

# Addressing Shipping Related Marine Pollution in the Pacific Islands Region

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### 1. Background

“The Pacific islands maintain resource access rights and management responsibilities over 30 million square kilometres of ocean - equivalent to the combined land areas of Canada, China and the USA. The total population of the Pacific islands is only 6.7 million people, and only 2.6 million if the largely inland population of Papua New Guinea is excluded. There are at least 11 square kilometres of ocean for each and every Pacific Islander. Jurisdictionally, the sea is nearly 200 times more significant to the average Pacific islander than it is to the average global citizen” (Adams et al 1995)

This quote to me encapsulates the paramount importance of the oceans and its resources to Pacific island countries and territories (PICTs). For many PICTs the ocean is their only significant natural resource and the good governance and sustainable management of their ocean resources is the key to their economic and social well-being.



Figure 1: The Pacific Islands region

Ever since the first settlement of our islands our cultures and ways of life have been intertwined with the oceans. Our forefathers were master mariners - the first people to navigate the open oceans while the rest of the world were still clinging to their coastal waters. The ability of these first pacific mariners to find, settle and put in place regular trade routes between minute islands within our immense ocean realm must rank as one of the finest achievements of humankind. It is even more so with the fact that the only navigational aids that they had to achieve this was their intimate knowledge of the stars, currents and wind. Our way of life then was in harmony with the ocean and our natural environment.

Today this intertwining of our way of life with the ocean still exists. However with the advent of increasing and changing patterns in population and a development oriented economy with increased commercial activities the impacts of our activities on the ocean are more significant. On land all our main cities and towns are on the coasts and most of the commercial activities (primary industries and industrial) is primarily on the coastal fringe. At sea shipping and fishing are the primary activities. The ocean plays a role in all these activities; we need to ensure that we keep our oceans healthy so that it is able to continue supporting these activities.

SPREP and the International Maritime Organization (IMO) formulated and approved a joint programme in 1998 to address shipping related marine pollution. The Pacific Ocean Pollution Prevention Programme (PACPOL) has been implemented since 1999. The main funding agencies are the Canada South Pacific Ocean Development Programme, IMO and the Commonwealth Secretariat.

## **2. The Shipping and Fishing Sector**

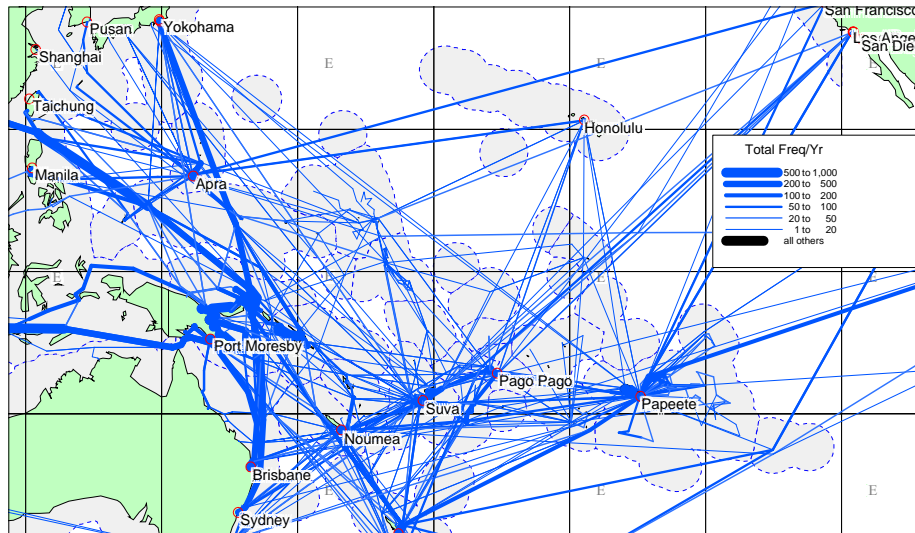
Shipping along with fishing, are the most intensive human use of the world's seas, being active across all maritime zones and jurisdictional boundaries. Any activity relating to the governance of the seas must therefore take account of shipping and fishing as the major human uses of the ocean realm (Raaymakers, 2004).

Today shipping is truly global, multi-national, and gargantuan. Shipping carries more than 90% of world trade and as such underpins the continued economic development of global human society, and is a vital force for the delivery of globalisation of the world economy. Currently, there are approximately 85,000 commercial ships registered on the books of flag States (Lloyd's 2000), transporting around 5,400 million tonnes of cargo across the oceans each year (Fearnleys 2002). The modern global shipping fleet comprises a bewildering array of ship types and sizes, from super tankers to car ferries to bulk carriers to aircraft carriers, container ships and cruise liners, not to mention all types of fishing vessels. Equally bewildering, is the diversity of cargoes carried. Try to identify one object or event around you that is not shipping-dependant.

