

See report on Brazil's assistance to East Timor, page 14.

## Timor Sea Oil and Gas Update

Much has happened since the end of 2002, when *La'ō Hamutuk* last reported on Timor Sea oil and gas. As we've described in past articles (see *La'ō Hamutuk Bulletins Vol. 3, Nos. 4-8*), these seabed resources carry much hope, and pose serious dangers, for East Timor's medium- and long-term economic future. The series of articles in this *Bulletin* describe the most important events since then.

On page 11, you will find a glossary explaining technical terms used in this article. Words and phrases underlined in the articles which follow are defined in the glossary.

The *La'ō Hamutuk Bulletin* has already reported on the history and the major offshore petroleum deposits between East Timor and Australia, and we begin this series of articles by reviewing that information.

Page 5 relates how Australia blackmailed East Timor to sign an International Unitization Agreement (IUA) for the Greater Sunrise natural gas field, the largest in the region. As soon as East Timor signed that agreement, Australia ratified the Timor Sea Treaty, which has now come into force. Full-scale development of the Bayu-Undan oil and gas project has now begun, and that field will begin producing liquids (liquified petroleum gas and condensate) in less than a year. The project is already providing tax revenues for East Timor, and a few dozen jobs for East Timorese, although hardly any of the investment will be spent here. After assessing the money East Timor can expect from this field over the next few years, we look at smaller oil and gas fields in the area.

The article on page 8 describes the Sunrise International Unitization Agreement, signed in March, and the possible alternatives for developing that field. East Timor views both the Timor Sea Treaty and the Sunrise agreement as interim agreements, which will be replaced if and when East Timor and Australia agree on a maritime boundary between their overlapping Exclusive Economic Zones. However, as described on page 10, Australia has stonewalled the process to negotiate the boundary and has withdrawn from international legal processes that could resolve the dispute.



The Compression, Utilities and Quarters platform for Bayu-Undan was built in South Korea and delivered to the Timor Sea in June 2003.

(Photo courtesy ConocoPhillips and the TSDA)

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## Timor Sea Historical Background

East Timor's economic independence depends on the money the new nation can earn by selling its natural resources, especially the petroleum deposits which lie under the Timor Sea between East Timor and Australia. These fields, which contain oil and gas worth more than US\$30 billion, lie closer to East Timor's south coast than to any other land. However, due to a history of colonialism, invasion, occupation, and illegal activities by Indonesia and Australia, East Timor could receive less than half of the revenues it should be entitled to under the principles of the United Nations Convention on the Law of the Sea (UNCLOS).

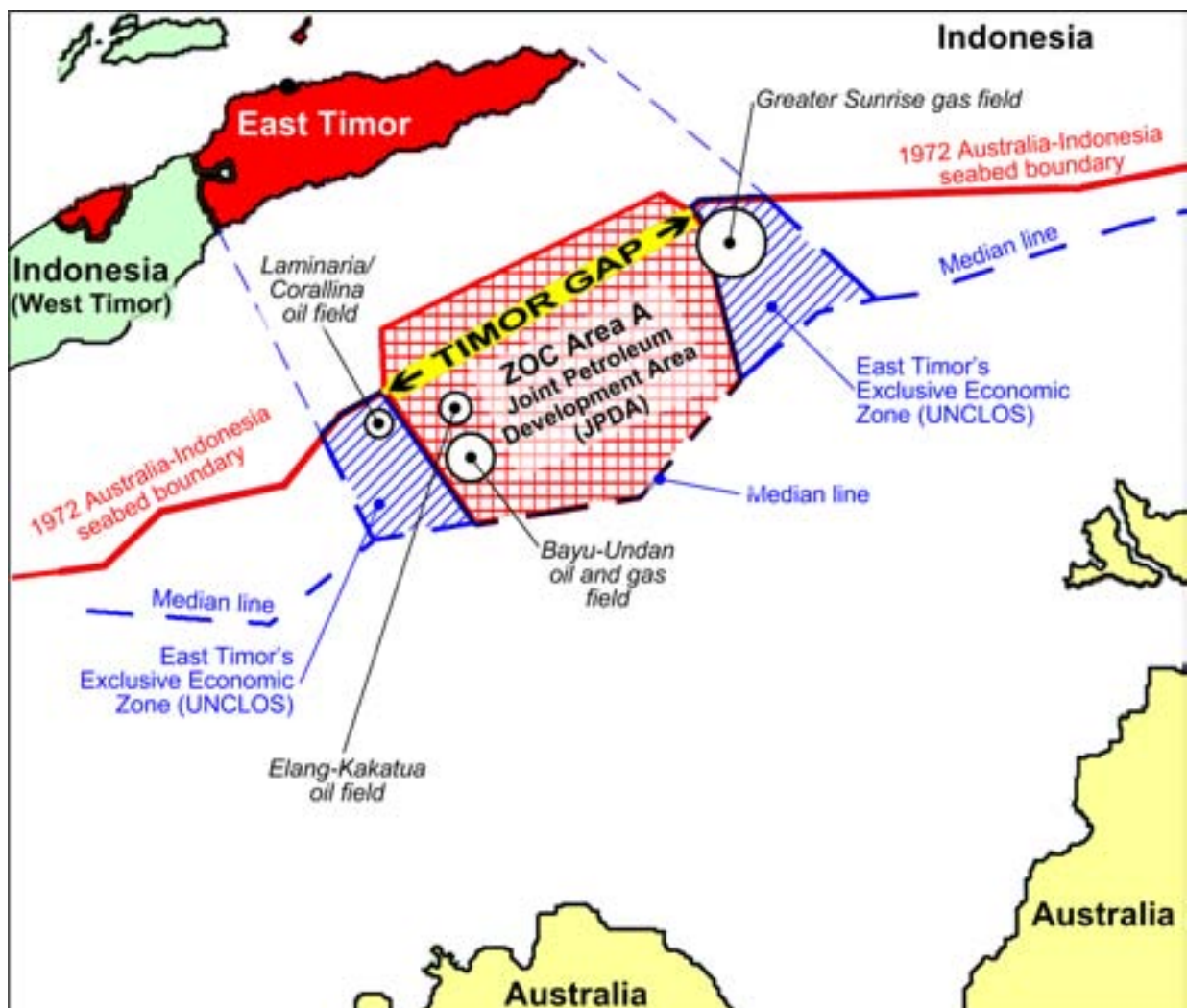
In 1972, Australia and Indonesia signed a seabed boundary treaty based on the now outdated continental shelf principle, establishing a seabed boundary much closer to Indonesia than to Australia. Since Portugal (the colonial ruler of East Timor at that time) refused to participate in the discussions, the boundary was incomplete, resulting in the "Timor Gap" (see map below).

Indonesia invaded East Timor three years later. In 1979, Australia and Indonesia began negotiations which led the 1989 Timor Gap Treaty dividing the seabed resources in the "Gap," giving Australia the largest share in return for Australia's recognition of Indonesia's illegal annexation of East Timor. Rather than complete the boundary line,

the Treaty defined a Zone of Cooperation (ZOC). Within the ZOC's central Area A, resources would be shared equally between Australia and Indonesia. Australia continued to control areas east and west of the ZOC, based on the 1972 agreement with Indonesia, although some of that territory would now belong to East Timor under UNCLOS principles.

Just after the 1991 Santa Cruz massacre, international oil companies began signing contracts with Australia and Indonesia to explore under the Timor Sea, and oil in East Timor's territory was first discovered in early 1994 and extracted in 1998 from the Elang-Kakatua field in ZOC-A. No significant petroleum has been found under ZOC areas B and C. In late 1994 the larger Laminaria-Corallina field, was discovered just west of the ZOC.

