



**Small Island States Feeder Shipping Service in the Pacific
Islands region:**

**Supply of a purpose-built ship with funding
by a donor partner**

Report prepared by the Secretariat of the Pacific Community's Regional Maritime Programme
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Executive Summary

Improving feeder shipping services among Small Island States (SIS) remained high on the Agenda of SIS Leaders at the 17th SIS Leaders' Summit, held on 19 August 2008 in Niue. The Leaders requested further assistance from the Secretariat of the Pacific Community's Regional Maritime Programme (SPC RMP) and the Pacific Island Forum Secretariat to address the shipping problems faced by SIS. One of the decisions required SPC RMP to progress the option of acquiring a purpose-built vessel as outlined in the initial feeder service report by SPC RMP in June 2007.

The purpose of this paper is to outline the requirements associated with acquiring and operating a ship dedicated to providing feeder shipping service to SIS in the Pacific region. It is envisaged that information contained in this paper will assist SIS to source the required funding from potential donors. The paper elaborates on the options suggested in the initial feeder service report, focusing on vessel specifications, ownership, management and operation, crewing and training, routes and marketing.

Any vessel used for SIS feeder service would need to be a geared cargo vessel of approximately 150 – 200 TEU with a minimum service speed of 12 to 14 knots and equipped with cargo gear that has the capacity to handle 30 tonnes. The type of ownership that could be appropriate in the Pacific SIS purpose-built ship case is a corporation structure which will allow for limited personal liability for owners, taxation on business profits and managerial decisions to be made by a board of directors.

Three options for management and operational handling have been put forward for consideration: (1) *Corporation* – where ownership is shared among the SIS and a new management company is setup to look after operations and management; (2) *Existing shipping company* - this option would use existing expertise in the Pacific Islands region such as KSSL, PFL, Samoa Shipping Services (SSS), Government Shipping Services (GSS), or consider other companies such as Swires Shipping and Pacific Direct Line; (3) *Neutral option* - involving an independent body, such as SPC RMP, in the operation of the service to ensure fair service to all parties involved. Establishment of a managing company under corporate ownership is envisaged to be the best long-term solution.

Any new ship delivered for the purpose of SIS feeder services needs to have space to carry SIS cadets and trainees. In addition, crew of these ships should be from the shareholder countries. The arrangements also need to support the development of officers accessing sea-time that is required for obtaining higher qualifications.

Financial modelling is based on the proposed feeder service route from Suva to Futuna to Wallis to Funafuti to Tarawa to Nauru and back to Suva. As of November 2008, with the current global financial crisis, shipping is being affected in many different ways, such as by decreases in volumes of cargo, dropping charter rates, and dropping as well as cancellation of new-building orders. The assumptions included in the modelling have not taken into account the current market situation due to the volatility of the market. An alternative route is also proposed, involving Lae port in Papua New Guinea, on the basis of PNG's proximity to emerging Asian economic markets.

The paper highlights the need for an assessment to be undertaken of marketable commodities in PICs to assist in identifying the type of cargo that can be transported to the SIS via the new purpose-built ships. Buyers from Nauru, RMI, Kiribati and Tuvalu need to visit Fiji and PNG, perhaps under sponsorship from PIFS, to discuss with local producers the type of products and commodities that could be supplied from Fiji, PNG and other PICs.

An additional area that has been explored in this paper is that of requesting the donor to supply enough empty dry and reefer shipping containers (TEU's) for the service, in addition to the ship, that could assist in controlling the container hire charge and bring a reduction in freight rates.

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1. Background

The challenges facing Small Island States (SIS)¹ in the Pacific Islands region are well known and have been documented as that of remoteness and small economies. Shipping services play a vital link in not only economic wellbeing but also social development. The high cost of importing cargo, and in some cases exporting goods, is an impediment to growth. In the last couple of years, several initiatives have been undertaken in the region to address SIS shipping issues in an effort to improve shipping services to the concerned nations.

1.1 Consultancy report: Small Island States feeder shipping service - from Fiji to Wallis and Futuna, Tuvalu, Kiribati and Nauru

In 2006, the Secretariat of the Pacific Community (SPC) and Pacific Islands Forum Secretariat (PIFS) collaborated to investigate and recommend a course of action with regard to a feeder shipping service between Fiji, Tuvalu, Kiribati, Nauru and Wallis and Futuna, and any other suitable Pacific Island country or territory (PICT) in that region to the north of Fiji. Although Wallis and Futuna is not a Forum member country it was considered beneficial to include them in the feeder service as the extra volume of cargo could assist in the viability of the service. The Republic of Marshall Islands (RMI) was initially included in the study as a part of the feeder service, but a preliminary questionnaire study revealed that they were generally satisfied with their shipping arrangements under the Micronesian Shipping Commission (MSC) and therefore not interested in being part of the proposed feeder service.

PIFS and SPC, through the Regional Maritime Programme (RMP), agreed to cooperate on the implementation of the SIS Feeder Shipping Service Consultancy as both organisations' Governing Councils have stressed the importance of shipping services to SIS. An integrated approach was taken to investigate and recommend a course of action as well as to develop a strategy to address the viability of re-establishing the feeder service with other relevant information gathered and presented in this report, including financial models and impacts on current shipping services.

During the course of the study high level consultations were held with the SIS Ministers who attended the First Regional Meeting of Ministers for Maritime Transport (19 April 2007, Apia, Samoa) in addition to in-country visits to Nauru and Tuvalu, a desktop study, primary data collection and consultations with a cross section of stakeholders such as importers/exporters, freight forwarders and carriers, port industry and government authorities. Valuable feedback from the wide cross-section of stakeholders consulted resulted in the examination of four options, namely:

1. "Maintain the Status Quo": This option is to maintain the existing services to the SIS PICTs that were part of the study, particularly as all these PICTs currently receive shipping services. Feedback indicated that Kiribati, Nauru, Tuvalu and Wallis and Futuna had existing shipping services that could be relied upon, although there were concerns about high freight rates, flexibility in sourcing goods from the Pacific Islands and regularity of shipping services;

2. The report sets out recommended size (150-200 TEU) for the purchase of a new ship through donor assistance and looks at operational management options. An initial management arrangement with PFL is suggested as company shareholders include PICTs in the proposed service i.e. Tuvalu, Nauru and Kiribati. The financial model shows this to be a good medium to long term option. In this option freight rate reductions of 39% (long term) to 48% (short term) from Suva are

¹ The SIS includes Cook Islands, Kiribati, Nauru, Niue, Republic of Marshall Islands, Palau and Tuvalu

illustrated. The viability is possible due to the ability to reduce charter rates in the short term, and the flexibility of Nauru in sourcing cargo from Suva;

3. Pacific Forum Line (PFL) to reintroduce a feeder service that was stopped in 1993 due to removal of financial support by Australia and New Zealand: PFL would welcome the opportunity to reintroduce a feeder service but it would need to be financially viable. A report commissioned by PFL in 2005 indicated that the service, if reintroduced, would be unprofitable unless there was some sort of guaranteed slot agreement (used/unused basis). The study found that PICTs were not prepared to provide subsidies for guaranteed slot agreements. This option was considered to be a good medium to long term option. Freight reductions of 33% from Suva were also demonstrated; and

4. Use of existing capacity in Tuvalu and Kiribati: Kiribati has just purchased a second-hand vessel the *Moanaraoi*, a 60 TEU vessel which could provide a limited service to Tuvalu, Wallis and Futuna and Nauru. This option is considered the best short to medium term option as services could start almost immediately without disrupting status quo arrangements.

A fifth option that was raised during the recent April SIS Ministers Meeting on Feeder Shipping Services was that of a “Regional Shipping Service Agreement” similar to the MSC but the authors felt that this would be more appropriately covered by a separate study as it would have impacts on countries outside the scope of this study.

1.2 Small Island States feeder shipping service: the use of Kiribati’s state-owned vessels to provide shipping services to Tuvalu, Kiribati and Nauru

In 2007, a second study was proposed following consideration of the consultancy report on “Small Islands States Feeder Shipping Service: From Fiji to Wallis and Futuna, Tuvalu, Kiribati and Nauru”² by officials of Kiribati, Nauru and Tuvalu during the second meeting of the Regional Air Service Task Force on the 19 – 20 July in Nadi. PIFS re-engaged the services of SPC RMP to investigate the provision of shipping services to Nauru and Tuvalu using Kiribati Shipping Services Limited (KSSL) vessels *Moanaraoi* and *Nei Matangare*. Officials at the meeting still considered Option 2 (supply of a purpose built ship) from the original report and the Regional Shipping Service Agreement to be the preferred options for the medium to long term.

