APEC TRANSPORTATION WORKING GROUP

EFFICIENCY IN THE FACILITATION OF INTERNATIONAL SEABORNE TRADE PROJECT

BEST PRACTICE MODEL REPORT

August 2002
TPT 03/2001T

PORT OF BRISBANE CORPORATION

SMEC

International Infrastructure Management Pty Ltd

This report for the *Efficiency in the Facilitation of International Seaborne Trade Project*, has been prepared by

SMEC INTERNATIONAL
220-226 Sharp Street
Cooma, NSW 2630
Australia
Phone: +612 6452 0222
Fax: +612 6452 0380

in association with:

PORT OF BRISBANE CORPORATION
Sandpiper Avenue
Fisherman Islands, Qld 4178
Australia
Phone: +617 3258 4888
Fax: +617 3258 4703

INTERNATIONAL INFRASTRUCTURE MANAGEMENT
Level 14, Central Plaza One
345 Queen Street
Brisbane, Qld 4000
Australia
Phone: +617 3221 1066
Fax: +617 3220 1211

For:

The APEC Secretariat
438 Alexandra Rd
14-00 Alexandra Point
Singapore 119958
Tel (65) 276 1880
Fax (65) 276 1775
Email info@mail.apecsec.org.sg
Website http://www.apecsec.org.sg

TABLE OF CONTENTS

GLOSSARY

The following is a list of acronyms frequently used in the report:

AIS	Automatic Identification Systems
APEC	Asia Pacific Economic Cooperation
APCIS	Asia Pacific Computerised Information System (Tokyo MOU's database system)
ACOS	Automated Customs Operations System
AMSA	Australian Maritime Safety Authority
AQIS	Australian Quarantine and Inspection Service
ASYCUDA	Automated System for Customs Data
ASF	Asian Shipowners Forum
BIMP EAGA	Brunei, Indonesia, Malaysia, Philippines East ASEAN Growth Area
CAP	Collective Action Plan
CIF	Cost including freight
CMR	Cargo Management Re-engineering
	Commonwealth Department of Immigration and Multicultural Affairs
ECSG	Electronic Commerce Steering Group
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport
IAPH	International Association of Ports and Harbours
IMO	International Maritime Organisation
ISMA	International Ship Management Association
ISO	International Standards Organisation
MIS	Management Information System
PSC	PSC
PSCO	PSC Officer
SCCP	APEC Sub-Committee on Customs Procedures
SGL	Super Green Lane
SHuTT	Service Hub for Trade and Tourism
SIRE	Ship Inspection Report Exchange program
SOLAS	International Convention for the Safety of Life at Sea
TEU	Total Equivalent Units (equivalent to a standard 20 foot container)
Tokyo MOU	Tokyo Memorandum of Understanding (more formally known as the Memorandum of Understanding on PSC in the Asia Pacific Region)
APEC TPT-WG	APEC Transportation Working Group
UNCTAD	United Nations Conference on Trade and Development
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
WTO	World Trade Organisation
WTC	World Trade Organisation
WCO	World Customs Organisation
WGTP	APEC Working Group on Trade Promotion
WCO	World Customers Organisation
XML	eXtensible Markup Language

Executive Summary

PROJECT SETTING

The South-East Asian area is a focal point for much of the APEC region's maritime trade. To facilitate the growth and efficiency of maritime trade in this area, it is necessary to ensure that the processes and procedures for clearance of vessels through customs, immigration, quarantine and Port State Control (PSC) are streamlined and efficient, thereby ensuring consistency with existing International Maritime Organization (IMO) requirements.

Accordingly, the objective of the *"Efficiency in the Facilitation of International Seaborne Trade Project"* is to increase the efficiency of processes and procedures relating to vessel arrival, stay and departure in the South East Asian region through streamlined and simplified customs, immigration, quarantine and PSC procedures. In doing so the project further aims to develop a best practice model to improve current practices and procedures required for a ship to trade in the South East Asian region. This will help develop mutual regional understanding of the key efficiency issues between agencies and between economies to assist this high volume trade area in achieving maximum throughput - safely and efficiently.

PROJECT STRUCTURE

The work program for this project fell into two distinct components, namely:

- Part 1: 'Identification of Existing Processes and Procedures Used in Seaborne Trade in Participating Economies'
- Part 2:'Best Practice Model for Improving Efficiency in International Seaborne Trade'

The identification of existing processes and procedures was completed by firstly undertaking industry consultation with shippers, shipping firms and ship operators in the South East Asian region to determine major issues faced in trading within the region relating to customs, immigration, quarantine and PSC. The focus of this industry consultation was not facts and figures, but rather industry concerns and feedback with respect to existing issues impeding efficiency. Secondly the identification of existing processes and procedures was achieved through the facilitation of a contact group of government representatives from the participating economies.

Whilst the industry consultation was highly successful, the output from the contact group was below expectations with difficulties encountered in facilitating discussion between group members. This necessitated the completion of workshops in each country to finalise Part Two of the project – the preparation of a Best Practice Model for improving efficiency in international seaborne trade in the region.

SUMMARY OF EXISTING SEABORNE TRADE PRACTICES

The results of the data gathering phase of the project indicated a number of areas of concern with respect to seaborne trade efficiency in South-East Asia pertaining to the areas of Customs, Immigration, Quarantine and PSC. These focused around:

- Standardisation of FAL Form Issue
- Introduction of Electronic Based Information Systems
- Improvement of PSC
- Theft and Piracy

Specifics associated with the above issues, as well as an outline of existing processes and procedures in the areas of Customs, Immigration, Quarantine and PSC in the participating countries are summarized in detail in Section 3.

SUMMARY OF PROPOSED BEST PRACTICE MODEL

The Best Practice Model prepared under the study is presented in the form of building blocks that were clearly identified during the project. Several specific objectives that were recommended by the contact group and the stakeholder bodies consulted under the project are included as important components in the strategy of achieving best practice.

The model is shown in Figure 1 and is broken down into:

Macro Components: which address items requiring macro development and change within the governments of the South-East Asian region; and

Micro Components: which address specific issues associated with the processes adopted for customs, immigration, quarantine and PSC in the region.

Macro Components

The macro components of the best practice model are broken down into a number of clear, distinct headings and are summarised as follows:

Commitment

- *Ensuring full understanding and acceptance of the importance of efficiency in operations and the positive impacts that such efficiencies will have on national trade and living standards.*
- *Allocating sufficient resources for program implementation, staff and equipment.*

Legislation

- *Developing and maintaining adequate legislation with full coverage to support efficient operations of each relevant department and the introduction of electronic operations.*