Because Indonesia's occupation of East Timor was illegal, the Timor Gap Treaty was also illegal, and Portugal challenged it in the International Court of Justice (ICJ). In 1995 the ICJ ruled that it could not invalidate the treaty because Indonesia did not accept ICJ jurisdiction, but that East Timor had an undeniable right to self-determination. In 1999, that right was finally achieved, and the Timor Gap Treaty evaporated when Indonesia's bloody occupation of East Timor reached its ultimate climax. One month later, Woodside Australian Energy began oil production from the lucrative Laminaria-Corallina oil field.



During the UN Transitional Administration (UNTAET), both the United Nations and East Timor's leadership recognized the importance of undersea petroleum to East Timor's future, and they acted to preserve the oil companies' contracts and continue development, so that East Timor would receive some oil revenues quickly. They also acted to protect Australia's interests, allowing East Timor's southern neighbor to continue to occupy maritime territory ceded to it by Indonesia.

The first UNTAET-Australia agreement, in 2000, continued the terms of the 1989 Timor Gap Treaty but substituted "East Timor" for "Indonesia" throughout the document. The 50-50 division of Zone of Cooperation Area A (now called the Joint Petroleum Development Area) was maintained, and a binational agency (the JPDA Joint Authority) was established, under equal control by UNTAET and Australia, to continue managing the development. The following year, UNTAET and Australia renegotiated the agreement to divide petroleum production in the zone, 90% for East Timor and 10% for Australia, signing the Timor Sea Arrangement in July 2001. Australia thus implicitly

recognized that the JPDA legally belongs in East Timor's Exclusive Economic Zone. However, the Joint Authority remained equally under Dili and Canberra, and was based in Darwin.

In the months prior to independence, this arrangement was transformed into the Timor Sea Treaty between East Timor and Australia, which was signed on 20 May 2002, East Timor's first day as an independent nation. The Timor Sea Treaty continued the 90-10 split, but redefined the Joint Authority as the Timor Sea Designated Authority (TSDA) and gave East Timor two of the three TSDA Commissioners. None of the discussions between UNTAET and Australia covered areas outside the ZOC/JPDA, which has allowed Australia to continue to develop seabed resources that should rightfully belong to East Timor. Although the Timor Sea Treaty and other agreements say they are "without prejudice" to a future maritime boundary settlement (and they become null and void once boundaries are agreed to), there is no incentive for Australia to settle the boundaries, which could end its lucrative maritime occupation, until all the petroleum has been extracted.

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## Boundaries and Petroleum Fields

The map on the previous page shows the Timor Sea, between East Timor and Australia. The dashed lines are median lines, halfway between the coasts of East Timor, Australia and Indonesia. Under current law, based on the United Nations Convention on the Law of the Sea (UNCLOS), this is where maritime boundaries should be drawn when two countries are closer than 400 nautical miles. The striped areas are currently occupied by Australia, but many experts in maritime law believe they should be in East Timor's Exclusive Economic Zone under UNCLOS principles.

The solid line is the 1972 Australia-Indonesia seabed boundary. Most of the petroleum in the Timor Sea lies south of this line and north of the median line, closer to East Timor than to Australia. The cross-hatched area is the Joint Petroleum Development Area, assigned 90% to East Timor and 10% to Australia under the Timor Sea Treaty.

The petroleum fields shown on the map are the most significant for East Timor, although there are also smaller ones. There are other large fields to the south and west, closer to Australia or Indonesia than to East Timor, not shown. All fields on the map would probably belong entirely to East Timor under median line principles:

**Elang-Kakatua** is a small oil field, the first in the JPDA to be discovered and developed. It is operated by ConocoPhillips, and has produced about \$50 million in government revenues, divided between Australia, Indonesia and East Timor. Approximately 90% of its oil has already been extracted. East Timor now receives 90% of Elang-Kakatua's government share of production and taxes.

**Bayu-Undan** is a large gas field within the JPDA, also operated by ConocoPhillips. This field is rich in natural gas liquids, namely liquified petroleum gas (LPG) and condensate. Bayu-Undan construction is now fully underway, following the entry into force of the Timor Sea Treaty. The liquids phase of Bayu-Undan development is expected to bring in about \$1.8 billion in revenues to East Timor from when production starts in early 2004 for the next 20 years. The second phase, piping natural gas to Australia for liquification and export to Japan, will begin in April 2006, yielding \$1.2 billion in revenues to East Timor over the following 17 years. Under current arrangements, East Timor will get 90% of Bayu-Undan's government share of production and taxes.

**Greater Sunrise** contains more than twice as much gas as Bayu-Undan. It lies approximately 20% inside the JPDA and 80% outside, under waters currently occupied by Australia but claimed by East Timor. Woodside Australian Energy, the operator, hopes to begin production around 2009, probably using the world's first floating gas liquification plant, which will be developed and operated by Shell. With the ratification of the Timor Sea Treaty, Sunrise development is now waiting for Australia and East Timor to ratify the International Unitization Agreement (IUA, see below), and there are still many decisions to be made, and no buyers for the gas have yet been identified.

**Laminaria-Corallina** is just outside the JPDA in waters claimed by East Timor and Australia, but closer to East Timor. This oil field, also operated by Woodside, began production in late 1999 and will be exhausted by 2005. This field has generated more than \$1 billion in revenues for Australia, and nothing for East Timor.



The following table shows the estimated energy reserves in the major petroleum fields between Australia and East Timor. It does not include fields which lie closer to Indonesia than to East Timor (such as the Browse Basin and Ashmore-Cartier area), or which are clearly outside East Timor's Exclusive Economic Zone. The table is expressed in millions of barrels of oil equivalent (BOE).

Oil and Gas Fields in the Timor Sea between East Timor and Australia						
Field(s)	Location	Estimated reserves (millions of BOE)	Timor Sea Treaty and Unitization Agreement		According to UNCLOS legal principles	
			Australia share	E. Timor share	Australia share	E. Timor share
Evans Shoal Petrel-Tern Blacktip	Australia's side of the median line	1540	1540	0	1540	0
Elang-Kakatua Bayu-Undan Chudditch Kuda Tasi & Jahal	JPDA (East Timor's side of the median line), excluding the IUA	1110 (including 30 already extracted)	111	999	0	1110
Greater Sunrise	IUA, East Timor's side of the median line, 20.1% in the JPDA	1920	1573	347	0	1920
Laminaria-Corallina Buffalo	East Timor's side of the median line, outside the IUA and west of the JPDA	270 (including 220 already extracted)	270	0	0	270 (revenue must be redistributed)
<b>Total</b>		<b>4840</b>	<b>3494</b>	<b>1346</b>	<b>1540</b>	<b>3300</b>

Figures are taken from several sources; they approximate the situation at the end of 2002. The table shows that 32% of the petroleum resources in the Timor Sea are on Australia's side of the median line, while 68% are on East Timor's side. If we look at East Timor's rightful 68% share, we can see that:

- Under the Timor Sea Treaty, East Timor gives Australia 10% of the JPDA (excluding Sunrise), or 3% of East Timor's total Timor Sea resource share.
- Under the International Unitization Agreement, East Timor gives Australia 82% of Greater Sunrise, amounting to 48% of East Timor's total resources.
- By refusing to negotiate a boundary, Australia is taking an additional 8% of East Timor's petroleum, west of the JPDA but which would belong to East Timor under a median line boundary.
- Together, the two agreements transfer nearly two billion BOE from East Timor to Australia, resulting in East Timor's losing approximately 59% of its petroleum reserves. Although not shown in the table, Australia has more than four times as much as the total Timor Sea petroleum reserves in other areas.



The Floating Storage and Offloading facility "Liberdade" being launched in September 2002 from South Korea. This ship will be permanently anchored at Bayu-Undan, loading condensate and other natural gas liquids on to tankers for the first phase of the project (see page 6).

(Photo courtesy ConocoPhillips and the TSDA)

# Australia Blackmails East Timor

*La'o Hamutuk* last wrote about the Timor Sea Treaty in May 2002, just before the Prime Ministers of East Timor and Australia signed it. Eleven months later, following ratification by both countries, the Treaty came into force. The reasons for the delay are instructive, and could indicate a pattern for future negotiations and relationships.