It was apparent from this study that KSSL ships could not meet the requirements of the SIS on their own, and it was not feasible for KSSL to run a viable service at competitive freight rates and schedules compared to existing shipping companies.³ A 150 – 200 TEU ship was recommended to meet the demand for containers from Fiji, and also provide a frequent service to the SIS on a three to four week basis. The frequent service was possible due to the higher speed given for the 150-200 TEU ships (11 knots) compared to KSSL ships (9 knots).

The viability was an issue for KSSL ships due to the small cargo capacity for the vessels to carry cargo for Kiribati, Tuvalu and Nauru together. The additional cargo from Kiribati (and Wallis and Futuna) created sufficient volumes to operate a viable shipping service among the SIS. The other issues such as improved efficiency of ports (and therefore reduced time in ports and benchmarking of port charges) is a pressing need in the meantime for any option that is taken. Port upgrade needs to be in sync with the intended plans for the medium to long term.

² A joint report by SPC’s RMP and PIFS’ Small Islands States programme, completed in June 2007

³ Some major developments have taken place with KSSL since then. They revised the freight rates and proposed new routes to accommodate the other SIS. Decisions on proposed changes will be made by the SIS leaders when they meet next to discuss progress in this area.

Considering that Option 2 (supply of a purpose built ship) and the concept of a regional shipping agreement are the recommended medium to long term solutions to the inadequacies of current shipping service arrangements, it was recommended that the KSSL ships assist in testing the market for the proposed long term options. This is by sourcing a small proportion of containers for Nauru from Fiji and transporting some of the containers for Tuvalu and Kiribati as well.

1.3 Small Island States Leaders commitment to addressing SIS shipping issues

The issues surrounding a feeder service to the SIS of Nauru, Kiribati, Tuvalu and Wallis and Futuna have been discussed at various regional meetings over the last 18 months including the 2007 Forum Leaders meeting in Nadi, the SPC CRGA meeting in Noumea in November 2006 and at the Taiwan and their Pacific Allies meeting in Palau in August 2006.

The issue was also raised at the Pacific Forum Line AGM held in Nadi in June 2005 where three of the lines shareholders Nauru, Kiribati and Tuvalu requested the line re-look at restarting the feeder service to these countries which stopped in 1993. PFL undertook a feasibility study which was completed in December 2005. The study recommended that PFL not proceed with the introduction of a feeder service on the grounds that it was unlikely that the service would be financially viable.

At the First Regional Meeting of Ministers for Maritime Transport, held in Apia, Samoa on 19 April 2007, the Transport Ministers noted in particular, the need to implement initiatives relevant to the maritime sector specifically the important link between trade and shipping and continue work on Pacific Plan maritime transport initiatives, including Small Island States (SIS) shipping and maritime security.⁴ The Ministers also made a special note that affordable and regular shipping transport linkages was a long-standing issue and a vital priority for SIS, and they encouraged and supported the joint feasibility study on a feeder shipping service for SIS undertaken by SPC RMP and PIFS and looked forward to receiving a draft report by mid June 2007 before the Pacific Forum Leaders 2007 meeting. The study, 'Small Islands States feeder shipping service - from Fiji to Wallis and Futuna, Tuvalu, Kiribati and Nauru', produced the first report on investigating options for a viable feeder shipping services for SIS in the region while laying the foundation for other similar studies.

At the 17th SIS Leaders' Summit, held on 19 August 2008, in Alofi, Niue, the Leaders welcomed initiatives planned to be executed by SPC RMP to address the shipping problem faced by the SIS⁵. They further directed that an in-country consultation be undertaken by SPC with KSSL, the appropriate line Ministry in Kiribati and other relevant stakeholders to advance the implementation of the existing tonnage option. The SIS Leaders also tasked PIFS, in collaboration with SPC RMP, to consider the option of acquiring a purpose built vessel to address the challenges faced by SIS. They further requested the Secretariat and SPC RMP expedite the convening of a meeting of those countries involved to discuss the best way to proceed with this feeder shipping service option.

Since the SIS Leaders meeting in August 2008, SPC RMP has:

- undertaken one in-country consultation with KSSL, Kiribati Ports and the Kiribati Ministry of Foreign Affairs to advance the implementation of the existing tonnage option;
- written a report on the option of acquiring a purpose built vessel; and
- been seeking funding, in collaboration with PIFS, to organise a meeting of SIS involved.

⁴ SPC RMP (2008). *Maritime Ministerial Communiqué*. First Regional Meeting of Ministers for Maritime Transport. Apia, Samoa, 19 April 2007. Accessed on 29 September from <http://www.spc.int/maritime>

⁵ PIFS (2008). *Summary of decisions*. Small Island States Seventeen SIS Leaders' Summit. Alofi, Niue, 19 August 2008. Accessed on 29 September from <http://www.forumsec.org.fj>

1.4 Supporting intra-regional trade with viable shipping services

According to SPC, food security in the region is being threatened by a number of factors, including rising global food prices, climate change, increasing rural–urban migration and the recent hikes in fuel prices.⁶ The Forum Leaders, recognising the threat that these challenges pose to the future well-being of people across the region, have prioritised action on food security under the Pacific Plan. The Niue Communiqué called on PIFS and SPC RMP to explore avenues for intra-country trade in locally grown food commodities. The opportunities extend well beyond just food commodities with potential for trade involving cement, timber and aggregates.

While export revenue plays an important role in the economies of larger PICTs, all PICTs import consumer goods such as fuel, building materials, health supplies, motor vehicles, and other goods essential for economic development. Most of these goods are sourced from Pacific Rim countries, such as Australia and New Zealand. For bigger PICs, shipping facilitates exports, contributing not only to the much needed economic growth but creating further trade opportunities as well. PNG is the sole exporter of copper ores and concentrates from the region, bringing in around US\$268 million; PNG and Fiji are the sole producers and exporters of gold, collectively earning around US\$254 million; and PNG and Solomon Islands are the sole exporters of palm oil and its fraction that has the potential of bringing in around US\$143 million⁷.

SIS such as Nauru, Tuvalu and Kiribati rely heavily on imported goods and incur high import and freights costs by trading with countries outside the region. In view of the recent global crisis on food and fuel, PICs need to seek cost-effective solutions to reduce shipping and import costs, where possible. One of the possible ways to do this is to identify potential trading partners within the region and explore import/export options on all forms of commodities, including cement, timber, aggregates and food.

Positive moves in the trade of food commodities are already becoming visible in the region. In early 2008, a new port of entry opened in Rotuma, Fiji, creating export opportunities for root crops and other fresh produce. Tuvalu has been quick to take advantage of the new port of Rotuma, saving costs by sourcing fresh food products directly from Rotuma rather than mainland Fiji.

Until six months ago Nauru used to import Maggie Noodles from Australia, but now the nation imports the product from Fiji (made in Fiji and sold at a cheaper market price in Fiji – at AU\$0.37 compared to \$0.97 in Australia). Because there is no direct shipping service from Fiji to Nauru at present, the shipment from Fiji to Nauru is still via Australia, which means a higher cost of transshipment. This suggests there are opportunities to establish new shipping routes that could be competitive for private shipping operators, or a dedicated SIS shipping service. Other PICTs which import the Fiji-made Maggie Noodles include New Caledonia, French Polynesia, Vanuatu, Solomon Islands, Tonga, Samoa and American Samoa.

In addition to Fiji, other countries in the region are also known to produce export quality commodities. Amongst other things, PNG is well known for its palm oil, coffee, cocoa, and timber; Solomon Islands for copra, timber and gold; and Nauru for phosphate (on a smaller scale).

⁶ SPC (2008). *Food security in the Pacific*. Paper presented to the thirty-eighth meeting of the Committee of Representatives of Governments and Administrations. Noumea, New Caledonia. 13-16 October 2008.

⁷ ITC. (2006). *Pacific Island countries and selected Asian countries – statistical indicators for inter-regional trade potential*. Working document. August 2000. Accessed on 5 June 2008, from <http://www.imo.org/>

2. Purpose

The purpose of this paper is to outline the requirements associated with acquiring and operating two ships dedicated to providing feeder shipping service to SIS in the Pacific region. It is envisaged that information contained in this paper will assist SIS in sourcing the required funding from potential donors.

