

## 6 Shipping

Shipping is the Pacific's lifeline. It plays a critical role on both domestic and international fronts.

According to one global study, doubling shipping costs reduces GDP per person growth by one-half to one per cent (Radelet and Sachs, 1998). Given that most commodities and manufactured goods are transported by ship in the Pacific, and that much domestic travel is by ship, the cost and quality of shipping immediately affects the welfare of the poor as consumers and producers.

### International shipping

#### ***International shipping is competitive***

Unlike telecommunications and aviation, the international shipping market in the Pacific has always been competitive or at least contestable. There are four main routes: east–west and north–south, where ships sometimes stop at Pacific island countries; to and from Australia and New Zealand; and intra-Pacific. Entry is not generally regulated by inter-governmental agreements and the fixed costs of entry are relatively modest. The sector is predominantly the province of the private sector (the significant exception is the Pacific Forum Line—discussed further at the end of this chapter) and there is competition, or at least contestability, on many routes.

#### ***International shipping provides a reasonable level of service***

International sea freight prices are high due to low cargo volumes on Pacific routes and the long distances travelled (Figure 3.3). Many Pacific island countries import more goods than they export, which means importers pay for the empty space on ships going out through higher freight rates. Shipping lines usually add a surcharge, such as Port Services Charges, for delays and extra supervision, which can be as much as one-third of the freight rate.

Shipping services are of a reasonable standard. The Regional Transport Study (AusAID, 2004) found that ‘... international services [in] the region are generally considered to be adequate and

efficient. Container shipping services to and from the [Forum Island Countries] are reliable; vessels adhere to published schedules and offer sufficient space for the needs of importers and exporters.’

The smallest Pacific island countries face some difficulties. Nauru, for example, is only serviced by one shipping line that operates every month or so between Sydney, Brisbane and Nauru. Since other shipping lines have withdrawn, Nauru can no longer access cheap goods from PNG. Tuvalu also receives infrequent services, and runs out of some items before the next ship arrives. However, regional feeder services are becoming more common and are changing shipping patterns. A Guam-centre transshipment service provides an alternative to direct services to the FSM and the Marshall Islands, and an Auckland centre services the South Pacific. Samoa is also trying to position itself as a transshipment hub. Kiribati, Tuvalu and Nauru are discussing a sub-regional strategy to provide more efficient services.

Regulation is not a prominent feature in Pacific shipping. The Micronesian Shipping Commission (MSC) is the only Pacific body regulating international shipping. A recent review of its operation found the commission had little impact (positive or negative) on market structure (Box 6.1).

#### **Box 6.1 The Micronesian Shipping Commission**

The MSC, which meets annually, controls market access for international shipping services to and from the FSM. Access is regulated through an Entry Assurance System. The commission approves five-year licenses, known as Entry Assurances, which cost US\$5000 per year—applicants must submit performance bonds of between US\$75 000 and US\$1 million depending on the size of the vessel. Each trade route is serviced by two companies.

While the commission is popular with both government and shipping lines, it has been criticised for being political and for its weak capacity, lack of consistency and lack of transparency in approval criteria (which included awarding a licence to a line with no ships). ADB (2007a) found no evidence either that the FSM is better served than other Pacific islands as a result of the commission’s activities or that the licenses act as a binding barrier to entry for lines wishing to service the trade routes.

Source: Asian Development Bank (2007a)

## Domestic shipping

Given that international shipping is already competitive, the policy priorities in shipping lie on the domestic front, in improving domestic shipping and strengthening ports.

### ***Domestic shipping is essential, but services are often unreliable***

Domestic shipping plays an integral role in linking dispersed island communities. In many places coastal transport is the only way to get products to market. Informal services provided by small craft are often the only form of transport between remote coastal villages and towns where agricultural products can be consolidated and shipped to processing centres. Domestic services are also critical for distributing imported goods. Inbound freight is typically shipped to transshipment centres and then distributed using smaller domestic vessels.

Providing adequate, efficient and reliable domestic shipping services is one of the most difficult challenges for Pacific countries, especially for the more remote islands. Many routes are commercially marginal, some unviable.

Shipping schedules are often erratic, and it is not uncommon for services to be suspended for many months. The ships used are sometimes unsuitable and often old, badly maintained and in poor condition (Asian Development Bank, 2007a). Many vessels used for domestic shipping do not meet recognised safety standards, and arguably should be banned from service. However, they provide essential services to remote communities, so this step is rarely taken.

