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The Timor Oil Company's network, 1956–1968: Interacting internal and external infrastructures

Alex Grainger

Since the signing of the bilateral Certain Maritime Arrangements in the Timor Sea (CMATS) Treaty with Australia in January 2006, US$16.69 billion has been deposited in Timor-Leste's sovereign wealth fund (Petroleum Fund of Timor-Leste 2017), albeit with production declining by a half over a period of 10 years since 2006 (EIA 2015). Since the introduction of an 'Infrastructure Fund' in the state budget in 2011, an average of 44 per cent has been budgeted on infrastructure expenditures, with a high-water mark of 53 per cent of expenditures in 2012 (La'o Hamutuk 2018). This includes the planned development of refining and processing facilities on the country's south coast, envisaged as receiving supplies of oil and gas both from the Timor Sea and onshore deposits, as well as attracting oil and gas for refining from other countries. It is therefore unsurprising that the state, and many citizens, view the very heart of Timor-Leste's development as located in the Timor Sea, the site of oil and gas exploration since the mid-1960s. However, state and oil company interest in onshore areas predated offshore exploration.

This chapter examines onshore oil exploration on the south coast of Portuguese Timor in the mid-twentieth century. It begins by showing how perceptions of oil wealth on the part of foreign oil companies and governments shaped the fate of the territory before World War Two. This formative period was characterised by Britain and Australia acting in concert to build transport and trade infrastructure in rivalry with Japan. These foreign governments tried to build networks that would lead to control over the territory's rumoured deposits of oil. This resulted in a concession being secured on behalf of the British and Australian governments by private investors in the face of Japanese competition. Section two describes how, following World War Two, the same (prewar) driving forces initiated exploration again in the 1950s. Their company, the Timor Oil Company (TOC),[1] used labour and material technologies to carry out exploration to try to overcome the challenges of bad weather and navigating Portuguese Timor's terrain. Section three shows that the TOC faced another formidable obstacle in the 1960s when investors reacted to perceived threats to Portuguese Timor by Indonesia by withdrawing investment. Drawing on archival documents, this last section offers an alternative to an existing explanation for the TOC's slowdown, which has previously explained it in terms of either a 1959 rebellion in Viqueque district, or a lack of aptitude in oil exploration on the part of TOC's foreign workforce.

Part of this alternative explanation highlights the role of financial infrastructure in determining TOC's operations from outside the territory. Financial capital was significant in the case of TOC (as in the oil industry more generally) because without investors' large initial outlays, sometimes before oil is even discovered, exploration could not proceed. In other words, the mere promise of the discovery of oil was often enough to stimulate investment, which could in turn lead to interest from larger oil companies thus providing much-needed capital and knowledge, the kind of arrangement eventually solicited by TOC after 1962 (cf. Adelman 1993: 22; Penrose 1965: 253). That the TOC continued to operate after a drop in the level of investment is due to the political connections of its founders with the Portuguese state. While these individuals' political networks trumped market considerations such as a desultory share price (cf. Sabin 2004), the chapter highlights the effects – before 1962 and after – of a different kind of political network of the TOC, consisting of financial infrastructure, labour (in particular the colonial authorities' role in organising access to a pool of workers) and materials used on the ground. The mutual dependence of these infrastructural elements

1 The Timor Oil Company was known in official documents as Timor Oil Ltd. I have referred to it throughout the text as the Timor Oil Company.

demonstrate, I argue, the inherent strengths and vulnerabilities of the TOC's network to both domestic (internal) and international (external) events. It is the impact of these international events that are examined in the next section.

External networks: The establishment of the TOC

In 1956, when the public announcement was made that the operator of the sole concession to exploit Timor's oil had been awarded to an Australian company, the TOC, the origins of TOC's concession were already two decades old. This section traces its antecedents back to the 1930s, when it was secured by British government capital. This period saw a struggle between the British and Japanese governments in their attempts to incorporate Portuguese Timor into rival international transport and trade networks to facilitate access to the territory and its oil.