3. Vessel specifications

3.1 Size and speed

Any vessel used for the SIS feeder service would need to be a geared cargo vessel of approximately 150-200 TEU with a minimum service speed of 12 to 14 knots.

3.2 Capacity

The vessel needs to have the capacity to carry breakbulk cargo, especially machinery and building materials such as cement and steel. Freezer capacity (about 5% reefer containers) would also need to be considered.

3.3 Cargo gear

The cargo gear would need to be able to handle up to 30 tonnes. To support this, two electric hydraulic cranes need to be in-build, each ideally 50mt combined with 100mt (suitable for large project cargo).

3.4 Fuel

The only fuel available is Medium Diesel Oil (MDO).

3.5 Price of second hand ships

Purchase of a second-hand ship is an option that could be considered for servicing SIS. Keeping a watchful eye on market trends may help buyers get a ship for a better deal. *Fairplay* (25 September 2008)⁸ reports that the current sale and purchase market remains quiet and it would need a “period of market stabilization to overcome both buyers’ and sellers’ recent tendency to sit on their hands”. As of July 2008, a nine-year old 140 TEU General Cargo Ship could be bought for US\$9.80M.⁹ An older, bigger TEU ship can be bought for a much lower price but is not recommended as it will contribute to higher maintenance and operational costs in the long term.

3.6 Charter rates

It is recommended that the company charters the vessel to an independent management company to operate the vessel at an initial beneficial time charter rate lower than the current commercial time charter rate to ensure profitability of the service while still providing a return to the vessel owners. The charter rate for the vessel could be reviewed on an annual basis to reflect the profitability of the service. Table 1 provides an indication of charter rates of two vessels operating in the Pacific, as at June 2007.

Table 1 Daily charter rates for *Forum Rarotonga* and *Capitaine La Perouse*

				Daily charter rate	
Vessel	Company	GRT	TEU	€Euro	US\$ (rate 1.33)
<i>Forum Rarotonga</i>	Pacific Forum Line	2657	135	3850 Euro	5103.03
<i>Capitaine La Perouse</i>	Neptune	2024	150		5200

Source: SPC (June 2007)

⁸ Fairplay the international shipping weekly (25 September 2008). *Companies and markets*. Issue 6500, Volume 364. Pg36

⁹ Fairplay the international shipping weekly (31 July 2008). *Companies and markets*. Issue 6492, Volume 363. pg44

4. Ownership

Choosing the right type of corporate identity can help ensure sustainability of business and service to customers.

4.1 A Corporation ownership structure

The type of ownership that could be appropriate in the Pacific SIS purpose-built ship case is a corporation structure which will allow for limited personal liability for owners, taxation on business profits and managerial decisions to be made by a board of directors.

Under this structure, ownership of the Pacific SIS purpose-built vessel would be shared among Kiribati, Nauru, Tuvalu and Marshall Islands. To handle the operational side of business, a separate company can be set-up with each country owning a chosen percentage of shares in the company.

Registration of the ship needs to be given some consideration. The vessel could be flagged in any country of the owners' choosing. This also means that laws of the chosen Flag State will prevail on the ship's operations. The chosen Flag State would need to show a high rate of ratification and implementation of relevant international maritime conventions in order to maintain compliance with international standards. Of the four SIS, Marshall Islands has ratified the highest number of IMO conventions and is currently the only PIC which has ratified ILO's Maritime Labour Convention (MLC) 2006.

The envisaged corporation set-up for ownership of the vessel could be similar to that of Pacific Forum Line except that countries will not be bound by any Memorandum of Understanding (MOU) because of the ownership of assets.

Other considerations in the development of the proposed corporation structure would include:

- Formation of a committee to start the groundwork
- Preparation of Articles of Association
- Preparation and submission of company registration documents
- Establishment of the company
- Appointment of a Board of Directors and Officers prior to the commencement of business.
- Decision on shareholders and shareholding values
- Preparation of job descriptions, draft operations, financial and human resource policies, subject to final approval by new Board of Directors
- Recruitment of a management team
- Development and implementation of operational plans, processes and procedures
- Developing marketing strategies

4.2 Functions of the Board

The key functions of the company Board would be overseeing the implementation of the company policies, appointing a chief executive officer of the company, directing the responsibilities of the CEO and reporting to shareholders. In addition, the Board could approve: (i) the frequency of routes and scheduling of services; (ii) the number, type and class of ships to be operated; (iii) general charter rates; (iv) the appointment and the general conditions of engagement of stevedores and agents; (v) salary scales and conditions of employment for employees; (vi) the appointment of banks; (vii) the sub-chartering of ships which are on charter or sub-charter; (viii) the company acting as a substantive agent for other persons; and (ix) borrowing of money.

5. Management and operation

There are several options that can be explored to ensure that effective mechanisms are put in place for safe management and operation of the donor-funded vessel. The options include:

1. *Corporation* – where ownership is shared among the SIS and a new management company set-up to look after operations and management.
2. *Existing shipping company* - this option would use existing expertise in the Pacific Islands region such as KSSL, PFL, Samoa Shipping Services (SSS), Government Shipping Services (GSS), or consider other companies such as Swires Shipping and Pacific Direct Line.
3. *Neutral option* - involving an independent body, such as SPC RMP, in the operation of the service to ensure fair service to all parties involved.

5.1 Corporation: a management company

Under a corporation structure, where ownership would be shared among the SIS, a new management company needs to be set-up to handle the operations and management functions. Each SIS would own a chosen percentage of shares in the managing company. A management company would ensure that each country would receive an equal service with no one country being favoured over another. This option would probably be the best long-term solution.

It is also suggested that an initial management arrangement with PFL be pursued as some of the company shareholders are countries included in the proposed feeder service.

5.2 Existing shipping company

There are a number of shipping companies in the Pacific Islands region which may consider adding the management and operational functions of the SIS purpose-built ship to their existing operations. Expertise in this area is visible in companies such as Samoa Shipping Services (SSS) in Samoa, KSSL in Kiribati, PFL, Government Shipping Services (GSS) in Fiji, and other companies such as Swires Shipping and Pacific Direct Line.

Companies interested in overseeing the management operations of the SIS vessel would need to demonstrate excellent organizational performance bordered on sound management practices and sustainability. Additional management and operational responsibilities also indicate that extra costs would need to be built into the company budget to ensure that costs were viable. The risk with this option is that if the company ceases to make profits on the designated route, it may pull out of the management arrangements.

5.3 Neutral option

This option could see the involvement of an independent non-profitable body, such as SPC RMP, in the management and operation of the SIS service to ensure fair service to all parties involved. In the case of SPC RMP, the current organizational structure and staffing of the Programme do not support extensive involvement of this nature. As a non-profitable entity, SPC RMP's main challenge would be to secure adequate funding and expertise to establish a dedicated SIS ship management unit under its structure, which would be responsible for overseeing the management of the shipping service.

Another option could be for SPC RMP to have an oversight or audit role in the management of the company. SPC RMP, in conjunction with the Pacific Islands Maritime Association (PacMA) has already established and implemented a rigorous system of conducting STCW, ISPS and ISM compliance

audits in PICs, predominantly in maritime administrations, maritime training schools and ports. It would be relatively easy to incorporate ISM audits on shipping companies into the current compliance or regulatory audit system.

5.4 SIS perceptions on management of donor-funded ship

In June 2007, SPC RMP conducted a survey to gauge SIS perception of feasible management options for running the purpose-built ship (SPC, June 2007). A summary of feedback from Nauru, Tuvalu, Kiribati, Marshall Islands and Wallis and Futuna is attached as Annex 1. There was general consensus on the option of a ship management agreement among the concerned SIS that would see the establishment of a corporation type management structure. The views of five SIS on management issues on key areas are highlighted in Table 2.

