



# Technical Assistance Consultant's Report

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Project Number: 38241  
August 2005

## Solomon Islands: Diagnostic Assessment of Interisland Transport (Cofinanced by the Government of Australia)

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For Ministry of Infrastructure Development

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**Asian Development Bank**

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## PART I Background

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### 1.1 Glossary

ADB	Asian Development Bank
AHS	Australian Hydrographic Service
AMSA	Australian Maritime Safety Authority
ATON	Aids to Navigation
AusAid	Australian Aid
CEP	Community Engagement Program
EU	European Union
ERU	Economic Reform Unit
GMDSS	Global Maritime Distress and Safety System
GRT	Gross Registered Tonne
IALA	International Association of Lighthouse Authorities
IHO	International Hydrographic organization
IMO	International Maritime Organization
LOA	Length Overall
MARPOL	International Convention for the Prevention of Pollution from Ships
MD	Marine Division
MID	Ministry of Infrastructure Development
MOA	Memorandum of Arrangement
MOU	Memorandum of Understanding
MRCC	Maritime Rescue Co-ordination Centre
MSA	Maritime Safety Authority
MS Act	Merchant Shipping Act 1998
PMU	Project Management Unit
PSC	Port State Control
RAN	Royal Australian Navy
SAR	Search and Rescue
SIMSA	Solomon Islands Maritime Safety Authority
SISA	Solomon islands Shipping Association
SPC	Secretariat of the Pacific Community
STCW	International Convention on Training, Certification and Watch keeping for Seafarers
SOLAS	International Convention for Safety of Life at Sea
TA	Technical Assistance

## 1.2 Acknowledgements

The consultant would like to thank all those involved in the undertaking of this project, in particular Moses Virivolomo of the Ministry of Infrastructure Development, Anthony O'Dowd of the Economic Reform Unit and Pascal Ohoau of the Solomon Islands Marine Department. Thanks are also passed to the many stakeholders interviewed during the course of this project without whom an understanding of the Solomon Islands maritime sector could not have been achieved. The consultant would also like to thank the ADB project officer for his support and encouragement on the project.

## 1.3 Consultations

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Elliot Cortez – Superintendent Marine Department  
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Capt. Starling Daefa – Director Solomon Islands Marine College  
Harry Kuma – Economic Reform Unit

### European Union

Lindsay Jones– EU First Secretary - PNG (responsible for Solomon Islands)  
Paul Barker – Project Specialist – Rural Development  
Paul Greg – Project Management Unit

### Asian Development Bank

Robert Guild – Transportation Expert  
Robert Hans – Aviation and Privatization Specialist  
Peter Rodger - Privatization Specialist  
Winfried Wicklein – Private Sector Development Specialist

### Australian Government Representatives

Tony O'Dowd– Solomon Islands Economic Reform Unit  
Ken Munro – Project Manager  
Capt. Rod Nairn – RAN – Hydrographer of Australia  
Gary Brine – Manager Navigation Safety - AMSA

## Solomon Island Shipping Companies

John Lawson – President Solomon Islands Ship Owners Association  
Yoshiyuku Satu – Private ship owner  
Joseph Maelaua – Melanesian Shipping  
Francis ..... – Sasape Marine  
Neil Isihanua – Ship Owner  
Donald Eitaboe – Luru Shipping  
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J.W. Marchant – Regional Manager - United Insurance Brokers

## Foreign Shipping Companies operating in Solomon Islands

Captain Doug Reid – Managing Director NGPL  
Any Proud – Managing Director Consort Shipping  
Paul Harvey – Private ship owner

## Others

Owen Thomson – Head of Credit – ANZ Bank  
Philip Waihunu – Manager – SI Small Business Enterprise Center  
Paul Simpson – Manager – Technisyst Honiara  
Richard Coleman – Principal - Papua New Guinea Maritime College

## 1.4 Introduction

### 1.4.1 The Solomon Island Maritime Sector

The Solomon Islands has a population of nearly half a million on six main islands and several hundred other smaller islands. Interisland transport is vital to the country but is disadvantaged by a number of problems. Isolated islands with small populations, a shipping industry beset by government interference, dilapidated ships and an almost non-functioning Marine Department are contributory factors to the poor service provided to the citizens of Solomon Islands. A host of other connected issues in the sector also add to the problems.

This paper will review many of the core issues relating to the maritime sector in Solomon Islands and will present detailed proposals for improving the situation specifically by addressing.

1. Franchised subsidies on uneconomical outer island routes.
2. Rebuilding the domestic shipping industry.
3. Restructuring the government marine support system

### 1.4.2 Domestic Shipping

The domestic shipping fleet of Solomon Islands in its attempts to provide some modicum of service is plagued by a number of serious problems. Many of these problems are interconnected so that just addressing one will not do much to improve the overall performance of the industry.

The poor condition and age of the ships is probably the most serious problem facing the domestic shipping industry. More than eighty per cent of the tonnage is more than twenty five years old while more than sixty percent of the hulls are more than twenty five years old. Given the operating conditions in Solomon Islands, this age of ship is certainly beyond the stage of economical maintenance. Just keeping those running is a major challenge and all agree that the amount of maintenance carried out is minimal.

Ship owners face many hurdles in improving their industry.

1. Financing is almost impossible to arrange.
2. Import duties even on safety equipment are excessive (see table).
3. Management processes are not well developed
4. Government support infrastructure is not available.
5. Unnecessary licensing and political interference are endemic.
6. Unfair competition is decreasing but still an issue.

Although there are more than 230 vessels *annex 1.1* on the current "Neptune" shipping register database, between January 1, 2005 and August 3, 2005 only some 59 vessels *annex 1.2* had their annual safety certificates renewed. Without some unexpected spike in recertification these numbers indicate that approximately half of the registered domestic fleet is operational. This statistic in itself might only indicate that the official ships registry is out of date but there is a steady decline in the number of certified vessels and this is the crux of the problem. The declining ability of the domestic shipping industry to serve the most basic needs of the island residents (all) of Solomon Islands must be stopped and then reversed.

### 1.4.3 International Shipping

Although there is no direct mandate in the TA project to review international shipping, there is sufficient connectivity to some aspects of Interisland shipping to justify some brief comment.

Essentially, there are two types of international shipping in the Solomon Islands. The first category is vessels transiting Solomon Islands waters without stopping or using many services provided by the Solomon Islands government. The second

category of vessels represents those international flag ships stopping at some port within the territorial waters of the Solomon Islands. There are also numerous foreign fishing vessels.

No accurate record of the numbers of transits and the routings of transiting vessels is available. There is no Vessel traffic services organization within the Solomon Islands Marine Department so no one collects this data, nor is there any mechanism to support any such effort. The British Admiralty, from historical sources and from questioning mariners has produced sketch found in *figure 1.1* indicating the most used routes for international shipping. Most of this shipping is in transit between the east coast of Australia and East Asian ports in Japan, Korea and China. The vessels stopping in the Solomon Islands are generally bound for Honiara where the best cargo facilities are found. General cargo and bulk petroleum are the most common cargoes as most of the country is supplied through Honiara.

This demand is serviced by approximately one large vessel per week and a tanker less frequently. There appear to be no Solomon Island flag vessels reading to or from the country. A number of foreign vessels are also to be found in the timber trade and their routes and ports are various. From time to time a passenger cruise ship will stop in Honiara. This second category of vessel use the services provided by the Solomon Islands government for port facilities to customs and immigration.

It should be noted that some critical services that should be provided by the Solomon Islands Marine Department for Interisland shipping would also be used by the international shipping community were they available. International ships passing through Solomon Islands waters and arriving at Solomon Islands ports require but as domestic shipping do not have access to critical marine services such as functioning aids to navigation, accurate marine charts, pollution prevention support, ISPS services and others.

It is the unfortunate conclusion that should there be an accident involving these vessels or indeed interisland vessels, and any of the deficient services can be connected to the accident; the country would very likely lose a court case with significant legal and financial repercussions.

#### 1.4.4 Existing Situation

Although a new Solomon Islands shipping Act was promulgated in 1998, *Annex 1.3 1998 Solomon Islands Shipping Act* it has yet to be gazetted and thus remains legally not the law of the land. It is already dated in several technical areas.

A bizarre situation has arisen where vessel safety inspectors use the new act when completing inspections and issuing safety certificates. Not least among the

reasons for this is that many of the particulars of the old (existing) act such as those for examination of masters and mates are so outdated as to be technically unusable.

The consultant was unable to determine the exact delay in gazetting the new act but the marine officer of the Economic Reform Unit indicated that this was a simple procedure which was the responsibility of the department but had not been carried out. Attempts to meet with the Attorney General Department were also not successful due to their complete preoccupation with post tension prosecutions. A critique of the existing Solomon Islands Shipping Act is found in annex 1.4.

#### 1.4.5 Fees

Important to any future Maritime Safety Authority will be the revenue generated by fees collected. The level of fees in the existing Solomon Islands legislation is so low that it would cost far more to collect and process the fees than would flow from the collection. In most modern maritime infrastructures, shippers and users of the maritime services provided for the common good by government should be expected to pay part of the cost of maintaining that infrastructure. In the proposal for establishment of the Solomon Islands Maritime Safety Authority (SIMSA), the issue of levies and their contribution to a self-funded organization are discussed.

The pointed question “what happens to the fees collected” asked to a number of senior officials resulted in only the general response that any fees collected go into the government’s general revenue fund. The mechanisms for achieving this remain elusive. In comments that were possible related, the Economic Reform Unit has discovered hundreds of small bank accounts in various locations in the country, that for convenience purposes we used for the deposit of funds collected on behalf of governments. There was no indication of any malfeasance but a strong argument can be made that both bureaucrats in government and in the banks should have solved this problem. Any future regulations should seek a level of fees closer to actual cost of service. Included should also be a specific mechanism directing the process of fee collection and deposit with an audit function.

#### 1.4.6 International Maritime Organization (IMO)

All world maritime nations and many non-maritime nations belong to the International Maritime Organization. IMO is a United Nations sponsored body with headquarters in London England. It is responsible for setting standards for shipping to meet its broad mandate of safer and cleaner oceans.

Over the past quarter century, IMO has proven to be a very dynamic and results based organization. Many very important international conventions have been

negotiated, approved and ratified. Conventions affecting, oil pollution, standards for seafarers, vessel loading, operational safety standards and others have been acceded to by most maritime nations and have had a positive effect on safer and cleaner seas.