Small-scale coastal shipping operators have problems accessing finance for repair and replacement. Commercial banks do not find coastal shipping an attractive sector for lending because of the high risk and lack of adequate collateral for loans. As a study of domestic shipping in Solomon Islands noted (EC, 1999):

*Under the present circumstances the shipping sector is locked into a situation where old vessels are replaced by other old vessels and there are no prospects of reducing the high average age of the fleet.*

### ***Government-run domestic shipping is not the answer***

Coastal and inter-island shipping services are generally operated by government or small, independent shipping companies.

Delivering domestic shipping through a government shipping operation (either a government company or department) is fraught with peril, and most schemes have proved immensely costly and incapable of delivering adequate levels of service. In the FSM, for example, domestic commercial shipping services are provided almost entirely by the public sector. No domestic shipping service operates to a regular schedule, and all services lose money because regulated prices are below the cost of operation. Hence ships deteriorate, and safety is jeopardised.

Furthermore, competition from government services—sometimes encouraged by donors who provide boats to governments—tends to inhibit private-sector alternatives from developing.

In larger countries competition can be nurtured. In PNG, for example, there are 14 licensed coastal shipping operators. A review by PNG's economic regulator in 2007 recommended restructuring licensing arrangements to make market entry easier and remove price controls on freight rates. In Solomon Islands, following the sale of the government-owned National Shipping Services in the mid-1990s, the private sector and some provincial governments began operating inter-islands services. The role of private-sector operators has increased and they now dominate the market.

### ***Fiji provides a model for reaching remote areas***

Even if competition is maximised, and private-sector participation encouraged, some important routes governments want to see serviced will only be operational if they receive government support. Though this is best done by subsidies to the private sector, good design and implementation of such assistance makes the difference between success and failure. In the Marshall Islands, private operators focus on services to nearby islands, while the government runs a field-trip service to remote communities. Faced with increasing costs, the government introduced a franchise scheme for services to some remote islands, but it has nonetheless struggled to secure private-sector interest.

In Fiji, domestic shipping services operate on a commercial basis, and the main Viti-Levu and Vanau-Levu routes are subject to competition, including from aviation. However, many smaller outer islands depend entirely on shipping services but may not generate sufficient revenue to support commercially viable operations.

Fiji's Shipping Franchise Scheme started in 1997 and was subsequently revised in 2004. The scheme is now overseen by an independent entity, the Fiji Shipping Corporation Ltd., which reports to the Minister for Transport. The corporation does not itself own or operate ships, but instead competitively auctions subsidies to private-sector operators for services on non-commercial routes. Suppliers are allocated routes for three years through a tender process which considers vessel safety and cost. Successful bidders receive a subsidy worth about two-fifths of the assessed operational cost of each route and keep all collected revenue. The subsidy is not provided to reduce the cost of fares and freight, but to make uneconomical routes commercially viable and ensure regular services. As a result, monthly shipping services are provided to remote locations, passenger numbers have increased by more than 60 per cent and cargo volumes by 80 per cent since April 2005 (ADB, 2007a). While there have been concerns over various aspects of the operation of the scheme (e.g., *Fiji Times*, 2007), it seems to be the type of approach Pacific island countries should consider to provide a sound framework for shipping subsidies.

## Ports

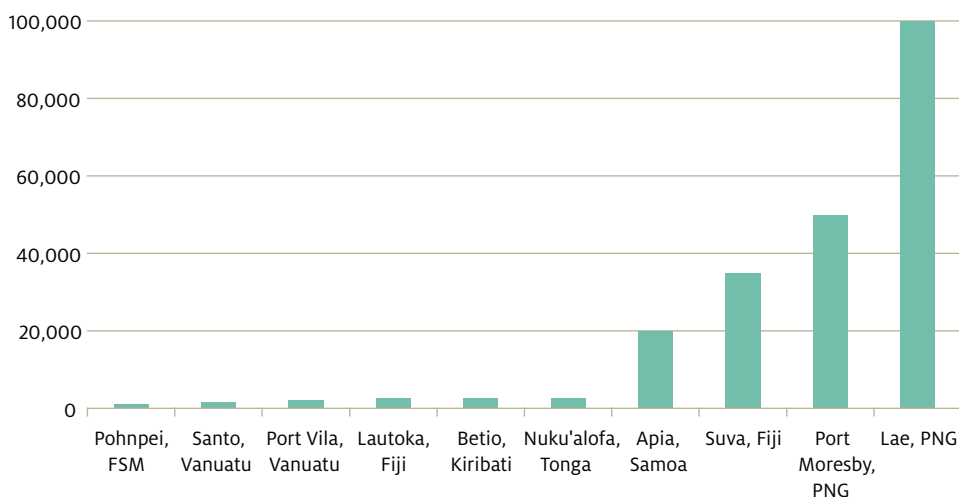
The most important contribution governments can make to improving international shipping services is to ensure their ports are adequate facilities and operate efficiently. This will also help improve domestic shipping.