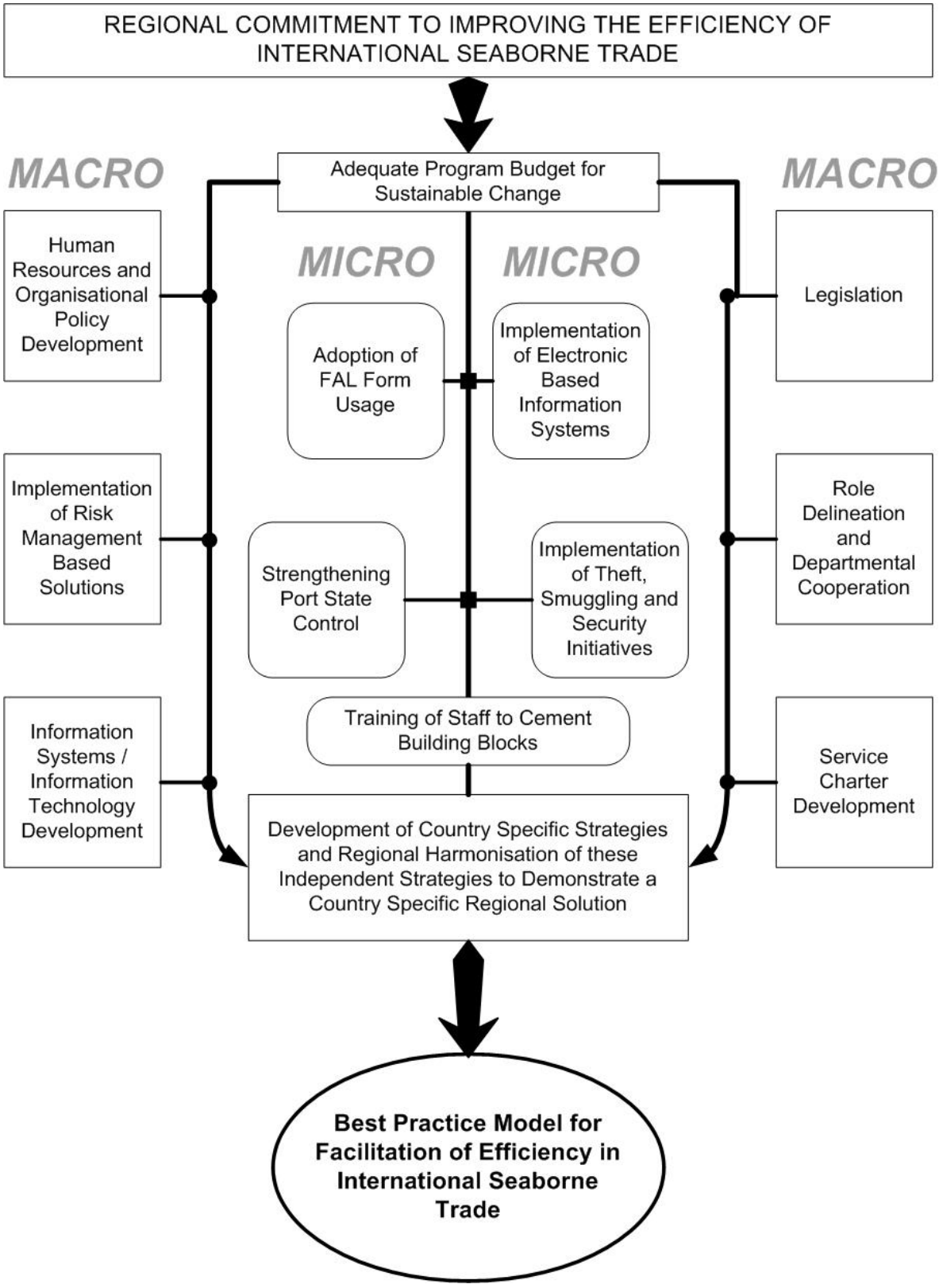


Figure 1: Flow Chart Depicting Components of Best Practice Model

Role Delineation and Departmental Cooperation

- *Delineating roles between departments*
- *Ensuring that each department understands the roles of all the other departments dealing with seaborne trade policy.*
- *Ensuring full cooperation between all departments dealing with seaborne trade operations.*
- *Developing consistent practice and procedures throughout the region and the fostering of international cooperation.*

Service Charter Development

- *Development of appropriate service charters that encourage Departments to move beyond what has been done historically or what suits the preference of the department heads.*

Implementation of Risk Management Based Solutions

- *Adoption of risk management based systems to improve operations by better targeting high risk cargo and vessels. This process should be applied across the board to customs, quarantine, immigration and port state control procedures to optimise the efficiency of such procedures.*

Information Systems/Information Technology Development

- *IS/IT development that is consistent with the intent of changes in legislation, service charters and inter-departmental cooperation.*
- *Implementing efficient IS/IT systems that allow information exchange between Customs, Immigration, Quarantine and PSC authorities within the South-East Asian region and APEC member economies.*
- *Tailoring IS/IT systems to reduce the possibility of corruption by instilling accountability, operational tracking and a formal checking procedure.*
- *Adoption of Automatic Identification Systems (AIS) as recommended by the IMO.*
- *Development of integrated systems to make use of AIS for improving electronic operations in the areas of Customs, Immigration, Quarantine and PSC.*

Human Resource and Organisational Policy Development

- *Education within the agencies to initiate a culture shift towards standardising operating procedures which will hasten the removal of informal procedures practised by agency officials.*
- *Introduction of new management tools and use of advanced IT systems.*
- *Implementation of integrity programs and activities that are related to intelligence, prosecution, post-clearance audit and internal audit.*
- *A regional approach should be adopted to training to ensure consistency in operating standards.*

The above macro recommendations address "on the ground" issues of trade facilitation and should be complimented by a high level commitment to adopt best practice. The strategy

of establishing the basic "building blocks" in border control agencies will enable the participating economies to move toward best practice.

Micro Components

The micro components of the best practice model are summarised as follows:

Adoption of FAL Form Usage

- *Implementation, by law or policy, of the IMO FAL Convention format to achieve universally accepted, simplified procedures and documentation for the facilitation of international maritime traffic.*
- *Communication and co-operation between Government agencies to improve and streamline existing processes and procedures to improve facilitation of vessel clearance.*
- *Education within the agencies to initiate a culture change to overcome informal procedures which, by their practice, risk non-compliance with IMO Conventions.*

Implementation of Electronic Based Information Systems

- *Implementation of a regionally standardised system (based on UN/EDIFACT) for electronic information transfer and communication between vessels and relevant Port Authority Departments utilising a variety of methods for communication including the internet. These should include appropriate and specific systems in each of the areas of Customs, Immigration, Quarantine and PSC (some or all of these areas may already have electronic systems developed in embryonic or advanced form).*
- *Consideration for adoption of the ASYCUDA system (or a compatible similar system) for customs control in each country.*
- *Government agencies, with the assistance of shipping industry consultation, to develop clear legislation and policies to support the implementation of electronic data exchange in each country. This process should be supported by regional dialogue between economies to ensure that the legislative processes adopted are compatible throughout the region.*
- *Governments to allocate sufficient funding for training, hardware and software to support the initiatives adopted.*
- *Application of regional standards with respect to electronic systems: such as the convergence of data requirements for cross-border trade through the UN/EDIFACT standard in the logistics industry. This makes the creation of a single entry window based on internet protocols a reality. These standards now need to be applied to the government trade documentation systems of APEC economies.*
- *Improvements in telecommunications infrastructure: such as high speed optic fiber networks, lower cost internet services and broader access to the internet by businesses to support greater demand for paperless trading services throughout the developed economies. Improvements in Internet access and infrastructure in developing economies.*

Strengthening Port State Control (PSC)

- *Co-operation on PSC to be implemented in the regional economies.*
- *Adoption of standardised PSC procedures based on the requirements of the Tokyo MoU.*
- *Education with respect to the content and information systems available under the Tokyo MoU to be initiated.*
- *Development of a target system based on risk, which should be used in preference to the quota system that is currently used in most economies of the region.*
- *Development of a system whereby consistent offenders are detained and/or compliant vessels are rewarded. Consideration of additional fee's for repeat PSC inspections once a risk based system of vessel selection is instigated.*
- *Resources allocated for the staffing and training of Government officials, which will partially address the cultural change required to improve efficiency. Assessment of methods to better use the training opportunities offered by the Tokyo MoU.*
- *Implementation of a naming and shaming protocol for the region (as per Tokyo MOU) to be instigated at both a regional and country level.*
- *Release of full inspection data currently held in the region on PSC.*
- *All APEC economies should become a signatory to the Tokyo MoU.*

Implementation of Theft, Smuggling and Security Initiatives

- *Ratification of the Rome Convention on Theft/Piracy by regional governments.*
- *Co-operation between the regional economies in patrolling and cross border operations.*
- *Assistance with the implementation of Automatic Identification Systems on all vessels in the region.*
- *Promotion of regional cooperation between governments as well as inter-organisational cooperation within economies to foster a cooperative approach to combating piracy in the region. This should include regular dialogue and conferences on the subject.*

Training

- *Many of the building blocks of the best practice model require training of staff to ensure the new policies and methods are implemented and change occurs is a sustainable manner. Without sufficient resources set aside for the training of staff, efficiencies are not gained as staff are unable to comply with new standards to achieve competence and proficiency.*

Implementation

The preliminary implementation plan suggested to progress the project through its next

phase involves the creation of a sub-project for each of the macro and micro components identified above. These sub-projects should not be aimed at producing a study report of which APEC already has many - they should be aimed instead at producing clear and identifiable progress towards specific implementation objectives in each of the macro and micro components identified. With this in mind, the preliminary implementation plan is as follows:

1. Identification of funding arrangements required by firstly APEC to facilitate the guidance role for the project and secondly the individual country concerned to support the implementation of the project in-country.
2. Assessment of draft scope of works for each sub-project and tendering for consultants to undertake the APEC funded guidance role for each sub-project. The draft scope of works should list the broad, but not specific, objectives of the project.
3. Identification of counterparts in each country. These counterparts should be given enough autonomy, authority and freedom from their existing positions to be able to focus on the project.
4. Selection of an overall guidance consultant for each sub-project
5. Initial phase of each project will involve additional fact finding, consultation and analysis to determine the precise scope of works to be completed under the project. This will identify actual steps required to achieve the required goals of the project and should be carried out in agreement with APEC. Timelines for completion of the sub-projects would be identified at this stage.
6. The main body of the sub-project would then be carried out. This would involve implementation of the sub-project to achieve the required goals.
7. Once the goals have been achieved the project would be finalized and closed out.