#### 1.4.7 Other International organizations

In order to promote a functional maritime infrastructure that provides safe shipping and clean seas (IMO Mission Statement), the government of the Solomon Islands should reconnect with several technical maritime organizations.

These organizations not only set the world standard in their specialty but offer significant support options to countries such as the Solomon Islands. They are also very likely to forgive any past arrears and encourage participation if given only slight encouragement by the particular governments.

The maritime section of the Secretariat of the Pacific Community has not recently been very active outside the areas of Marine Training and implementation of ISPS. It is suggested that many of the Pacific's small nations cannot afford to attend regular international meetings and perhaps as in the past, they could be supported in their participation cooperatively by the SPC.

The consultant has personally interviewed the South Pacific representative of the International Hydrographic Organization (IHO) and the Secretary General of the International Association of Lighthouse Authorities (IALA) and both have indicated high levels of interest in having small pacific nations rejoin their organizations.

These organizations are:

- IHO International Hydrographic Organization
- IALA International Association of Lighthouse Authorities
- PIANC Permanent International Associations of Navigation Committees
- IAHP International Association of Harbours and Ports

### 1.5 Summary of Proposed Shipping Sector Improvements

Area	Action	Requirements
<b>Route Subsidy</b>	Implement for three outer Islands	Government concurrence  Donor administrative system  Financing, audit and follow-up
<b>Marine Industry Reform</b>	Reduce tariffs and taxes  Reduce government	Remove all import duties on ships and marine equipment  Discontinue all maritime SOE's

	interference in market	including provincial, sell all assets including "free" ships by public tender
	Support shipping industry	Allow foreign investment in shipping industry. Improve company registration process Encourage policies of improved financing for shipping industry. Provide shipping management and business training for industry. Consider partnership with donors, private sector and banks to provide ship replacement subsidies.
<b>Government Maritime Sector Reform</b>	Establish self funded Maritime Safety Authority Recapitalize government marine infrastructure	Develop and implement legislation Develop implementation plan on Papua New Guinea model Major Donor participation

## PART 2 Outer Island Route Subsidization

### 2.1 Concept

A route franchise subsidization scheme has been proposed. The Project Management Unit of the European Commission based in Honiara has produced two drafts of a proposed route subsidization scheme. The Implementation Protocol, to be discussed further in this section is found as *annex 2.1*. The Terms of Reference for the implementation contractor are found as *annex 2.2*.

Many destinations in Solomon Islands are serviced by private sector operators. The level of service may be irregular and inconsistent but nevertheless ships do visit. Some outer island routes are uneconomic with unreliable services or no service. The government occasionally provides an ad hoc subsidization through the Marine Department *Annex 2.3(2005 subsidized routes)*. It is assumed that

the proposed EC subsidy would replace the version administered by the Marine Department.

Producers of Copra and Cocoa are heavily reliant on inter island transport in order to ship their products to export centers. They also rely on inter island shipping to delivery needed goods to them. Necessary items found on outbound ships are petrol, food, building materials, household goods and many other items normally not readily available on remote islands. Earnings from the sale of copra, cocoa, fish, timber and other resources are critical to the islanders' ability to purchase the outbound products and also provide earnings to the islanders to use for other purposes.

Shippers are reluctant to sail to several outer island locations due to high risks of returning with less than full cargo holds and suffering the consequent financial loss. Copra producers, based on unreliable or non – existent shipping schedules, have little interest in preparing product for market as it will more than likely sit on the shore and rot.

In order to revive the production of copra on remote islands and restore an important source of employment revenue for these islanders, it is proposed that a regular subsidy be made available on several selected routes to remote islands.

## 2.2 Detail and Implementation of the Subsidy

The draft of the EC "pilot project" has been circulated to several interested parties. The EC estimate of the costs of the subsidy and its administration are found in table 1 below. The total of the estimate over a two year period is SBD 14,000,000. The draft report concludes that the subsidy should be viewed as a pilot project to gain experience in application and implementation. It is suggested in their document that this pilot subsidy would be replaced with one funded for a longer term from a transport development trust fund.

The project will contract vessels to ply specific predetermined inter island routes on a regular basis for an agreed period.

<i>Item</i>	<i>route</i>	<i>MT</i>	<i>Bags</i>	<i>subsidy SBD/ bag</i>	<i>Per month SBD</i>	<i>Subtotals</i>	<i>Per annum SBD</i>
Subsidy (maximum)	western	500	8,000	30	240,000		2,880,000
Subsidy (maximum)	eastern	250	4,000	30	120,000		1,440,000
Subsidy (maximum)	Weathercoast	250	4,000	30	120,000		1,440,000
Management fees (13 months)					20,769		270,000
Ship survey	lump sum					6,010,000	30,000
PFnet Solar email <sup>1</sup> (purchase, set up and operation)	8 shore based 2 ship based					1,169,400	1,139,400
Briefing conference costs							50,000
Audit fees							75,000
						125,000	
Phase II Year 2						6,085,000	6,085,000
Contingency 4.5%						13,389,400	
						590,600	
					<b>Total SBD</b>		<b>14,000,000</b>
<b>Total €</b>							<b>1,544,521</b>

assuming one subsidised voyage in each direction each month

InforEuro (July 2005) €1.00 = SBD 9.0643

*Figure 2.2 Draft route subsidy costs - EU estimate*

### 2.3 Contract

Any contract with a ship owner to support the shipping subsidy will have to be issued within the rules of the potential donor organization as per *annex 2.4*. This may place some restrictions on those who provide the service *annex 2.5*. Requirements of the ship owner to provide detail on the ship's operation, performance guarantees and insurance may be difficult to achieve in the short term.

The contract will also be required to conform to standard charter agreements. The Marine Department has been accepting the standards charter agreements proposed by individual shipping companies. In *annex 2.6*, a simple one page charter arrangement has been negotiated with Temotu Shipping Line Limited. In *annex 2.7*, a similar type of arrangement has been reached with Isabel Development Company Limited but it is worthy of note that visits to three separate ports have been included in the agreement. Under the European Union proposal, an agent will be required at each of these small ports. This goal may be difficult to achieve.

## 2.4 Weather

With the exception of cyclones, weather in the waters of the Solomon Islands is very predictable and shipping has developed the ability to adapt schedules and operate relatively safely. As in the rest of the South Pacific, May to October brings very steady and predictable SE trades. From October to April winds will be variable or from the NW with the occasional cyclonic disturbance. Dealing with cyclones is part of the maritime culture of the Pacific. Most cyclones, hurricanes or typhoons, all the same with different names, track at latitudes greater than 10<sup>0</sup> South or 10<sup>0</sup> North. Therefore there is zone on either side of the equator which is relatively cyclone free. The Solomon Islands straddles the edge of this cyclone free zone, resulting in the southern parts of the Solomon Islands being prone to annual cyclones. Some occasionally wreak catastrophic results. The tracks are very difficult to predict and cause significant disruption to shipping. Figure 2.3 courtesy of the British Admiralty indicates that majority of the cyclones are in the southern part of the Solomons and are more likely to strike Vanuatu. The two most common tracks are both north and west of Guadalcanal and weather records indicate that these cyclones are not annual events.

Weather will be a factor in maintaining shipping schedules envisaged by the route subsidization program.

## 2.5 Comment and Recommendations

Destinations recommended by a consensus of opinion of shippers, the Ministry of Infrastructure and Development, the Marine Department and the consultant are recommended to be:

1. Santa Cruz outer Islands
2. Rennell and Bellona
3. Makira Outer Islands (Sikaiana)

It has been demonstrated by experience that the financial return on trips to these destinations is consistently negative. Shipping companies have been submitting financial details of voyages previously undertaken and the Marine Department has been paying subsidies on a somewhat ad hoc basis. *Annex 2.5*

There does not seem to have been any formal tendering for these services, nor has there been any demonstration of criteria used to select and qualify vessels.

### Outer Islands Certified Vessels – August 2005

Vessel	Passengers	Cargo	Owner
Baruku	83	244	New Co
Belama	83	224	Sasape Marine
Bulawa	83	224	Makira Province
Buta	82	224	Eastern Shipping
Elizabeth Anne	40	332	Rendoua Trading Co.
Ellena	12	154	Rendoua Trading Co
Gracosa	27	276	CEMA
Hamakyo Maru		168	TJ Enterprise
Isabella	252	185	Isabel Development Corp.
Lauru 1	118	343	Lauru Shipping Ltd.
Neptune Gale			Paul Harvey
Southern Cross	83	86	Church of Melanesia
Temotu	335	380	Temotu Shipping Line
Tomoko		492	Western Province
Yandina	27	276	Wings Shipping

## 2.6 Suggested Modifications to Program

1. **Cargo Availability:** It has been established from several sources, shippers, Marine Department and the Economic Recovery Unit that ships visiting outer islands will not find all the copra from villages neatly piled on a wharf or beach in one location. This reality will seriously hinder the EC suggestion that the Managing Agent using a local person will be able to determine in advance how much copra will be available for shipping. Interviews with experienced shippers indicated that ships seeking copra cargos when passing villages are signaled with a mirror from shore to indicate that copra is ready for export. The vessel would then approach the village and copra would be transferred by small boat. The EC understanding of copra production in remote islands, how cargo becomes available and is shipped appears to be flawed and the proposed pick up process will not help many villages.

A proposed modification to the program would be that the ship operators should be responsible for collecting copra. The subsidy and management of the subsidy contract must be able to provide a financial incentive for the ship owner to seek more cargo yet still ensure that a reasonable profit is possible.

2. Local Notification: It is proposed in the latest EC paper that the Managing Agent would direct a local agent at the destination village to notify local people of the scheduled arrival of a vessel for copra. If the vessel is on a regular run from Honiara to a particular town in a remote location, it would follow that due to very difficult transport links between villages and lack of roads, only the village and immediate area scheduled would benefit from the subsidy. The EC proposal does not seem to recognize that transport between villages is almost as difficult as transport between islands. The local agent should also be charged with ensuring that a maximum number of communities in the subsidy area are informed of the ship's schedule. It should be recognized that there are many variables in shipping to and from remote islands any number of which might affect a schedule. The ship owner and the master of the vessel should be left responsible for maximization of the cargo pick up and should be encouraged in this task by the possibility of increased financial benefit arising from a full cargo hold.
3. Local Agent: The concept proposed of having a local agent reporting to the Managing Agent with one assignment to tally bags of copra is practically unworkable. It does not seem likely that the local agent will travel with the ship from pick up point to pick up point, nor does it seem likely that the vessel will fill its cargo hold in any one village. If these two assumptions are correct, then the bag tally function will not occur. In shipping processes, this is common practice that the vessel will provide a bill of lading which is made up of copies of the receipts provided to those islanders providing the cargo. Any possible malfeasance is far more likely to occur on the delivery end and it is suggested that more attention is required from the EC proposal in this area.
4. Objective The background and logic to the proposed subsidy is clearly identified in the EC proposal, but what is not so clear is that objective of contracting of a vessel is not the subsidy itself but to fill the cargo holds to a maximum thus providing maximum benefit for rural copra producers.