The Timor Sea Treaty is essential for the Bayu-Undan project to be developed, and that field will provide East Timor with significant income in about three years, sooner than any other large field. Since Australia has many other sources of income and receives only 10% of Bayu-Undan revenues, Bayu-Undan is not as important to them as it is to East Timor.

The larger Greater Sunrise gas field, however, is very important to Australia. Approximately one-fifth of this field is within the JPDA, and the remainder is outside. When East Timor and Australia signed the Timor Sea Treaty, they agreed to negotiate an International Unitization Agreement (IUA, see page 8) for the Sunrise field, attributing 20.1% of it to the JPDA and the rest to Australia.

For Australia, Sunrise upstream is therefore worth more than ten times as much as Bayu-Undan, although Australia will receive downstream revenues from both fields. Under the current agreements, East Timor receives only one-fourth as much from Sunrise as from Bayu-Undan. So while East Timor prioritized the Timor Sea Treaty, Australia put more importance on the Sunrise Unitization Agreement.

When they signed the Timor Sea Treaty in May 2002, both governments agreed "to work expeditiously and in good faith to satisfy their respective requirements for the entry into force of the Treaty." East Timor kept its commitment, presenting the treaty to its Parliament in November. On December 17, it was ratified by a vote of 65-13.

When they signed the treaty, the two Prime Ministers also agreed to negotiate a Sunrise unitization agreement by the end of 2002. The negotiations took longer than expected, partly because East Timor refused to concede Australian sovereignty over territory outside the JPDA, but insisted that the agreement, like the Timor Sea Treaty, be "without prejudice" to a future maritime boundary settlement.

In October 2002, East Timor enacted a Maritime Boundaries Law, claiming a 200 nautical mile Exclusive Economic Zone in all directions, based on UNCLOS principles. Since this overlaps maritime territory claimed by Indonesia and Australia, East Timor will negotiate with each of its neighbors to establish the extent of the new nation's territory. Although Dili has repeatedly asked Australia to begin boundary negotiations, Canberra has not yet accepted the invitation.

In one IUA negotiating session in Dili in November 2002, Australian Foreign Minister Alexander Downer lectured East Timor's Prime Minister Mari Alkatiri: "To call us a big bully is a grotesque simplification of Australia. We had a cosy economic agreement with Indonesia; we bailed East Timor out with no economic benefit. Our relationship is crucially important, particularly for you, East Timor. The two countries you can count on the most are Portugal and Australia. ... On principle we are surprisingly inflexible. ... We are very tough. We will not care if you give information to the media. Let me give you a tutorial in politics – not a chance."

The Sunrise project is many years away, no buyers have yet been found, and basic development decisions have not been made, so East Timor was in no hurry to sign a unitization agreement. Australia, on the other hand, was eager to lock in Sunrise, and to get East Timor to acknowledge Australian sovereignty over territory outside the JPDA. Although East Timor reluctantly accepted a unitization agreement that gave Australia more than four-fifths of Sunrise revenues, the new nation has not relinquished its claim to the contested territory.

Australia delayed ratifying the Timor Sea Treaty to force East Timor to sign the Sunrise IUA. Although Dili had ratified the Treaty in December, the Australian government refused to ratify, holding up the process and threatening the Bayu-Undan project. Bayu-Undan operator Conoco-Phillips said that the Japanese customers for Bayu-Undan gas could cancel their contracts if the

## Information Resources

*La'o Hamutuk* recently issued its *OilWeb* CD-ROM, a reference to issues relating to East Timor's oil and gas. *OilWeb* includes many of the presentations from the Dili conference, as well as hundreds of legal, historical, and analytical documents and everything *La'o Hamutuk* has published on this subject. Most is in English, but some articles are in Bahasa Indonesia, Tetum and Portuguese. The CD-ROM, which also includes the 17-minute video *Don't Rob Their Future* and a Tetum radio play, is available from *La'o Hamutuk* at \$50 for institutions, \$2 for East Timorese activists.

*La'o Hamutuk* has also produced a four-page, illustrated, Tetum-language *Surat Popolar* on the Timor Gap, which explains the history and the dilemma of the maritime boundary problem with Australia. It is intended to be used as a discussion guide for people throughout East Timor.

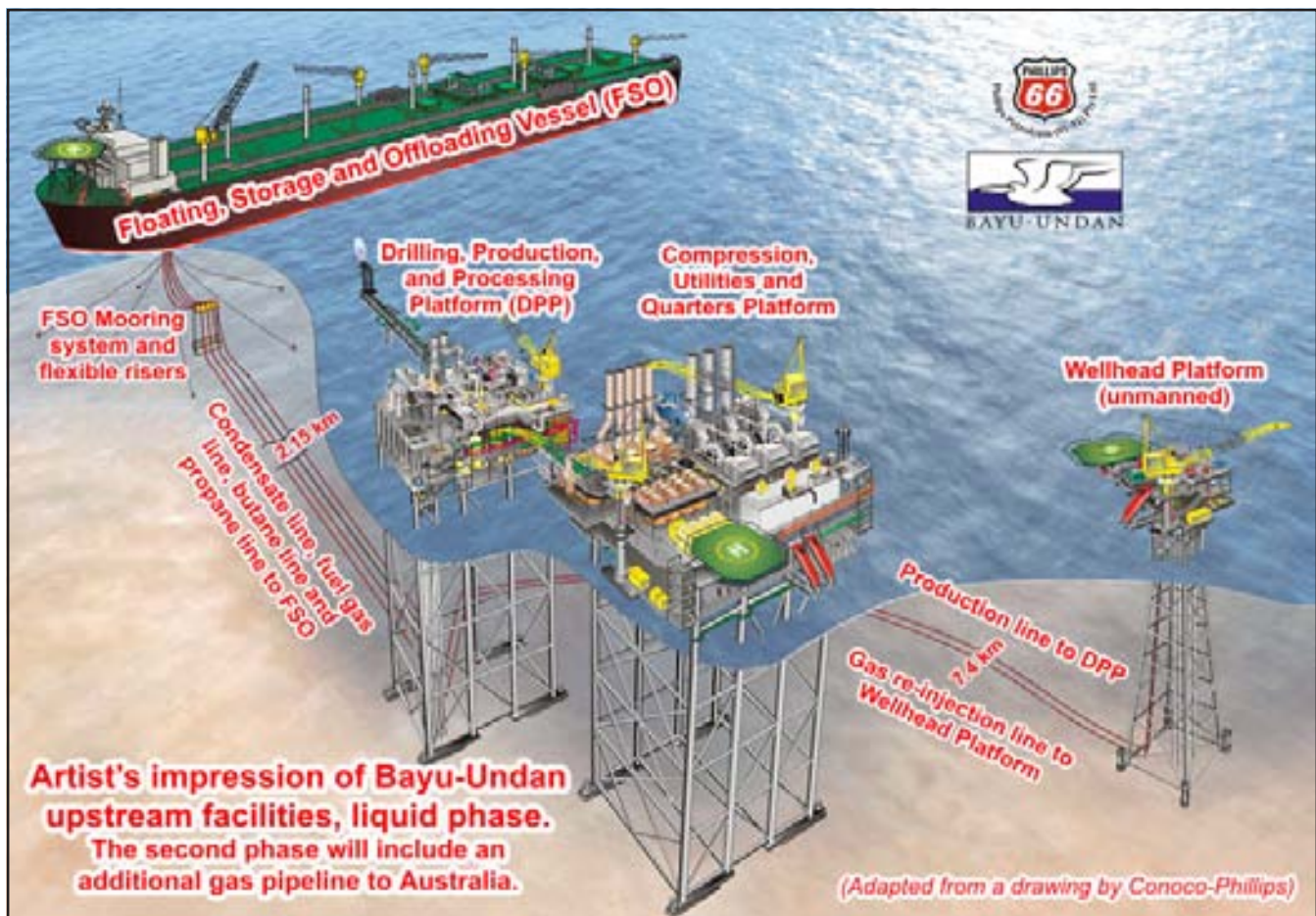
Treaty were not ratified by both governments before 11 March. On 5 March, East Timor's Government, fearful of losing Bayu-Undan, agreed to sign the IUA, and the Australian Government submitted the Timor Sea Treaty to Parliament. The following day, Alexander Downer returned to Dili to sign the IUA; on the same day, Parliament in Canberra ratified the Timor Sea Treaty.