Table 2 Perception of SIS on the management of donor-funded ship

Areas	General perception
Government-managed shipping service	<ul style="list-style-type: none"> • Not preferred
Preferred management and operation options	<ul style="list-style-type: none"> • Private sector management • Contracting a shipping company to operate the services of a line owned by the SIS governments • Similar system to the Micronesian Shipping Council (MSC) • Kiribati strongly discouraged the inward focus of regional shipping arrangement which focused only on profit maximization.
Ownership	<ul style="list-style-type: none"> • Generally flexible • SIS governments having shareholding values
Ship registration and flagging	<ul style="list-style-type: none"> • Generally flexible • Desirable to have it registered in one of the beneficiary countries • Preferred registration with a reputable registry known to maintain international standards;
Crewing	<ul style="list-style-type: none"> • Generally flexible • Interest in supplying crew and support crew training
Maintenance	<ul style="list-style-type: none"> • Generally flexible • Time charter arrangement preferred
Hub port	<ul style="list-style-type: none"> • Any preferred port in SIS • Suva port preferred by some

The SIS were clear on their views regarding the development of a ship management agreement among the SIS. The agreement needed to:

1. Give priority to meeting the needs of SIS;
2. Ensure long term sustainability of the feeder service;
3. Consider utilisation of resources from SIS;
4. Enhance shipping and distribution services; and
5. Provide opportunities for crewing and training.

Registering the ship in Wallis and Futuna was not an option as the French territory was governed by French maritime legislation, which might not be directly applicable to the Pacific island countries.

6. Crewing and training

One of the reservations some PICTs have with Pacific Form Line is that the company does not contribute enough towards providing employment and sea-time for Pacific Islanders on board its ships. Any new ship delivered for the purpose of SIS feeder services needs to have space to carry SIS cadets and trainees. In addition, crew of these ships should be from the shareholder countries. The arrangements also need to support the development of officers accessing sea-time that is required for obtaining higher qualifications.

Pacific Island seafarers are trained to international STCW standards by the 11 maritime training institutions in the Pacific Islands region that provide training to various levels. The MTIs are:

- Cook Islands Maritime Training Centre
- Federated States of Micronesia Fisheries and Maritime Institute
- Fiji Institute of Technology's School of Maritime and Fisheries
- Kiribati Maritime Training Centre
- Papua New Guinea Maritime College
- Republic of Marshall Islands Fisheries Nautical Training Centre
- Samoa School of Maritime Training
- Solomon Islands College of Higher Education
- Tonga Maritime Polytechnic Institute
- Tuvalu Maritime Training Centre
- Vanuatu Maritime College

The annual training capacity for each of the institutes (summarised in Table 1) varies from one school to another. The PNG Maritime College is the only MTI of the 11 that teaches up to Class 1 Master in charge of a Navigational Watch and Class 1 Engineer in charge of an Engineering Watch.

The Pacific Islands region has been supplying English speaking ratings and junior officers to overseas shipping companies and managers for a long time. The Pacific Islanders are by tradition competent seafarers and need to be given the much needed opportunities to allow them to earn salaries to help support their families and countries.

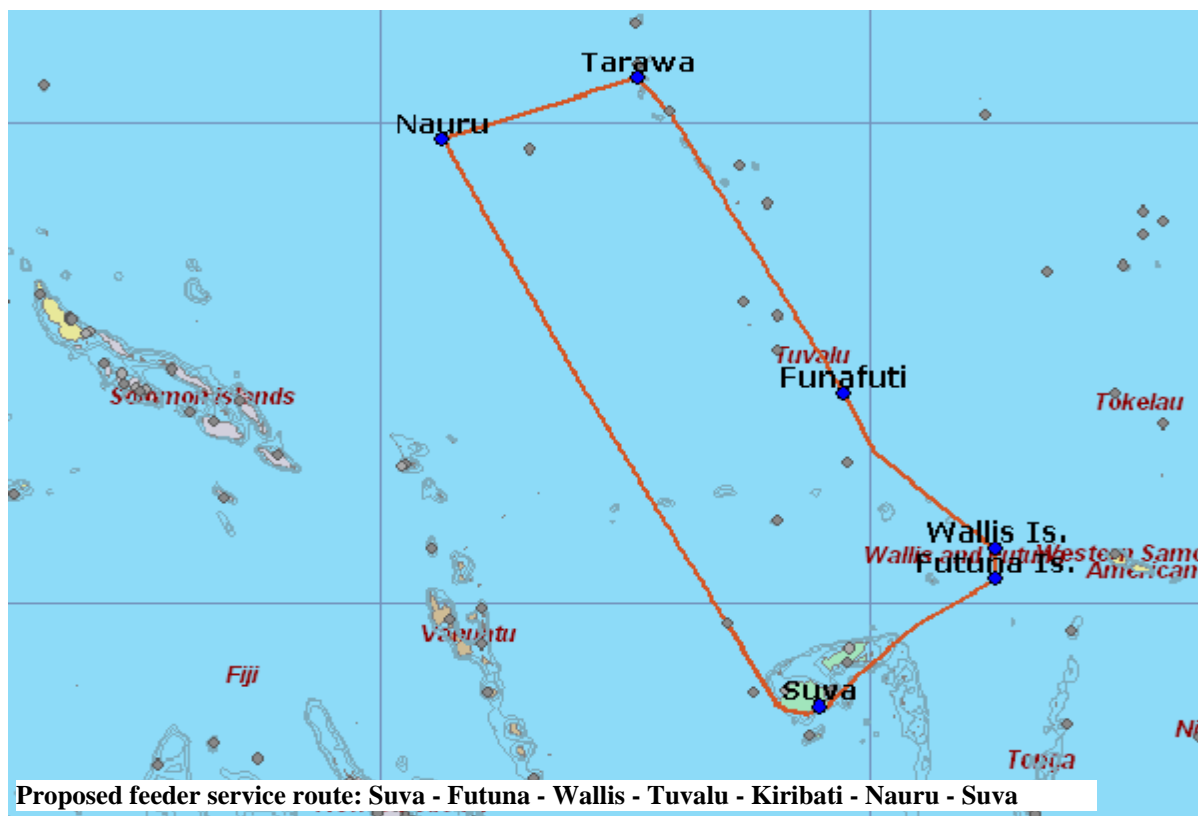
Table 1 Approximate annual training capacity of maritime training institutions in the Pacific Islands region

Country	Class 1 Master/Officer in charge of a Navigational Watch	Class 1 Engineer/Officer in charge of an Engineering Watch	Class 2 Master/Officer in charge of a Navigational Watch	Class 2 Engineer/Officer in charge of an Engineering Watch	Class 3 Master/Officer in charge of a Navigational Watch	Class 3 Engineer/Officer in charge of an Engineering Watch	Deck Cadets	Engineer Cadets	Deck Ratings	Engineer Ratings	Pacific Island Qualified Fishing Deckhands
Cook Islands	-	-	-	-	-	-	-	-	-	-	25
FSM	-	-	-	-	-	-	-	-	12	12	20
Fiji	-	-	-	-	15	15	15	15	15	15	20
Kiribati	-	-	-	-	-	-	25	25	25	25	-
PNG	15	15	15	15	15	15	20	20	20	20	-
Marshall Is	-	-	-	-	-	-	-	-	10	10	15
Samoa	-	-	-	-	-	-	15	15	15	15	20
Solomon Islands	-	-	-	-	15	15	15	15	20	20	20
Tonga	-	-	-	-	-	-	15	15	15	15	-
Tuvalu	-	-	-	-	-	-	-	-	30	30	-
Vanuatu	-	-	-	-	-	-	-	-	25	25	20
Total	15	15	15	15	45	45	105	105	187	187	140

7. Routes

7.1 Proposed feeder service route: Suva - Futuna - Wallis - Tuvalu - Kiribati - Nauru – Suva

The 2005 PFL study¹⁰ proposed a model for operating a feeder service from Suva to Futuna to Wallis to Funafuti to Tarawa to Nauru and back to Suva. The SPC (June 2007) study adopted the same feeder service route, a voyage rotation of 24 days, and 15 voyages per year as the frequency.



There were some distinct characteristics of the model used in the study:

1. Since the vessel purchased to serve the feeder route would be owned by the member SIS, it would allow a reduced time charter rate in the short term until the route becomes viable and competitive at the market charter rate.
2. The cargo carried on the feeder service will only include cargo currently sourced by SIS from Fiji, except in Nauru's case, where Nauru will need to source all, or most, of its cargo from Fiji. The response from Nauru has been that this is plausible as there are similar or alternative Fiji-based suppliers who may be able to act as suppliers for Nauru. It is advised that Nauru make prior arrangements with suppliers before the model is implemented.
3. When goods that are only sourced from Fiji are carried on the feeder service, it removes first carrier costs which are charges for additional freight and transshipment to Suva. The consultants found that adding first carrier costs strained revenue and depending on the quantity that was sourced from outside Fiji, could easily lead to unprofitability of the shipping service. Examples given to demonstrate this are for Nauru sourcing up to 30% of its cargo from Australia via Suva.