### ***Pacific island ports are diverse, but run-down***

Pacific island ports range from basic wharves to more sophisticated facilities with significant cargo handling capability. Only one or two ports in each country are involved in international liner trades. Secondary ports provide domestic services and some privately owned, dedicated facilities exist for bulk exports and imports. The two largest Pacific island ports are in PNG (Figure 6.1).

**Figure 6.1 The throughput of the Lae Port in Papua New Guinea is about equal to that of all other major Pacific island ports combined**

Container throughput per annum (20-foot container equivalent)



Source: World Bank (2006a) and Asian Development Bank (2007a)

Note: the unit refers to a 20-foot container equivalent.

### Port productivity is on average low

Pacific island ports are generally run down. A few are more modern, with better-equipped container and dedicated bulk facilities, but most are well below international standards for infrastructure and operations. Equipment is old and maintenance poor.

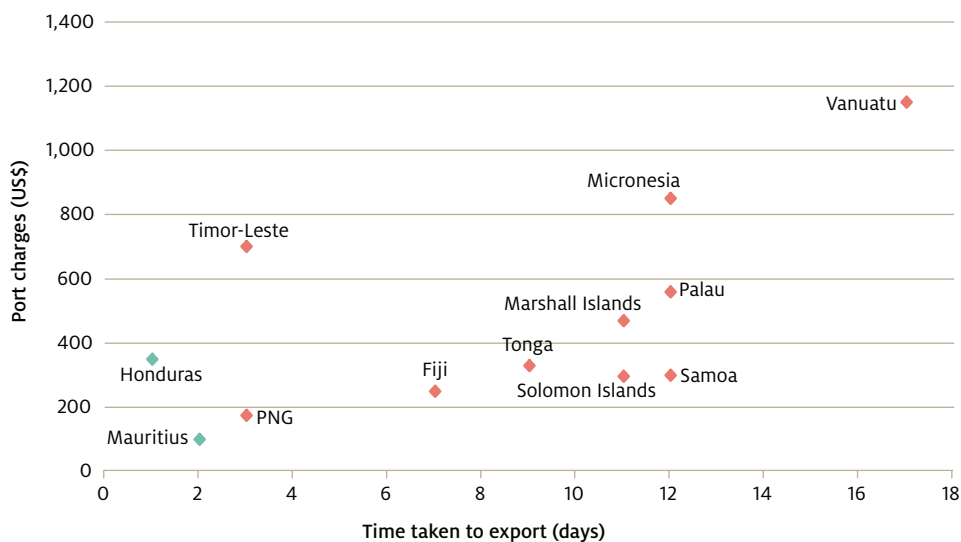
Most Pacific island ports lack shore-based container cranes, relying instead on slower ship-based lifting gear. The 'Pacific standard' rate of 10 to 12 lifts per hour is roughly one-third of what is expected at a modern, well-equipped container terminal.

Regional port facilities are also in poor condition. They tend to be under-funded and are managed to varying degrees of competence by public works departments or similar organisations, rather than by reputable national port authorities. Most are cramped, poorly maintained, lack adequate cargo sheds and passenger terminals and possess little or nothing in the way of cargo handling facilities. The sector is further characterised by a lack of expertise in business and financial management, particularly in government activity. Well-qualified individuals are more inclined to work for private industry where salaries are considerably higher.

### Service standards and costs lag behind international standards

The World Bank's Doing Business indicators show that the best-run international ports impose a cost to shippers of less than \$150 dollars (per 20-foot container) and allow shippers to clear exports within two days or less. No Pacific island port achieves these indicators (Figure 6.2).