During the debate on ratification in the Australian Senate, Green Party Senator Bob Brown described the process:

"Last night the (Australian) Prime Minister used blackmail on East Timor. ... The motive of the Prime Minister last night was to coerce East Timor, in terms of resources and money, through a threat to withdraw this legislation if the East Timorese government did not agree to sign the agreement today. ... We are debating today a piece of legislation that will involve, according to the Minister for Foreign Affairs, Mr. Downer, a \$50 billion (U.S. \$33 billion) break for Australia from the development of the oil and gas fields which are wholly within East Timorese waters, according to my interpretation and the interpretations of a number of international jurists.

"But the boundaries were moved to exclude part of those oilfields during the period of the Indonesian occupation of East Timor, and this treaty effectively excludes the lot and gives to Australia if not fifty-fifty then the majority of the prof-





its that will flow to governments from those oilfields. This is Australia being involved in a grand theft of the resources of our small neighbour East Timor—the most impoverished neighbour in the neighbourhood having its one resource that is going to help it get up off the ground in the future taken by its richest neighbour.

“This is Prime Minister Howard, on behalf of the oil corporations, ringing the Prime Minister of East Timor, Dr Alkatiri, and saying to Dr Alkatiri, according to the *Age* report, ‘If you do not sign the agreement for the development of the Greater Sunrise field—which is the biggest field and which is East Timorese—and give that resource in the major part to Australia, then we won’t have this legislation go through the Senate today,’ which allows for the development of the other, smaller oilfield, which the East Timorese want to see developed. That is the Prime Minister saying, ‘Do as we want or we will take away a potentially lucrative contract with the Japanese for development of the Bayu-Undan oilfield.’”

For his honesty, Senator Brown was expelled from the Senate for the rest of the day.

The Timor Sea Treaty came into force on 2 April, after Australia completed its ratification process. Under the new Treaty, the former Joint Authority has been replaced by the Timor Sea Designated Authority (TSDA), which oversees oil and gas development within the JPDA. The TSDA is governed by the Timor Sea Joint Commission, which has two commissioners appointed by East Timor (TSDA Executive Director Einar Risa of Norway and East Timor’s Secretary of State for Investment, Tourism, and Environment José Teixeira), and one by Australia (John Hartwell from the Australian Department of Industry, Tourism and Resources). Although most of the office is still in Darwin, it will all move to Dili in two or three years.

### Bayu-Undan Project Underway

On 16 May, the TSDA approved the Bayu-Undan joint venture’s Production Sharing Contract and Development Plan, and on 5 June East Timor’s Parliament approved two tax bills relating to the project. With the legal procedures out of the way, Bayu-Undan operator ConocoPhillips (owner of 64% of the project), together with its partners Eni/AGIP of Italy, Santos of Australia and INPEX of Japan (each owning around 12%), can go ahead. In mid-June, the partners sold about 10% of their shares to the Tokyo Electric Power Company and Tokyo Gas Company, who will buy Bayu-Undan’s LNG for use in Japan.

East Timor expects to receive approximately \$3 billion in its share of production and taxes over the next 20 years from the Bayu-Undan project, but very little of the investment and employment will be in this country. The Bayu-Undan partners have promised to spend only \$57 million in investment and expenditure in East Timor over the project life, less than 2% of what they will spend in other countries. Australia’s Northern Territory, with one-fourth the population of East Timor, hopes to receive \$900 million from Bayu-Undan investment and expenditure. Although some believe this figure is exaggerated, it is more than fifty times as much per person as East Timor will receive in investment.

Construction for the first phase of Bayu-Undan – extracting natural gas liquids (condensate and LPG) from two dozen wells, processing it at sea, and shipping it to customers – is well underway and will be in production by 2004. Natural gas extracted during this phase is compressed and recycled back into the underground reservoir for re-extraction in the second phase.

The diagram on the previous page shows how this will work. Bayu-Undan is located under 80 meters of water, and includes a wellhead platform and two for crew quarters and processing. The actual production and loading onto oil tankers is done on a Floating Storage and Offtake (FSO) vessel – a specially-designed ship. All of the processing is done at sea, and most of the equipment is being built in South Korea, Singapore and Indonesia. Although this phase will yield East Timor \$1.8 billion in revenues over the next 20 years, it will create almost no jobs in either East Timor or Australia, and only about a hundred at sea. East Timor will, however, collect 90% of the taxes on economic activity within the JPDA.

The second phase, extracting natural gas for sale to Japanese customers, will produce an additional \$1.2 billion for East Timor. Construction has just started; production should begin in 2006 and continue until 2023. The companies will build a 500-km undersea gas pipeline from Bayu-Undan to Darwin, Australia, and a facility there will convert it to liquefied natural gas (LNG). Australia's Multiplex Construction company and Italy's Saipem SpA (a division of Eni) will purchase steel pipe from Japan, surround it with a concrete jacket in Malaysia, and lay it on the bottom of the Timor Sea. The installed cost of the pipeline will be nearly \$500 million.

ConocoPhillips recently signed a \$1 billion contract to construct a factory at Wickham Point in Darwin to liquefy the natural gas (producing LNG) for shipping to customers

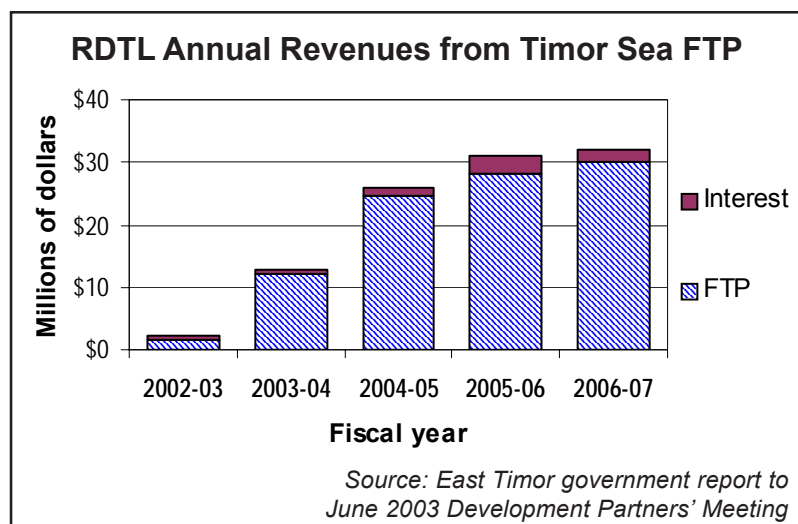
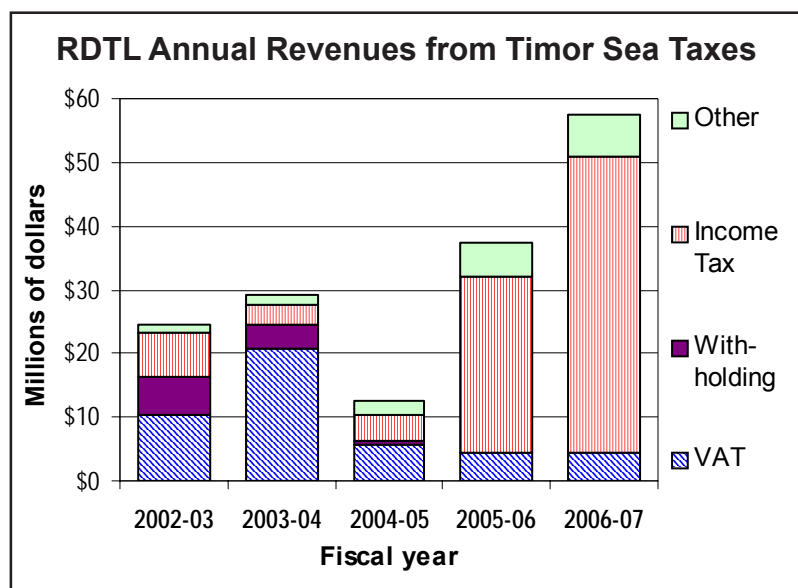
in Japan. The plant will be built by the U.S. engineering conglomerate Bechtel, a company with a long and nefarious history. (Bechtel, which has close ties to the Bush administration, just received a \$680 million contract from the U.S. government to reconstruct Iraq's infrastructure.) Although Darwin residents concerned about the local environment have protested the plant, construction began on 23 June and will take about three years. The pipeline and the LNG plant projects will greatly benefit Australia's Northern Territory economy, but hardly any of the money spent on downstream construction and processing, or the resulting taxes, will come to East Timor.