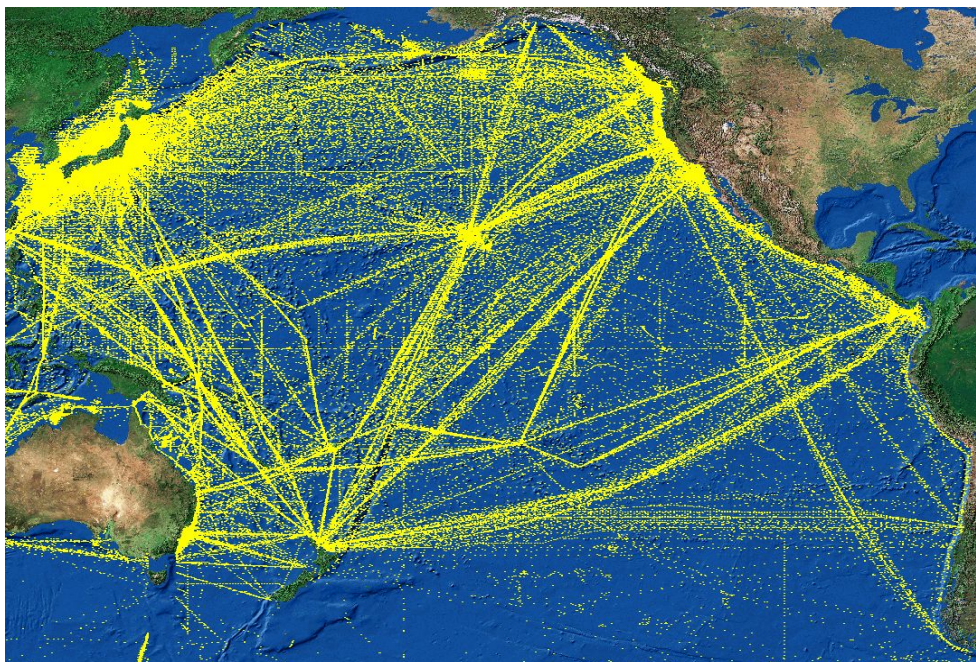
In the pacific islands region shipping can be divided into three main types:

- ❑ Domestic shipping – shipping that takes place exclusively within a single states' Economic Exclusive Zone (EEZ)
- ❑ International shipping – shipping that occurs from one state's port to a second state's port.
- ❑ Transit shipping – shipping that passes through the region without calling into any PICT's port.

The vessels involved in shipping generally a set route that is managed along internationally mandated protocols.



**Figure 2: Total Shipping by Frequency**

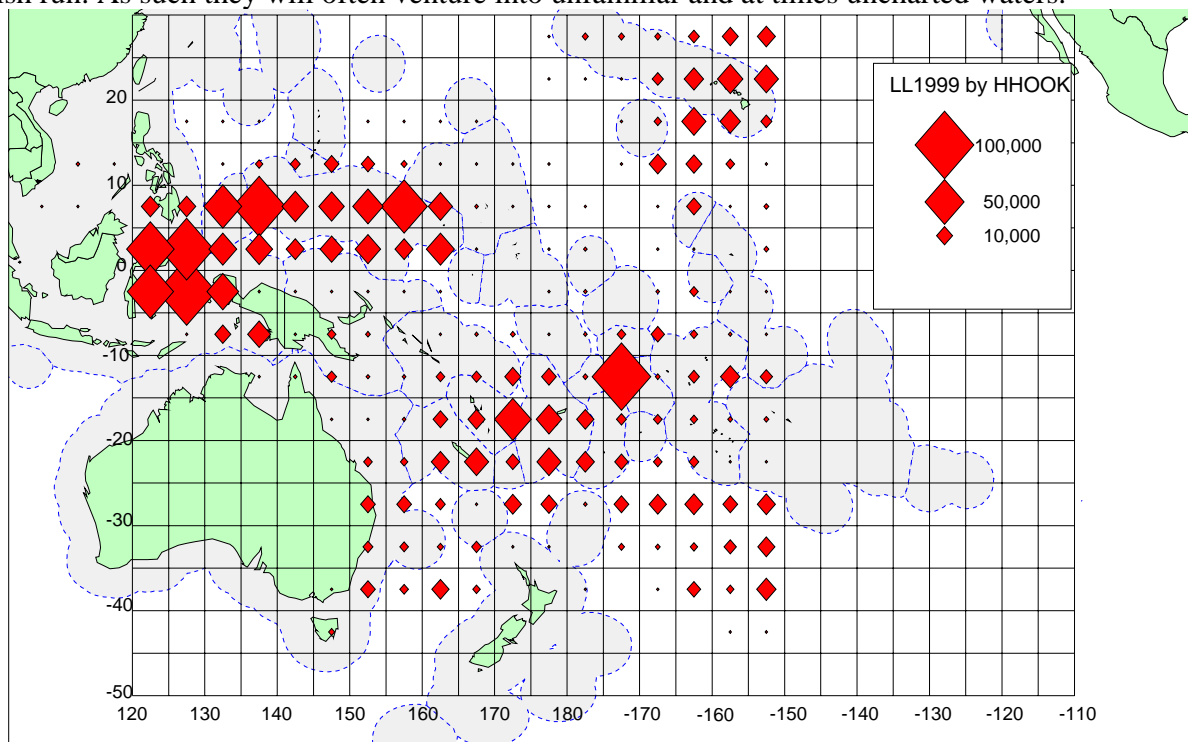


**Figure 3: Transit Shipping Through the Region Primarily Between West Coast USA and Asia.**

Within these three types of shipping we can categorise vessels into the following

- ❑ Merchant – Containers vessels and tankers
- ❑ Passenger – Ferries and cruise vessels
- ❑ Military – Naval and coast guard
- ❑ Yachts and Pleasure Craft
- ❑ Fishing vessels – domestic and distant water fleet

Fishing vessels are different in that they follow no set route, as they will go wherever the fish run. As such they will often venture into unfamiliar and at times uncharted waters.



**Figure 4: Distribution of Longline Fleet by Fishing Effort 1999.**

In addition to vessels the shipping and fishing sector have land-based activities such as ports, shipbuilding and repair facilities and oil storage and bunkering facilities. All these shipping related activities have the potential to impact on the marine environment. Impacts can be classed into two types:

- ❑ One off planned or accidental impacts – such as port construction and marine spills
- ❑ Operational impacts – impacts from normal operations such as ships waste management

### 3. Regulating Shipping

By its nature shipping is an international industry that needs to be regulated through internationally agreed legal instruments. The international regulatory regime for shipping falls under two main sets of United Nations (UN) instruments, the United Nations Convention on the Law of the Sea (UNCLOS) and the Conventions and other instruments of the International Maritime Organization (IMO), the specialized agency of the UN responsible for global maritime safety and environmental management of shipping.