The Japanese state assumed powers to acquire petroleum from overseas in 1934 (Samuels 1987: 177). Throughout the 1930s, the military required access to natural resources in pursuit of its strategic adjectives, which made securing Southeast Asia's petroleum a priority. By the beginning of the 1940s, the military was refining half of Japan's oil (ibid.: 226). By the same period, the extension of submarine and overland telegram and telephone cables supplied a crucial layer of infrastructure that opened up an expanding empire in Asia (Yang 2011: 285–292). Creating this network also involved attempts to connect Japan to Portuguese Timor via an air route that passed through Micronesia (Peattie 1988: 149–150).

Between 1935 and 1940, Britain and Australia became increasingly concerned about Japan's investment in Portuguese Timor's natural resources, including agricultural concessions. Japanese agricultural concessions became largely viewed in the Foreign Office as a 'stepping stone' to the territory's oil concession.[2] Thus, while the British Government initially declined an oil concession that had lapsed in 1935 because studies had indicated that the prospect of commercial quantities of oil being found was doubtful, this view changed in 1939.[3] It was suggested that Belgian financier Serge Wittouck, of the Allied Mining Corporation, the person

2 National Archives of the United Kingdom, FO 371/23541/179, Selby: 2 November 1939.
3 National Archives of the United Kingdom, DO 35/372/6, Say: 28 August 1935.

then holding the concession that the government had earlier declined, was acting with the Japanese Government.[4] An Australian, Alec Dodson, made the suggestion by implanting this rumour at the Foreign Office in London at the right moment. Despite Wittouck expressing willingness to sell Asia Investment Company (AIC) for £70,000, some British civil servants thought it credible that Wittouck could be conspiring with the Japanese Government, just six weeks after Britain's declaration of war against Germany in September 1939.[5]

The Japanese Government was also attempting to gain access to Portuguese Timor by opening up air routes to the capital, Dili, in 1940 (Goto 2003: 28). The British, Australian and Netherlands East Indies governments proposed two alternative routes. One connected to an existing route between Macassar and Koepang in Dutch Timor, and another from Australia via Dili, Jakarta and Singapore.[6] These were clear moves to increase access to and influence over the territory. In a countermove, the Japanese military attempted to restrict access via land routes into the Portuguese territory of Macao (the surrounding Chinese territory was, after 1937, under Japanese control) by deliberately blockading transport routes and massing troops on Macao's borders 'to bring pressure on [the] Portuguese over [the] Timor [oil] concession'.[7]

Faced with continuing Japanese pressure on the Portuguese Government in Macao, Lisbon and Timor itself to cede control of the territory's oil concession, in August 1940 the British Government took the decision to supply £12,000 to finance the *Companhia Ultramarina dos Petróleos* (CUP [Overseas Petroleum Company]) to acquire the concession from AIC.[8] Details of the CUP and other concessions can be seen in Table 2.1. The CUP was owned by private investors, including Alec Dodson and his Portuguese business partner, engineer Jose Veiga Lima, and the sum paid for the concession was well below the figure sought by AIC.[9] However, the concession was essentially rendered invalid as the Japanese military occupied Portuguese Timor in February 1942 in response to an Australian and Dutch presence that violated the terms of Portuguese neutrality.

4 National Archives of the United Kingdom, FO 371/23541/179, 'Oil Concessions': 26 May 1939.

5 National Archives of the United Kingdom, FO 371/23541/179, Fitzmaurice: 13 March 1939.

6 National Archives of the United Kingdom, FO 371/23541/179, Fitzmaurice: 14 April 1939.

7 National Archives of the United Kingdom, FO 371/24705/7, 'Oil Concessions …': 19 March 1940.

8 National Archives of the United Kingdom, FO 371/24705/7, Henniker-Major: 8 March 1940.

9 National Archives of Australia, NAA A989, 1944/735/854, 'Handbook …': 1944.

After World War Two, during which extreme hardship resulted in many deaths among the Timorese population, Portuguese Timor was initially virtually isolated due to a lack of transport links. Air routes and communications with Australia, which had been considered vital to resist Japanese encroachment on the territory before 1942, were not negotiated throughout 1946.[10] It has been suggested that this situation may have resulted from the Australian Government continuing to begrudge Portuguese wartime neutrality (Gunn 1988: 11).[11] Before the end of the war, Australia proposed that its forces should occupy Portuguese Timor. This proposal was rejected by the British as it would antagonise Portugal, and it had agreed to ensure the sovereignty of Portuguese colonies after the war in exchange for use of the Azores as an allied military base in 1943 (Farram 2017: 25).