Figure 6.2 Port charges and time to clear exports



Source: World Bank (2007a)

### ***Some ports do much better than others***

The Port Moresby port comes close to achieving the World Bank's Doing Business indicators. It is the Pacific's most efficient port, with relatively short clearance times (three days for exports) and reasonable costs (\$200 per 20-foot container). The worst performing port is Port Vila, where it takes 17 days to clear exports and costs more than \$1000 per 20-foot container.

Pacific island ports are publicly owned but some are privately operated.

The typical Pacific country has its one or two major ports owned and operated by government or government corporations, and a range of smaller port facilities owned and operated by provincial bodies or local communities, but with facilities, navigational, safety and security aspects overseen by central government entities.

Worldwide there are four models of port ownership based on whether the basic port infrastructure is publicly or privately owned, and whether port operations are publicly or privately managed.

In the Pacific, although there are some privately owned facilities dedicated to specific bulk exports and imports, ownership of port infrastructure generally lies with national or provincial governments.

Some ports are also operated and owned by the public sector. This includes the ports in Kiribati, Timor-Leste and Fiji. More common in the Pacific is the landlord port model, under which one or more private operators are employed on contract to the port authority to provide specialist port services. Samoa, the FSM, Tonga, Vanuatu and PNG use this model.

## Box 6.2 Institutional arrangements and reforms in the region's four largest ports

**PNG.** The PNG Harbours Board was corporatised in 2002. PNG Harbours Ltd now operates 16 ports in the country, however, only two, Port Moresby and Lae, are viable. PNG's economic regulator (the Independent Consumer and Competition Commission or ICCC) and PNG Harbours Ltd have entered into a regulatory contract which controls the prices PNG Harbours can charge for essential port services. The contract also includes commitments from PNG Harbours on service levels and future investment. PNG Harbours does not undertake stevedoring (loading and unloading), but issues licenses to private companies to carry this out. Licenses are issued for five years and are then renewed annually. In Port Moresby, international and domestic stevedoring is handled by two separate companies. In Lae, the biggest port, three operators share the market and two are engaged in servicing coastal and overseas shipping. Since the extent of competition is limited, the ICCC monitors prices.

**Samoa.** Before commercialisation, the Ministry of Transport managed all activities at the Apia port. However, budget allocations proved to be insufficient to cover operating costs, let alone to fund capital works, and by 1999 the port was operating at a loss. Since the Samoa Port Authority (SPA) was established in 1999 as a profit-oriented commercial organisation, Apia Port has become one of the best performing in the Pacific, doubling volumes, improving storage facilities and successfully achieving compliance with the international (IMO-ISPS) security standards. Moreover it has run at a profit every year, pays the government a dividend and subsidises domestic ports in Samoa out of its profits. The SPA's General Manager credits its success to its focus on being 'a facilitator'. Operating under the landlord model, the SPA has outsourced most port services to the private sector. Competition between private operators in clearing and forwarding has resulted in efficient and better customer service. Private operators buy all superstructure equipment and the SPA can therefore channel profits back into port improvements.

**Fiji.** Port reforms are incomplete. New investments into Fiji's two biggest ports, Suva and Lautoka, have resulted in upgraded and new capital equipment being acquired. In 2006, the Government corporatised the Maritime and Ports Authority of the Fiji Islands and the four major ports are now administered by the Fiji Ports Corporation Limited. Ports Terminals Limited, a 100 per cent subsidiary of the ports corporation, has a monopoly over stevedoring at all major ports. Performance may be improving in Fiji ports, helped by new investments in Suva and Lautoka. Although Suva in particular is well-equipped by Pacific standards, cargo handling performance is still generally regarded by users as costly and disappointing. Planned divestment of Ports Terminals Limited and introducing competition will likely help, but the fact that PTL currently cross-subsidises FPCL makes this difficult.

Sources: World Bank (2006a), ADB (2007a), PNG ICCC (2007b)

### ***Port reforms have focused on commercialisation, with mixed success***

Pacific island country governments have not been willing to privatise their ports, but several have shifted responsibility for them from government departments to government-owned companies or authorities. This occurred in PNG and Samoa in 2002 and in Fiji in 2006. As with airports, however, commercialisation on its own does not do much to improve efficiency. However, if it is part of a larger reform process—to improve corporate governance, and introduce competition and/or improve regulation—and when backed by a serious commitment by government, commercialisation can improve port management (as Samoa demonstrates).