#### 3.1 The UNCLOS Regime in Relation to Shipping

Although IMO and many of its Conventions pre-date UNCLOS by several decades, the development of UNCLOS in the 1970's, its adoption in 1982 and its entry into force in 1994 created an overarching 'constitution for the oceans', establishing a new global philosophy and general principles of oceans management, effectively delineating the rights and obligations of States, and providing a comprehensive, universal, 'umbrella' framework for international oceans governance, including for maritime transport.

Of a total of 320 Articles in 17 Parts of the main body of UNCLOS, no less than 69 Articles in seven different Parts relate explicitly and directly to shipping. Subjects covered include Nationality of ships, immunity of warships and ships on government duty, penal jurisdiction, duty to render assistance, prohibition on the transport of slaves, piracy and rights of boarding and hot pursuit.

##### *Freedom of navigation and right of innocent passage*

An extremely important provision under UNCLOS with respect to the control of shipping is the principle of 'freedom of navigation'. This is provided for in, *inter alia* Articles 87 (Freedom of the high seas) and 90 (Right of navigation) of the Convention, which state as follows:

- Article 87: '1. The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law. It comprises, *inter alia*, for both coastal and land-locked States:  
(a) freedom of navigation . . .' etc
- Article 90: 'Every State, whether coastal or land-locked, has the right to sail ships flying its flag on the high seas.'

Of similar intent, but in relation to areas under national jurisdiction (e.g. Archipelagic Waters, Territorial Sea and EEZ), is the principle of 'right of innocent passage'. This principle is provided for in, *inter alia* Articles 17, 18, 19, 52 and 58 of UNCLOS, and allows ships of all States to traverse the sea under the jurisdiction of another State, subject to certain conditions (e.g. not threatening the security of the coastal State, not undertaking activities other than passage and not in breach of other requirements of the Convention and other relevant legal regimes).

### ***Flag State Control***

Another important principle under UNCLOS (and the various IMO Conventions) is the principle of 'flag State jurisdiction'. This principle is linked to, *inter alia* Articles 27, 28, 91, 92, 94, 97, 217, 218, 220, 226, 227, 231 of UNCLOS. The general principle is that the State whose flag a ship is entitled to fly and in which the ship is registered, has legal jurisdiction over the ship, in particular on the High Seas, but also to a large degree within waters under the jurisdiction of a coastal State. Flag State control grants both rights and responsibilities to the flag State, including an obligation to ensure that its ships comply with all relevant maritime safety and environment protection requirements, including those established by the 'competent international organization' (e.g. IMO).

The practice of flag State control has sometimes been criticised as limiting the effectiveness of the international maritime safety and environment protection regime within the jurisdiction of coastal States, as their ability to take direct action to enforce compliance by foreign ships with international maritime laws is subject to certain constraints and procedures. Under many scenarios, incidents (including illegal disposal of garbage and marine debris) are referred by the coastal (or port) State to the flag State for action, which does not always achieve an effective result. Such criticisms are being addressed through ongoing development of the various IMO instruments, including an increasingly effective international Port State Control regime.

Despite the concerns of some coastal and port States, flag State control can be seen as a positive concept in relation to management of areas beyond national jurisdiction (the high seas), where shipping related marine pollution is a potential significant problem. Because the high seas are defined as the 'common heritage of mankind' over which no State may claim or exercise sovereignty or sovereign rights, it comprises a 'jurisdiction-less' area vulnerable to the 'tragedy of the commons', where different users race to benefit from the area's resources before others can, un-constrained by any regulatory or enforcing body. In the case of shipping, however, ships are subject to the full jurisdictional powers of their flag State, even when on the high seas. So long as flag States take their responsibilities and obligations seriously, and implement the necessary compliance surveillance, monitoring and enforcement mechanisms, flag State control can provide a useful legal mechanism for regulating shipping activities, including disposal of garbage and marine debris. It extends jurisdiction over ships (including fishing vessels) wherever they are, thereby helping to overcome the 'tragedy of the commons'.

In order to achieve this however, it is necessary to ensure that the 'state shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag', as set out at the start of Article 94 of UNCLOS. Any development of more effective mechanisms to address shipping related marine pollution should build on and enhance the responsibilities and obligations of flag States to ensure compliance of their ships with all applicable international legal instruments.

### ***Part XII of UNCLOS***

The other major element of UNCLOS with direct implications for the management of shipping and fishing vessels, including disposal of garbage and marine debris, is Part XII: Protection and Preservation of the Marine Environment. In Article 94 under this Part, States shall take measures to prevent, reduce and control pollution of the marine environment 'from any source' (implicitly including shipping and fishing vessels), and to ensure that activities under their jurisdiction (implicitly including ships and fishing vessels flying their flag), do not cause pollution in areas not under their jurisdiction (implicitly including the High Seas). There is also explicit reference in Article 94 to measures to prevent, reduce and control 'pollution from vessels', in particular measures for:

- Preventing accidents and dealing with emergencies,
- Ensuring the safety of operations at sea,
- Preventing intentional and unintentional discharges, and
- Regulating the design, construction, equipment, operation and manning of vessels,

Article 211 under Part XII deals specifically with 'Pollution from vessels' and *inter alia*, requires States to develop the necessary international rules and standards to address such pollution, through the 'competent international organization' (e.g. IMO) or general diplomatic conference.