¹⁰ Oxley, M. & Mitchell, A. 2005. *Pacific Forum Line – Feeder Service from Fiji to Funafuti, Nauru and Tarawa*, Pacific Marine Management Ltd, Auckland

4. The sale price of goods which are sold in Fiji but which originate from overseas would normally include first carrier costs in the price of the goods; once these goods are supplied to Nauru the first carrier costs are transferred to the actual consumer purchasing the goods in Nauru through the sale price.
5. The gross revenue includes current freight rates paid for cargo imported from Fiji for Wallis and Futuna, Tuvalu and Kiribati, and the freight rate paid for cargo imported from Brisbane for Nauru (Table 2).

Table 2 Freight rates paid by SIS for importing from Suva and Brisbane (Nauru only)

Country	Dry container numbers	Reefer container numbers	Total freight value (USD) for containers sourced from Fiji
Nauru	505	62	2,679,073
Tuvalu	160	9	597,893
Kiribati	1,496	0	4,316,259
Wallis	124	13	517,223
Futuna	16	2	69,106
TOTAL			7,757,742

Assumptions:

Note: As of November 2008, with the current global financial crisis, shipping is being affected in many different ways, such as by decreases in volumes of cargo, dropping charter rates, and dropping as well as cancellation of new-building orders, to name a few. The following assumptions have not taken into account the current market situation due to volatility of the market:

1. Present calculations have not included breakbulk revenue due to yearly fluctuations in breakbulk demands. Breakbulk carried by the vessel would be an additional source of revenue. The freight rates for breakbulk would also be lower. An important consideration is that Kiribati and Tuvalu currently have vessels that are designed to carry breakbulk cargo.
2. In the long term, imported cargo will increase for all countries that currently source imports from other countries as well as Suva. This shows that there is room to expand imports from Suva due to reduced freight rates (and cheaper alternatives). The quantity demanded from Nauru is assumed to be at full potential so no increase is shown in this case.
3. The time charter rate USD2,500 in the short term is a lower rate than market value to provide competitive freight rates at the commencement until cargo trade increases by 35% or as best determined at the time (this being the "long term"). In the long term, the charter rate will be adjusted to market value: A charter rate of USD5,600 is used for a 200 TEU vessel. (The charter rate of a smaller vessel of 150 TEU is 5,200 USD (Table 2)). Freight rates may change slightly due to changes in operational costs in the medium to long term.
4. Staff overheads, insurance and box returns are indicative.
5. The ship agent's commission is set at 7.5% of gross revenue.
6. Approximate times in ports are: Suva 30 hours, Funafuti 24 hours, Tarawa 36 hours, Nauru 72 hours, Wallis 18 hours, and Futuna 18 hours.
7. Containers would be emptied during the vessel's stay in port and loaded back on the same ship reducing overall time costs for these containers.

8. One visit is attributed to each port per voyage rotation. Port charges are: Suva FJD8,368; Wallis XPF300,000; Futuna XPF300, 000; Funafuti AUD92; Tarawa AUD166; and Nauru AUD3,500.
9. An initial management arrangement with PFL is suggested as some of the company shareholders are countries included in the proposed service i.e. Tuvalu, Nauru and Kiribati.
10. The bunker costs obtained from Total Fiji Limited on 16 March 2007 was USD660 per tonne (Annex 2).
11. The first carrier costs, where used, are based on PFL's calculations of AUD2, 247 per 20ft dry and AUD2, 779 per 20ft reefer container from Australia to Suva for transshipment to Nauru. Freight rates from Australia to Suva are much higher at AUD3,127 per dry and AUD6,265 per reefer container.

Limitation:

A 200 TEU vessel would allow a maximum of 35% growth in cargo. Nonetheless, a greater cargo increase would allow further reductions in freight rates but voyage duration could also increase resulting in less voyage rotations. A solution may be to purchase another vessel if this should occur, depending on feasibility.

Summary of Model:

As mentioned earlier, changes that are happening in the shipping sector are too rapid to make any firm projections.

Table 3 shows that the minimum possible reduction in freight rates from the status quo rates out of Suva for each SIS is 48% in the short term and 39% in the long term. All calculations are based on 20ft containers. This model presently assumes that Nauru will import 100% of goods from Fiji. The detailed models for short term and long term are attached as Annexes 3a & b.

Table 3 Summary of the financial model for Option 2 in the short term and long term (In USD)

	Time Charter Rate	Annual Surplus	Change in freight	Freight rate		Frequency of Voyage	Capacity to increase imports sourced from Fiji
				DRY	REEFER		
Short Term	2,500	5,261	Minimum freight at 48% drop	Wallis	1,769	Wallis	2,468
				Futuna	1,878	Futuna	2,468
				Tuvalu	1,797	Tuvalu	2,604
				Kiribati	1,500	Kiribati	2,191
				Nauru	2,697	Nauru	3,196
Long Term	5,600	75,055	Minimum freight at 39% drop	Wallis	2,075	Wallis	2,896
				Futuna	2,203	Futuna	2,896
				Tuvalu	2,108	Tuvalu	3,054
				Kiribati	1,760	Kiribati	2,571
				Nauru	3,164	Nauru	3,749

In the short term, the low freight rates are possible due to the reduced charter rate. The total containers carried in the short term are 158. However, over the longer term the low freight rates are anticipated to encourage a 20% growth in cargo sourced from Suva (i.e. an increased demand for

¹¹ This percentage is based on capacity of a 200 TEU vessel to carry additional containers from Wallis and Futuna, Tuvalu and Kiribati.

cargo sourced from Fiji, or even an increased market share from Suva compared to other import partners), allowing the charter rate to return to the market rate USD 5,600. The number of containers carried then would be 182. The occurrence of additional cargo is assumed for all SIS in the route, except Nauru. A cargo growth of 20% with the normal charter rate would make freight rates come back up slightly.

The impact of the reduced freight rate for cargo imported from Suva on overall freight paid by SIS is a savings totalling USD 3.9 million per year in the short term (at the reduced charter rate). In the long term the overall savings become USD3.2 million per year. Kiribati could have the most benefit in financial terms out of this shipping service, USD1.7 million, due to the significant cargo imported from Suva. The benefits to individual SIS vary depending on the extent of imports from Fiji with the new feeder service having very low freight rates that are anticipated to attract trade with Fiji. Fiji has substantial primary and secondary industries that can perhaps be further tapped into.

The added advantages of this option apart from freight rate reductions is the capacity to source cargo from Suva (a hub port for the region) and the regularity of the service i.e. 3.5 weekly rotation. This is a regular service for refrigerated and dry cargo. The existing tonnage in Kiribati and Tuvalu can supplement cargo carried on the feeder service, particular breakbulk cargo.

The only disadvantage foreseen with Option 2 is where additional transshipment costs and first carrier costs for goods sourced from Australia via Suva will flow to consumers in Nauru purchasing these goods. Otherwise, for goods sourced from Suva, there will have to be adjustments in the supply market (change from Australia to Fiji suppliers), and sometimes cheaper alternatives may be found.

Table 4 shows freight rates when first carrier costs are added to 15% and 30% of goods imported by Nauru from Australia via Fiji, using the same model as above. The percentage change in freight rate will apply to all SIS in the feeder service. This table demonstrates the smothering effect of first carrier costs on the viability of the feeder service. If there is only 85 % of cargo sourced from Fiji by Nauru;

- The total savings from the given freight reductions will be USD1.1 million per year in the short term and USD890, 386 per year in the long term.
- A vessel of about 150-180 TEU will be sufficient.

Table 4 The different scenarios for Nauru to import goods via or from Suva and the resulting change in freight rate for SIS for Option 2 (In USD)

Percentage of total containers sourced:		Freight Rate Short term		Freight Rate Long term		% change Short term	% change Long term
From Australia	From Fiji	Dry	Reefer	Dry	Reefer		
100%	0%	5,187	6,146	5,187	6,146	-	-
30%	70%	4,669	5,532	5,447	6,454	-10	5 (unviable)
15%	85%	3,683	4,364	3,994	4,733	-29	-23
0%	100%	2,697	3,196	3,164	3,749	-48	-39

Note: This paper updates the box costs in the financial model (Annexes 3a and 3b) for short-term as well as long-term options in the purchase of vessel. Addition information is attached as Annex 5.