In terms of road travel, government officials travelled between Portuguese and Dutch Timor (Farram 2017: 45) – the latter unilaterally declared to be part of the Indonesian Republic's territory in 1945. In 1950, the Portuguese authorities reported that Indonesian troops, having marched to the border area, threatened to invade and expel Europeans from Portuguese Timor.[12] Throughout the 1950s and early 1960s, Indonesia's leaders displayed increasing antipathy towards colonial regimes, including Portuguese Timor; this relationship will be examined in more detail below.

Table 2.1. Concessions awarded for exploration in Portuguese Timor, 1926–1966.

Concession holder	Extent	Financial backer	Concession period
John Arthur Staughton	Full territory of Portuguese Timor	Private Australian capital	1926–1936
Allied Mining Corporation (AMC) (Serge Wittouck)	Full territory (until 1939, then west until 1940)	Asia Investment Company (AIC)	1936–1940

10 National Archives of the United Kingdom, DO 35/1721, 'Australian hopes for early negotiations with Portugal …', Stirling: 13 August 1946.

11 Farram notes several contradictions in this Australian position, chiefly that the Australian–Dutch invasion of Dili in late 1941 'may have been responsible for the subsequent Japanese invasion' (Farram 2017: 25).

12 Arquivo Nacional Torre do Tombo, ANTT UL-10A, Ruas: 15 June 1949.

Concession holder	Extent	Financial backer	Concession period
Oil Concessions and Oil Search Ltd; Oil Search pulled out in March 1939 because did not agree to terms of contract, especially that a Portuguese company must be created for the purpose of holding concession	Eastern half, separated at meridian long. 125°50'E, so to incorporate presumed oil deposits of Pualaca	Private Australian capital	November 1939
Companhia Ultramarina dos Petróleos (CUP [Overseas Petroleum Company]); awarded initially to AIC, then transferred to CUP with compensation	Eastern half	Anglo-Iranian, Standard-Vacuum and Royal Dutch Shell, which acquire shares in CUP to the value of £12,000; supplied by British Government	August 1940–1949
Companhia Superior de Petróleos de Timor (CSPT [Superior Oil Company of Timor])	Western half	Jointly-held Portuguese Government and private investment	1948 – May 1949
Companhia dos Petróleos de Timor (CPT [Oil Company of Timor]); operator: Timor Oil Company, a separate entity from CUP	Full territory	One-third owned by Portuguese Government (CPT); two-thirds private capital (TOC), including Australian subsidiaries of 'major' oil companies	1956–1966 (initial three-year contract signed October 1954)

Source: Author's summary.

In 1949, the CUP concession was abandoned; *Companhia Superior de Petróleos de Timor* (CSPT [Superior Oil Company of Timor]), founded in 1948, was briefly awarded a concession before being dissolved in 1949. Consistent with prewar studies by the 'majors', a study by the French Institute of Petroleum in 1953 found no hard evidence of commercially exploitable oil deposits.[13] Thus, when Dodson and Veiga Lima again approached the Portuguese Government in 1954 to restart their monopoly concession with a new company, the *Companhia dos Petróleos de Timor* (CPT [Oil Company of Timor]), the *Ministerio do Ultramar* (MU [Ministry of Overseas Territories]), believed it had 'nothing to lose', awarding a three-year concession to Dodson and Lima's CPT beginning

13 Arquivo Nacional Torre do Tombo, ANTT UL-10A cx. 766, pt. 17, Arquivo Salazar, '*Pesquisa de Petróleo* [oil search]': 3 December 1956; see also Teixeira (1956).

October 1954.[14] But the MU's belief that it had nothing to lose did not exclude from its calculations the possibility that, on the contrary, something could be gained from awarding CPT the concession. Moreover, Dodson and Veiga Lima's prewar connections with the Portuguese state had played an important role in ensuring that the CPT would be in a prime position to be awarded the concession.