### Revenue projections

This article only looks at income East Timor can expect from petroleum in the next few years; *La'õ Hamutuk* will report on this in more detail in a future *Bulletin*. Due to technical problems that have now been solved, Bayu-Undan Phase 1 production will be delayed by several months. This will have significant consequences for East Timor's government budget in the near term: estimated Timor Sea petroleum income for the two years 2003-5 have been reduced 42% (by \$30 million), although that revenue will be available in the future.

According to East Timor's 2003-04 budget, Timor Sea revenues from Elang-Kakatua and Bayu-Undan are as shown on the graphs at left. Only the tax revenues shown on the upper graph are used for each year's operating budget. This money includes:

- ✓ **Other:** non-tax revenues from petroleum development, primarily pipeline payments by Australia.
- ✓ **Income tax:** on oil companies and workers in the JPDA (90%) and in East Timor (100%), which is based on the profit made by the companies by selling petroleum. This will increase when petroleum production increases after 2006.
- ✓ **Withholding tax** on contractors, in advance against future taxes owed; this is unlikely to be significant from now on.
- ✓ **Value Added Tax (VAT)** on capital invested in the construction and deployment of the platforms and other equipment. This will decrease after 2004, as most of the upstream equipment has already been built.



East Timor's share of money from gross sales of the oil and gas (called First Tranche Petroleum, FTP), shown on the lower graph, is not used for East Timor's annual government budget. Instead, it is invested in a capital fund. Interest earned by this fund is currently reinvested, but future interest will provide income to East Timor 30 years from now, after the oil and gas has been used up. This fund is projected to accumulate more than \$100 million by the end of the 2006-7 budget year and will grow much larger after that; the graph at left indicates how much FTP and interest will be saved each year until then.

FTP revenues will expand dramatically after 2006, when Bayu-Undan phase 2 goes into production. Bayu-Undan is projected to contribute a total of about \$1.3 billion to the trust fund. After the companies recover



their three billion dollar investment, East Timor will receive additional profit oil income, but this is at least a decade away. This field will stop production around 2023, when all the condensate and gas which can profitably be extracted has been sold.

If Sunrise starts producing in 2009, it could generate income for the following 30 years, increasing the trust fund by about 25% under the current IUA. However, if East Timor were to receive its UNCLOS entitlement to most or all the Sunrise income, the trust fund could double in size.

### Smaller fields in the Joint Petroleum Development Area

For the last two years, East Timor's government received more than \$20 million per year (one fourth of the national budget) from taxes on Bayu-Undan construction, and as FTP from smaller oil fields in the Joint Development Area, primarily the Elang-Kakatua field. This field started production in 1998, making money for Indonesia and Australia, and is now 90% exhausted. With the ratification of the Timor Sea Treaty, East Timor receives 90% of the revenues earned

by this field since 20 May 2002, and 50% of what was earned between the end of 1999 and independence day. East Timor has received \$10.3 million in FTP revenues so far from Elang-Kakatua, 71% of which was paid during the UNTAET administration, and a comparable amount has been received in taxes. Before the end of 1999, Indonesia collected 50% of the taxes and revenues, approximately \$8 million, and that illegal occupier has not relinquished its stolen wealth.

Elang-Kakatua is now nearing the end of its production life, as is Laminaria-Corallina. The equipment which has been used to extract oil from those fields could soon become available, making it economical to exploit smaller fields in the JPDA, principally Kuda Tasi and Jahal. The joint venture that would develop these fields is operated by Woodside (with a 40% share), and also includes Inpex (35%) and Santos (25%). If Woodside's estimates are correct, these fields could bring in as much as \$100 million to East Timor during 2005-2007, which is not shown on the graphs because no definite development plans have been made.

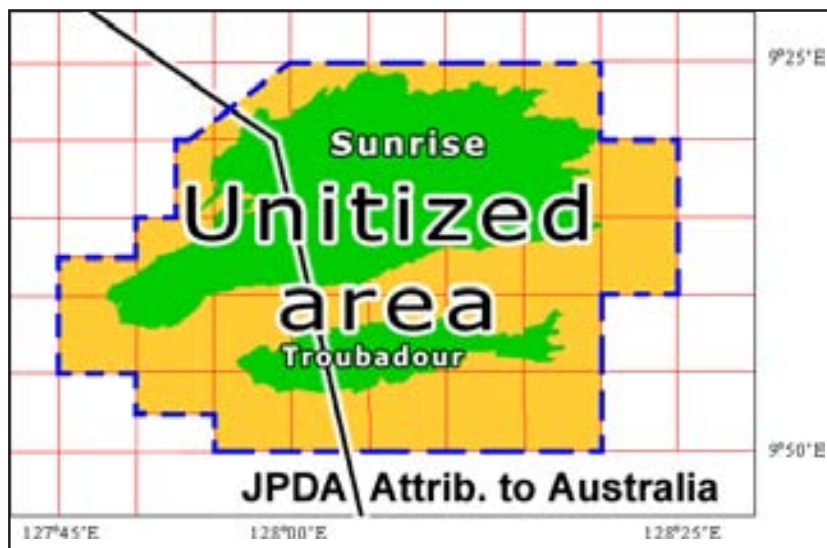
## Sunrise Unitization Agreement Signed

The Greater Sunrise gas field, which includes the Sunrise and Troubadour fields, lies approximately one-fifth inside the JPDA and entirely on East Timor's side of the median line between East Timor and Australia. It contains nearly twice as much petroleum as Bayu-Undan, approximately \$30 billion dollars worth. The oil companies, led by Woodside Australian Energy, want the entire field to come under one set of regulations and taxation. Fields that straddle boundaries are often unitized, treating the entire field as if it was in one area for legal and operational purposes, but dividing the revenues between two or more countries. When East Timor and Australia signed the Timor Sea Treaty in May 2002, the two Prime Ministers also signed a Memorandum of Understanding that both countries "will work expeditiously and in good faith to conclude an international unitization agreement (for the Greater Sunrise gas field) ... by 31 December 2002."

As described earlier, the negotiations were difficult. Although East Timor was pressured into signing a unitization agreement (IUA) that favors Australia 4-1, the new nation refused to surrender its territorial claims. The agreement was signed on 6 March 2003, and on the same day Australia ratified the Timor Sea Treaty.

In the map, the unitized area covered by the agreement is within a dashed line, including all of the Sunrise and Troubadour fields. The bent diagonal line marks the edge of the Joint Petroleum Development Area (JPDA). Revenues from the 79.9% of the fields which are outside the

JPDA (to the right on the map) are "attributed to Australia." The JPDA contains 20.1% of the fields, and since JPDA revenues are divided 90% to East Timor and 10% to Australia, Australia will receive 81.91% (79.9% + 2.01%) of the revenues from the Greater Sunrise field, with the remaining 18.09% going to East Timor. The IUA allows for adjusting the 79.9/20.1 ratio in the future, based on technical re-evaluation of how much gas lies inside and outside the JPDA.