1. Introduction

1.1. Project Objectives

The South-East Asian area is a focal point for much of the APEC region's maritime trade. To facilitate the growth and efficiency of maritime trade in this area, it is necessary to ensure that the processes and procedures for clearance of vessels through customs, immigration, quarantine and Port State Control (PSC) are streamlined and efficient, thereby ensuring consistency with existing International Maritime Organization (IMO) requirements.

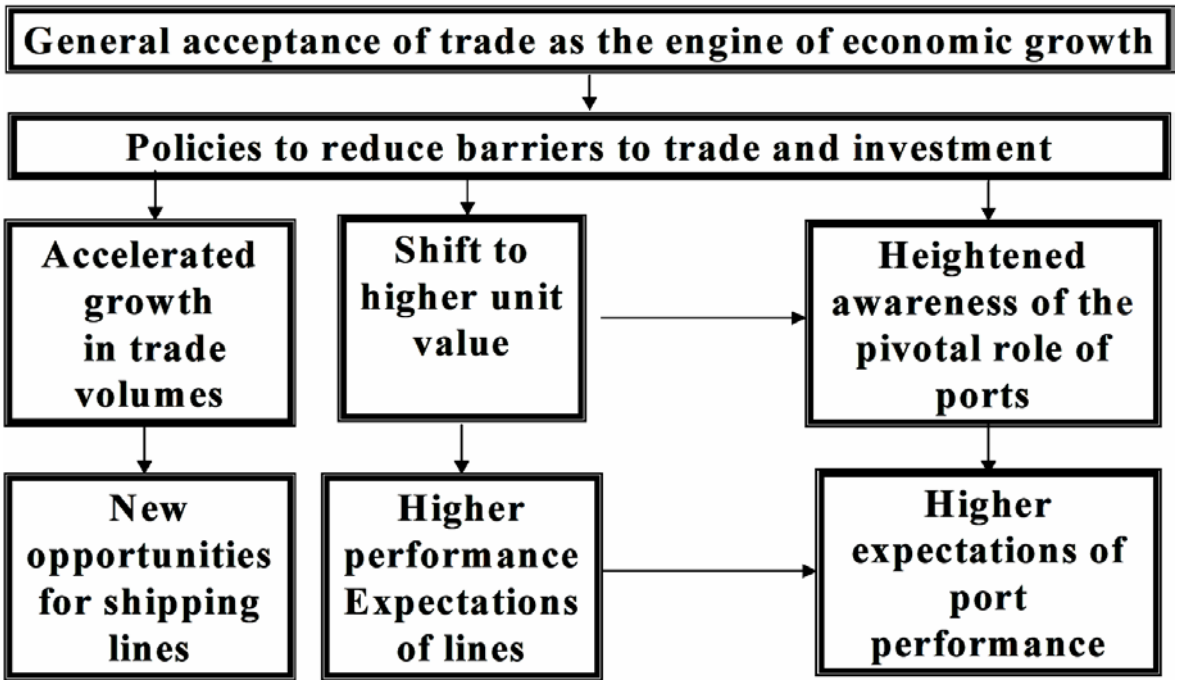
Accordingly, the objective of the *"Efficiency in the Facilitation of International Seaborne Trade Project"* is to increase the efficiency of processes and procedures relating to vessel arrival, stay and departure in the South East Asian region through streamlined and simplified customs, immigration, quarantine and PSC procedures. In doing so the project further aims to develop a best practice model to improve current practices and procedures required for a ship to trade in the South East Asian region. This will help develop mutual regional understanding of the key efficiency issues between agencies and between economies to assist this high volume trade area in achieving maximum throughput - safely and efficiently.

In achieving this objective, it is intended to further the trade facilitation priorities set by APEC Leaders in New Zealand in 1999 where it was stated that "improved competitiveness through ongoing reform is the road to recovery and sustainable growth" in the region and that markets would be strengthened by "improving the quality of regulation and the capacity of regulators to design and implement policies for sustainable growth". The project will determine maritime procedures that have facilitated the provision of efficient international shipping services in other economies and endeavour to facilitate the application of such processes to the participating economies where appropriate.

The outcomes of this project will provide a foundation for future co-operation among APEC economies on international maritime trade issues.

It is recognised that the contribution that international trade makes to sound and stable economic development is fundamental to APEC's existence, and is reflected in APEC's goal of achieving free and open trade between member economies. Geographical issues, including distance between trading partners and the fact that a number of large trading economies are islands or archipelagos, coupled with the reasonably high volume of trade between member economies, ensures that shipping will always play a key role in the development of trade within APEC and between APEC members and other economies.

This principle is shown in graphical form in the flow chart of Figure 1, which was developed by United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).



Source: UNESCAP

Figure 1.1: Flowchart of Opportunities Developed Through Seaborne Trade Enhancement

1.2. Project Setting

APEC's Transportation Working Group (TPT-WG) was established to foster economic development in the Asia-Pacific region through recommendations on increasing the efficiency, sustainability and safety of the regional transportation system. The vast distances that characterize the Asia-Pacific region and the dynamic growth of its economies highlight the importance of an efficient seaborne transportation system to guarantee further development.

The current priorities of the Transportation Working Group, expressed by Transportation Ministers through the Osaka Action Agenda in 2001, include:

- Facilitating the harmonisation, coordination and transparency of transport policies, regulations, procedures and standards.
- Encouraging efficient use of existing infrastructure through the application of appropriate trade and transport facilitation techniques.

In addition the APEC Working Group on Trade Promotion (WGTP) encourages the:

- Promotion of intra-regional trade by providing expanded trade opportunities.
- Promotion of mutual understanding of the trade promotion measures of member economies.

The highlighted objectives of these two groups clearly emphasise the importance of seaborne trade efficiency facilitation in achieving APEC's aims for its member economies. The Efficiency in the Facilitation of International Seaborne Trade Project is a stepping stone in achieving the objectives of APEC with respect to transport and trade in the region.

More specifically, this project aims to assist in achieving the following key objective of the 2001 Osaka Action Plan:

> *To develop by 2005, an efficient, safe and competitive operating environment for maritime transport, including ports, in the region through improved transparency of maritime and port policies.*

1.3. Participating Economies

The four economies that initially opted for participation in the project comprised: -

- Indonesia
- Philippines
- Thailand
- Singapore

Subsequent to project commencement, Singapore advised that it would no longer be participating in the project due to "resource constraints". This was after the Part 1 consultation visits were completed.

Brunei Darussalam then advised that it would like to participate in the project despite late notice, which prevented Part 1 consultation visits to Brunei occurring.

Therefore the four participating economies in this project were:

- Indonesia
- Philippines
- Thailand
- Brunei Darussalam

Long before the 1997 Asian financial crisis hit the South East Asian Economies, the absence of maritime legislation was the major hurdle to the transformation of regulatory port and maritime agency procedures. With the onset of the 1997 crisis, further complications have frustrated Government efforts in the region to fund various technological and infrastructure projects at their ports and maritime agencies.