Part XII also contains a number of articles relating to enforcement, including Article 217 'Enforcement by flag States' as outlined above.

UNCLOS thereby contains many elements of direct importance to shipping and fishing vessels and provides an overarching framework for the various IMO Conventions that deal specifically with each of the various shipping related issues (see 4.2 below). It also contains many elements with direct implications for the regulation and control of marine pollution from ships and fishing vessels.

### **3.2 The IMO Regime**

After the Second World War it became apparent to the international shipping community and the governments of maritime nations, that because shipping is a global, trans-boundary industry that must cross-jurisdictional boundaries in order to conduct trade, it is necessary to have a standardised, harmonized, international legal system in order to regulate shipping activities effectively, especially in relation to the safety of ships and their crews. This led to the formation of the Inter-Governmental Maritime Consultative Organization (IMCO) in 1948. In 1982 IMCO became the International Maritime Organization (IMO), established by Convention as a specialised agency of the United Nations and an inter-governmental organization in its own right.

Currently comprising 162 member States and three associate members. *PIC members of the IMO are Fiji, Kiribati, Marshall Islands, Nauru, Papua New Guinea, Samoa, Solomon Islands and Vanuatu.* IMO provides an international forum through which member-countries negotiate, develop, agree, adopt, ratify, enter into force and administer international Conventions and other legal instruments on maritime safety and marine pollution. This is achieved through the work of sector-specific committees, comprising member countries and observer organisations. These include the Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC), and various working groups established under these committees. The Conventions adopted by IMO are implemented at the national level through national administrations and legislation.

Today, IMO's role may be summarised by the catch phrase 'Safe, Secure and Efficient Shipping on Clean Oceans'. In addition to its Convention roles, the IMO Secretariat also provides technical assistance and cooperation to developing countries to assist in the implementation of IMO Conventions. More information about IMO can be found at [www.imo.org](http://www.imo.org).

Below is a summary of IMO legal instruments in the area of marine environment protection.

#### ***International Convention for the Prevention of Pollution from Ships 1973/78 (MARPOL 73/78)***

The primary international legal instrument for the regulation of discharges and emissions of pollutants from ships, including garbage and marine debris, is the *International Convention for the Prevention of Pollution from Ships 1973/78 (MARPOL 73/78)*. MARPOL was adopted in recognition of the need to control and minimise the deliberate, negligent or accidental release of oil and other harmful substances from ships into the marine environment. An amendment adopted as the 1978 protocol allowed states to become party to the convention by first implementing Annex I (oil). Because the 1973 convention had yet to enter into force, the 1978 protocol absorbed the parent convention and the combined instrument is referred to as MARPOL 73/78 (IMO, 1998b). Annex II concerning chemicals was not to become binding until 3 years after the 1978 protocol entered into force. MARPOL 73/78 finally entered into force in 1983 with respect to Annexes I and II.

This Convention provides an extremely comprehensive environmental code for shipping and is organised into six Annexes dealing with different pollution types. Annex I deals with oil, Annex II with noxious liquid substances, Annex III with harmful packaged substances (into force 1992), Annex IV with sewage (into force 2003), Annex V with garbage (into force 1998) and Annex VI with air emissions from ships (not in force).

One of the key obligations of MARPOL 73/78 is the provision of "adequate" ships waste reception facilities.



***International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (Intervention Convention), 1969 and Protocol relating to Marine Pollution other than Oil, 1973***

Under the convention contracting parties may undertake measures on the high seas as are necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from marine pollution or the threat thereof following a maritime casualty (Boer et al., 1998). Intervention can occur where there has been a collision, a stranding or any other navigation incident or event that results in material damage or imminent threat thereof to a ship or its cargo. Except in cases of extreme urgency a coastal state is required to consult with other states affected, particularly the flag state of the vessel; notify any persons or company which has an interest in the proposed measures to be taken; consult with an independent expert before undertaking any action, and for which purpose IMO is required to maintain a list of international experts who may be consulted; and ensure that any risk to human life is avoided and assistance provided to persons in distress. Any action taken must be proportionate to the actual or threatened damage and is to stop as soon as the objective has been achieved. Where action taken is beyond that necessary, the state responsible is to pay compensation. The convention entered into force in 1975.

In 1973 a protocol to the convention was adopted that provided for intervention on the high seas in instances of pollution by substances other than oil. The protocol entered into force in 1983.

***International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), 1990 and its HNS Protocol 2000.***

The convention provides a global framework for international co-operation in addressing major incidents or threats of marine pollution. It entered into force in 1995. Parties are required to establish measures to deal with pollution incidents, either nationally or in co-operation with other countries. In addition, ships are to carry a shipboard oil pollution emergency plan. Operators of offshore facilities under the jurisdiction of parties are also required to have prepared such plans or similar arrangements that are co-ordinated with national systems for oil pollution control. Stockpiles of oil spill control equipment, the preparation of detailed plans for dealing with pollution incidents and the holding of response exercises are also called for by the convention. Parties are required to render assistance to others in the event of a pollution emergency and provision is made for reimbursement for assistance received. The convention entered into force in 1995.

The Hazardous and Noxious Substances Protocol (HNS) extends the provisions of the convention to facilitate similar arrangements for HNS spills. This protocol is currently not in force.

***International Convention on Civil Liability for Oil Pollution Damage (CLC), 1992***

Compensation for pollution damage caused by spills from oil tankers is covered by the 1969 International Convention on Civil Liability for Oil Pollution Damage and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage. In 1992 the regime was amended through the adoption of two protocols to the above conventions. The amended conventions are referred to as the 1992 Civil Liability Convention and the 1992 Fund Convention; they

entered into force in May 1996 (International Oil Pollution Compensation Fund, 1999). The remarks below concentrate on the amended conventions.