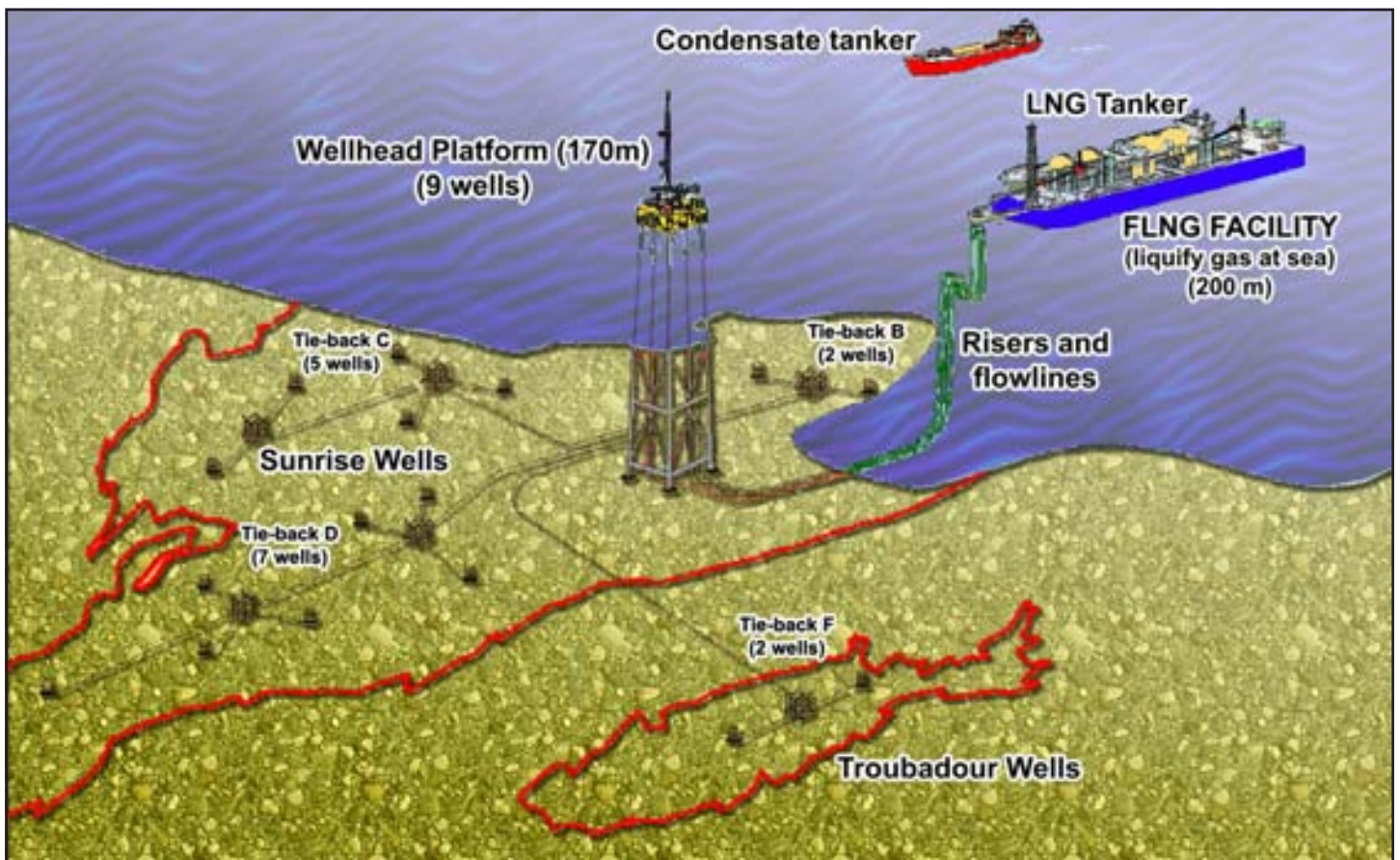
If a permanent maritime boundary is eventually agreed to, the Timor Sea Treaty becomes obsolete, and both countries will "reconsider" the Sunrise IUA, although the oil companies' contracts will not change, except for how their payments are allocated to each country. If no boundary settlement is reached, the IUA remains in effect forever and the Timor Sea Treaty lasts for 30 years, by which time most Timor

Sea petroleum will have been exhausted.

The IUA creates a three-member Sunrise Commission (two appointed by Australia and one by East Timor) to oversee the development of the field. Australian safety, health and environmental laws will apply throughout the entire field. Australian taxation laws will apply to 79.9% of the field's activities, while the tax laws defined in the Timor Sea Treaty will apply to 20.1%.

The Greater Sunrise project is operated by Woodside Australian Energy, which owns 33% of the fields, together with joint venture partners ConocoPhillips (30%), Royal Dutch





Artist's conception of the world's first Floating Natural Gas Liquification plant, one of the development options under consideration for the Greater Sunrise gas field.

(Adapted from a drawing by Woodside Australian Energy)

Shell (27%) and Osaka Gas (10%). Although exploration is underway, the companies have not signed any contracts for construction. The basic development plan has not been agreed to, and production will start no earlier than 2009.

Woodside and Shell are considering a grand experiment – the world's first floating natural gas liquification (FLNG) plant (see above drawing). The plant would be built and operated by Shell, buying gas from the joint venture, processing and liquifying it at sea, and loading it directly onto tankers bound for Japan or other customers. Such a project would involve additional expenses and risks inherent in any untried technology. As most of the construction would be done in other Asian countries, neither East Timor nor Australia would receive significant investment, taxes or employment revenue. The FLNG plant would probably be in the part of the IUA outside of the JPDA, and therefore pay VAT taxes only to Australia.

Others, especially the Northern Territory government, prefer for Sunrise Gas to be piped to Darwin, perhaps using the same pipeline system as Bayu-Undan, so that Australia would receive more of the jobs and taxes. ConocoPhillips recently said they do not support this concept, and Woodside and its partners don't see it as an economical choice.

A third option, suggested by some oil industry consultants would be a pipeline from Sunrise to the closest landfall, the south coast of East Timor, where an LNG factory would be built. This could be more lucrative for East Timor and more economical for the oil companies, but it would be the deepest undersea pipeline ever built. Others have suggested a small pipeline to supply Sunrise gas to East Timor for do-

mestic use, or an LNG factory on Tassie Shoal, shallow waters between Sunrise and Australia.

In making their billion-dollar Sunrise development decisions, the oil companies must consider seismic, geological, economic and political factors. *La' o Hamutuk* will discuss these issues in more depth in a future *Bulletin*.

The Unitization Agreement signed in March says nothing about development options. It is, however, accompanied by a Memorandum of Understanding between the two countries: if FLNG outside the JPDA is used, Australia agrees to pay East Timor \$1 million per year during construction, and \$10 million per year while Sunrise is in production, to compensate East Timor for suspending its taxation rights to the floating platform.

Before the Sunrise Unitization Agreement takes effect, it must be ratified by both countries. The Australian parliament has begun the process, accepting testimony (from *La' o Hamutuk* and the East Timor Independent Information Centre for the Timor Sea, among others) and holding a public hearing.

East Timor, on the other hand, is in no hurry to ratify the agreement. The Dili Government has not yet sent it to Parliament, and could postpone this process to encourage Australia to discuss maritime boundaries. Even after the agreement is ratified, East Timor can still use its majority control of the Designated Authority which governs the JPDA, to prevent Sunrise development. Bayu-Undan will provide sufficient revenue for East Timor from 2006 for two decades, and East Timor does not need Sunrise income while Bayu-Undan is in full production.

## Australia Stonewalls on Boundaries

East Timor, as a new sovereign country, is entitled to have its boundaries in the land, sea and air. The nation began to define its boundaries by enacting a Maritime Boundaries Law in October 2002. Since East Timor inherited no national maritime boundaries, it needs to agree on clear, permanent boundaries with its neighbors, Australia and Indonesia. Each country should resolve this boundary through negotiations and internationally-accepted legal mechanisms.