7.2 Alternative feeder service route: Lae – RMI – Kiribati – Tuvalu – Nauru – Lae

An alternative feeder service that could be considered is one routing from Lae Port in PNG feeding Nauru, RMI, Kiribati, and Tuvalu. PNG's proximity to Asian countries would allow shippers to source Asian manufactured goods and have it shipped via Lae to bring about a reduction in freight charges. In the last few years, a number of countries around the world have been able to reduce their dependence on traditional export markets, such as the United States and the European Union¹² by seeking export opportunities in the emerging Asian markets.

SPC (June 2007) study did not include RMI in the proposed feeder service model. An advantage of considering RMI in the feeder service route is that it can provide countries the choice of sourcing goods from USA, using Majuro as a transshipment port, and also allowing any goods sourced in Fiji or Nauru (phosphate or aggregate) to be shipped to the North Pacific to meet other liner services operating to FSM, Palau and Guam as well as Hawaii.

While full financial modeling for the alternative route involving Lae port is not included in this paper, some indications are provided on distances, steaming time and suggested routes involving Lae and the SIS.

Table 5 Distance time table for alternate route involving Lae Port

From	To	Distance (nm)	Steaming time at 14knots
Lae	Tarawa	1635	4days 21hours
Lae	Nauru	1275	3days 19hours
Nauru	Tarawa	385	1days 3.5hours
Tarawa	Funafuti	695	2days 2hours
Tarawa	Majuro	363	1day 2hours
Funafuti	Suva	655	1day 23hours
Rotuma	Funafuti	270	19.3hours
Rotuma	Suva	420	1day 6hours
Suva	Nauru	1303	3days 21hours
Suva	Nauru	1177	3days 12hours

Suggested route options:

Lae – Majuro – Tarawa – Funafuti – Nauru - Lae



¹² Accessed from ESCAP website at <http://www.unescap.org/stat/data/syb2007/20-International-trade-syb2007.asp> on 25 November 2008

8. Marketing

An assessment of marketable commodities within PICs needs to be made in order to confirm the nature of cargo that needs to be transported to the SIS via the new purpose-build ships. Buyers from Nauru, RMI, Kiribati and Tuvalu need to visit Fiji and PNG, perhaps under sponsorship from PIFS to discuss with local producers what type of products and commodities could be supplied from Fiji or PNG. A brief listing of Fiji local produce exports is attached as Annex 4.

8.1 Export of Maggie Noodles from Fiji to PICTs

As mentioned earlier in the paper, Nauru presents a good example of how SIS can benefit from new trade opportunities and how the re-arrangement of feeder shipping services can further support a reduction in import costs. SPC selected 'Maggie Noodles' as a commodity to find out the comparative prices of the product in Australia, Nauru and Fiji and the respective import sources.

Over the years Nauru has been importing Maggie Noodles from Australia. Since the beginning of 2008, Nauru began importing Maggie Noodles from Fiji. The shipment of Noodles from Fiji to Nauru is still via Australia as there are no direct feeder shipping services from Fiji to Nauru at present. Details on prices and import sources relating to one packet of Maggie Noodles (85g) in Australia, Fiji and Nauru are included in Table 6.

Table 6 Comparison of Maggie Noodle prices in Fiji, Australia and Nauru

Price of Noodles and import sources in Nauru, Fiji and Australia (as at August 2008)			
	Nauru	Fiji	Australia
Price of Maggie Noodles (85g)	AU\$0.70	AU\$0.37	AU\$0.97
Import source	Fiji	Local product	Malaysia

The cost of Maggie Noodles is highest in Australia since it is imported from Malaysia. It used to cost around AU\$0.65 before. The price of Noodles in Nauru when it was imported from Australia could not be ascertained. It would have provided a clear indication of whether Nauru has experienced a reduction in the price of noodles since it began importing from Fiji.

In addition to Nauru, other Pacific Island countries and territories (PICTs) import Maggie Noodles (as well as Chow Noodles) directly from Fiji (see Table 7).

Table 7 Import of Maggie Noodles from Fiji to PICTs (as at August 2008)

Import of Maggie Noodles from Fiji to PICTs (as at August 2008)		Freight rate for a Dry container(20ft) from Suva to the PICT port
New Caledonia	(Noumea)	US\$ 2142.81
French Polynesia	(Papeete)	US\$ 2142.81
Vanuatu	(Santo)	US\$ 2142.81
Solomon Islands	(Honiara)	US\$ 2142.81
Tonga	(Nuku'alofa)	US\$ 1442.81
Samoa	(Apia)	US\$ 1442.81
American Samoa	(Pago Pago)	US\$ 1442.81

The freight of Noodles from Fiji to the above PICTs is relatively cheaper in comparison to Nauru. The freight for a 20ft Dry Container from Australia to Nauru costs over US\$ 5,000.00. Adding on the freight cost of Noodles transshipped from Suva to Australia, the total freight of Nauru importing Noodles from Fiji amounts to over US\$7,000.00. If Nauru were to import the commodity directly from Fiji, a reduction in the price of Maggie Noodles can be expected. However, absence of any direct or alternative feeder shipping from Suva to Nauru poses constraints in this area.

This preliminary research into the trade of a simple commodity such as Maggie Noodles in PICTs indicates a clear move towards increased intra-regional trade in the Pacific Islands region, thus, greater regional cooperation and integration among PICTs. Trade within the region also needs to be supported by adequate intra-regional shipping services.

8.2 Regional Trade Agreements

Intraregional trade has reportedly grown steadily and more rapidly than extra-regional trade in the past few years.¹³ The growth is attributed to harmonisation of standards, policy coordination, conclusion of regional and bilateral trade agreements and business-driven regional production networks and supply chains.

Regional trade agreements are prevalent in the Pacific Islands region as well and need to be taken into consideration when PICs engage in exploration of new markets within the region. The regional trade agreements currently in force include the:

1. Melanesian Spearhead Group (MSG) Trade agreement,
2. South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA);
3. Pacific Island Countries Trade Agreement (PICTA)
4. Cotonou Agreement

As of April 2008, the Forum Island Countries are also negotiating two other free-trade agreements, the Economic Partnership Agreement (EPA) with the European Union, and the Pacific Agreement on Closer Economic Relations (PACER) with New Zealand and Australia.

The Melanesian Spearhead Group (MSG) Preferential Trade Agreement is a trade treaty governing the four Melanesian states of Vanuatu, Papua New Guinea, the Solomon Islands and Fiji. The MSG countries have the potential to trade in over 200 products free of fiscal duty.

SPARTECA is a more comprehensive regional trade agreement, signed in 1981 between Australia, New Zealand and countries of the South Pacific Forum. It allows duty free access for the products of Forum Island Countries (FICs) to the markets of Australia and New Zealand, subject to "Rules of Origin" regulations. The aim is to redress the unequal trade relationships between the two groups. The Textiles, Clothing and Footwear (TCF) industry has been a major beneficiary of SPARTECA through the preferential access to Australian and New Zealand markets.

Pacific Island Countries Trade Agreement (PICTA), which establishes a free trade area in goods (and, in future, services) among the Forum Island Countries(FICs). PICTA aims to establish a free-trade area between all fourteen Forum Island Countries. As of November 2006, it had been signed by twelve countries. After entry into force, countries commit to remove tariffs on most goods by 2021.

¹³ Accessed from ESCAP website at <http://www.unescap.org/stat/data/syb2007/20-International-trade-syb2007.asp> on 25 November 2008

9. Conclusion

A newly purchased vessel that is owned by SIS could allow flexibility (through reduced charter rate) to operate a feeder service, making it competitive as well as enable it to attract growth in cargo imports from Fiji or other potential hub port nations in the region. It was found that a commercially viable feeder service from Suva was possible for all cargo currently sourced from Suva by SIS, with Nauru changing at least 85% (preferably 100%) of its sourcing from Brisbane to Fiji.

This option presented the best freight rate reduction of up to 48% in the short term and 39% in the long term for Nauru importing 100% of its cargo from Suva; that is, freight savings of USD3.9 million per year in the short term and USD3.2 million per year in the long term. The savings are for all SIS combined, and they vary per SIS depending on the quantity of cargo imported from Fiji. For 85% of cargo imported into Nauru from Suva, freight rate reductions between 23% (long term) to 29% (short term) were expected; that is, USD1.1 million per year in the short term and USD890, 386 per year in the long term.

An additional area that has been explored in this paper is that of requesting the donor to supply enough empty dry and reefer shipping containers (TEU's) for the service, in addition to the ship, that could assist in controlling the container hire charge and see a reduction in freight rates.

