm of boundaries and allocation of territorial (or quasi-territorial) rights, this is true probably more than in any other field of international law. Even if provisional *ab initio*, joint development arrangements might contribute to crystallise rights which are quasi-territorial in nature. It is therefore unsurprising that Australia seeks to continue to assert, and to exercise effectively, its jurisdiction over areas beyond the JPDA. Two points should finally be made. Neither is joint development exclusive of the delimitation of a boundary, nor is it necessarily a provisional measure to be adopted pending a maritime delimitation. Depending on the circumstances, political-economic balances might be best struck if joint development regimes are set up alongside boundaries, and/or if such regimes are also set up on a permanent basis.

(113) Mohammed Bedjaoui, «Expediency in the Decisions of the International Court of Justice», 71 BYIL (2000) 1, at p.1.

MAP 1


AUSTRALIA
Northern Territory
Western Australia
INDONESIA
INDONESIA
EAST TIMOR
Babar
Moa
Wetar
Atauro
Alor
Lamblen
Flores
Oecusse
West Timor
Timor Trough
Roti
C. van Diemen
Melville I.
C. Fourcroy
C. Londonderry
Holothuria Reefs
A15
A16
A17
A18
1972 SEABED BOUNDARY
1997 WATER COLUMN BOUNDARY
AREA C
AREA A
AREA B
1997 WATER COLUMN BOUNDARY
1972 SEABED BOUNDARY

MAP 2


AUSTRALIA
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EAST TIMOR
JPDA
AUSTRALIA
Babar
Moa
Wetar
Atauro
Alor
Lamblen
Flores
Oecusse
West Timor
Timor Trough
Roti
Holothuria Reefs
C. van Diemen
Melville I.
C. Fourcroy
C. Londonderry
A15
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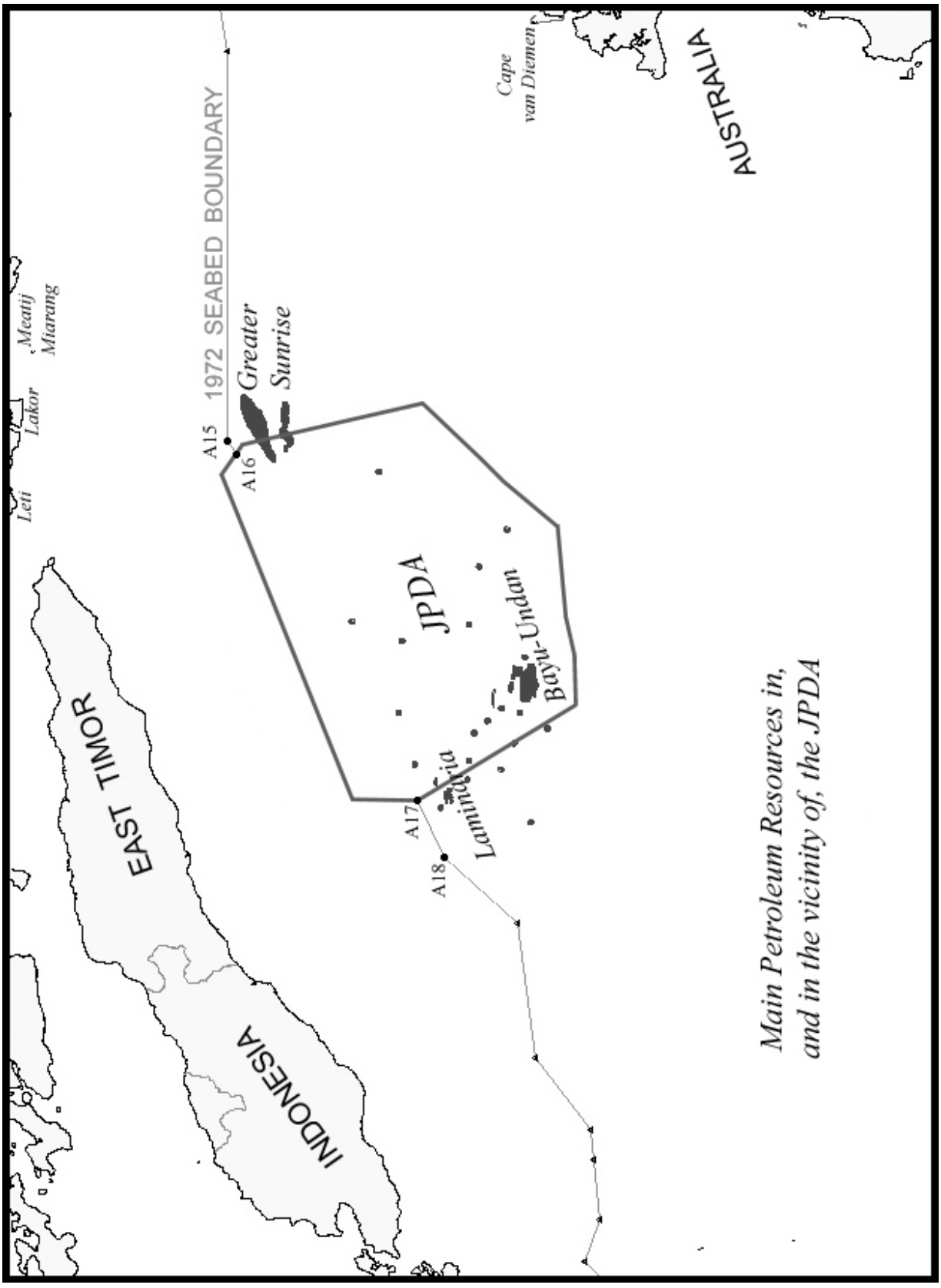
A18
1972 SEABED BOUNDARY
1997 WATER COLUMN BOUNDARY
200M LIMIT
1997 WATER COLUMN BOUNDARY
1972 SEABED BOUNDARY
EAST TIMOR 200M LIMIT

MAP 3


1972 SEABED BOUNDARY
Greater Sunrise
A15
A16
A17
A18
JPDA
Bayu-Undan
Laminaria
Cape van Diemen
AUSTRALIA
EAST TIMOR
INDONESIA
Leti
Lakor
Meatij
Miarang
Main Petroleum Resources in,
and in the vicinity of, the JPDA