For East Timor, settling the boundary implements the values that formed the basis of the national struggle for independence. It is in the national interest to protect the sovereignty and dignity of the nation, to have legal order for the sea and land, and to protect the rights of the state to use and protect its natural resources and environment.

The Timor Sea question is key to establishing the boundary between Australia and East Timor. Indonesia and Australia drew lines in the Timor Sea while East Timor was under Portuguese colonialism and Indonesian occupation; these lines were accepted by the UN transitional administration and are still being used. But these lines do not apply to the sovereign Democratic Republic of East Timor.

In the spirit of strengthening peace, security, cooperation and friendly relationships with Australia, East Timor has repeatedly asked Australia to begin negotiations about the Timor Sea maritime boundary. One month after independence last year, Prime Minister Mari Alkatiri explained in Australia that East Timor is a sovereign country, and the maritime boundary should be settled through international legal principles.

In addition to East Timor's government, civil society organizations and political parties in East Timor support this effort. Last year, 13 civil society organizations formed the "East Timor Independent Information Centre for the Timor Sea" (CIITT) coalition to appeal to the Australian government and the governments of the world to settle the boundary before further developing oil and gas in Timor Sea.

However, the East Timor Transitional Administration under UNTAET failed to begin the boundary settlement process with Australia. On the contrary, the UN negotiated with Australia to continue the previously illegal exploration of oil and gas in the Timor Gap without identifying which nation's territory includes which parts of the seabed.

Since East Timor's independence, Australia's government has refused to discuss the maritime boundary. In fact, Australia has been unfriendly, blackmailing East Timor on the Timor Sea Treaty. In March 2002, before the Timor Sea Treaty was signed, Australia withdrew from the mechanisms of the International Court of Justice (ICJ) and the UNCLOS Tribunal for impartial arbitration of maritime boundaries. This may have made it impossible for East Timor to use international law to resolve the dispute if negotiations fail.

Australia's officials repeatedly declare that they are concerned about prosperity, stability and democracy for the people of East Timor. For that reason, Australia wants to

help East Timor in its national reconstruction and development. Paul Foley, Australia's ambassador to East Timor, stated that "Australia is a very good neighbor to East Timor, therefore Australia has an interest in the prosperity of the people of East Timor, security and peace, democracy and human rights."

When he came to Dili last November to negotiate the Sunrise IUA, Australian Foreign Minister Alexander Downer told Mari Alkatiri: "There are not one but two areas of unfinished business: the IUA and the renegotiation of maritime boundaries. In good faith we absolutely agree to enter into negotiations." Mr. Downer repeatedly mentioned "renegotiation" of maritime boundaries, but East Timor has never had maritime boundaries and this will be a negotiation, not a renegotiation. Eight months later, Downer's "absolute agreement" has not been converted into negotiations.

Unfortunately, Australia places its own economic prosperity ahead of concerns for its poorer neighbor. The Laminaria-Corallina oil field, which is in waters claimed by both countries but closer to East Timor than to Australia, began production in November 1999, as smoke was still rising from the ashes of East Timor. By the end of 2002, the fields had produced more than US\$3 billion in sales, and more than 2/3 of the oil has already been extracted. Laminaria-Corallina's companies (Woodside, Shell, and BHP) have paid more than \$1 billion to the Australian government, and not one cent to East Timor. If a fair boundary were agreed tomorrow, Australia would morally owe this money to East Timor, al-

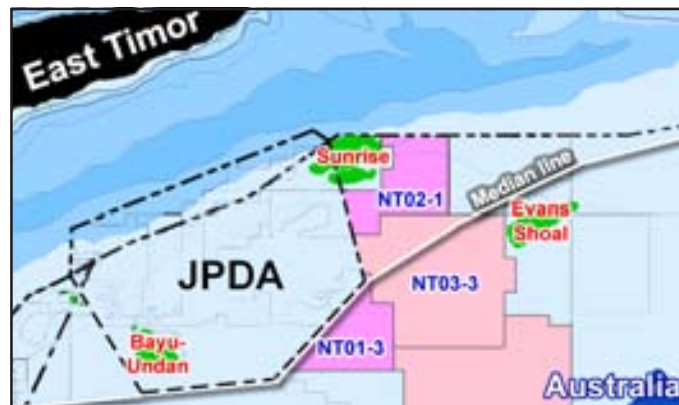
though it will be difficult for East Timor to collect.

Australia's current policies continue the colonial doctrine of *terra nullius* ("empty land") used by Europeans to justify settling Australia two hundred years ago, seizing land and resources from indigenous people who had lived there for millennia by pretending they were not human or did not exist.

Australia continues to sign and offer contracts with oil companies for disputed undersea territory on East Timor's side of the median line. As shown on the map on this page, all of area NT02-1 and part of NT03-3, which Australia offered to oil companies in 2002 and 2003, would probably be in East Timor's territory under UNCLOS principles.

Although the Timor Sea Treaty and the Sunrise Unitization Agreement state that they are "without prejudice" to the future settlement of maritime boundaries, current Australian practice is to act as if all territory not yet occupied by East Timor belongs to Australia, ignoring the rule of law and Australia's international commitments.

If Australia wants to assist East Timor in democracy, human rights, prosperity and stability, it should demonstrate a friendly, democratic and civilized attitude to its new, poor neighbor. But in reality, Australia is taking money from disputed Timor Sea resources, and delaying the boundary settlement with East Timor, perhaps until all the oil and gas is used up.





## Other developments

On 3 February 2003, the Federal Court of Australia dismissed a lawsuit brought by PetroTimor against Australia and Phillips Petroleum. PetroTimor, a small, U.S.-based oil company, had received an exclusive concession from Portugal in 1974 for oil exploration in the Timor Sea. (*See La'o Hamutuk Bulletin, Vol. 3, No. 4*). The company demanded compensation for the expropriation of its rights, but the court ruled that it did not have jurisdiction to rule on the validity of a concession granted by another country. Although PetroTimor officials have said they will appeal, no appeal has been filed.

During the first week of March, at the same time Australia was blackmailing East Timor to sign the Sunrise IUA, East Timor's Department of Mining and Natural Resources held a three-day conference in Dili on *Opportunities and Challenges for Oil & Gas and Mining Sectors in Timor-Leste*. Many of the presenters and papers discussed issues covered in this article. One speaker, Canadian international lawyer Jeffrey Smith, also spoke at a public meeting organized by *La'o Hamutuk*. The conference was the climax of months of training and capacity-building for department staff. USAID provided \$240,000 for this project, of which \$31,000 paid for the conference. Nearly half of that went to Hotel Timor.

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## Glossary

**Barrel of Oil Equivalent (BOE):** a unit to describe the quantity of energy contained in reserves of oil and natural gas.

This unit makes it possible to add up reserves of different products in familiar crude oil terms. One trillion cubic feet (TCF) of natural gas is approximately 180 million BOE (mmBOE). One BOE is worth \$5-\$10 in government revenues, depending on global oil prices, production costs, tax rates, etc.

**Condensate:** light oil (sometimes called "natural gasoline") which forms the heaviest component of natural gas. It is found in many natural gas fields including Bayu-Undan and Sunrise. Condensate can be extracted and used as liquid fuel or for petrochemicals without the refining process required for heavier crude oil. Condensate can be processed at sea and loaded onto ships for transport to customers. Its market value is approximately the same as crude oil, higher than gas.

**ConocoPhillips:** the sixth largest oil company in the world, based in Texas, USA. The 2002 merger of Phillips Petroleum (long involved in the Timor Sea) and Conoco created ConocoPhillips, which is the operator and majority owner of Elang-Kakatua and Bayu-Undan in the JPDA, and also owns 30% of Greater Sunrise.