The 1992 Civil Liability Convention focuses on the liability of ship owners for oil pollution damage (op. cit.). The principle of strict liability for ship owners is invoked and a system of compulsory liability insurance set out. The instrument covers pollution damage that occurs in the territorial sea or exclusive economic zone (EEZ) or equivalent area of a state party to the convention. "Pollution damage" is defined as loss or damage caused by contamination. Compensation for environmental damage (other than economic loss from impairment of the environment) is limited to costs actually incurred or to be incurred for reasonable measures to reinstate the contaminated environment. Expenses associated with initiating preventive measures are recoverable even where no oil spill occurs, provided that there is a serious and imminent threat of pollution damage.

***International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention), 1992***

The 1992 Fund Convention complements the 1992 Civil Liability Convention. In particular, the Fund Convention establishes a regime for compensating victims when compensation under the 1992 Civil Liability Convention is inadequate (International Oil Pollution Compensation Fund, 1999). The maximum amount payable under the 1992 Fund Convention for an incident is currently US\$187 million, including the sum paid by the ship owner (or his insurer) under the 1992 Civil Liability Convention. There is a simplified procedure for increasing the amount payable by the fund. The International Oil Pollution Compensation Fund 1992 was established under the 1992 Fund Convention to administer the regime. A state that is party to the latter is a member of the 1992 International Oil Pollution Compensation Fund. Contributions to the fund are through a levy on any person who has received in any calendar year more than 150,000 tonnes of crude oil and heavy fuel oil.

***International Convention on Liability and Compensation for Damage in Connection with the Carriage of HNS by Sea, 1996***

Provides a liability and compensation regime of up to 250 million Special drawing Rights (SDR) to the victims of HNS spills. Not yet in force.

***International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001***

Civil Liability regime for victims of oil pollution damage from spills when carried as fuel in ships' bunkers. Not yet in force.

### ***The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Convention) and the 1996 Protocol***

The London Convention was the first of a global nature to address ocean dumping by ships and aircraft, with the objective of controlling rather than prohibiting outright all sea dumping. A tiered permit system is used to identify substances that may be considered for dumping. Annex I of the convention lists substances for which dumping is prohibited. Wastes listed in Annex II of the convention may only be dumped following the granting of a special permit from the relevant member state. Waste not listed in either annexes I or II requires a prior general permit for dumping. Special or general permits are to be issued only after consideration of factors such as the characteristics and composition of the matter, the dumping site and method of disposal, the availability of practical, alternative land-based methods of disposal and possible effects on marine life and future uses of the sea.

A protocol to the London Convention was adopted in 1996. It is not yet in force. Several innovative features are included in the protocol. First, a requirement for parties to apply the precautionary approach to environmental protection from dumping and incineration at sea of wastes or other matter (Article 3.1). This has shifted the burden of proof concerning environmental harm even where there is no conclusive evidence to prove a causal relation between inputs and their effects (Dyoulgerov, 1998). Second, promotion of the polluter pays principle (Article 3.2). Essentially, those authorised to engage in dumping or incineration at sea should bear the cost of pollution prevention and control requirements. Third, adoption of a reverse listing of wastes approach. The dumping and incineration of any waste and other matter is prohibited unless they are listed in Annex 1 of the Protocol (wastes which may be dumped) and the requisite permits are obtained. In this context, there is a requirement that permits issued for the dumping of Annex 1 substances comply with Annex 2 (Waste Assessment Annex) of the protocol. Annex 2 calls for the preparation of waste prevention audits to identify pollution sources, highlight waste prevention opportunities and assess (or demonstrate the exhaustion of) alternative waste management options. The adoption of the 1996 protocol signals a major shift in emphasis from controlling pollution from sea dumping to heavily restricting such activities.

### **3.3 Regional Instruments**

There are two regional instruments that relate to marine pollution at sea. They are the Emergency Pollution and Dumping Protocols to the SPREP Convention. In essence the Pollution Emergencies Protocol is the regional equivalent of the OPRC while the Dumping Protocol is the equivalent of the London Convention. The relationships between global conventions and their regional equivalents are discussed in detail in a separate discussion paper.

The convention, which entered into force in 1990, applies within the EEZ's established by states in the region and the high seas areas that are enclosed from all sides by these zones (the convention area). It does not cover internal waters or archipelagic waters. Parties agree to either individually or collectively take all appropriate measures consistent with international law and the provisions of the convention to:

- Prevent, reduce and control pollution of the convention area from any source;
- Ensure sound environmental management and development of natural resources; and
- Harmonise their policies at the regional level.

Parties are encouraged to conclude bilateral or multilateral agreements for the protection, development and management of the marine and coastal environment of the convention area. These agreements might be at the regional or sub-regional level.

Specific articles in the convention require parties to take all appropriate measures to prevent, reduce and control pollution in the convention area from:

- Vessels;
- Land-based sources;
- Seabed activities;
- Discharges into the atmosphere;
- Waste disposal (including a prohibition on the dumping of radioactive wastes or other radioactive matter in the convention area, its seabed and subsoil, and the continental shelf of any party that extends beyond the convention area);
- The storage and disposal of toxic and hazardous wastes (with a specific prohibition on the storage of radioactive wastes and other radioactive matter in the convention area); and
- Testing of nuclear devices (op. cit.).

Article 15 of the convention requires parties to co-operate in taking all necessary measures to deal with pollution emergencies in the convention area and to prevent, reduce and control pollution or the threat resulting there from. Parties are to develop and promote individual and joint contingency plans for responding to potential or actual pollution incidents. When a party becomes aware of an incident in which the convention area is in imminent danger of being polluted or has been polluted, immediate notification of other countries and territories considered likely to be affected by pollution is required. Any measures taken by the party to reduce or control pollution shall be communicated as soon as feasible to these other countries and territories as well as to SPREP.