The auction for the operation of franchises for subsidized routes should include foreign flag ships for the following reasons

- There may be no domestic ships that meet the advertised criteria
- It is possible to include a percent of cost as a domestic preference
- It may encourage foreign ship owners to reflag their vessels and operate under Solomon Islands Registry (not flag of convenience)

## 2.7 Conclusions

1. The EC proposal for subsidization of selected shipping routes is basically sound and they should be congratulated on the initiative.
2. The EC proposal does not seem to provide any allowance for a subsidy for passengers.
3. The proposed level of finance is adequate and will adequately replace the existing "ad hoc" system.
4. Some questions remain regarding the implementation of the proposal.
5. The immediate action to implement the proposal is possible
6. Weather conditions can be a significant factor in scheduling

## 2.8 Recommendations

1. *Using the latest version of the EC proposal, implementation should begin immediately.*
2. *The proposal should include a subsidy for passenger transport.*
3. *The MID and the MD should be included in all discussions not only for their valuable advice but in order to properly phase out the existing "ad hoc" route subsidy program annex 2.7*
4. *A consensus of opinion among all stakeholders, MID,MD, EC, ERU, SISA, indicates the subsidy should be applicable on the following routes. It is worthy of note that these have been the routes selected by the Marine Department to be subsidized over the past few years.*

*Honiara – Sikaiana Island  
Honiara – Rennell/Bellona Islands  
Honiara – Santa Cruz Outer Islands*

5. *Should proposed implementation protocols, especially at the outer island end prove unworkable, the program should be sufficiently flexible to be quickly modified.*
6. *The simple system of subsidy payment administration used by the Marine Department could be easily translated into an auction of the franchise. This methodology is strongly recommended.*

*7. Any contract with shippers should provide allowances for weather disruptions of schedules.*

## **PART 3 Shipping Industry Reform**

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### **3.1 Overview**

The consultant concludes that the shipping industry in the Solomon Islands is in much worse condition than originally assumed. Although a significant number of ships are registered, less than half may be operational. Not more than 10 cargo vessels are certified to serve the outer islands and these as do most ships in the country operated on a razor edge of safety certification. Ships are being taken out of service yet few if any are entering service. There is clearly a rise in demand for shipping services mostly from increased economic activity

The decreasing ability of Solomon Island ship owners to be able to provide an adequate number of safe ships on Interisland routes will become clear when calls are made for submissions for the proposed route subsidy.

### **3.2 Government Intervention**

#### **3.2.1 Import duties**

The government has just announced a reduction in the former import duty on marine products

	Former duty	New Duty
Ships, Outboard motors >40HP Spare parts, safety equipment	43%	19.5%
Inboard motors and spare parts	31.5%	19.5%
Outboard motors <40 HP	25.%	19.5%

*Figure 3.1  
Import Duties on Ships and Equipment Solomon Islands.*

Source: Solomon Star, Aug. 4, 2005

Although the recent reduction in duties is somewhat commendable, the residual rate of 19.5% is still a major disincentive to the development of the shipping sector. It is difficult enough for the private shipping industry to obtain investment

capital; the existence of a nearly 20% import duty carries no discernable benefit for anyone. Any macro economic evaluation would most certainly demonstrate that the removal of the duty would stimulate the sector and result in economic improvements that would certainly be greater than the pittance collected in duties.

It has been suggested by the Economic Reform Unit that at some point in the future the government may introduce a Value Added Tax. The reduction of duties to zero now would essentially mean that the government could be seen to be taking away a tax and then adding another tax later, rather than just modifying the tax structure. The logic of this argument is understood, but since the new duty will still be a major impediment to growth of the shipping industry, there is no substance to the original premise. An additional four per cent stamp duty also contributes to the stifling of growth. There is no marine industry to protect so other than for collecting revenue, the consultant is at a loss to understand the purpose of these duties.

This tariff is also applicable to safety equipment such as lifejackets, liferafts, radios etc. It is a very destructive factor to marine safety and the marine industry.

#### 3.2.1.1 Conclusions

1. The limitations imposed on the shipping industry by present tax regime are a major factor in the industry's stagnation and decline.
2. An additional stamp duty is imposed on imports of capital equipment adds even more obligation on shipowners.
3. There are simply no tax incentives or encouragements to expand the shipping industry.
4. Shipowners are reluctant to participate in the formal business market as to do so might cause an exposure to existing business practices.
5. Necessary marine equipment is very expensive. Where a marine chart would cost \$20US in Australia, it is \$100US in Honiara.

#### 3.2.1.2 Recommendations

1. *The import duty on ships, boats and marine equipment should be reduced to zero and eliminate stamp duties on imported marine equipment.*
2. *Establish a business tax regime that allows businesses to deduct all reasonable operating expenses from income before paying taxes*

3. *Encourage business to participate in the formal market with proper business practices.*
4. *Provide long term incentives to encourage access to capital to upgrade equipment (new ships) through the use of specific tax credits and tax holidays*

### 3.2.2 Free Ships

Acceptance and introduction of “free” ships into the market place distorts the competitive process. With all the best intentions, some donor countries give ships to various governments in the Solomon Islands. Generally, these ships are mismanaged by government shipping companies and end up in the hands of the private sector anyway. Vessels such as “Renbell”, intended for a specific route is not operating on that route. If governments feel obliged to accept ships from elsewhere as gifts or for whatever purpose, the ship should then be put up for sale to the highest bidder. This process would at least ensure an even playing field for all ship owners and they would not have to compete with government capitalized ships.

### 3.2.3 Provincial License Fees

The Economic Reform Unit is of the opinion that there is no legislative authority for the provincial governments to charge fees on shipping. There is however precedent for the national government to charge fees.

These fees can be considerable, \$7,000SID per year in some provinces. It is one matter if the provinces collect a fee for a simple business license, but if the purpose and size of the fees is to subsidize provincial treasuries and if it is applied in a discriminatory manner favoring ships from that province, then this cash cow will continue to restrict competition and prevent expansion of the interisland fleet. It is worthy of note that the consultant has spoken with approximately ten ship owners and operators and none thought the fee of 5,000.00SID was a major threat to doing business. One ship charterer claimed he was making a gross profit of 30,000 SID per week. Using the business license to restrict trade to that carried in provincially owned ships must be seen as unethical at the very least.

### 3.2.3 Conflict of Interest

Although it is recognized that Solomon Islands is a small country where business, politics and regulatory enforcement tend to overlap, there are situations where the opportunity and appearance of conflict of interest are facts.

Ministers of the Crown may be ship owners; safety regulators may have business interests in shipping. This all provides a significant possibility for corruption and

misuse of authority. All involved in the shipping business at least, should be made aware of this potential problem and advised to be prudent.

### 3.3 Traffic Demand - Cargo

The major inbound domestic cargo is Copra, the production of which is getting close to pre tension levels. Copra is regarded as “Mana from heaven” which just needs to be harvested and with little effort can be turned into a marketable product with limitless demand. This whole theory has holes in it but nevertheless, copra production is increasing and is now outstripping the shipping capacity. The common practice is for a ship owner to carry store goods, petrol, rice and other general cargo on the outbound trip and return with a full cargo of copra or perhaps cocoa and of course empty petrol drums.

Due to the rather poor communications system, this whole process is difficult to organize. Orders for the general cargo must come well in advance of shipping dates, prepayment is generally required. On the return journey, at least from the main islands, the ship is usually fully loaded with copra. Unfortunately, the copra pick up is often on a first come first serve basis whereby much of the product just does not get picked up because the ship is full. It is reported that there is usually in the vicinity of 6000 tones of copra waiting to be picked up in Choiseul Province alone. This lack of scheduled capacity discourages villages from preparing copra for market as they fear it will simply rot on the shore.

### 3.4 Traffic Demand - Passengers

In most passenger transport systems there are significant peak periods and periods with reduced demand. In the Solomon Islands, peaks occur before and after Christmas and school periods and special occasions such as elections. *Annex 3.1 “voters head west”* Much inter island passenger traffic is carried on larger passenger specific vessels.

Conditions on these vessels are marginally better than being carried as deck cargo on other ships. The passage is usually faster and is direct. The carriage of dangerous cargo such as compressed gas in bottles or petrol is closely monitored by the government authorities and also leads to the separation of cargo and passengers.

With the reduction in “tensions” large movements of people is again occurring between other islands and the main economic activity centre of Honiara. Credit is due ship owners and the Marine department as there is usually sufficient lifesaving appliances on board the vessels. This however is prone to exception from overloading or evasion of the inspectors.

### 3.5 Business Practices

Most of the domestic shipping industry consists of individual ships owned by one or more people. Very little economy of scale has been achieved thru amalgamation of smaller operators. Many of the base costs for operation a ship could be shared if there were an amalgamation or even a cooperative set up. Most of the shippers are outside the formal economy probably by accident rather than by design. This means that all of their financial dealings are suspect. It is important that ship operators realize that just having cash in the pocket at the end of the day does not mean they are running a successful operation. The concepts of ongoing maintenance and capital cost allowances and their connection to future viable operation are not generally understood.

Poor management of transactions from passenger fees to excess cargo also impacts on profit. It has been reported that many passengers transit at little or not cost through bribing or intimidating the ticket takers. This often results in significant overloading of passenger vessels, a fact the operators seem to just ignore. Passengers are allowed to carry an almost unlimited amount of bags with them and crew members will often load cargo in their own space for money or on behalf of wantoks. These are but a few of the anecdotal tales indicating poor management of operations.

The above however does not necessarily mean that an operation is not profitable. Some companies are quite profitable and have accrued significant assets from sound financial management.