**Continental Shelf Principle:** a now-outdated way to draw maritime boundaries between two neighboring countries, based on the depth of the water between them. Water less than 200 meters deep (the "continental shelf") was claimed as the natural extension of the country's land territory. The 1972 Australia-Indonesia seabed boundary treaty, which followed the deepest water between them, was based on this principle. Many geologists see East Timor as part of the Australian continental shelf, with no continental shelf boundary between the two countries. Since the 1982 United Nations Convention on the Law of the Sea, this principle has been replaced by the median line principle, which is based on distance from the coastlines.

**Downstream:** the refining or liquification part of the petroleum process, converting oil or gas as extracted (upstream) into a form or product that can be transported and sold to customers.

**Exclusive Economic Zone (EEZ):** an area of the sea and seabed adjoining a country's land territory where the country has rights to exploit and sell the resources in and

under the water. Under UNCLOS, the EEZ usually extends 200 nautical miles (330 km) from the shore. When two countries are less than 400 miles apart, a process of negotiation and/or arbitration can decide the boundary between the EEZs, which is usually along the median line.

**First Tranche Petroleum (FTP) revenues (also called share of production):** A percentage of the money received for selling petroleum, paid to the government from whose territory the petroleum was extracted, beginning from the start of petroleum production. This is one of several sources of government revenue from petroleum development; comparable amounts can be earned from profit oil and taxes. East Timor's government has decided not to use FTP revenues to meet annual budget expenses, but to invest them for the future.

**International Court of Justice (ICJ):** A court in The Hague, Netherlands, where national governments can bring civil cases against one another. The ICJ has often served as a mediator or arbitrator in maritime boundary disputes. In March 2002, Australia gave notice that it would not accept ICJ processes for arbitrating maritime boundaries.

**International Unitization Agreement:** An agreement between two countries to develop a petroleum field or fields that crosses a boundary as a single entity, applying a single system of laws, taxes, environmental standards, safety codes, labor rules, etc. to that field. When a field is developed as one project, it would be impractical for different regulations to apply on different sides of an imaginary line in the middle of the sea.

**Joint Petroleum Development Area (JPDA):** An area of the Timor Sea between East Timor and Australia, but closer to East Timor. This was defined first in the 1989 Timor Gap Treaty as Zone of Cooperation Area A, and re-established by the Timor Sea Treaty. It is now jointly developed by East Timor and Australia, with East Timor receiving 90% of the government revenues.

**Joint Venture:** A coalition of corporations, in which several companies own shares of a single project or business. All Timor Sea petroleum projects are being developed by joint ventures, which have signed exploration and production sharing contracts with governments or binational agencies (such as the TSDA).

**Liquification (liquefaction):** the process of converting natural gas to LNG, done in a large factory. Although



liquefaction of Bayu-Undan's natural gas will be done on-shore in Darwin, Shell is proposing to liquefy the gas from Greater Sunrise at sea, after constructing the world's first floating LNG plant.

**Liquefied Natural Gas (LNG):** Natural gas that has been compressed and cooled into a liquid form. This is required for long-term storage or shipment of gas.

**Liquefied Petroleum Gas (LPG):** Propane and butane; see natural gas liquids.

**Median line principle:** the accepted legal rule for settling a maritime boundary when two countries' Exclusive Economic Zones overlap. As established by the UNCLOS and many ICJ decisions, the boundary should be drawn halfway between the coastlines of the two countries.

**Natural gas:** A petroleum resource found underground in a gaseous state, consisting primarily of methane and ethane, with smaller amounts of heavier hydrocarbons. It is often distributed as a gas by pipeline (usually after extraction of the heavier hydrocarbons), but can be liquefied into LNG for storage or transport by ship, rail, or road. Most of East Timor's undersea petroleum is natural gas.

**Natural gas liquids (NGL):** The heavier components of natural gas extracted by cooling, and consisting of LPG (propane and butane) and condensate (pentanes and heavier hydrocarbons).

**Operator:** An oil company that is part of a joint venture (often the largest shareholder) and takes responsibility for exploration, drilling, construction and operation of processing facilities. However, all joint venture partners usually make major decisions together, each having a vote in proportion to their share. ConocoPhillips and Woodside Australian Energy are the operators of the offshore petroleum projects relevant to East Timor.

**Petroleum:** liquid or gaseous fossil fuel found underground. Petroleum includes crude oil, condensate, LPG and natural gas.

**Phillips Petroleum:** See ConocoPhillips.

**Production Sharing Contract (PSC):** a contract between one or more oil companies (see joint venture) and a governmental body to explore for and develop petroleum resources in a defined area and to sell the petroleum found there. Under the PSC arrangement, the government owns the underground petroleum resources, not the oil companies. The companies act as "contractors" to the government, being paid for their services with a share of production. Australia, UNTAET, and now East Timor have promised the oil companies that PSCs signed during the Indonesian occupation will be honored even if territory or revenue is reassigned.

**Profit oil (also called Second Tranche Petroleum):** Once oil companies have sold enough petroleum to recover their investment in a particular project, a share of additional sales are paid to the government(s) from whose territory the petroleum was taken. This is called profit oil, and is in addition to FTP that is paid from the beginning of production. The companies also pay income or corporate tax on their net profits, after subtracting operating expenses.

**Seabed boundary treaty:** signed between Australia and Indonesia in 1972. This treaty draws a boundary between

the two countries' seabed (ocean floor) resource entitlements, following the continental shelf principle of drawing the line through the Timor Trough, the deepest water between the two countries. Portugal, which was then administering East Timor, refused to participate in the negotiations, so there is a gap in the line off the coast of East Timor. In 1997, Australia and Indonesia signed another treaty drawing a boundary between their water column (fish, etc.) resources along the median line in accordance with more modern (UNCLOS) principles, but that treaty was never ratified due to East Timor's independence.

**Share of production:** see First Tranche Petroleum.

**Timor Gap Treaty:** Signed between Australia and Indonesia in 1989 to allow the two countries to explore for petroleum in illegally-occupied East Timorese seabed territory, with a 40-year term. This treaty closed the Timor Gap in the Australia-Indonesia seabed boundary by defining a Zone of Cooperation, later called the Joint Petroleum Development Area (JPDA). The Timor Gap Treaty became meaningless in October 1999, when Indonesia gave up its claim to East Timor.

**Timor Sea Development Authority (TSDA):** The current regulatory agency for the JPDA, established by the Timor Sea Treaty, majority controlled by East Timor.

**Timor Sea Treaty:** Signed between East Timor and Australia on 20 May 2002, came into force on 2 April 2003. This continues the JPDA defined in the Timor Gap Treaty, but replaces Indonesia with East Timor and allocates 90% of the JPDA government revenues to East Timor. The Timor Sea Treaty becomes void after 30 years, or after a permanent maritime boundary is agreed between the two countries, whichever comes first.

**United Nations Convention on the Law of the Sea (UNCLOS)** was signed at Montego Bay, Jamaica, in 1982, and adopted by most countries in the world. It entered into force in 1994. This treaty defines laws for many issues relating to the sea, including the establishment of Exclusive Economic Zones and procedures for establishing maritime boundaries according to median line principles. It also includes a tribunal (court) for dispute resolution, from which Australia withdrew in March 2002. Indonesia ratified UNCLOS in 1986, Australia in 1994. East Timor has not yet signed or ratified UNCLOS, although the Foreign Ministry has begun studies they expect will lead to its approval.

**Unitized, Unitization:** See International Unitization Agreement.

**Upstream:** the part of the petroleum resource development process that involves finding and getting the raw petroleum material out of the ground and into a pipeline or ship for further downstream processing.

**Woodside Australian Energy:** Australia's largest gas producer (although much smaller than international oil companies), operator of the Sunrise, Laminaria-Corallina, and Kuda Tasi/Jahal fields. Woodside is 34% owned by Shell, the second largest oil company in the world.

**Zone of Cooperation (ZOC):** established by the Timor Gap Treaty between Indonesia and Australia in 1989, now used as the Joint Petroleum Development Area by East Timor and Australia. ❖