### ***Privatisation of port services does not guarantee better performance***

As with commercialisation, simply shifting towards greater private-sector participation does not guarantee better port performance. Productivity and customer satisfaction in the FSM's Pohnpei port are both low: the port operates as a classic landlord port with a fully private stevedoring (loading and unloading) operator. Productivity and customer satisfaction in Solomon Islands, where the port is administered by the public service, are both high.

International and Pacific evidence suggests that introducing more competition will help. The best-managed ports in the Pacific include the Apia Port in Samoa and the PNG ports of Lae and Port Moresby. These have relatively low port charges but still manage to return a profit. They are based on the landlord model, with more than one private-sector operator competing to provide port services.

Contracting out loading and unloading services to different operators may not be appropriate for smaller ports, since their traffic levels may be too low to generate sufficient competition. In such a case, it may make more sense for the government to contract out port services to a single entity, supported by effective regulation to ensure reasonable prices and good service standards. Even in PNG, where there is competition in stevedoring, the Independent Consumer and Competition Commission maintains regulatory oversight of prices and service standards.

Investment is needed to expand and modernise facilities.

Some Pacific island ports cannot cope with the increased demand for services caused by the commodity boom and growing economies. The ADB (2007a) shows that port congestion in Lae is a major cost to business, with delays of three to five days the norm. Delays in Lae are estimated to cost \$20 000 per day, which increases costs for local businesses and hurts consumers.

Many Pacific island ports need significant investment to modernise and lift productivity. While smaller ports, such as those in the FSM and Kiribati, may not have the throughput volumes to justify installing shore-based cranes, it is surprising that the larger PNG, Suva and Apia ports do not have these facilities.<sup>27</sup>

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<sup>27</sup> Their throughput volumes are at least as high as the ports of St Lucia and Barbados which have shore-based cranes.

Financial injections will not be adequate if management problems are not addressed. But where ports are performing reasonably efficiently, port investment programs should be treated as priorities, as in the case of Lae (Box 6.3).

#### **Box 6.3 Lae: the Pacific's biggest port is soon to get bigger**

Lae port is a victim of its own success. A 15 per cent rise in cargo volume since 2003 has stretched the port beyond capacity. Located in the business hub of PNG, and linking the agricultural commodities of the highlands to global markets, the port cannot cope with the dramatic increase in demand created by the commodity boom. Up to 60 per cent of the country's imports and exports go through Lae, and a growing economy results in bottlenecks.

Initial work to repair and improve existing infrastructure will be complemented by an ADB funded US\$110-million expansion program that will add another 700 metres of berthing space, increasing the port's capacity by 50 per cent. Onshore cranes will reduce turnaround times, and dredging will make the port more easily accessible.

Source: ADB (2006).

## Regional solutions

### ***Regional cooperation will be important but should not focus on service provision***

Few Pacific island countries can, on their own, meet the financial and human resources required to deal with the complexity associated with regulating the sector. Even much larger Pacific Rim states struggle to meet new maritime codes by the prescribed deadlines. Regional maritime administrations typically range in size from two to ten professionals. By comparison, Australia has about 240 employees in its Maritime Safety Authority. Given limited regional resources, and extensive private-sector participation, regional provision of shipping services should not be a priority. After two decades, the regionally-owned Pacific Forum Line is now viable, but only because it was forced to restructure its operations along more commercial lines and focus its services on profitable routes just as any other line would.

### ***Existing institutions should be strengthened***

The Pacific's network of 12 maritime training institutions is a successful, regionally-led, vocational training system. The network has enabled international seafaring to become an important source of employment and income for the region. In 2003, an estimated 4000 Pacific island seafarers engaged in international shipping remitted approximately US\$19 million in foreign exchange to their countries.

The success of the training institutions is largely attributable to coherent management, close collaboration with industry and reliance on international standards. They are jointly supported by the Secretariat of the Pacific Community, through its Regional Maritime Programme, and by the Pacific Islands Maritime Association, whose membership includes industry participants such as shipping operators and port authorities, as well as government safety and regulatory authorities. This balance of membership from administrative, regulatory and industry bodies ensures that the institutions can simultaneously satisfy the requirements of curriculum relevance to industry, accessibility to students, and accreditation of courses by the International Maritime Organization. Further strengthening the Regional Maritime Programme, and enhancing the role of the Pacific Islands Maritime Association as a peak advisory body with a more explicit mandate from regional governments to advise on maritime harmonisation and reform, would seem to be the most effective regional approach.