### 3.6 Access to Finance

This issue is perhaps the most significant hindrance to development of the Solomon Islands Shipping industry. Development banks and commercial banks are extremely reluctant to finance the acquisition of ships as it is considered just too risky.

The consultant had an in depth meeting with the credit manager of the local ANZ Bank and inquired of him as to what kind of criteria would be required of local ship owners in order to obtain finance. His clear conclusion was that each case would be judged on its own merit but presenting evidence of a "well run business" would be critical to any further consideration. The banker also indicated that the small scale of individual operators was a negative factor and that he would prefer to deal with companies with several ships.

Several shipping companies are making serious efforts to demonstrate this well run business and in conjunction with the outer island route subsidy program have submitted financial details which point to their companies as profitable and well

run. *Annex 3.2 Financial Proposals from three Solomon Island Shipping Companies.* The shipping industry is in dire need of new hulls and these will not appear without some changes in the present financing mechanisms.

#### Financing Options - Government Support

1. Direct government intervention through reestablishment of a government cargo and passenger fleet. This option has failed in the past due to mismanagement.
2. Direct government intervention by provision of grants. There is clearly no funding available for this option
3. Ship Construction subsidies. This option would be difficult to administer even if there were available funds.
4. Operating subsidies based on cargo and/or passengers. Extremely difficult to manage and open to malfeasance.
5. Interest rate subsidies. Possible if funds were available
6. Tax Credits. Assuming there is relief from duties tariffs and stamp taxes and that taxable revenue would be generated, this could be a future option.

#### Financing Options – Other

1. Loan guarantees from donors. Could work but risky therefore unlikely donors would participate
2. Donor own and lease back. Has been used on a small scale by EU in Papua New Guinea should be assessed.
3. Drop Cabotage regulations and open shipping markets. Significant political repercussions would be likely. Opening shipping to South Pacific flag states might be more palatable.
4. Direct leasing of vessel with no government intervention. Leasing charges built on risk might make this option too costly.
5. Period chartering of foreign flag vessel. This already is in place in a very limited manner. All legal issues are not yet solved.

The consultant recommends a further, more detailed technical evaluation of financing options.

### 3.7 Solomon Islands Shipping Association

The consultant was fortunate enough to attend two meetings of the Shipowners Association of Solomon Islands. The first meeting was the Annual General Meeting, the second a regular monthly meeting. At the AGM, which took place at the Solomon Islands Island Marine School, it quickly became obvious to the consultant that this was a viable organization. The meeting was well managed

and conducted under appropriate procedures. Twelve persons were present and Mr. John Lawson was elected as President, membership fees were set at 500SID per annum for full members and 250 SID for associate members. *Annex 3.3 SISA statement of income and expenditures.*

Meetings of the SISA were attended by the consultant and they agreed to support the Asian Development Bank in any initiative to improve the quality of ship management in the Solomon Islands.

### 3.8 Training

Some argument has been made that it may not be in the best interest of the individual shipowners to be in the formal economy as they will then be more subject to government scrutiny including the possible necessity of paying taxes on excess revenues. All shipowners in the SISA and those interviewed separately did express a preference to participate in the formal economy of the country as the benefits to business operations are considerable.

From observation of operations, and from shipowner interviews, the clear reason for not participating in the formal economy is that they just do not have the management skills to accomplish this. The management of fleets by the provinces is a particular disaster and most of the ships have been divested to other operators or taken out of service.

The Solomon Island Shipowners Association was highly receptive to participating in some business operation and management skills training. The association indicated that it was willing to help coordinate some of the logistics around setting up training programs.

The consultant met with Phillip Waihunu, General Manager of the Solomon Islands Small Business Development Center who provided details and course outlines for a number of small business courses *annex 3.4 business courses available* that may be of use to small shipping companies and their staff.

Training in the basics of computer systems and business is also readily available in Honiara.

### 3.9 Drydocking

#### 3.9.1 Background

Most Inter Island shipping routes in the Solomon Islands entail some sort of open water passage. Voyages to windward sides of islands and to outer islands require vessels to face difficult sea conditions. Although routes between the main islands from Honiara normally face seas of a maximum 2-3 meters, such is not the case on voyages to Santa Cruz, Ontong Java, and Sikaiana, where more severe conditions may be encountered on voyages taking several days.

To service all Inter Island shipping routes, in addition to using vessels of less than 300GRT on sheltered routes, the industry has little option but to use vessels from 300 to 500 GRT on the open sea voyages. Using vessels more than 500 tones under International Maritime Organization conventions may incur regulatory and technical obligations that the shipping industry cannot meet. Vessels less than 300 GRT will generally not be able to get classification to travel to the outer islands. The result is that vessels of 300 to 500 Gross Registered Tons are necessary for service on outer island routes.

All Solomon Islands registered vessels must from time to time undergo a regulatory removal from the water for inspection and repair of underwater sections of the ships. The regulatory period between these inspections varies with the type of vessel and more importantly with the age of the vessel. Older vessels must be inspected more often. This practice is standard for the shipping industry worldwide.

The problem in the Solomon Islands is that there is no facility for vessels greater than 300 Gross Registered Tons. As a result all registered vessels between 300 and 500 GRT cannot meet the regulated inspection regime.

This situation one of the most significant causes of the failure of the Solomon Islands shipping sector to provide the level of service needed. There are several 300-500 GRT ships out of service and anchored at Honiara for the reason that there is no haul out facility in country for them to meet their regulatory obligations. Their safety certificates are cancelled and the anchored vessels continue to deteriorate.

This is a most critical issue for advancement of the Solomon Islands shipping industry

There can be no doubt that the facility would be better run in the hands of the private sector but without changes in foreign investment policy, privatization and/or capitalization of this is facility unlikely to occur as the capital required is just not available.

### 3.9.2 Possible Solutions for Critical Lack of Haul Out Facility 300-500 GRT

Possible Solution	Requirements	Restrains
Schedule floating drydock into country	Find suitable, willing operator with equipment	Economy of scale would require significant organization Initial funding required
Send Vessels to foreign drydock in Papua New Guinea or Australia	Sufficient basic funding Management expertise	Past experiences have not gone well. Poor management practices have not factored maintenance or capital replacement into business operations.
Use foreign flag vessels	Coasting license Available ships	Negative political ramifications Not a good long term solution
Rehabilitate and enlarge one facility to 500GRT capacity	Capital investment, proper management and trained workers	Access to spare parts and equipment. Government interference.
Build new facility with drydock	Capital investment Management Location	Business justification difficult Political interference with location Existing restrictive tariffs
Replace several 300-500GRT ships	Capital justification Business plan Find new ships	No existing business capacity to manage such a fleet In conflict with "provincial fleets"
Switch to tug and Barge operations (Hawaii Interisland)	Business justification Major attitude shift by shippers.	New concept Cargo handling facilities

### 3.9.3 Conclusion

For the Government of the Solomon Islands, a formal business case should be developed to justify the reduction of import duties on marine products to zero. This case would quantify possible lost revenue, and compare it to improved government revenues possible from increased commercial activity. Support should be sought from all segments of the Solomon Island Maritime community.

Discussions are planned between the Marine Department, the Prime Minister's office and JICA regarding the upgrade of the Sasape Marine facility. Should this unlikely proposal be accepted, the issue of private sector ownership of Sasape Marine could be set aside for period of time. Management of the operation and rules for operation of the facility should be contracted to a private sector

management organization. Development of a business model to support this argument may be necessary.

The proposal from the Asian Development Bank to assist in improvement of management skills for shippers should instill some capacity to understand and manage long term vessel maintenance and replacement as part of a business endeavor.

### 3.10 Open Registry

The legislation authorizing an open registry for Solomon Islands has recently been approved by parliament. Although there are an overwhelming number of negative voices on this issue, the law somehow seems to have been pushed through. At the very end of the parliamentary session, the government had two proposed pieces of legislation to deal with, one the Foreign Investment Act, the other the Open Registry. Only the Open Registry was dealt with. Serious questions arise concerning priorities and the reasons behind this action.

It is unknown at the time of the writing of this report what exactly will happen next with the Open Registry but since there are serious possibilities of corrupt practices the consultant has strongly recommended to senior officials that the utmost transparency is required to protect the integrity of the minister and officials involved. Should the government of the Solomon Islands proceed to the stage of selecting an agent to implement the Open Registry, all legal requirements for the procurement process should be scrupulously followed.

The Secretariat of the Pacific Community should be asked to investigate the coordination of a possible floating drydock service for the Pacific Islands.

## **PART 4 Renew Government Marine Infrastructure**

### 4.1 Introduction

The Solomon Islands Government sector for marine infrastructure is predominantly represented by the Marine Department of the Ministry of Infrastructure Development. Some functions rest with the Solomon Islands Port Authority and the hydrographic responsibility seems to reside with the Department of Lands.

The maritime sector is arguably the most important industry in the Solomon Islands. Virtually all imports and exports travel by sea and most internal movement of goods and people is by sea. Compared to the value added to the road and aviation sector, the government contribution to the maritime sector is a

pittance. In every aspect of the support to the maritime sector the government has failed to meet its obligations domestically and internationally.

In maritime safety enforcement, provision of search and rescue, marine aids to navigation, pollution response and marine charting, the level of service falls below any minimum acceptable standard. These significant shortfalls in themselves are not enough to cause any short term disaster but the recently adopted international ship and port security requirements (ISPS) could very well stop exports if the code is not in place.

A significant improvement in the delivery of critical government marine services is required. This section deals with a proposal based somewhat on the Papua New Guinea and Australian model to establish a recapitalized, self funded Solomon Islands Maritime Safety Authority that will deliver services to the maritime community at least to minimum domestic and international standards.

#### 4.2 IMO and Other International Participation

The participation of Solomon Islands and in particular the Marine Department in important international organizations has been poor. While modicum of connection has been demonstrated with the south Pacific Commission's Maritime section, most of this has been initiated by the SPC. The important IMO conventions have not been signed. Solomon Islands in fact has acceded to only 6 of 55 IMO conventions. Some practical results of this are:

- The entire fuss around "white listing" and the obligations for training standards under IMO STCW 95 is meaningless as the Solomon Islands represented by their Marine Department has not signed this convention.
- The issue of higher standards required for ships over 500 tons operating on certain trades is also meaningless as the Solomon Islands have not signed any of the IMO MARPOL conventions and only the very first SOLAS Convention.
- More serious for the country is the issue of the new IMO ISPS code. Although the local paper quotes government marine officials "Solomon Islands meets new international port security standards", there is little physical evidence in the security or lack of security in shipping and marine facilities. Since the IMO table of signatories does not indicate that the Solomon Islands has signed the ISPS convention, the issue may seem moot, but the Marine Department should be aware that ISPS implementation is serious business and is in place largely to counter terrorist threats. Continued failure to pay serious attention to this issue will eventually have serious consequences for import and exports by sea.