The change of government in the Philippines and Thailand and the climate of change in Indonesia has resulted in many regional and internal Governmental initiatives being put on

hold. Rapid change in Indonesia, and the political uncertainty in southern Philippines, has made it harder for these Economies to continue with reform of the port industry. This, coupled with the domestic funding shortfall has provided an uncertain economic climate for port operational development in the region.

Specific background information for each of the participating economies is as follows.

Indonesia

Indonesia is an archipelago, and is endowed with a network of 17,000 islands. They spread from the northern tip of Sumatra in the west to the Papua New Guinea border in the east. This makes it one of the most geographically fragmented nations in the world and creates a very demanding task for any government or company that aims to create a viable logistics network within the country.

The main island, Java, is home to approximately half of Indonesia's population and hence is the main receiver of imported bulk products as well as containerised manufactured goods. Although their have been substantial gains in agricultural productivity, Indonesia is still a net importer of raw foodstuff, especially in times of drought.

The main port in Java, Tanjung Priok, is draft restricted with Panamax bulk or container vessels unable to gain access. Nonetheless, it is still the hub container port for the rest of Indonesia and many regional and local container lines run far-east services and inter-island feeder services through the port.

Indonesia is rich in natural resources such as oil, natural gas, coal and copper, and plays a major role internationally in the export of these commodities. Mining companies have built dedicated ports that service these facilities.

Despite such shipping opportunities within its boundaries, the country has suffered a decline in the amount of cargo carried by Indonesian Flag vessels (from 20% in the 1980's to 3% late 1990's). This is mainly due to laws that do not protect the Indonesian ship owner and the inability or unwillingness of banks to finance shipping ventures in the country.

The Asian crisis of 1997 caused a setback to completion of a number of port and port related projects in Indonesia which are currently on hold. Some international conglomerates, such as the stevedoring group Hutchison, have however participated actively in the privatisation of ports in the country.

Philippines

Manila is the capital and main port of the Philippines. It serves as the gateway to several thousand islands that comprise the Philippine archipelago. The port is draft restricted and, like Bangkok, is unable to attract the larger container ships. Despite this it serves as a container feeder port to other regional hub ports such as Kaohsiung (Chinese Taipei) and Singapore. Bulk vessels generally have to lighten in Manila harbour.

Japanese funding is supporting the development of the nearby Clark economic zone which includes the former US Naval Base of Subic Bay. Subic Bay is a deep water harbour port with over 6km of berth space which is presently being developed into a free port. Japanese aid is paying for the construction of another 1km of new berth space within the harbour which is intended to further facilitate trade through the port as an alternative to Manila. Accordingly Subic Bay may represent a future transhipment hub option for Asia due to its strategic location on the eastern side of the South China Sea.

The Philippines traditional agricultural base is changing and the base staples of rice and sugar are now imported regionally from Thailand, China or India. Outports, especially in the south, are under the control of local Government and present challenges for ship owners who do not understand the peculiarities of regional bureaucracies.

Thailand

The Port of Bangkok sits at the mouth of the Chao Phraya River, which dissects the country of Thailand and is the transportation life-blood of the country. It serves as the main egress point for agricultural export products from the country's interior as well as access for raw materials such as fertiliser, grain, steel and oil products.

Barging is the main mode of transportation up and down the river. The focus for container traffic has shifted to the Port of Laem Chabang, a privately run port, which is now Thailand's busiest port. The Government plans to focus on further development and expansion of Laem Chabang.

This has resulted in a downturn of container throughput at the Port of Bangkok, which suffers from a draft restriction of 8 metres, limiting the port to feeder ship status. Bulk ships utilise barges to top off and load to maximum deadweight at the outer bar of Bangkok called Kosichang.

Several smaller and deeper outports in Thailand have grown as dedicated steel and gypsum ports handling international shipping by virtue of their proximity to steel mills and mine sites.

There is only minimal local shipping traffic to the outports from Bangkok. Internal transportation of containers and bulk commodities mainly utilise multi-modal transport connections by river, rail or road.

Brunei Darussalam

Brunei Darussalam is a sultanate located on the northern coast of the island of Borneo. It is bounded on the north by the South China Sea, and on all other sides by the Malaysian state of Sarawak, which also divides the country into two parts. The total area of the country is 5,765 sq km (2,226 sq mi) with the capital being Bandar Seri Begawan.

Muara Port is of prime importance as Brunei's main international gateway for trade and the potential transhipment hub for the BIMP EAGA region (which consists of Brunei Darussalam and parts of Indonesia, Malaysia and the Philippines). As Brunei continues on

the diversification of its economy towards industrialisation, the role of Muara Port is becoming an increasingly critical factor. Currently the oil and gas sector is responsible for over 30% of Brunei's GDP, which demonstrates the economies vulnerability to its current high levels of GDP through reliance on a single industry sector. Government policy is increasingly focusing on diversification of the economy through initiatives such as infrastructure developments aimed at establishing Brunei as a regional Service Hub for Trade and Tourism (SHuTT) within the next five years. To this end, port and airport facilities have been upgraded and strategic studies to explore market opportunities are being commissioned.

The policies being pursued included the establishment of new direct and transhipment shipping services through Muara Port. This policy will enable Muara Port to cater to the requirements of the nation, as well as the BIMP EAGA region. Muara Port has a significant strategic geographical advantage in the region, however history has proven that shipping cargo has no location loyalty. A number of threats exist in the region to Muara, including Labuan, KK and a number of mainland Sarawak based ports which are all being examined by Malaysian interests currently for development as a rival hub port for the BIMP EAGA region.

1.4. Project Structure

1.4.1 General

The work program for this project fell into two distinct components, namely:

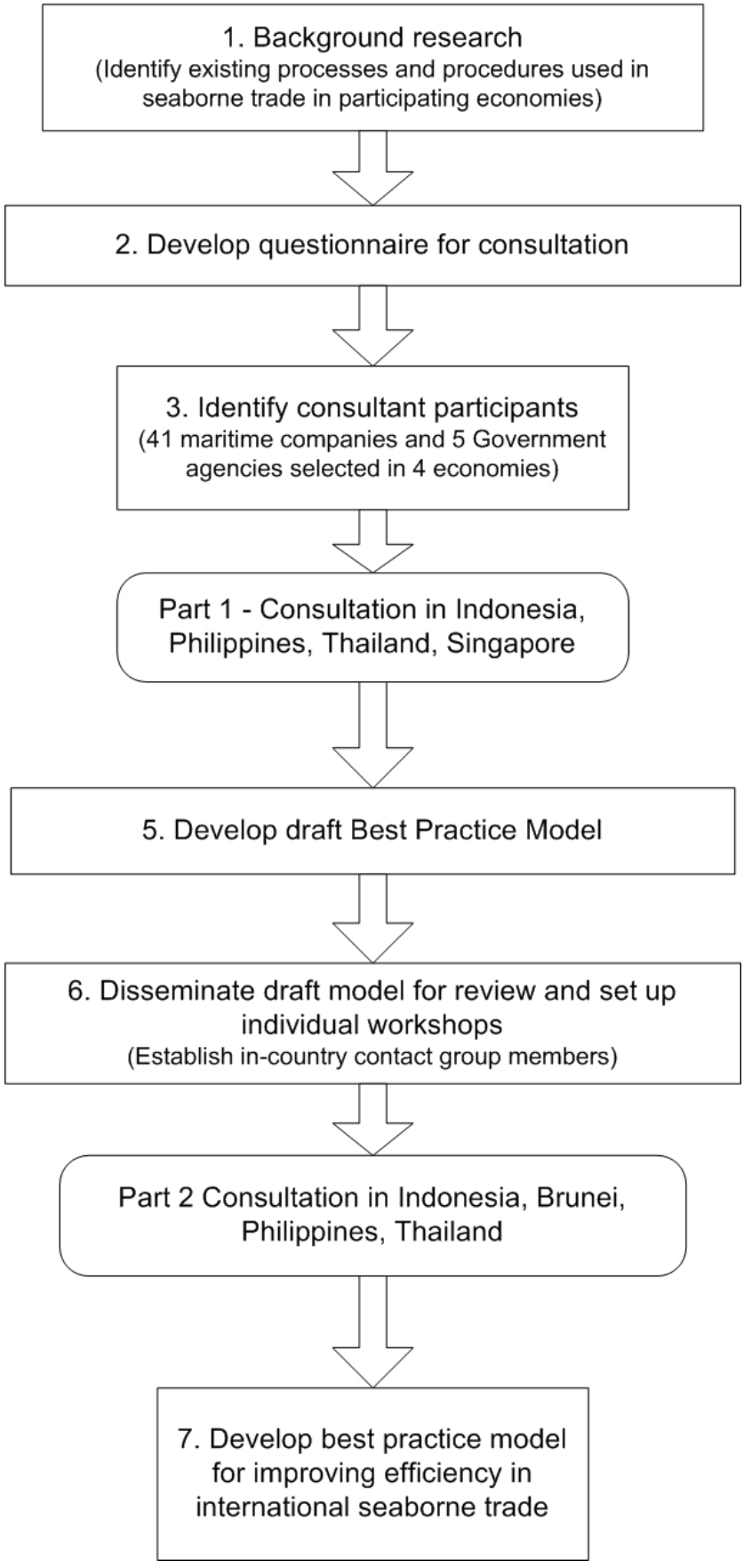
- Part 1: 'Identification of Existing Processes and Procedures Used in Seaborne Trade in Participating Economies'
- Part 2:'Best Practice Model for Improving Efficiency in International Seaborne Trade'