I have attempted to show the complex historical and international relations that provide the background to the 10-year monopoly exploration licence to search for oil in Portuguese Timor granted to TOC in 1956. The TOC became the contractor and operator of a concession awarded by CPT. This 1950s concession was a 'revival' of the earlier CUP arrangement between two of the TOC's directors and the Portuguese Government, which dated back to the 1930s. The initial concession was provided not because there were indications of economically viable oil and gas resources, but because, in the run-up to World War Two, the British and Australian governments were concerned about Japan's increasing power in the region.

Whereas this section has provided an overview of how international or 'external' networks sowed the seeds for the development of Portuguese Timor's oil infrastructure, the next section will examine the development of internal transport and communications infrastructure, which was designed to expand TOC's network in the areas of oil and gas exploration.

Internal networks: Materials and labour

In common with other prospecting ventures, TOC relied on the promise of the discovery of oil and the ability to communicate within and between internal (terrestrial) and external (non-terrestrial) networks. For these reasons, TOC spent much of its first five years, from 1956 to 1961, trying to establish and consolidate infrastructure, such as roads, ports, airstrips and radio transmitters, to ensure a smooth transmission of information, people and materials. Foreign oil explorers, mainly from Australia, but also from the US and Europe, also relied on communications beyond this immediate network, primarily in order to relay reports of work and raise further revenue for costly exploration. Transmitting information within this

14 Arquivo Nacional Torre do Tombo, ANTT UL-10A cx. 766, pt. 17, Arquivo Salazar, '*Pesquisa de Petróleo* [oil search]': 3 December 1956.

network relied on foreigners with specialised engineering and geological knowledge. These individuals, regularly brought to the territory to observe and sent out to report on their work activities and on furlough, relied on a continuous supply of local labour, secured through the intercession of the Portuguese and their subordinate indigenous authorities.

Between 1956 and 1961, TOC established several bases on the south coast: in Viqueque, Beaço, Suai, Uatulari and Aliambata (see Figure 2.1). The choice of locations was based on geological studies that had identified a formation in the east: the 'Viqueque basin'. Such studies had initially been guided by the existence of surface oil seepages, which locals used in oil lamps and government officials used in their vehicles. These seepages had also been found in the central mountainous areas, but because they were difficult to access, the south coast plains became default sites of exploration.[15] However, the extended wet season on the south coast made it difficult to traverse the road network from north to south or along the lateral south coast road.[16]

When the rains made land impassable, the prospectors dealt with this setback by using the coast as an entry point for all heavy equipment transported on barges from Darwin in Northern Australia. For example, a drilling rig was transported to a landing site on the coast near Viqueque town in 1956. A test hole named Ossulari 1, to the south of Viqueque town, became inaccessible due to blocked tubes, produced no oil or gas, and eventually had to be abandoned in August 1959. Another hole, Ossulari 1A, to which the company built a road from Ossulari 1 in 1957, was of interest, but needed to be researched more thoroughly. Furthermore, the company had already identified new sites in Suai; one such site was indicated by the Nabuc and Ranuc rivers, which bookended an anticline believed to have 'acted as a trap', to where oil migrated from 'deeper parts of the basin'.[17] This explained seepages found at the surface in Suai, near Matai and Ranuc.[18]

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15 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Relatorio* [Report] … Annex': 22 June 1960.

16 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Relatorio* [Report] … Annex': 22 June 1960.

17 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Relatorio* [Report] … Annex': 22 June 1960.

18 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Relatorio* [Report] … Annex': 31 December 1960. TOC was advised by an American consultant, Schneeberger, to turn their attentions to Aliambata, farther to the east, which did not have Ossulari's thick clay or Viqueque's problems of accessibility.