It is also patently evident that the Marine Department has failed to adhere even to the few conventions that have been signed:

The International Maritime Organization's (IMO) Convention for Safety of Life At Sea (SOLAS), chapter 5, Regulation 14, to which Solomon Islands is a signatory, states:

"The contracting governments undertake to arrange for the establishment and maintenance of such aids to navigation as, in their opinion, the volume of traffic justifies and the degree of risk requires, and to arrange for information relating to these aids to be made available to all concerned".

The sorry condition of marine aids to navigation in Solomon Islands provides testimony of the failure of the Marine Department to execute its basic responsibilities.

There seems to be no evidence of participation in other important international maritime organizations. Some of these are:

- IALA – International Organization of Lighthouse Authorities
- IHO – International Hydrographic Organization
- IAPH – International Association of Ports and Harbours
- PIANC – Permanent International Association of Navigation Committees.

#### 4.2.1 Conclusions

1. At the management level of the Marine Department, there has been a failure to convince the government of the Solomon Islands of the importance of participation in International Maritime Organization. This has resulted in a disconnection of the Solomon Islands regulatory regime from that of the international maritime community.
2. Over a long period of time, the failure to properly fund critical marine services has resulted in deteriorated service levels in the most basic government marine responsibilities, including but not limited to vessel safety, search and rescue and aids to navigation.
3. The Solomon Islands Marine Department has failed to establish and maintain links to other important international organizations critically connected to providing standards for safe seas and support for shipping.
4. It is understandable that very small nations may not be able to participate fully in all these organizations. Nevertheless, the Marine Department should

have an understanding of the more critical areas of specialty of these bodies and be able to access assistance and highly specialized technical information.

#### 4.2.2 Recommendations

1. All of the international organizations associated with the maritime field offer levels of technical assistance and funding to countries themselves unable to implement important international standards. The Solomon Islands Marine Department should, independently of preferably in concert with the South Pacific Commission, approach the various international maritime organizations with a view to obtaining specialized technical assistance.
2. Service levels for all maritime functions of the Authority should be identified, costed and built into the final proposal
3. The responsible maritime authority should rejoin the appropriate international bodies and immediately accede to IMO conventions.
4. Assistance in reconnecting with IMO should be sought from SPC

#### 4.3 The Argument for a Maritime Safety Authority

##### 4.3.1 International Experience: Management of Marine Safety

Management of the maritime sector has become a key focus in a number of countries. The approach in dealing with this sector has been similar, although each has tailored their structure and organization to their particular needs. In examining the situation in Solomon Islands it might be appropriate to investigate experiences in other countries around the world to assess what type of approach would best suit this situation. The experience in selected countries are examined and related to the Solomon Islands situation.

##### 4.3.2 New Zealand

The Maritime Safety Authority of New Zealand was established in August 1993. It is a statutory authority with the principal objective, set out in the Maritime Transport Act 1994, of promoting maritime safety and protecting the maritime environment with its key functions including:

- development of maritime safety rules and marine protection rules;
- licensing seafarers;
- registering ships;

- conducting safety inspections of New Zealand ships and of foreign ships calling at New Zealand ports;
- providing and operating lighthouses and other aids to navigation for ships on the New Zealand coast;
- providing a coastal maritime safety and distress radio service;
- investigating and analyzing maritime accidents and accident trends;
- educating the maritime community about safety and environmental standards and best practice;
- participating in maritime search and rescue;
- maintaining the New Zealand marine oil spill response strategy and national contingency plan; and
- administering the New Zealand Oil Pollution Fund.

### 4.3.3 Australia

The Australian Maritime Safety Authority (AMSA) was established under the Australian Maritime Safety Authority Act 1990. The main objects defined in the Act are:

- to promote maritime safety
- to protect the marine environment from
  - pollution from ships
  - other environmental damage caused by shipping;
- to provide for a national search and rescue service; and
- to promote the efficient provision of services by the Authority.

The principal functions assigned of the Authority as defined in its Act include:

- to combat pollution in the marine environment;
- to provide a search and rescue service; and
- to provide, on request, services to the maritime industry or to other Federal or State agencies on a commercial basis

AMSA is also responsible for the operation and maintenance of the Federal Government's coastal marine aids to navigation network. In Australia, responsibility for navigational aids is divided between the Federal Government and the various State Governments. The demarcation of responsibility is defined by an inter-governmental agreement dating back to 1934. In broad terms, the Federal Government is responsible for aids provided to assist international and main coastal movements, while the States have responsibility for entry to ports and harbours, inner port and inland aids, and aids for local and inshore traffic. The organizational structure of AMSA is found in *annex 4.1*

#### 4.3.4 Canada

The principal legislation assigning responsibility for maritime safety in Canada is the Canada Shipping Act. Under this legislation, maritime safety matters in Canada are made the responsibility of the Minister of Transport. Many operational functions such as Search and Rescue, Icebreaking Aids to Navigation, Vessel Traffic Services and Navigable Waters Protection rest with the Canadian Coast Guard within the Department of Fisheries and Oceans. Much of the marine safety activity rests in the Department of Transport. These activities include those related to safety of ships and personnel, and port state control.

Other functions are carried out by Port Authorities who have a significant degree of autonomy in Canada. These include responsibilities for strategic planning of the port and for the management of public cargo handling terminals.

#### 4.3.5 Papua New Guinea

A Maritime Safety Authority was established by legislation in 2003, *annex 4.2* A board of directors was appointed in 2004. As of the writing of this report it is being staffed and a number of restructuring activities are well underway.

The PNGMNSA has been charged with a suite of standard responsibilities from aids to navigation to ship safety to search and rescue.

A fee structure has also been established so that the organization will be self funding as described in a corporate plan.

Unique to Papua New Guinea is that through a combination of an Asian Development Bank loan and Government of Papua New Guinea, an initial capitalization of the organization is being provided. The country's entire aids to navigation system is being rehabilitated at a cost of approximately US\$15 million. Additionally a contract has been issued to change all Papua New Guinea charts into ENC or electronic navigation charts to the highest world standard.

Training and community engagement programs are also major components of the first phase.

Phase two of the recapitalization involves introduction of selected route subsidies, building of small craft wharves and establishment of a boating safety regime.

The Papua New Guinea model has adopted a number of program concepts from the Australian Maritime Safety Authority. Fortunately the strong federal structure of Papua New Guinea has not encountered the massive Australian issues connected with the dilution of authority to states in maritime matters. It is certain that the Papua New Guinea model would be applicable to other small countries. With adequate donor capitalization, countries such as the Solomon Islands could introduce effective maritime safety management regimes.

#### 4.4 Conclusions

There is significant experience internationally in the formation of relevant centers of responsibility for activities in the maritime sector. Some have gone the route of creating separate Authorities while others have placed this responsibility under existing Government Ministries or Departments. Whatever the structure chosen, the key focus revolves around safety at sea, responsibility for navigational aids and equipment, search and rescue, emergency response and compliance with IMO conventions. self-funding through various levies is in place and working in several jurisdictions. In reviewing the situation in the Solomon Islands, historical experience in the sector was carefully assessed and evaluated in terms of whether the activities should remain with the government or whether a new entity should be created. The government, the shipping industry and the Asian Development Bank indicate a preference for the establishment of a Maritime Safety Authority with a rudimentary structure and organization offered for initial consideration.

On the negative side, every day without properly maintained and functioning aids to navigation, leaves the government exposed to the legal consequences of a major maritime disaster should one occur in their waters. If levels of maritime services are established that can conform to organizational and financial capabilities, while at the same time approach or meet world standards, it is probable that the Maritime Safety Authority of Papua New Guinea could be a model for other adoption by other island nations.

#### 4.5 Existing Situation

In the Solomon Islands, the government arm of marine infrastructure is represented by the Marine Department which is a part of the Ministry of Infrastructure Development.

No evaluation of the finances of the Marine Department was carried out. Suffice to say that it is seriously under funded to deal with the responsibilities that it has been allocated.

1. Decrepit, unsafe ships ply the waters of the Solomon Islands because of lack of enforcement of regulations, themselves poorly written.
2. Almost all maritime aids to navigation are extinguished in violation of the IMO SOLAS convention one of the few signed.
3. Oil pollution response is non existent while Iron Bottom sound is covered with dozens of wartime wrecks full of bunker oil.
4. Charts are seriously outdated to the point of being dangerous to use.

5. In spite of a serious lack of equipment and support, the Search and Rescue section still manages to produce results

#### 4.6 Corporate Plan

Key to the successful creation of the Solomon Islands Maritime Safety Authority will be the development of a corporate plan. It is suggested that this should be part of the TOR issued by the donor agency for the implementation of the Maritime Safety Authority.

All of the work sections will require needs analysis and costing models will be required. A business plan model should be used with cost justifications and possible outsourcing or privatization considered where appropriate.

Initial capitalization of the organization and rehabilitation of the infrastructure should be provided by the donor agency, it will nevertheless still be necessary to identify annual all operations and maintenance costs as well as future capital requirements.