Parties also undertake to co-operate in the provision to other parties of technical and other assistance in fields relating to pollution and sound environmental management. Particular emphasis is given to the special needs of the island developing countries and territories. Co-operation among the parties in the formulation and adoption of rules and procedures concerning liability and compensation for damage from pollution of the convention area is also specified.

Two protocols support the convention. Under Article 27(1) of the convention, no state may become a party to the convention unless it becomes at the same time a party to one or more protocols. No state may become a party to a protocol unless it is, or becomes concurrently, a party to the convention.

The Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region, 1986 is the regional equivalent of OPRC. It requires parties to co-operate in taking all necessary measures within their respective capabilities to protect the region from the threat and effects of pollution incidents. Means of preventing and combating pollution incidents are described as including legislation, contingency plans, response capability and the designation of a national authority. Parties are to establish procedures to ensure that reports on any pollution incident are transmitted as quickly as possible to any other concerned party and to the flag state of any vessel involved. The protocol entered into force in 1990.

The Protocol to SPREP for the Prevention of Pollution of the South Pacific Region by Dumping, 1986 is the regional equivalent of the London Convention. It requires parties to take all appropriate measures to prevent, reduce and control pollution by dumping (Herriman et al., 1997). Parties have the right to authorise dumping within their territorial sea, EEZ or continental shelf but national laws adopted by a party are to be no less effective in controlling dumping than the relevant internationally recognised rules and procedures. The protocol uses a permit system similar to that of the London Convention. It entered into force in 1990.

### **3.4 National Enabling Legislation**

The enforcement of international legal instruments depends on the enactment and enforcement of national enabling legislation. In 1999 no PIC had marine pollution prevention legislation. One of the first activities undertaken by PACPOL was the drafting of a Regional Model Marine Pollution Prevention Act that provided for all the IMO Conventions, regional instruments as well as specific issues that had not been covered through international legal instruments. This model was drafted in recognition of the lack of legal drafting expertise in PICs and the desirability of having a common set of legal instruments throughout the region. PICs are assisted in adapting the model to suit their national administrations and situation. To date Cook Islands and Tonga have enacted their Marine Pollution Prevention Act with Fiji, Samoa and Vanuatu well into the drafting process.

We have commenced drafting subsidiary model regulations. The first two cover “Establishment of a Marine Pollution Levy” and “Port Reception Facilities.”

## **4. Focal Activity Areas Addressed Through PACPOL**

In addition to the drafting of model legislation PACPOL carries out activities in four focal activity areas. The approach taken by PACPOL is that we will provide the tools, technical advice and assistance that members need to address shipping related marine pollution while member states are responsible for implementation. The PACPOL Strategy and Workplan was formulated through a 1-year consultation process where all members were consulted during country missions then finalised in a regional workshop prior to its being tabled and endorsed at the 1998 SPREP Meeting. We are comfortable that the programme addresses shipping related marine pollution issues that have been

identified and prioritised by our members. Progress on implementation and the PACPOL Strategy and Workplan is reviewed during the bi-annual regional PACPOL Workshop to ensure that it is kept current with member priorities.

#### 4.1 Marine Spills

These activities seek to assist members in meeting their obligations under the OPRC and Intervention Conventions and the HNS and SPREP Pollution Emergencies Protocol. A regional risk marine spill risk assessment was carried out. The first task was to characterise shipping within the region and to map navigation hazards. This has been done and is kept in a Geographic Information System. The risk assessment identified that the main risk was from groundings rather than collisions and also identified key areas where groundings were most likely to occur. It also assessed the level of risk at all major ports and identified the high-risk ports. Management measures were recommended on how to minimise these risks.

Marine Spills will occur even with the best preventative and management measures. It was essential to put in place an effective suite of marine spill contingency plans. Marine Spills are classified into 3 tiers;

- ❑ Tier 3 – major spills that are beyond the capability of one state to respond to or will impact on more than one state. Requires international co-operation.
- ❑ Tier 2 – spills that are within the capability of one state to address and impacting only on that state
- ❑ Tier 1 – minor spills that are within the capability of one facility to address

The development of plans and the capability to address these spills is the focus of this activity. The “Pacific Islands Regional Marine Spill Contingency Plan (PACPLAN)” was formulated and endorsed at the 2000 SPREP Meeting to address Tier 3 spills. It provides the framework and modalities through which international assistance is requested and provided in the case of a major spill. It essentially recognises the inability of PICTs to respond to Tier 3 spills and makes arrangements whereby primary and secondary respondent roles have been allocated to Australia, France, New Zealand and the USA for each PICT. PACPLAN has to date been activated twice.

**Table 1: Primary and Secondary Sources of Assistance - Divisions of Responsibility**

<b>Assistance Provider</b>	<b>Primary source of assistance for:</b>	<b>Secondary source of assistance for:</b>
Australia	Nauru, PNG, Solomon Islands, Tuvalu, Vanuatu, Kiribati	FSM, Fiji, Guam, New Caledonia, Northern Mariana, Palau, Tonga
France	French Polynesia, New Caledonia, Wallis & Futuna	Cook Islands, Marshall Islands, Niue, Vanuatu
New Zealand	Cook Islands, Fiji, Niue, Tokelau, Tonga	American Samoa, Nauru, PNG, Samoa, Solomon Islands, Wallis & Futuna
USA	American Samoa, FSM, Guam, Marshall Islands, Northern Mariana, Palau Samoa	French Polynesia, Kiribati, Tokelau, Tuvalu

At the Tier 2 level a model National Marine Spill Contingency Plan (NATPLAN) was formulated and provided. Most PICTs now have NATPLANS in place. In the FSM their governance structure necessitated the drafting of State Plans and to date these have been drafted for Kosrae and Yap States.