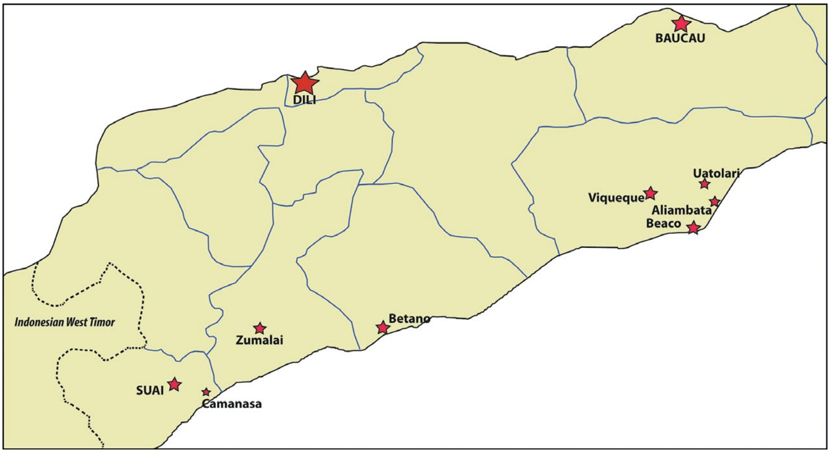

Figure 2.1. TOC exploration sites on the south coast of Portuguese Timor, 1956–1966.

Source: Author's summary.

The results in Suai were from a combination of surveys by TOC's US partner company, Tradewinds, which had first entered into a contract with TOC in November 1958. Tradewinds' research suggested that Matai had good prospects, and the company fitfully began a migration of equipment and people to the west.[19] Under a revised agreement of May 1960, Tradewinds was allowed to choose the drilling site and would receive half of any revenue in Suai, as long as they transported the drilling rig 100 miles from Ossulari to Matai. After delays due to heavy rainfall in May 1960, a barge was used to transport the equipment to Beaço, from where it would be transported by land to Suai at the end of August 1960. On the second and final journey, the barge began to flood and had to land at Luca, to the east of Suai. All the equipment was damaged due to immersion in salt water. An improvised 'beach head' was constructed at Suai, and from there a road was built that also forked towards Zumalai.

By early December, three months after the first consignment was shipped to Beaço, all the equipment had arrived at Suai, with drilling beginning at the new site, Matai 1, early in the same month. Company employees stayed at the house of the *chefe de suco* (head of the village), Lopes, at Camanasa, which was also used as a geologist's office. By the end of

19 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Relatorio* [Report] … Annex': 22 June 1960. These results were derived from core drilling, geological surveys and gravimetric surveys by Tradewinds.

1960, TOC had installed three radio transmitters at Beaço, Suai and on a landing barge, and were using six Land Rover vehicles to travel between Viqueque and Suai in the dry season and to transport mail between Suai and Baucau. A chartered Dove aircraft travelled regularly between Suai and Viqueque, and was also used to transport foreign personnel from Suai to Baucau, Dili and Darwin. A British geologist, Michael Audley-Charles, was commissioned to carry out a full geological survey of the territory utilising aerial maps, test drilling and micropaleontology, with samples from the latter process sent to London to determine their geological age. Furthermore, gravity measurements were taken through 380 gravimeter stations that had been established in the 1950s with the support of the state (Botelho 1978).

Labour was also an important component of the network since, without it, exploration could not take place. As noted above, this labour was sourced by the colonial authorities in the locales where TOC worked. TOC was the only enterprise operating in Viqueque in the 1950s that was, at least in theory, semi-autonomous from the state. Its workers earned wages with which colonial taxes could be paid. The exact wages that TOC paid are not known, but adult males in general on whom the head tax[20] was levied were usually unable to pay it and were, therefore, compelled to discharge their obligations by working on state projects. 'Free' labour was also employed on state projects. As we will see in the next section, however, by working for TOC, workers were not necessarily free of the colonial state's oversight.

This section has shown that TOC's activities relied on consolidating its existing sites, expanding to new sites and pushing exploration to ever-greater depths, as part of the 'task of eliminating less promising sites first'.[21] Each of these movements, downwards and outwards, had the potential to be compromised by Portuguese Timor's terrain or climatic conditions, especially seasonal precipitation. While these factors posed serious difficulties for the network, I have tried to show that it was also facilitated by people – the local labour force that, along with materials and equipment, comprised the network's terrestrial elements. The next section

20 The '*imposto indígena*' or indigenous tax. By the 1960s a head tax called the '*imposto domiciliario*' (household tax) replaced the *imposto indígena*, but was still calculated per head.