The results of each of these components are discussed in more detail in the following sections, with the diagram contained in the following page showing the general flow of the project on a step by step basis.

1.4.2 Part 1: 'Identification of Existing Processes and Procedures Used in Seaborne Trade in Participating Economies'

Outline

The first part of the *"Efficiency in the Facilitation of International Seaborne Trade Project"* was to identify the current status of the industry in the region and identify preliminary recommendations as to possible areas for efficiency improvement. To this end, this section of the project involved detailed consultation with shippers, shipping firms and ship operators in the South East Asian region to determine major issues faced in trading within the region relating to customs, immigration, quarantine and PSC.


1. Background research
(Identify existing processes and procedures used in seaborne trade in participating economies)
2. Develop questionnaire for consultation
3. Identify consultant participants
(41 maritime companies and 5 Government agencies selected in 4 economies)
Part 1 - Consultation in Indonesia, Philippines, Thailand, Singapore
5. Develop draft Best Practice Model
6. Disseminate draft model for review and set up individual workshops
(Establish in-country contact group members)
Part 2 Consultation in Indonesia, Brunei, Philippines, Thailand
7. Develop best practice model for improving efficiency in international seaborne trade

A summary of the interviews undertaken in this consultation process is included in the Appendices to this report.

The Participants

A cross section of participants was chosen for consultation in the participating Economies. Such participants were carefully selected to meet the following criteria, thereby allowing a broad cross-section of opinions to be canvassed regarding the major issues relating to the clearance of vessels and their port stay with respect to customs, immigration, quarantine and PSC:

- Shipping and trading companies involved in regional and international trade who contribute significantly to seaborne trade in the South East Asian region;
- Ship owners and operators who interact with Government agencies, and could be affected by inefficiencies of processes and procedures in the area of clearance, and;
- Ship owners and operators involved in container, dry bulk and liquid bulk cargo transportation.

A total of 41 maritime companies and five Government agencies in the four Economies were approached to participate in the survey. Two companies in Singapore and one each in Jakarta and Manila declined to participate, and one Government agency in Jakarta declined to be interviewed by a representative from APEC.

Shippers, who provide employment for vessels, are indirectly affected by issues relating to the clearing of vessels. Discussions with this sector were limited to two organizations, each handling substantial grain movements in the region.

Oil companies have the dual role of shipper and ship operator. For the benefit of this consultancy, one oil company in Singapore was interviewed.

Consultation Format

The consultation was conducted via a standard survey, with interviews taking between 35 and 65 minutes. A Standard survey form was used to ensure consistency of information collected from those surveyed. The four main areas of interest included:

Background of the Company

The background of each company interviewed, the type of ships managed and the general trading and operational patterns of the company was sourced to provide a better understanding of the background to issues raised.

FAL form issue and electronic clearance

Information on FAL form issues and electronic clearance was sought because of the potential of these 'tools' to:

- Improve vessels clearance procedures and commencement of cargo operations;
- Prevent unnecessary delays in maritime traffic,
- Aid co-operation between Governments;
- Secure the highest necessary and practicable degree of uniformity in formalities and other procedures required by customs, immigration and health, pertaining to a ship, its cargo, crew and passengers; and
- Minimise the use of paper documents, thereby simplifying procedures.

Piracy, smuggling, illegal immigrants, stowaways

Preliminary research indicated piracy and illegal migration in the region as having detrimental effects on shipping in relation to safety and costs.

Port State Control (PSC)

As all four nominated Economies are signatory to the *Tokyo Memorandum of Understanding 1994 on PSC (Tokyo MOU)*, it was relevant to determine the present state of shipping in the region in terms of compliance with the necessary International Maritime Organisation (IMO) regulations and the inspection process of the various PSC bodies.

Output

The output from this phase of the project provided the background information for facilitating contact group discussion and ultimately the development of a best practice model.

The clear aim was to attempt to determine the views of actual owners, operators and private sector participants in the seaborne trade process in each country, rather than obtaining only governmental views or trade statistics which can provide a sanitised view of the real situation. This then provided specific areas of interest which were taken up directly with the contact group that was formed totally from government representatives in Brunei Darussalam, Philippines, Thailand and Indonesia.

1.4.3 Part 2:'Best Practice Model for Improving Efficiency in International Seaborne Trade'

The first step in forming the best practice model for the project was to take the results of the part 1 consultation and form a contact group comprising public service representatives in participating economies to facilitate discussion of key points of concern with respect to seaborne trade efficiency.

A draft best practice model was prepared on the basis of the limited information received from the contact group and the extensive information received from part 1 consultation, industry discussions, research and data collation.. The draft model was then disseminated to the contact group members for consideration prior to the workshops that were conducted

in each country location. This included research into departmental and annual reports from various Australian organisations regarding the performance and development of such organisations to achieve best practice in Australia. Australian organisations were chosen as reference points for discussion primarily because of the proximity of the organisations to the consultant who is based in Australia.

The draft best practice model discussed with the contact group was presented in the form of building blocks that were clearly identified by each agency and were considered essential for achieving cultural change within their departments. Several specific objectives that were recommended by the Australian Agencies are included as important individual components in the strategy of achieving best practice.

Contact Group Discussion and Data Sourcing

The contact group members formed for the project included:

Country	Name	Position
Brunei	Mr. Mahadi Mohd Yusof	Ports Engineer Brunei Ports Department
Indonesia	Mr Irwan Ridwan	Director of International Affairs Directorate General of Indonesian Customs and Excise
Indonesia	Mr Tjuk Sukardiman	Director General of Sea Communication Ministry of Communication
Indonesia	Mr Julius Agusalim	Port Administrator Port of Tanjung Priok
Philippines	Mr Jose Carandang	Chief – Bay Service Bureau of Immigration & Deportation
Philippines	Mr George Jereos	Deputy Commissioner Bureau of Customs
Thailand	Kamolwan Nantapetch	Chief, International Affairs Section Ministry of Transport and Communications
Thailand	Mr. Voradej Harnprasert	Director of Research and Planning Division Ministry of Transport and Communications

In addition to the contact group, industry representatives from the following agencies in Australia were interviewed during this phase of the project to assist in the development of the draft best practice model.

- *Australian Customs Service*;
- *Australian Maritime Safety Authority (AMSA*);
- *Australian Quarantine and Inspection Service (AQIS*).

The original intention of the project was to base the best practice model on information provided in a contact group discussion forum in each participating economy. Discussion with the contact group was facilitated by e-mail, fax, phone and letter contact over a period of six months. Despite these efforts, the flow of information was limited and it was determined that the only path of realising realistic dialogue on the project was to undertake direct consultation with Contract Group members in each country. This was undertaken in May 2002 via workshops in Indonesia, Brunei Darussalam, Philippines and Thailand.