At the Tier 1 level the model legislation requires that any facility that stores fuel in bulk or undertakes fuel transfer be required to have a marine spill contingency plan. Oil Terminals already have these in place but need to be reviewed to ensure that they are consistent with the NATPLANS. The other facility types that need to have plans are ports and power stations. We are currently working to address port contingency plans with the Association of Pacific Ports (APP) and will collaborate in a similar exercise with the Pacific Power Association.

With the exception of Fiji, Niue and Papua New Guinea there are no significant stockpiles of marine spill equipment in PICs. All territories with the exception of Tokelau and Wallis and Futuna have their own stockpiles of equipment. We are currently formulating a Regional Marine Spill Equipment Strategy to recommend what is needed for each PICT and the associated financing, maintenance, replacement and training requirements.

Since 1998 PACPOL has hosted 4 Regional Workshops where marine pollution issues in particular marine spills have been discussed. National Workshops have also been hosted in a number of PICs and the focus for the next two years will be on national Workshops. The biggest difficulty with National Workshops is the absence in most countries of marine spill equipment making it impossible to have any practical exercises.

## **4.2 Ships Waste Management**

A review of ships waste management in the region was undertaken. It examined the obligations under MARPOL 73/78 and the status of compliance with these provisions. The review found that no PIC was MARPOL compliant. It identified that it was “unethical” to require smaller PICs who have severe physical limitations when it comes to acceptable waste management to provide for ships waste from international shipping. A regional arrangement whereby regional waste reception centres were designated at the ports of Apra (Guam), Papeete, Noumea, Lautoka (Fiji), Suva and Port Moresby was recommended. These are the only ports within the region to be obligated to accept international shipping waste. All countries continue to be responsible for waste from domestic shipping. These arrangements were tabled and accepted at the 2002 SPREP Meeting and subsequently at the 49<sup>th</sup> Session of IMO’s Marine Environment Protection Committee (MEPC) in July 2003. There are no provisions under MARPOL for such regional arrangements so PACPOL was requested by MEPC to draft a resolution with the necessary amendments for tabling at the April 2004 session of MEPC.

The illegal dumping of waste at sea leads to the issue of marine debris. The issue is one that is concern because of hazard to navigation (incident in South Korea where a ferry capsized due to its propeller shaft being fouled by derelict fishing gear causing the loss of over 200 lives), entanglement of marine mammals, “ghost fishing” (derelict fishing gear that continues to catch fish after it is lost or abandoned) and the potential of marine debris to be a vector for invasive marine species.

The particular concern in the region is that the fishing fleet operating in our waters are distant water fleets. As such we are reliant for much of the enforcement on the implementation by their respective flag states to implement their obligations. In 2002 there were 1,116 vessels on the Forum Fisheries Agency (FFA) register consisting of 959 fishing vessels and 116 “mother ships” or refrigerated fish carriers. Many of these vessels are old, a significant number end up being abandoned and most fall below the size limits to which MARPOL applies. Some vessels are registered in countries that are not party to MARPOL 73/78. Some fleets fish in EEZs but do not come into ports so port state control provisions do not apply. These fleets spend extended periods at sea or anchored within the lagoon without coming in to port – what happens to their waste? Is it stockpiled until they reach their home port?

#### **4.3 Port Operations**

There are two main types of ports in the pacific the large commercial ports that are run either by the private sector or port authorities and the smaller social service ports that are not run along commercial lines by the government. PACPOL and the Association of Pacific Ports (APP) entered in a partnership in September 2003 to implement the APP’s Environment Accord. Activities will include the formulation and implementation of Environmental Management Guidelines for Pacific Island Ports and model Port Marine Spill Contingency Plans. We are also implementing the recommendations on ships waste management that apply to ports.

#### **4.4 Invasive Marine Species**

The issue of invasive marine species from shipping related vectors in particular ballast water but also hull fouling is one of the key emerging issues for the IMO. A diplomatic conference to negotiate a Convention to address the issue is being held at IMO Headquarters in London in February 2004. The advent of bigger faster ships has increased the potential for the introduction of marine invasive species carried in ballast water. All marine life has a planktonic stage in its life cycle and therefore all have the potential to be transported in Ballast. Well documented cases such as the zebra mussel infestation in the great lakes of North America, jellyfish in Eastern European inland seas and the North Pacific Starfish in Australia have caused major ecological upheavals and multi-million dollar economic costs. There is also the potential risk to human life, health and safety through the introductions of toxic dyno-flagellates and infectious diseases.



Activities to date within the region have been limited to raising awareness through presentations during country missions. PACPOL will be formulating a Regional Strategy to address the issue in 2004-2005.

#### 4.5 World War II Wrecks

In September and December 2001 there were significant marine spill incidents at Ulithi Atoll, Yap, FSM. The spill was from an unforeseen source, the USS Mississinewa a sunken WWII US Navy tanker. This incident prompted the 2001 SPREP Meeting to instruct SPREP in collaboration with the South Pacific Applied Geo-Science Commission (SOPAC) to draw up a Regional Strategy to address WWII wrecks. This task was given to PACPOL to carry out.

The Regional Strategy was drafted and presented to the 2002 SPREP Meeting. The strategy was in two phases with the first phase being a more generic preliminary investigation to set up a database of wrecks, carry out a preliminary risk assessment and to agree on the intervention for each level of risk. The second stage is site-specific assessments based on risk priority identified in the first phase and the implementation of the agreed intervention. It was also recommended that the USS Mississinewa be the first wreck to undergo this process. The 2002 SPREP meeting endorsed the regional strategy and approved the implementation of the first phase.