Overall, it is strongly recommended that any management arrangement for the purpose-built ships take into consideration all concerns raised by each of the SIS involved in the feeder service, through earlier feeder service studies as well as through this paper.

Annex 1 Feedback obtained from Small Islands States

Feedback obtained from Small Islands States on the management of donor-funded ship (SPC, June 2007):

Nauru

Nauru vouched for a ship management agreement which gave priority to meeting the needs of the SIS. Nauru indicated that they might not be able to feasibly invest capital into a shipping service and donor funding would be the key to success.

If a shipping service was to be government-owned, Nauru would not allow it to be government-operated. A managing company would need to be engaged to operate it on behalf of the owners. Nauru would expect such an operation to run commercially and viably, assuming no government interference with commercial decisions. The small profits would be returned to shareholders, or preferably re-invested in capital or result in a reduction in freight rates.

In the absence of interests for private sector shipping services to provide a feeder service, Nauru was willing to explore the option of SIS governments contributing capital to fund the acquisition of an appropriate vessel (purchase or long term lease) and then to contract a shipping company to operate the vessel. The management contract would either be on a fixed fee basis or incentive based. With fixed fees, the owners would accept risk of loss. The agreement would need to carefully address commercial decisions that would put the profitability at risk. In the incentive based management contract, the management company would take a share of the profit, but this would likely need a contra acceptance of the risk of loss.

On the issues of ownership, operation, ship registration and flag, crewing and maintenance in the context of the proposed SIS feeder service, Nauru's position was flexible. Options that would provide opportunities for crewing and training for Nauruans were favoured by the government. This also assumed that ship registration/flag would be with a reputable registry known to maintain international standards and regulations.

Tuvalu

In terms of a proposed management arrangement for a sub-regional feeder service, the view was to have a ship management agreement with consolidation depot in the hub port of Suva. Tuvalu was flexible about ship registration and flag, but was interested in being part of the crewing. In terms of maintenance, the time chartered arrangement was favoured.

Kiribati

The preferred shipping arrangement was one that could guarantee the sustainability of the service to the countries serviced. There was an existing arrangement that had served the region for a long time (PFL) and such an arrangement was considered desirable. Kiribati also indicated that they were prepared to consider other forms of arrangements that could prove to be better in satisfying the needs of SIS who were bound to benefit from the feeder service.

In terms of ownership, operation, ship registration and flagging, crewing and maintenance, Kiribati was flexible to the choices that would best satisfy an arrangement which ensured long-term sustainability of the feeder service, and was in support of the principal objective of servicing the SIS it set out to serve. Kiribati also noted the importance of considering the collective position of the countries serviced.

Within the parameters of 'sustainability and inclusiveness', Kiribati preferred an arrangement that gave priority to the utilisation of resources from SIS (for example, in terms of crewing or the establishment of an appropriate sub-regional hub port within any SIS) and where possible the enhancement of further capacities of SIS in respect of their focal area of development, which in this case was the provision of shipping and distribution services. Kiribati strongly discouraged the inward focus of regional shipping arrangements which concentrated only in profit maximisation without giving due consideration to the needs of all interested member states. The shipping arrangement needed to compliment efforts to advance the cause of regionalism as articulated in the Pacific Plan.

Registration or flagging of the vessel for the feeder service under any of the member countries was acceptable, as long as that choice was in the best interest of the countries serviced and the sustainability of the service was not compromised. It was more desirable to have it registered in one of the beneficiary countries, if appropriate.

Republic of the Marshall Islands

A similar system to the Micronesia Shipping Council (described later on page 33) was suggested for other SIS, where it was recommended that all members should not be in the shipping industry business or involved with the importation or exportation of cargo from the member countries. On the matter of vessel registration, it was suggested that the single vessel servicing the SIS be registered in one of the member countries.

Wallis and Futuna

The introduction of a ship operated under a management agreement could be considered. In the case of Wallis and Futuna, the French maritime regulations would be applicable in terms of ownership, operation, ship registration and flag, crewing and maintenance for a single vessel servicing SIS. Ship registration and flagging were subject to joint authorisation from the overseas ministry and the transport ministry. There were ten ships (cargo vessels, cruise ships and petroleum tankers) currently registered in Wallis and Futuna. However, it was also suggested that due to the legal peculiarities of the territory, French maritime legislation may not be directly applicable to the Pacific Islands region. The ship could be registered in any one of the SIS concerned; noting that a vessel, if registered in Wallis and Futuna, would fly the French flag and be subject to French maritime regulations.

Annex 2 Fuel Costs

Gas Oil Consumption (t)	Heavy/Medium DO Consumption (t)
1.5 in port	6.5 to 7 at 10.5 to 11kts
0.5 in port	2.5 MDO at 8 knts

Cost of Bunker Supplies for Gas Oil

Company	Duty Free Unit Price	Unit	Currency
TOTAL (Fiji) Ltd	660	metric tonnes	USD
BP/MOBIL	800	metric tonnes	USD

16th March 2007

Duty: FJD 1.35 / L *not applicable to fuel re-imported*

Note: The fluctuations in bunker supplies for gas oil costs (duty free unit cost) from 16 March 2007 to 13 November 2008 will have an impact on the financial modeling results for the proposed purpose-built feeder service ship.

Bunker market prices are noted at Singapore port for 380Cst:

4 September 2008 : US\$685/mt
 12 September 2008 : US\$747/mt
 13 November 2008 : US\$252/mt

The steep fall in bunker prices in November 2008 signals lower costs for the shipping industry.

Annex 3a Financial Model: Option 2

Purchase of vessel in the SHORT TERM : Wallis & Futuna, Kiribati, Tuvalu and Nauru from Suva						
Using 48% reduction in freight rates: Minimum freight						
					NZD @	0.729
					AUD @	0.82
Ship Operations		USD			NZD	
			Per voyage	Per cargo TEU	Per voyage	Per cargo TEU
Time Charter	2500	usd/day	60000	379.7	82304.53	520.91
Fuel consumption at sea	8.5	t/day	86394	546.8	118510.29	750.07
speed	11	knts				
Fuel consumption in port	1.5	t/day	8514	53.9	11679.01	73.92
Days on voyage	24	days				
Days at sea	15.4	days				
Days in port	8.6	days				
Fuel price						
main engines	660	usd/t				
aux	660	usd/t				
Port Charges	Per visit	Currency	Visits			
suv	8368	fjd	1		7101	44.94
w all	300000	xpf	1		4330	27.41
fut	300000	xpf	1		4330	27.41
fun	92	aud	1		98	0.62
tar	166	aud	1		177	1.12
nau	3500	aud	1		3729	23.60
Empty rtns						
Box costs	GP		20002	146.00	27437.59	173.66
	Reefer		13125	625.00	18004.12	113.95
T/c Insurance	30000	pa				
Staff & Overheads	100000	pa				
Admin	130000	pa	8125	51.42	11145.40	70.54
Total voyage op costs			196160	1241.5	269080.93	1703.04
cargo units (TEU)	158					
P&L Acct						
	Imports					
	Gross Revenue	Agents Comn	Net Revenue	Stv drng & Whfge	Contrib to Voyage	
Feeder from Suva (cy/	NZD					
w all	24596	1845	22751	20126	2625	
fut	3286	246	3040	3262	-222	
fun	28432	2132	26300	9761	16539	
tar	205254	15394	189860	29115	160745	
nau	127400	9555	117845	6282	111563	
Total	388968	29172.622	359796	68546	291250	
	Summary and P&L Acct					
Total Voyage Revenue NZD	388968.2967	29172.622	359796	68546	291,250	
Total Voyage Costs NZD					269,081	
Voyage Surplus/ (deficit) NZD					22,169	
Annual Surplus/ (deficit) NZD					332,531	

	Number of containers sourced from Suva in a year
Wallis	137
Futuna	18
Tuvalu	169
Kiribati	1496
Nauru	550
	2370