Workshops

Workshops undertaken in each country were successful and received good attendance. A total of 32 personnel attended the workshops in the four participating economies. The participants were primarily from Government Departments with discussions at the workshops being influenced by the Department with the strongest representation. The participants were generally interested in the issue of seaborne efficiency and acknowledged the benefits of improving efficiency. The linkages between improving seaborne efficiency and the wider benefits for the respective economies were not however universally appreciated. Owing to each Government's push towards e-commerce, EDI was a keenly discussed topic with participants enthusiastic to learn more about the subject. The workshops were able to benefit from different points of view of staff from operational and policy areas within the same Departments. Ideally, future workshops would be organized based on the following guidelines:

- Minimum two representatives from middle level management of customs, quarantine, immigration and security Departments.
- Preferable that one representative has an operations background and one has a policy background.
- An interpreter is made available for visitors not speaking the language.
- One representative is appointed as the group facilitator for the workshop.

A list of attendee's at each of the country workshops is shown in the tables below.

Indonesia

Meeting Location: Directorate General of Customs and Excise Offices
Date: 20 May 2002

Name	Position
Matthew R Hill	Director-Consultancy International Infrastructure Management Pty Ltd. (APEC Workshop Facilitator)
Irwan Ridwan	Indonesian Customs/ Director of International Affairs (coordinator for the project in Indonesia*)
Amir Hamzah	Ministry of Agriculture, Agriculture Quarantine Board / Head of Technique and Method Centre
Soegito	Indonesian Customs /Deputy Director of International Affairs
Willis Gerilyanto	Ministry of Communication, Directorate General of Sea Communication, Dit. Pengamanan dan Keselamatan (Directorate of Security & Safety) (*Sea communications was appointed by the group as the facilitator for the meeting in Indonesia).*
Supardi	Ministry of Communication, Directorate General of Sea Communication, Dit. Pengamanan dan Keselamatan (Directorate of Security & Safety)
B. Widodo	Ministry of Justice, Immigration
Rindayuni	Quarantine
Harry Sutanto	Commercial Director, Indonesia Port Corporation II (PT Pelindo II)
M. Zulhan	Indonesian Customs, Regional Customs Office
Yudi	Indonesian Customs, Customs Information
Hermansyah	Quarantine
Thomas A. Sitorus	Ministry of Communication, Directorate General of Sea Communication, Directorate of Sea Transport

Brunei Darussalam

Meeting Location: Brunei Ports Department
Date: 22 & 23 May 2002

Name	Position
Matthew R Hill	Director-Consultancy International Infrastructure Management Pty Ltd. (APEC Workshop Facilitator)

Name	Position
Mr. Mahadi Mohd Yusof	Ports Engineer Brunei Ports Department
Rosman Haji Untong	Marine Engineer Marine Department
Haji Kamsani Haji Hasan	Senior Custom Superintendent Custom and Excise Department
Haji Abdul Khalid Haji Abd. Halim	Custom Superintendent Custom and Excise Department
Hussein Gana	Senior Immegresen Officer Immegresen and Nationan Registration Department

Philippines

Meeting Location: Conference Room of the Commissioner of the Bureau of Immigration
Date: 20 May 2002

Name	Position
Matthew R Hill	Director-Consultancy International Infrastructure Management Pty Ltd. (APEC Workshop Facilitator)
Rey T Del Moro Jr.	Systems Design Specialist, MISD Philippine Port Authority
Sonia C Togonon	Collector of Customs Department of Customs
Arsenia G Samonte	Chief Maritime Industry Development Specialist MARINA

Thailand

Meeting Location: Customs Department
Date: 20 May 2002

Name	Position
Matthew R Hill	Director-Consultancy International Infrastructure Management Pty Ltd. (APEC Workshop Facilitator)

Name	Position
Mrs. Ratanaporn Supradit	Import Inspection Division. Customs officer level 7, Chief Import Clearance Division
Ms Somoak Tublem	Import Inspection Division
Mr Eakuut Na-Eak	Appraiser Level 5 Import Formality Division
Mrs Ratana Sakulthana	Appraiser Level 7, Chief of Subdivision Import Formality Division
Pol.Lt. Col Mana Kleebsatabudh	Marine Police Department, Bangkok Port Immigration Immigration Bureau
Pol.Lt.Col Channarong Chitthamma	Ship Operation Subdivision Marine Police Division
Mr. Somsak Tublom	Customs Officer Level 7, Chief Import Clearance Division
Miss Leck Kasemsuksakul	Appraiser Level 6 Import Formalities Division

The workshops were successfully completed with a good level of hard information and tacit knowledge realised. This information has then been used to fine tune the final Best Practice Model developed in the last phase of the project.

Outline and Implementation of Best Practice Model

The outputs of the study form the results of Part 2 of the project which include:

- The production of a report to identify the best practice model based on the identification of mechanisms for streamlining the efficiency of current processes and procedures as devised by the contact group.
- Preliminary recommendations for the implementation of the best practice model.

The content of these two aspects are the focus of this report.

2. The Context of Seaborne Trade in APEC

2.1. Importance of Trade Efficiency to APEC

It is not possible to fully understand the major shift that has occurred within both the APEC regional and worldwide seaborne trade industries over the last decade, without firstly examining the context in which such changes have occurred.

The major underlying cause of this shift has been an increased reliance on international trade as the primary engine of economic growth and development. This is a major shift from the traditional standpoint of most APEC regional economies which formerly pursued development strategies that concentrated upon self-sufficiency and domestic market protection. Indeed the recent past has seen a growing consensus within APEC economies that the route to both worldwide and regional prosperity lies in an overall integration of domestic economies within the wider global economy.

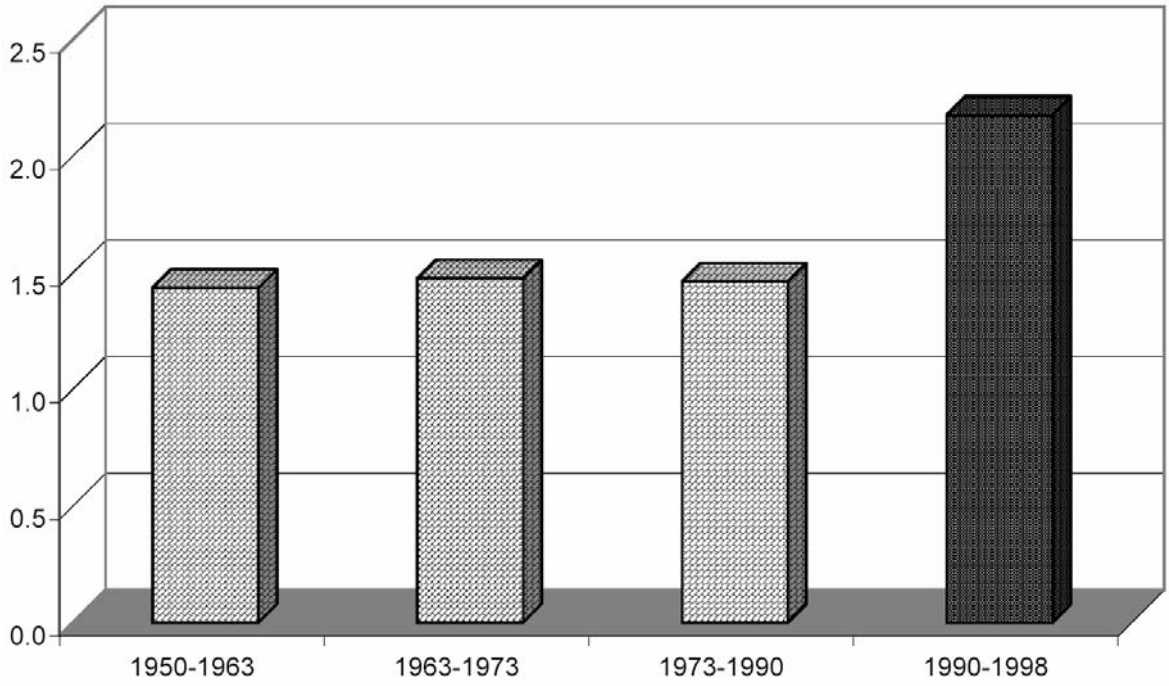
The adoption by regional entities, including APEC and ASEAN, of policies that are designed to enhance efficient trade between their member economies has played an important supporting role to the global efforts of the World Trade Organisation (WTO). Partly through such multilateral institutions; partly through bilateral agreements; and partly through unilateral initiatives, most governments of the APEC region have now adopted policies that reduce barriers to both trade and capital flows.