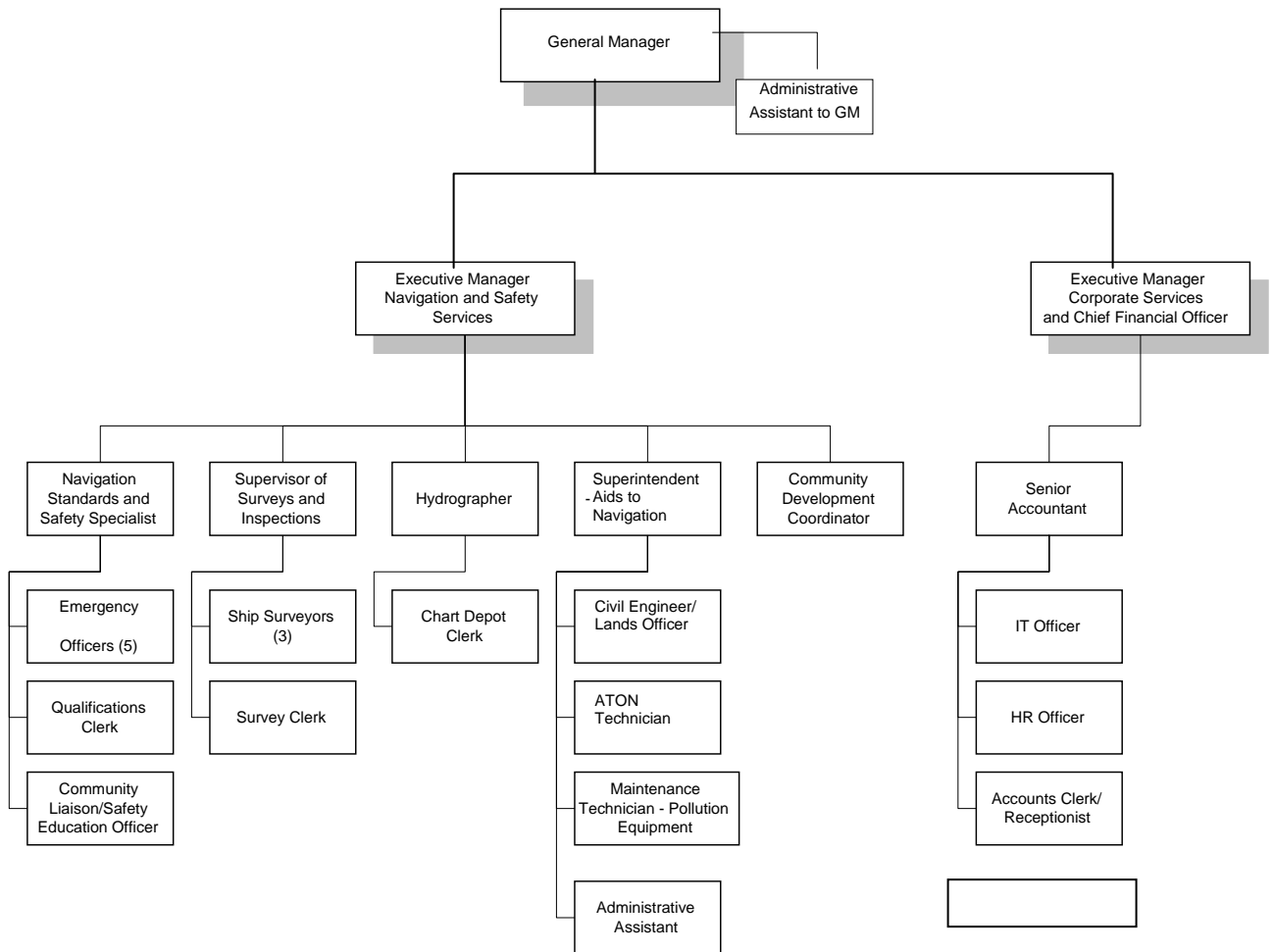
Most other worldwide Maritime Safety Authorities (know alternatively by other names) now are funded or partially funded by user groups. In the Western Pacific, the most advanced are Australia, New Zealand and Papua New Guinea, all who fund maritime services from those who may be direct users of these services.

##### 4.6.1 Solomon Islands Maritime Safety Authority Proposed Major Revenue Sources

Marine Navigation Levy (Exists as "Light Dues") Requires updating	This levy is a charge against all ships more than 15 meters in length. It is levied on both international and coastal vessels to recover all costs of operating the marine aids to navigation system.
The Protection of the Sea Levy Requires development and implementation	This levy is also a charged against commercial shipping. The levy applies to vessels which are more than 15 meters in length and can carry more than 10 tones of oil or petroleum products in bulk as fuel or cargo. The levy requires legislative modification and should be at a level consistent with other small nations and should have an annual review related to actual costs of the oil spill response program
The Marine Navigation (Regulatory Functions) Levy	This levy is used to fund the SIMSA maritime safety activities. Revenue from this levy covers or contributes the costs of setting and enforcing safety standards for both vessels and crews. It also covers the cost of providing Port State Control, and possibly ISPS. This

levy will also partially fund the participation of the SIMSA in international organizations such as IMO and IALA.

#### 4.6.2 Proposed Organization of Solomon Islands Maritime Safety Authority



## 4.7 Financial Models

The concept of a self-funded Maritime Safety Authority is not new and has proven to be successful in several jurisdictions notably Australia. The financial model for the Papua New Guinea Maritime Safety Authority has been accepted by the Asian Development Bank. The PNG Maritime Safety Authority, although slow in implementation is proceeding well with the recapitalization of the infrastructure well underway and with significant available operating funds already collected from marine service fees.

### 4.7.1 Papua New Guinea Maritime Safety Authority Financial Model (2005)

<b>Operating Revenues</b>		<b>Expenses</b>	
Marine Navigation Levy	3,700,000	General Mgr. Office	650,000
Regulatory Function Levy	1,810,000	Finance & Corp. Services	610,000
Protection of the Sea Levy	1,120,000	Navigation Services	3,230,000
Sales of goods and Services	?	Marine Safety	380,000
Interest	270,000	Depreciation aids to navigation	3,660,000
Other	470,000	Dep. Oil Spill Equip.	390,000
		<b>Total Expenses</b>	<b>8,910,000</b>
<b>Total Revenue</b>	<b>7,370,000</b>	<b>Net Surplus(loss)</b>	<b>(1,540,000)</b>

Source: ADB TA 3619

### 4.7.2 Australian Maritime Safety Authority Financial Statement

<b>Operating Revenues</b>		<b>Expenses</b>	
Marine Navigation Levy	20,292,000	Employees	28,866,000
Regulatory Function Levy	19,195,000	Suppliers	33,627,000
Protection of the Sea Levy	3,719,000	Depreciation	7,617,000
Services Provided on Behalf of Government	16,930,000	Write Down Of Assets	103,000
Sales of goods and Services	3,708,000	Disposal of Assets	3,501,000
Interest	1,528,000	<b>Total Expenses</b>	<b>73,714,000</b>
Proceeds from Sale of Assets	4,095,000		
Other	433,000		
<b>Total Revenue</b>	<b>79,011,000</b>	<b>Net Surplus</b>	<b>5,297,000</b>

Source: AMSA Annual Report

## 4.8 Summary

The Papua New Guinea model for this type of organizational structure of a Maritime Safety Authority is well worth reviewing as the country is not only physically a neighbor of the Solomon Islands, but has many similar shipping issues and a somewhat similar culture. Any pitfalls or roadblocks encountered in implementing of the Papua New Guinea Maritime Safety Authority Bill would be fresh at hand. Expertise and advice regarding the establishment of a financial model would greatly assist the Solomon Island project and would not require reinventing of the wheel.

In the Solomon Islands, as in Papua New Guinea and likewise earlier in Australia, considerable capitalization of the organization is required. Much of the physical and human infrastructure of the Solomon Island Marine Department has been allowed to deteriorate to the point of almost being liabilities. The participating donor will be required to contribute to the rebuilding of this infrastructure in a major recapitalization project. Some specifics of this requirement are found further in this section

## 4.9 Board of Directors

The proposed Solomon Islands Maritime Safety Authority would have policy directed by a board of directors with a chairman from the maritime community appointed by the minister or cabinet.

There would be approximately six other board members representing appropriate government bodies, the provinces, the Solomon Islands Business sector and the Solomon Islands Shipping Sector. Reference should be made to *annex 4.1 "Papua New Guinea Maritime Safety Authority Bill"*

A cadre of professional managers would be recruited with remuneration set independently by the board of directors as suggested in the corporate plan. The senior managers would then recruit the remaining staff for the SIMSA.

## 4.10 Structure of the Organization

The basic elements of the organization of the proposed Solomon Islands Maritime Safety Authority could be as described below.

1. Corporate Services
  - Financial Management
  - Human Resource Management
  - Information Technology Services
2. Navigation Services
  - Aids to Navigation

- Search and Rescue
- Small Craft Safety
- Hydrography and Chart Sales
- Community Engagement

### 3. Navigation Safety

- Ship Registration, Inspection and certification
- Ship Crew Standards and Certification
- Port State Control
- Solomon Islands Maritime School
- Accident Investigation
- Legal and International Affairs.

## 4.11 Component 1 Corporate Services

### 4.11.1 Financial Management

It is critical that this section is the first up and running as it must set up the basic financial services and procedures that will allow all others to start.

This section must also play a key early role in the management and transfer of assets from the Marine Department.

The acquisition and arrangements for adequate and appropriate office and technical space will also be an early high priority.

### 4.11.2 Human Resource Management

It is recommended that as in other authority models, the staffing of senior management should be managed by outsourced staffing agencies. Establishment and implementation of pay and benefit processes will be a key element in creating the Maritime Safety Authority

### 4.11.3 Information Technology Services

This function too will require staffing early in the process so that the MIS/GIS, office and communications equipment and data management and reporting software needed to maximize the benefits of automation are all quickly put in place for all components of the SIMSA.

This section in consultation with line managers will also manage the specialized equipment needed for technical and inspection tasks.

#### 4.12. Component 2 Aids to Navigation

The Aids to Navigation Section of the Solomon Islands Marine department is charged with the responsibility of maintaining the country's aids to navigation system. The department has indicated that it has 630 aids to navigation under its care. The majority (574) are small unlighted markers used for passing reefs, entering small harbours or transiting narrow channels.

The remaining 56 aids to navigation are lighted formal structures reported in the British Admiralty List of Lights volume K. These larger aids to navigation are of course used by local shipping but were primarily installed for the use of larger vessels proceeding to or from the Solomon Islands, and for vessels transiting Solomon Islands waters.

The suggested routes for transiting vessels are found section 1 and are extracts from British Admiralty Sailing Directions – South Pacific. The most important of these routes is the Bougainville Strait which is on the direct route between the East Coast of Australia and Japan. There are two other routes recommended for deep sea shipping, one passes north of Malaita Island, the other just south of Malaita.

The authority for aids to navigation is established under the Solomon Islands Shipping Act (1998) article 162 and 163 which states "The Superintendent of Marine may establish, maintain, operate, alter or remove any marine navigation aid." Article 164 states: "Where any marine navigation aids is established, altered or removed, the Superintendent of Marine shall cause a Notice to Mariners to be issued accordingly."