21 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Relatorio* [Report] … Annex': 22 June 1960.

examines how this internal terrestrial infrastructure interacted with an external financial infrastructure demonstrating how far these elements worked in concert.

Financial infrastructure: International short-circuiting

While labour and transportation and communication equipment supported exploration in Portuguese Timor, the network was also dependent on financial capital from non-territorial sources, outside Portuguese Timor, which had the potential to compromise its operations. Below, I will address the relationship between those financial elements and a decrease in exploration activities during the 1960s.

The period of TOC's move west between 1959 and 1960 coincided with the only known rebellion in the final 30 years of Portuguese rule – in Viqueque in 1959 – with which TOC had at least an indirect connection. As explained by Janet Gunter (2007: 30), the instigators of the abortive rebellion were angry at the corrupt practices of the acting head of Uatulari subdistrict who, they alleged, had taken a majority of wages intended for TOC workers at an exploration site in Aliambata. Despite initial protests, the labourers were forced to continue working for TOC without payment. This grievance – combined with other corrupt practices, encouragement from Indonesians exiled in Portuguese Timor who had been involved in the Permesta rebellion[22] and disaffected elements in Dili – culminated in a rebellion, hastily begun in June 1959 and quashed equally promptly by the authorities.

George Aditjondro has argued that this rebellion subsequently caused a 'lull' in TOC's activities between 1959 and 1968 (Aditjondro 1998: 10). It is true that there was a general slowdown in TOC activities in 1962; however, Carvalho, the Portuguese Government's 'delegate' who reported on TOC activities, attributed this to the Indonesian military landings on West Irian (also known as West New Guinea and today called West Papua), a reference to which is made below. As he wrote:

22 The rebellion started on the Indonesian island of Sulawesi in 1957 and became a wider secessionist movement involving Sumatra, before finally ending in 1961.

> [T]he effects of the geopolitical situation with Indonesia were felt with great acuity, with its ambitions on New Guinea [creating] reflex effects on companies that expend their capital in that area … [The slowing of work] must be, naturally, the result of *the retreat of capital, afraid of the consequences of Indonesian actions*.[23]

Other circumstances Carvalho reported support the argument that 'the retreat of capital' slowed TOC's work. First, TOC continued drilling at the Viqueque sites, abandoning the dry Ossulari 1 borehole some two months after the rebellion had been put down. Second, Carvalho's reports neither mention the 1959 rebellion nor why TOC's base in Uatulari – the centre of the rebellion, which was staffed by six 'natives' and no foreigners in 1957 – was not mentioned again after this date. It is of course possible that, in addition to Tradewinds' advice to drill in Suai, the rebellion helped to dissuade oil explorers from further activity in the area. But without more evidence such inferences are difficult to sustain. Third, as seen above, 1960 marked the year in which TOC began to concentrate its operations in Suai. In early 1961, Carvalho reported that the Matai 1 borehole had an 'auspicious' emission of oil and gas, giving a sense of 'euphoria' to TOC's explorers.[24] Fourth, TOC deployed labour in different sites according to the opportunities that it perceived for finding oil. It can be seen from Figure 2.2 that in the first quarter of 1961, more indigenous labour was employed in Suai than in Beaço. However, this situation was reversed by the end of the year, probably because of a failure to make further significant discoveries in the Matai area. Therefore, geological and logistical reasons, and external events, rather than the Viqueque rebellion, may explain why TOC's work experienced a slowdown, especially since this occurred more than two years after the rebellion had taken place.

A brief outline of external events related to what was known as West Irian can throw light on how they impacted TOC's operations, including the particular way in which investment decreased, consequently weakening exploration efforts (Aden 1988: 17–242; Nasution 1964: 27).[25] In 1957, the United Nations voted against Indonesia and in favour of continuing Dutch 'stewardship' of West Irian, and agreed upon at Indonesian

23 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Informação* [Information] no. 31': 12 May 1962.