The impact of international policy changes focused around the growth of free trade is clearly demonstrated in Figure 2.1 taken from UNESCAP's Regional Shipping and Port Development Strategies document 2000. Despite fluctuations in worldwide economic growth over the forty year period from 1950 through to 1990, the relationship between economic growth and growth in the value of international trade remained almost constant, growing at approximately 1.5 times the world economy. The last decade however has seen a major change in this ratio with the value of trade now growing at around 2.2 times the rate of growth of the world economy. This increase is mainly due to the growth of free trade and the reduction in protectionist strategies adopted by governments worldwide.

Coupled with these major changes in trade relationships in the APEC region, ASEAN has experienced wildly fluctuating economic growth as a result of rapid development in the region in the 1980's and 1990's and the effects of the economic crisis on the late 1990's.

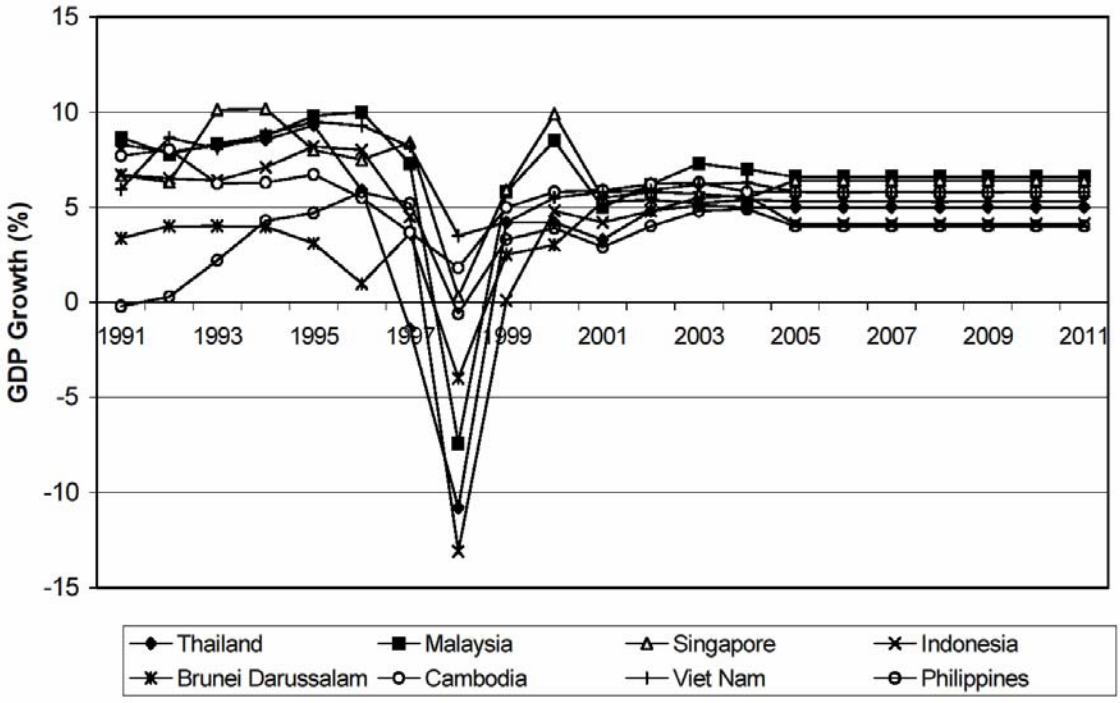
Despite these fluctuations, UNESCAP forecasts the base economic growth in the region to range between 4% and 7% depending on country specifics between the decade 2001 to 2011, as shown on Figure 2.2.

APEC Ministers have repeatedly stressed the significance of trade facilitation for reducing costs of doing business in the region and reiterated that trade facilitation must remain a priority issue on the APEC agenda. With this in mind APEC is concentrating on the development of integrated and harmonised procedures to enhance trade efficiency throughout the region whilst also making recommendations for an integrated APEC Capacity Building Program for trade facilitation.



Source: UNESCAP

Figure 2.1: Historical Relationship between World Trade Growth and World Economic Growth



Source: Study estimates based on LINK Model forecasts, April 2001 and other sources.

Figure2.2: Historical and Forecast Economic Growth in the South-East Asian Region

To this end, each APEC economy has committed to ensure transparency of its respective laws, regulations and administrative procedures which affect the flow of goods, services and capital among APEC economies. This will create and maintain an open and predictable trade environment in the Asia-Pacific region, thereby facilitating one of the central paradigms of APEC.

2.2. Development of Seaborne Activities in the APEC Region

Overview and the Growing Influence of Containerisation

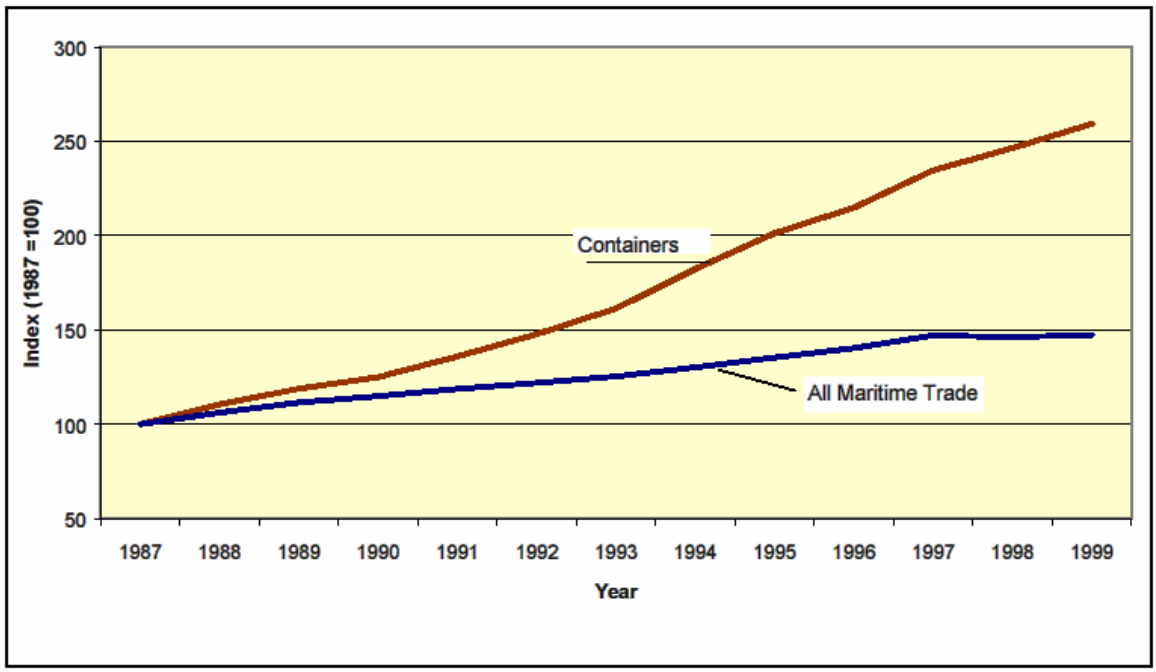
Worldwide, the growth in port traffic and seaborne trade is steadily increasing year by year. At the same time a shift has occurred in the nature of the way goods are handled with a larger and larger proportion of goods being containerised each year.

Since its introduction by Sea-Land in the 1960s, containerisation has grown to a point where trade without it now seems unimaginable. Over the last 20 years containerisation has grown at an average growth rate approaching 10%, increasing five fold from around 100 million tonnes in 1980 to over 500 million tonnes in the year 2000. Containerisation's inherent strengths are its simplicity, standardisation and cost effectiveness and its fortunes are inextricably linked to that of world seaborne trade. The growing influence of container traffic on overall trade volumes is demonstrated in the graph of Figure 2.3.