The marine Department operates a small aids to navigation tender called the Yali. The vessel is primarily engaged in servicing the 574 small beacons throughout the country. As 371 of these beacons are in Malaita Province, the vessel spends most of its limited operational time in this area. Most of these beacons are supported on unprotected galvanized steel pipe which quickly reacts and rusts in salt water thus providing the beacons with a very short lifespan.

The other 56 lighted aids in the country are charted and descriptions of service can be found in the List of Lights. The condition of these structures and the navigation lights they support is unknown but is suspected that most are in very poor condition with the lights extinguished. The status of the structures themselves is likely poor. Rehabilitation and reconstruction will be a costly undertaking.

In spite of international and legislated legal obligations insufficient operating funds are provided to carry out any kind of a regular maintenance schedule for aids to navigation. Fuel is the largest cost in this endeavor and it is severely rationed to this group. Any light dues collected appear to accrue to a

government consolidated revenue fund rather than be returned to the marine department for application to aids to navigation maintenance

A reporting system is in place whereby some of the domestic fleet report their daily positions to Solomon Islands Telekom who at present monitor the appropriate HF channel. There is no vessel traffic control or monitoring system within Solomon Islands waters.

An initiative is underway to build wharves in remote communities. The initiative is managed by an overworked Ministry of Infrastructure Development but in the longer term the management of marine infrastructure construction projects would fit well within the responsibilities of the aids to navigation civil engineer. This person would already be managing a large number of remote marine installations and would have the skills and local knowledge to be able to implement projects that may be initiated by the MID. Although in many cases there will be bursts of capital funding to build wharfs and perhaps other marine infrastructure, it should be realized that the maintenance of these installations is expensive and requires some coordination and planning. It is recommended that in cooperation with the CEP community Engagement Program, methods to should be undertaken to achieve higher levels of community participation in wharf maintenance.

### **Solomon Islands Marine Aids to Navigation**

Location	Existing	Beacons	Proposed
Western Province	15	69	5
Choiseul Province	1	43	1
Isabel Province	1	35	3
Central Province	9	18	2
Guadalcanal Province	17	11	0
Makira Province	4	16	3
Temotu Province	1	11	3
Malaita Province	8	371	8
Ren/Bell Province	0	0	1
Totals	56	574	26

*Source: Marine Department Aug. 2005*

#### **4.12.1 Conclusions**

1. Under the IMO SOLAS convention and its own legislation, the Solomon Islands government is not meeting legal obligations for the provision and maintenance of Marine Navigation Aids. In the case of a major marine

accident, this situation could permit significant legal judgments to be made against the Solomon Islands government.

2. No "light dues" collected are directed to maintenance of lights.
3. "Light dues", or marine service fees are at a level that does not reflect the true cost of the service provided by government.
4. The existing marine department marine aids to navigation section even with higher funding, does not have the capacity to ensure that aids to navigation are functioning to minimum levels of service.
5. The Marine Department has no direct connection with the International Association of Lighthouse Authorities (IALA) and thus is unable to benefit from any knowledge and technical expertise disseminated by this organization.

#### 4.12. 2 *Recommendations*

1. *Include the Marine Department marine aids to navigation section in the proposed Solomon Islands Maritime Safety Authority.*
2. *Establish and implement a process for collection of "light dues" and examine the possibility of collection from foreign ships transiting Solomon Islands waters.*
3. *Undertake a comprehensive review of the condition of aids to navigation.*
4. *Undertake a comprehensive aids to navigation rehabilitation project for all maritime aids to navigation in the country.*
5. *Establish an outsourced aids to navigation maintenance program.*
6. *Restructure the new marine aids to navigation section and introduce the management and technical capacity to maintain aids to navigation to the recommended standards of the International Association of Lighthouse Authorities.*
7. *The Maritime Safety Authority should rejoin and participate in IALA*

#### 4.13 *Component 2- Vessel Inspection and Certification*

The inspection and certification of vessels and crew has been dealt from a fleet perspective with earlier in the report.

The regulations contained in the Solomon Islands Shipping Act are fairly few and not complicated. Those found in the 1998 update of the act are specifically applicable to a small nation situation where most shipping is in sheltered or semi-sheltered waters. The proper processes of inspection and certification seem to be in place although enforcement has been a recent problem. Emphasis of inspection is clearly placed on safety rather than appearance. Documentation seems to be adequate regarding registration of vessels, regular safety inspections and the certification of officers. *Annex 4.3*

The provision of administrative services to ship owners has essentially been provided free of charge by the Solomon Islands Marine Department. For example it may take an inspector several days to properly measure a ship for tonnage registration. The maximum charge to the ship owner is SID\$20. The cost of collection is higher than the fee. Ship owners will need to recognize that this cost should reflect the actual cost of the inspector's service and should be seen as a cost of doing business.

#### 4.13.1 Conclusions

1. Although nominally adhering to some International Conventions, STCW 95 is referred to in the act as STCW, the fact remains that most International Maritime Organization Conventions are not applied in the Solomon Islands. This may be due to the fact that most of the shipping is under minimum sizes set by IMO for compliance, but in most cases non-compliance is simply because the rules have never been introduced.
2. Maritime safety service fees seem to be at a level set in earlier legislation and in no way reflect the cost of actually providing the service. In any event they seem rather to accrue to the central revenue fund of the government rather than to the service provider.
3. Penalties and fines are so low as to be non-existent. There is no legal deterrent to prevent ship owners from violating shipping laws.
4. The Solomon Islands government has acceded to only 6 of 60 IMO conventions. Many important conventions have not been signed and the fact that the Solomon Islands is a small, out of the way country will only escape the view of organizations such as the United States Coast Guard for not much longer. Non-accession to important IMO conventions may soon have a serious negative effect on Solomon Islands Exports.
5. The lack of proper ship maintenance facilities in the Solomon Islands cause Ship Safety inspectors to be put in difficult situations where maintenance may be scheduled but cannot be completed due

- circumstances not under the control of the ship owner. In order to keep ships available to serve the needs of the country exemptions are routinely granted.
6. Due to low pay levels, the Marine Department has difficulty in recruiting and retaining qualified ship safety staff.
  7. The safety regulations for small craft and for safety equipment standards are non-existent to minimal.

#### *4.13.2 Recommendations*

- 1. With the cooperation of the SPC, the government of the Solomon Islands should as soon as possible sign several critically important IMO conventions and their amendments. Some these are, STCW 95, ISPS, MARPOL, and SOLAS.*
- 2. The forty or so fees that are charged for services of ship inspectors should be adjusted in regulation to reflect the actual cost including overhead, of providing the service.*
- 3. Penalties and fines should be reviewed and adjusted to actually create a deterrent to those who might break the shipping laws. This is especially critical for the application of marine safety and to save lives.*
- 4. Support the participation of SIMSA in IMO.*
- 5. The proposed Solomon Islands Maritime Safety Authority should where applicable, begin the implementation of IMO conventions. This will require the introduction of some new legislation.*
- 6. The Solomon Islands Maritime Safety Authority should actively pursue and support a solution to the critical lack of ship maintenance facilities. This may include assisting in a technical assessment of the Sasape Marine facility.*
- 7. The SIMSA should conduct a recruiting campaign to hire qualified ship inspectors. Pay and benefit levels should be established at a level high enough to attract and repatriate qualified Solomon Island citizens working outside the country. Consideration should be given to hiring a small number of expatriates on fixed contracts or as possible immigrants.*
- 8. A cooperative initiative of the SPC should be requested that will through various methods raise the level of ship inspection in the Solomon Islands.*

9. *In partnership with the Community Engagement Program and the Search and Rescue Section, the Ship Safety Section should initiate a program to:*

- *Develop small vessel construction and equipment regulations*
- *Implement a phased in program for the new regulations*
- *Educate the small vessel community in boating safety*
- *Develop and introduce boating safety as a school curriculum*
- *Develop a recording system for small craft ownership.*

#### 4.14 Component 3 – Search and Rescue

Given the resources allocated, the existing search and rescue organization is well functioning and managed in a professional manner. Many of the staff have been fortunate to have undergone familiarization and training in other countries and are testimony to the value of such training. The recent sinking of an illegally operating ship and rescue of all on board without injury or loss of life was evidence of the effectiveness of this section.

The large number of incidents, mostly overdue boats are managed to achieve resolution while real emergencies are attended to. Close cooperation and a viable *Memorandum of Understanding (MOU) Annex 4.4* with Australia are a key element in their success. Coordination with French authorities in New Caledonia and as well with other close neighbors also contributes to the SAR regime.

The facilities and equipment that the SAR team has to work with are outdated and of a poor quality but they make effective use of their HF radio and telephone.

##### 4.14.1 Conclusions

1. The entire role and structure of the Search and Rescue centre is underutilized while critical emergency functions not in their mandate are not dealt with.
2. A far greater and more helpful role could be played by this organization in areas such as marine pollution response coordination, natural disaster response, aids to navigation outages and others.
3. Equipment and facilities are woefully outdated and inadequate.
4. Actual Search and Rescue capacity in the country is low but better results could be achieved with some directed effort and planning.

5. Critical staff training is haphazard and opportunistic, resulting in not much connection with the development of the organization.

#### 4.14.2 *Recommendations*

1. *Review the activities and assignments of the Search and Rescue Response Centre.*
2. *Procure necessary upgraded equipment and facilities.*
3. *Update the centre to a National Marine Response Centre being the central information contact for:*
  - *Search and Rescue in Solomon Islands waters*
  - *Marine Environmental Incidents*
  - *Aids to navigation outages*
  - *National Disaster Assistance (Marine)*
  - *Other shipping incidents*
  - *Shipping information (SIMSA resource library)*
4. *Purchase and install necessary GMDSS radio equipment.*
5. *Encourage and recruit other Solomon Island marine resources as active participants in SAR. These could be the police, RAMSI, and other craft working on government projects.*
6. *In conjunction with the Human Resources Section, establish and maintain an intense training program with emphasis on foreign expertise*
7. *In cooperation with the Ship Safety Section, the Maritime Training Centre and the Community Engagement Section, develop and implement a volunteer rescue network throughout the Solomon Islands. It is strongly recommended that this volunteer network is modeled on the Canadian Coast Guard Auxiliary or United States Coast Guard Auxiliary*

#### 4.15 *Component 4 – Marine Environmental Protection*

There is little if any movement of crude oil within the waters of Solomon Islands. Thus the likelihood of a major oil pollution catastrophe is remote. There is however a significant amount of diesel as ship and electrical generator fuel and also much petrol in drums moved as cargo.