24 Arquivo Histórico Ultramarino, AHU IGM MU 50,2, '*Relatório* [Report] No. 24': 12 March 1961.

25 Nasution, the Indonesian Minister of Defence and Security in the period of the West Irian takeover in 1962, claimed that Indonesian proclamations about 'liberating' West Irian had also paralysed European mining operations in the territory.

independence for an indeterminate period of time. The Indonesian Government, having failed three times to force negotiations with the Dutch through a United Nations vote, had in the same period suspended parliamentary democracy and embarked on a path of 'Guided Democracy' under the leadership of president Soekarno. In 1957, it nationalised Dutch property and severed its diplomatic relations with the Netherlands.

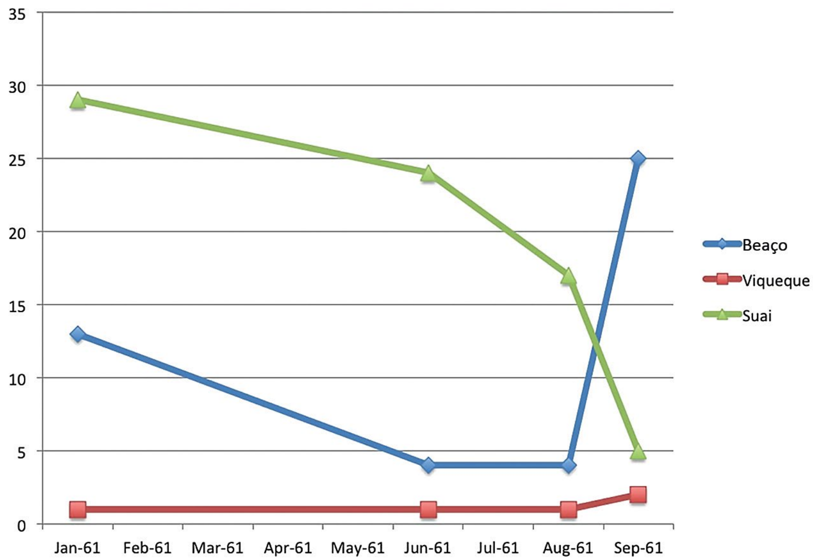

Figure 2.2. Indigenous labour at three TOC sites during 1961.

Source: Arquivo Histórico Ultramarino, AHU Reports 23-27, 1961. Suai figures include labourers employed by Tradewinds.

In the same period, Japan had been converting its domestic energy sources from coal to oil and had also reached an agreement on war reparations with Indonesia, smoothing the way for greater trade between the two countries (Nishihara 1976: 117–122). At this time, Japanese custom for Indonesian products and bestowals of aid amounted to 10 per cent of Indonesia's national budget, in effect obviating the need to rely heavily on western aid. Subsequently, the Japanese market for Indonesian oil precipitated a weakening of the power of three British and US 'major' oil companies that operated an oil oligopoly (Shell, Stanvac and Caltex) by providing an alternative outlet for Indonesian oil.[26]

26 These companies threatened to withdraw if their new contracts were not ratified by the Indonesian parliament within 60 days, raising the prospect that the Indonesian Government would seize their assets.

In the four years that followed, Soekarno pursued a policy of 'retaking' West Irian, enlisting Chaerul Saleh – a relatively radical politician from the generation of Indonesian leaders that led the country to independence – as Minister of Basic Industries and Mining in 1959 (Aden 1988: 199; Moon 2009: 262–263).[27] The 'resolution' of the West Irian issue in August 1962 took place in a settlement with the Dutch whereby a plebiscite would be held in the territory no later than 1969. According to Jean Bush Aden (1988: 228), the West Irian agreement was a catalyst that 'pushed [oil] negotiations towards completion' and, by brokering a deal on behalf of US oil companies, the Kennedy administration acted to ensure that the USSR's aid influence would not become ascendant in Indonesia. Although a broader exploration of these circumstances is outside the scope of this article, West Irian was thus deeply intermeshed in the politics of the Cold War and had a profound effect in the region (Defert 1996: 201–236).