In 2002 the US Navy carried out investigations including operational plans and an environmental impact assessment. A pump out of the USS Mississinewa was carried out in February 2003. A total of 2 million US gallons (approx. 9 million litres) of heavy fuel oil was pumped out and taken to Singapore for reprocessing.

As part of its implementation of the first phase of the regional strategy, SPREP put together a GIS database on WWII wrecks and also raised the profile of the issue through presentations at international forums and the media. This included featuring on 60 Minutes (Australia) and an article in the October Issue of National Geographic. The total number of wrecks in PICTs EEZ is 857. The 2003 SPREP Meeting decided that SPREP was to cease regional implementation of the Strategy as the second phase was to be implemented bi-laterally by the state that owned the wreck and the state on whose EEZ it had sunk. SPREP was asked to continue to give technical advice and assistance to members on request.

**Table 2: World War Wrecks by Exclusive Economic Zone.**

Country EEZ	Tankers and Oilers	Total No. of Wrecks
Australia	3	49
Fiji	-	3
FSM	16	150
Kiribati	-	6
Nauru	-	4
New Caledonia	-	10
New Zealand	-	2
Northern Mariana	1	64
Palau	9	77

<b>Country EEZ</b>	<b>Tankers and Oilers</b>	<b>Total No. of Wrecks</b>
PNG	3	279
RMI	1	49
Solomon Islands	2	158
Vanuatu	-	6
<b>Grand Total</b>	<b>35</b>	<b>857</b>

## **5. What is the Regional Ocean Policy Role in Addressing Shipping Related Marine Pollution and How do we Implement it?**

Frankly in its current format, in the area of shipping related marine pollution it has no role that is not already met by existing legal instruments. It appears almost as if the Regional Oceans Policy (ROP) was developed in isolation without considering the plethora of global and regional legal instruments and programmes that already address the same issues. The only specific reference it makes to any existing international legal instrument is to UNCLOS. Maybe the intent is to refocus attention by packaging the same convention obligations as a non-binding policy? How can a non-binding instrument rather than a binding instrument be more successful at facilitating action? Conventions have a Secretariat that look after its functions and implementation, how will the ROP be managed to ensure that its objectives are carried through?

In my opinion the key weakness of the ROP is that it has not undergone the necessary consultative process that an instrument of this nature and magnitude requires to be a success. Much of the consultation process has been limited to CROP and the intergovernmental bodies of CROP where the draft ROP has been submitted. It relies on the assumption that the governments have taken it upon themselves to discuss the ROP with their national stakeholders before they sat at inter-governmental session to discuss and ultimately endorse the ROP. How many governments can feel assured that this key national consultation process has occurred? How about the private sector and communities – the people who use the ocean have they been consulted?

The ROP itself recognises that it has not undergone the consultative process necessary for success. In Article 41 it leaves the detail to a Pacific Ocean Initiative. The Initiative includes a Pacific Islands Regional Oceans Summit (I presume the name changed to PIROF) where the details of how the ROP is to be implemented be discussed. PIROF is therefore the key to the ROP's success.

The ROP mandates two functions for PIROF. The first is as a forum for the exchange of information. The second is a planning function to review progress and formulate action plans. The first function PIROF will achieve. It will serve as a valuable forum for cross-sectoral exchange of information and ideas.

The second function will be difficult to achieve. PIROF makes the same assumption of the ROP that the necessary national and sectoral consultations have occurred. For the maritime area at least this is not the case. Granted we have our own Meetings,

Workshops and Conferences where the ROP has been discussed in passing but not in the structured process necessary for the drawing up of action plans as envisaged in the ROP. The top-down approach adopted is fine for a high level regional policy that outlines general principles and actions but when we come to the level of action plans that are to be used to implement actions there is no substitute for stakeholder consultation and engagement.

Given the lack of preparatory consultations and engagement of relevant stakeholders PIROF should not attempt to formulate any action plans. However we can use PIROF to chart a course for the formulation of these action plans. PIROF can be the key first step to give the necessary guidance on how the action plans should be formulated and what should be in them. The guidance that PIROF gives needs to include:

- Clearly define what we are trying to achieve
- Determine how best to go about the process. I believe we need to break the action plans up in to sectoral areas – maritime, fisheries, integrated coastal management etc
- Allocate responsibilities in these sectoral areas
- Identify and engage key stakeholders –for both the ROP and PIROF the level of industry, community and even national government involvement has been at best superficial.
- Determine guidelines for the sectoral consultation process
- Establish mechanisms for cross-sectoral consultation
- Set a timetable
- Set a time for the next PIROF where these sectoral action plans are to be presented and if not already done integrated with other sectoral action plans

PIROF also needs to give guidance on what is to be in the action plans. Any action plan should address the following elements.

- Policy and Legislation
- Enforcement, Compliance and Incentives
- Financing
- Stakeholder Engagement
- Institutional Strengthening
- Infrastructure – Facilities and Equipment
- Awareness, Education and Training
- Research and Monitoring
- Review of Implementation
- Continual Improvement

I strongly believe that if PIROF continues to take a top-down approach and attempts to put together a regional action plan without the necessary stakeholder consultations, engagement and commitment then the sustainable long-term implementation of actions necessary for success will not be achieved . However if PIROF recognises the shortcomings at this early stage then we can all work together to ensure that the ROP is

implemented with the stakeholder commitment to allow us to achieve our goal of maintaining “The Future Sustainable Use of Our Ocean and Resources.”

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