This refined product is delivered to the Solomon Islands by regular tanker service. The process as seen by the consultant is for the tanker to drop its anchor and move astern towards the main landing area in Honiara. The cargo is

unloaded into nearby tanks with large hoses and pipes. The whole exercise is carried out in an unsecured area that could well do with an ISPS inspection. As the prevailing wind blows onto the city shoreline, there is a potential for a major disaster should be any spill of petrol reach an open. As this process occurs in immediate proximity to the main Honiara piers, usually crowded with people. Response to such a scenario is perhaps an issue more directed to the disaster management agency and the fire department, yet it is clearly incumbent upon the marine department to ensure that ship cargo handling operations are carried out in a safe manner.

The consultant was unable to locate any oil spill response structure with in the marine department, the conclusion being that there just isn't any. Should the Solomon Islands Government choose to accede to the IMO convention called MARPOL, they will most certainly be obliged to institute a program for pollution prevention and response. In many countries machinery and people to carry out this response is outsourced but it is still incumbent on the government to establish such an organization and ensure through regular drills that it is functioning.

Approximately thirty major vessels were sunk in Iron Bottom sound during the war. Most of these ships were steam reciprocating or steam turbine propelled and consequently used heavy bunker oil to fire the boilers that produced the steam to turn the machinery. As most of these ships were sunk by violent battle action, the condition of the tanks holding the remaining bunker oil can only be surmised. As can be seen from figure 4.5 deterioration of the steel containing the bunker oil and its release into the sea is inevitable.

#### *4.15.1 Conclusions*

1. There is no adequate pollution prevention or response program in the Solomon Islands
2. This is non compliant with the International Maritime Organization Convention MARPOL
3. Those vessel owners transporting fuel have no financial obligation to participate in containment of spills.
4. Significant risk of petrol spill and consequent fire is evident in the port area of Honiara

5. There is little evidence of risk of crude oil spills from passing international shipping
6. An unknown amount of bunker oil remains in the hulls of ships in Iron Bottom Sound that were sunk during the war
7. Solomon Islands support one of most pristine environments in the world.

#### 4.15.2 *Recommendations*

1. *Review existing maritime environmental legislation and recommend improvement.*
2. *Establish a Protection of the Seas Levy based on experiences of other small maritime nations and with regard to the volume and types of petroleum products and other dangerous cargoes being carried in Solomon Island Waters.*
3. *Review requirements and purchase necessary oil spill response equipment.*
4. *Establish and regularly test an oil spill response plan.*
5. *Outsource the maintenance and deployment of oil spill response equipment.*
6. *Initiate participation in IMO activities on this subject including participation in the Oil Pollution Contingency Fund provisions of the IMO convention*
7. *Establish technical cooperation initiatives with other neighbor maritime nations.*
8. *In cooperation with the National Disaster Response Organization and the Search and Rescue Response Centre, establish and test protocols for mutual assistance and support.*

#### 4.16 *Component 5 – Hydrography*

The condition of marine charting in the Solomon Islands is deplorable. The most basic procedures necessary for safe navigation are not existent or ignored. Hydrography has been relegated to a minor section of the Lands Department, certainly a guarantee of low priority and funding

It is recognized that Hydrography is a complicated, costly and highly technical service, but with sound management, adequate recapitalization and assistance from partners such as the Australian Hydrographic Office, the International Hydrographic Office, the service levels to shipping could be brought to an adequate level.

This would entail the revision of existing charts as necessary, and as in Papua New Guinea the recompilation of charts to create ENC (electronic navigation charts). Although an ambitious goal, there are not that many charts for the Solomon Islands and this project would then ensure that Solomon Islands would be able to provide world class charting for inbound/outbound and transiting foreign shipping.

The consultant, while engaged in another matter with the Hydrographer of the Royal Australian Navy enquired as to the possible future interest and assistance in hydrography that might be available to small South Pacific countries. The hydrographer explained his priorities, those being to complete the Papua New Guinea Chart Project and then creating more ENC charts for Australian waters but he indicated that he was part of a South Pacific Committee for the International Hydrographic Association he could pursue and investigate processes for upgrading marine charts in the South Pacific. He also indicated that The RAN had provided some limited technical hydrographic assistance to the Solomon Islands in the past and that if requests were made through appropriate channels, he might be able to consider some technical support and advice in the short term.

#### 4.16.1 Conclusions

1. Small countries such as the Solomon Islands just do not and will not have the capacity to maintain a completely fitted out Hydrographic Service.
2. The role of the United Kingdom Hydrographic Office and the New Zealand Hydrographic Office have not provided support necessary to the Solomon Islands for the proper maintenance of the country's charts
3. The legally very important process of Notices to Mariners, has collapsed
4. Technical assistance and support may be available through specialist offices in other countries
5. The necessary upgrading, resurvey and recompilation to Electronic Navigation Charts of the existing folio will be an expensive undertaking.

#### 4.16.2 *Recommendations*

1. *Hydrography should be returned as a component of the proposed new Solomon Islands Maritime Safety Authority.*
2. *The Royal Australian Navy Hydrographic Office should be approached with a view to developing and Memorandum of Understanding similar to that in place between Australia and Papua New Guinea.*
3. *As current charts are maintained and produced at the United Kingdom Hydrographic Office, negotiations as to the new division of responsibilities will be required.*
4. *The International Hydrographic Office should be contacted with a view to providing technical assistance.*
5. *As part of the recapitalization of the government marine infrastructure, the Hydrography section of the proposed new Solomon Islands Maritime Safety Authority, a project for limited resurvey and recompilation of Solomon Islands charts should be undertaken. This project should be carried out with the assistance of the RAN and using private contractors.*
6. *Of important use to mariners in Solomon Islands waters is the United Kingdom Hydrographic Office Sailing Directions also colloquially known as the "pilot". This book contains much useful information such as recommended routings, photos of harbours and channels, details of port facilities and services, cyclone tracking information and marine hazards. It is intended to be used with up to date charts and is a standard tool worldwide for mariners. The section for the Solomon Islands is seriously out of date and it is recommended that in the recapitalization project there should be an initiative to update this document.*
7. *A "Notice to Mariners" process should be reestablished in the Hydrographic section of the proposed new Solomon Islands Maritime Safety Authority.*
8. *Further hydrographic field work should be outsourced.*

#### 4.17 *Component 6 – Community Engagement*

The Community Engagement Program has a goal to reduce the level of vandalism of aids to navigation and create an attitude of self-interested "ownership" including some level of responsibility for security and maintenance -

on the part of the local communities likely to benefit from functioning aids to navigation.

#### 4.17.1 *Recommendations*

1. *Establish a Community Engagement Program with proper funding and a clear mandate to support the other operational programs at a face to face level with Solomon Islanders*
2. *Establish preliminary contact with provinces, local communities and landowners on behalf of the SIMSA and explain the importance of aids to navigation.*
3. *Establish Provincial and Local Lighthouse Committees and set up programs that will allow for evolution into provincial and local marine safety committees.*
4. *Arrange lease and maintenance agreements with local communities and landowners.*
5. *Assist in the settlement of land compensation issues.*
6. *Promote solutions to other community/SIMSA issues such as boating safety and law enforcement.*
7. *Develop public information campaigns as required by SIMSA.*

#### 4.18 *Component 7 – Marine Training*

At least two major reports and several smaller reviews have addressed the issue of Maritime Training in the Solomon Islands. The conclusions all seem to be to increase direct funding to the school. One report suggested a major expansion of the facility. There can be no doubt that even delivering its present level of service, the school is under funded and many of the staff do not possess qualifications sufficient to deliver STCW 95 level training but their seems to have been little examination of the specific requirements or mandate of the school. A missing part of the reviews has been a needs analysis.

Until the mandate of the school is clearly identified including a proper business plan, it is impossible to rationally comment on the future of the institution.

#### 4.18.1 Conclusions

1. The mandate and objectives of the Solomon Islands Maritime Training School are not consistent with the funding levels provided.
2. The quantity and quality of the service provided are now under international scrutiny by the International Maritime Organization and the SPC.
3. Standards for the quality of marine training are now in place in spite of the fact that the country has not acceded to the STCW 95 IMO Convention on training standards for seafarers.
4. It is reported that the school is not training mariners at the STCW 96 level one or level two. This means no mariners are being trained for service in foreign going ships. There seems to be no one in the country qualified to examine at this level.
5. It is understood that the level three, four and five training available is below STCW 95 standards.
6. Training provided for the three components of the Marine Emergency Duties requirements appears to be maintained to meet international standards.
7. Other courses are being delivered for special requirements such as GMDSS, the new global marine distress communications requirements, for specialist groups such as marine police and other courses.
8. The school is operated well below capacity.

#### 4.18.2 Recommendations

1. *A needs analysis should be conducted regarding maritime training in Solomon Islands.*
2. *Present and future training requirements for the entire maritime sector of the Solomon Islands should be reviewed.*
3. *The relationship with IMO and the SPC should be reviewed.*
4. *Methods of funding should be analyzed. These could include but not be limited to the following options.*

- *Fund the school completely from government sources*
  - *Fund the school from SIMSA*
  - *Fund the school from a new levy on shipping*
  - *Fund the school from student fees*
  - *Transfer responsibility to government higher education department*
  - *Close the school.*
5. *The school should give up on the idea of refurbishing the vessel beached on its property and instruct the owner to remove it as "wreck"*
6. *The Solomon Islands Maritime School should form a close relationship with the Solomon Islands Shipping Association with a view to being better able to understand the long term training and certification requirements of the industry.*
7. *The Solomon Islands Maritime School should engage in a program to expand the types of marine training delivered in order to make better use of the facilities available. Some suggestions are:*
- *Train mariners from other neighbouring countries where specialized training might not be available.*
  - *Offer to serve as the venue for SPC, IMO, Australian and New Zealand delivered specialized training such as that required for Search and Rescue.*
  - *Offer short courses related to marine matters to SIMSA staff, RAMSI, other government employees and the shipping industry*
  - *Participate in the development of small vessel construction and operation regulations for Solomon Islands and then develop short courses related to these subjects.*
  - *Other suggested courses and training.*
  - *Ensure any optional training is offered at least at cost.*
  - *Encourage a higher level for initiative of management and staff.*