Combining an understanding of the regional import of these events, on the one hand, and knowledge of the means through which TOC raised revenues from investors, on the other, affords a greater perspective on how both contexts affected its operations. For while TOC's low share price has been explained as a result of poor 'performance' in the field (Dunn 1996: 42), the reverse may be more accurate: diminished activities were also the result of a low share price. It remains moot as to whether TOC did not find oil because of inadequate research and exploration techniques, or whether there was simply not commercially exploitable oil. In any case, this is a different question to how the company was able to maintain operations. Part of the answer is that TOC, as noted above, did not necessarily require the discovery of oil to continue work. Its sustenance came from investment: the *promise* of hydrocarbon discoveries, through regular reports to stock markets that provided detailed accounts of drilling and from which investors would deduce that oil would imminently be discovered – or not. These reports generated a continuous source of capital for the company. In short, in addition to the investments made by CPT, TOC's fortunes were tied to its shareholders, who regularly changed according to the perceived fortunes of the company.

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27 When Indonesia invaded West Irian in 1962, Saleh inaugurated a Soviet-funded steel mill that, Moon (2009) tells us, Soekarno named after the operation to take the territory by force.

Although there was a degree of uncertainty about the impact of Indonesian claims to West Irian, investors could also return to finance the company. This is illustrated by the upswing in investment shortly before an agreement on West Irian was reached in August 1962:

> [Exploration] continued below par, although [it was] favourably affected by a small ascensional oscillation after the Indonesian government's statements that disavowed any ambitions on Timor.[28]

Concerns over Indonesian territorial ambitions confirm that the perceived risk of an Indonesian invasion of Portuguese Timor and expropriation of TOC oil assets weighed more heavily in the company's calculations of the early 1960s than the prospect of finding oil. Indeed, effects from the region's events continued to be felt for several years. Financial limitations compelled TOC to scale back its operations and concentrate instead on 'seismic surveying followed by drilling' in Betano throughout 1963, an area it first entered in 1961. It sold the unwieldy 'Brewster' drill kept in Suai and completed negotiations with 'a strong overseas group that has completed its research in Timor and seems to be favourably impressed'.[29] TOC applied for a renewal of its contract in 1966, which was approved in 1968.[30] In part, this explains the 'lull' in TOC activities until that time. Already in 1966, TOC had become interested in offshore exploration, although it later restarted a program of onshore drilling. By 1968, prompted by an international dispute with Australia over the issuing of offshore licences, the attentions of the Portuguese Government had also turned towards Timor's maritime areas.

Conclusion

This chapter has examined the various kinds of internal and external infrastructure that comprised TOC's network, the different elements of which – human, material and financial – necessarily interacted with each other. As this chapter started off by showing, rival powers contested access to Portuguese Timor's oil and its strategic position by attempting to incorporate the territory into external international transport and trade networks. That the British, Australian and Japanese governments were

28 Arquivo Histórico Ultramarino, AHU 50,2, '*Informação* [Information] no. 33': 6 August 1962: 5.
29 Arquivo Histórico Ultramarino, AHU 50,2, '*Informação* [Information] no. 33': 6 August 1962: 6.
30 Arquivo Histórico Ultramarino, AHU 50,2, '*Relatório do Administrador por parte do estado* [Administrator Report by the State]…': 22 May 1969.

willing to plan such infrastructure served as an early reminder of the potential for external actors and events to exert influence on the course of the territory's future.

Difficulties in navigating terrain and changing geological appraisals affected the feasibility of conducting oil exploration. In combination with these factors, external events, including the perceived threat of an Indonesian invasion, resulted in a decrease in investor funding. However, this disinvestment did not prove to be fatal for TOC's fortunes and its continuation was testimony to the strength of its political connections with the Portuguese state. Without a larger exploration partner to absorb such an impact, TOC remained vigilant to the perceived threat of an Indonesian invasion until the end of its contract in 1966. The experience of TOC in attracting larger companies to concessions also highlights how smaller companies attempted to sustain themselves and, more broadly, that companies often carried out exploration without discovering viable deposits of oil or making profits.

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