Annex 3b Financial Model: Option 2

Purchase of vessel in the LONG TERM after growth in cargo traded via/from Suva: Wallis & Futuna, Kiribati, Tuvalu and Nauru <i>via</i> Suva (Model shown for 20% cargo increase for all expt Nauru)						
Using 39% reduction in freight rates: Minimum freight						
					NZD @	0.729
					AUD @	0.82
Ship Operations	USD			NZD		
			Per voyage	Per cargo TEU	Per voyage	Per cargo TEU
Time charter	5600	usd/day	134400	737.4	184362.14	1011.50
Fuel consumption at sea	8.5	t/day	86394	474.0	118510.29	650.20
speed	11	knts				
Fuel consumption in port	1.5	t/day	8514	46.7	11679.01	64.08
Days on voyage	24	days				
Days at sea	15.4	days				
Days in port	8.6	days				
Fuel price						
main engines	660	usd/t				
aux	660	usd/t				
Port Charges	Per visit	Currency	Visits			
suv	8368	fjd	1		7101	38.96
wall	300000	xpf	1		4330	23.76
fut	300000	xpf	1		4330	23.76
fun	92	aud	1		98	0.54
tar	166	aud	1		177	0.97
nau	3500	aud	1		3729	20.46
Empty rtns						
Box costs	GP		23068	146.00	31643.35	173.61
	Reefer		15000	625.00	20576.13	112.89
T/c Insurance	30000	pa				
Staff & Overheads	100000	pa				
Admin	130000	pa	8125	44.58	11145.40	61.15
Total voyage op costs			275501	1511.5	377916.32	2073.43
cargo units (TEU)	182					
P&L Acct						
	Imports					
	Gross Revenue	Agents Commis	Net Revenue	Stv drng & Whfge	Contrib to Voyage	
Feeder from Suva (cy/NZD)						
wall	34623	2597	32027	20126	11901	
fut	4626	347	4279	3262	1017	
fun	40024	3002	37022	9761	27261	
tar	288935	21670	267265	29115	238150	
nau	149450	11209	138241	6282	131959	
Total	517658	38824.32722	478833	68546	410287	
	Summary and P&L Acct					
Total Voyage Revenue NZD	517658	38824	478833	68546	410,287	
Total Voyage Costs NZD					377,916	
Voyage Surplus/ (deficit) NZD					32,371	
Annual Surplus/ (deficit) NZD					485,566	

	Number of containers sourced from Suva in a year
Wallis	164
Futuna	22
Tuvalu	203
Kiribati	1795
Nauru	550
	2734

Annex 3c Estimated Owner's minimum costs for proposed purpose-built vessel operations

Component	Cost (AU\$)
Crew wages	30,000
Victualling	6,000
Deck Stores	2,000
Engine stores	4,000
Repair and maintenance	10,000
Life-saving appliances	2,000
Class surveys	1,000
Port State Control	1,000
Communications	2,000
Dry Docking	30,000
Insurance P&I	2,000
Total	90,000 per month; 3,000 per day = US\$2,460 per day (at 0.82 AU to USD)

Annex 4 Fiji Local Products: Export Listing

Major local export commodity	Major local exporters
1. Sugar	Fiji Sugar Marketing Company Ltd
2. Gold	Vatukoula Gold Mine
3. Fresh, frozen, processed agricultural produce (taro, cassava, ginger, papaya, mango, vegetables, Kava, etc)	<ul style="list-style-type: none"> • The Balthan Group (Suva) • Mahen Exports (Sigatoka) • Kaiming Agro Processing Ltd (Navua) • National Exports Ltd (Lautoka) • Frespac Ginger (Fiji) Ltd (Lami) • Green Valley Fresh (Nadi) • Gurbachan Singh (Nasinu) • Home Made Pickles Ltd (Ba) • Gurdial Singh Brothers (Suva) • Hardip Narayan and Sons (Suva) • Produce International (Lami) • Produce processing Ltd (Nasinu) • Produce specialties Ltd (Suva) • Quality Products Ltd (Taveuni) • Ram Karan Kava Dealers Ltd (Suva) • Ram's Valley Fresh (Sigatoka) • Waisale Farm Produce (Suva)
4. Timber	<ul style="list-style-type: none"> • Fiji Hardwood • Fiji Pine Limited • Dayal's sawmills • Lumber processors (Fiji) Ltd • South Sea Timber Traders
5. Manufactured furniture	<ul style="list-style-type: none"> • Pacific Green • Popular furniture
6. Natural/mineral water	Fiji Water
7. Beauty care products	Pure Fiji
8. Clothing , textiles, footwear	<ul style="list-style-type: none"> • Acme Apparel • Mark One Apparel • Chase Apparels • Classic Apparel • Danam (Fiji) Ltd • Garment Export Ltd • Nagsun Apparel Ltd • Natsons Apparel Ltd • Rainbow Textiles Ltd • Tourist Garments Ltd • Treekams Apparel Ltd
9. Processed/frozen fish	<ul style="list-style-type: none"> • Fiji Fish limited • Pacific Fishing Company (PAFCO) • Voko Industries Ltd
10. Noodles, snacks, confectionery, biscuits	<ul style="list-style-type: none"> • Nestle • Flour Mills of Fiji • Punjas • Biscuit Company of Fiji • C & J Enterprises • Swits & Snax (Fiji) Ltd
11. UPVC, PVC pressure pipes, ducts	Tubermakers and Roofmart (SP) Ltd
12. Processed chicken, sausages	Goodman Fielder International (Fiji) Ltd
13. Medical supplies	Makan's Drug and Pharmaceutical Supplies
14. Cocoa and vanilla	Kokosiga (Fiji) Ltd
15. Fiber glass boats	Safeway Marine (Fiji) Ltd
16. Musical instruments, sound systems, etc	Sharma Music Centre Ltd
17. Cement	Fiji Industries (Lami)

Countries to which Fiji exported goods in 2007 (total export value: \$828,822,229):

- | | | |
|------------------------------------|----------------------|------------------------------|
| 1. American Samoa | 31. Ireland | 61. Samoa |
| 2. Armenia | 32. Israel | 62. Saudi Arabia |
| 3. Aruba | 33. Italy | 63. Sri Lanka |
| 4. Australia | 34. Japan | 64. Sierra Leone |
| 5. Austria | 35. Kenya | 65. Singapore |
| 6. Belgium | 36. Kiribati | 66. Slovenia |
| 7. Brunei | 37. Korea | 67. Solomon Islands |
| 8. Bulgaria | 38. Kuwait | 68. South Africa |
| 9. Cambodia | 39. Luxembourg | 69. Spain |
| 10. Canada | 40. Malaysia | 70. Switzerland |
| 11. Caribbean ports | 41. Marshall Islands | 71. Syria Arabic Republic |
| 12. China | 42. Mauritius | 72. Taiwan |
| 13. Christmas Island | 43. Mexico | 73. Thailand |
| 14. Cook Islands | 44. Midway Islands | 74. Tokelau |
| 15. Czech Republic | 45. Mozambique | 75. Tonga |
| 16. Denmark | 46. Namibia | 76. Trinidad and Tobago |
| 17. Dominica | 47. Nauru | 77. Tunisia |
| 18. Dominican Republic | 48. Netherlands | 78. Turkey |
| 19. Federated States of Micronesia | 49. New Caledonia | 79. Tuvalu |
| 20. Finland | 50. New Zealand | 80. Ukraine |
| 21. France | 51. Niue | 81. United Arab Emirates |
| 22. French Polynesia | 52. Norfolk Islands | 82. United Kingdom |
| 23. French Southern Territories | 53. Pakistan | 83. United States |
| 24. Germany | 54. Palau | 84. Uruguay |
| 25. Guadeloupe | 55. Papua New Guinea | 85. US Virgin Islands |
| 26. Guam | 56. Philippines | 86. Vanuatu |
| 27. Hong Kong | 57. Poland | 87. Vietnam |
| 28. India | 58. Portugal | 88. Wallis and Futuna Island |
| 29. Indonesia | 59. Reunion | |
| 30. Iraq | 60. Russia | |

Pacific Island countries and territories

The cost analysis and financial models used in previous reports on this project had imported data from the PFL sponsored Feeder Service Study of 6th December 2005.

Closer examination of this Study however, reveals the container hire rates for dry and reefer containers seem to be excessive. These are of course passed on to the shippers and consignees, as part of the FREIGHT RATES.

This is being investigated because variations on these charges will make significant impacts on the profits, viability, and eventually the freight rates in our service area.

Whatever the outcome of this investigation will be, one thing is certain - if the container hire rates are reduced, the freight rates can be reduced.

It therefore follows that if we ask the purpose built ship DONOR(s) to supply enough empty dry and reefer shipping containers (TEU's) for the service, in addition to the ship, we will be in a position to control the container hire charge, and the FREIGHT RATES will be REDUCED.

Recommendation:

That the ship Donor be requested to supply enough empty dry and reefer shipping containers (TEUs) in addition to the ship.