Growth in seaborne trade is being driven by population growth, trade liberalisation and the globalisation of manufacturing.

According to a recent UNESCAP report, the following seaborne trade predictions will occur over the next ten years:

- *The annual growth rate for global container volumes from 1999 to 2006 is estimated to be 6.5 per cent falling slightly to 6.0 per cent per annum between 2006 and 2011.*
- *Asia's share of containerized exports is expected to rise by 5 per cent points from 46 per cent of the world total in 1999 to 51 per cent in 2011; the share of containerized imports is expected to rise by a similar percentage from 40 per cent to 44 per cent.*
- *By 2011, China will be clearly the world's largest container market, outstripping USA in both imports and exports.*
- *The intra-Asian trade will continue to outperform global container growth by some percentage points, recording an average rise of 7.6 per cent per annum over the forecast period.*

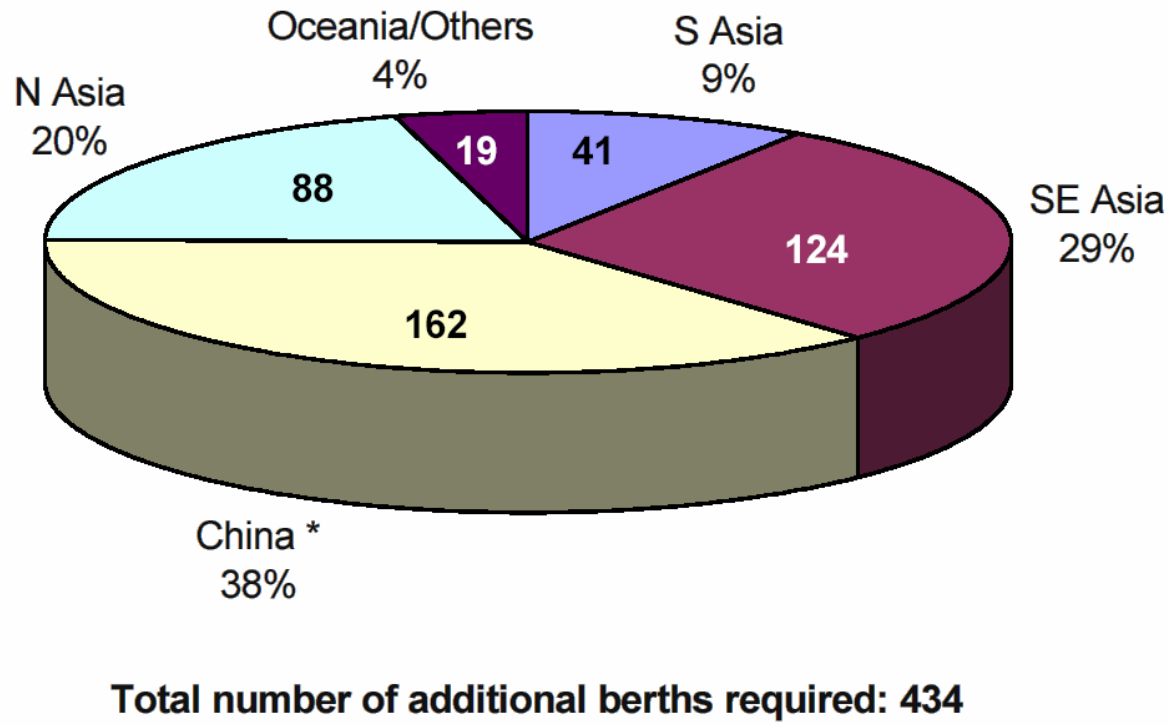


Source: Drewry Shipping Consultants

Figure 2.3: Growth in Worldwide Maritime Trade – 1987 to 1999

- *Growth of trade between North Asia and South-East Asia is likely to be slow, with an expected growth rate of around 5 per cent per annum over the coming decade.*
- *There are likely to be approximately 330 vessels with capacities of 6,000 TEU and above that would be deployed on routes to and from Asia by the year 2006. This will grow to over 470 by 2011. Approximately 130 of these would be of 10,000 TEU or above.*
- *Under the assumptions of the 'base case' scenario, transshipment volumes at the key Asian hub ports could reach a total of 64 million TEU by the year 2011.*
- *In order to handle the anticipated port container traffic in 2011, over 430 new container berths will be required in the Asian region, with the distribution shown in Figure 2.4. To construct and equip these berths will require investment of around US$27 billion.*

The growth in containerised trade and the globalisation of manufacturing have produced demand for global services from shipping lines. This is especially true of the biggest shipping lines operating in the APEC region. Such shippers are now seeking single supplier contracts, whereby one carrier can provide services on all required routes. The benefit to the shipper is the ability to spread their production over widely dispersed facilities and obtain better costs, not to mention only having to deal with a single shipping company. This process will however also mean that shipping traffic, particularly in the transhipment role, will not demonstrate location loyalty, instead moving to the ports with the cheapest prices and the most efficient transaction systems. Accordingly it is essential for the developing APEC nations of Asia to improve efficiency, thus ensuring that they represent an attractive option for private shipping lines.



Source: UNESCAP
* Including Hong Kong SAR, Mainland China and Chinese Taipei

Figure 2.4: Growth in Asian Port Development by 2011

The growth in seaborne trade in the developing economies of the world, including the South-East Asian economies, has risen in line with a redistribution of general trade from the developed to the developing nations. Between 1980 and 1998 for example, the ports of East and South-East Asia have increased their share of global container volumes from 24.6% to 41.6% whilst proportional trade in many key developed nations decreased during the same period. These trends are shown in Figure 2.5.

With such growth trends expected to continue in the medium term future, improvements in efficiency in shipping and port operations in South-East Asia are essential. Increasing efficiency will translate into more competitive shipping practices and the nurturing of increased regional trade growth. By improving trading practices at this juncture, South-East Asian economies will be better equipped to handle the increased volumes of trade that will occur as a result of the forecast regional growth.

The ever increasing use of larger ships with faster discharge rates are placing ever increasing stresses on the land transport interface, thereby generating a need for faster and more efficient intermodal connections at the port. These demands for enhanced port performance include the need to increase the efficiency of seaborne trade operations in the areas of customs, immigration, quarantine and PSC which form the focus of this report.

Economics	1999 (CIY**/Other Sources)	2006 (ESCAP MPPM)	2011 (ESCAP MPPM)
Australia	2,651	3,550	4,061
Bangladesh	392	770	1,151
Brunei Darussalam	62	188	300
Cambodia	n.a.	64	103
China	12,004	28,466	46,219
Democratic People's Republic of Korea	n.a	161	614
Fiji	47	94	136
French Polynesia	31	137	189
Guam	123	223	284
Hong Kong, China	16,211	19,678	25,322
India	2,186	4,216	6,410
Indonesia	2,784	4,582	6,145
Islamic Republic of Iran	340	510	774
Japan***	11,503	14,307	17,087
Malaysia	3,775	8,444	14,556
Myanmar	118	182	270
New Caledonia	52	75	104
New Zealand	845	1,374	1,808
Pakistan	697	981	1,323
Papua New Guinea	138	215	291
Philippines	1,696	2,716	3,761
Republic of Korea	7,473	16,516	22,772
Russian Federation (Far East)	125	289	481
Singapore	15,945	23,393	30,940
Sri Lanka	1,704	4,447	5,372
Chinese Taipei	9,758	13,245	16,874
Thailand	2,892	4,328	5,808
Turkey****	687	1,051	1,347
Viet Nam	653	1,185	1,701

Figures in Thousand TEU

* Domestic coastal traffic is excluded
** Containerisation International Yearbook
*** Based on annual 2 per cent economic growth, which is the official target of the Japanese economic growth from 2001 through 2010, is applied to the model, the projection for the year 2011 would be 20-21 million TEU.
**** Figure includes statistics from ports of Mersin and Izmir only.

Source: UNESCAP

Figure 2.5: Forecast of Port Container Throughputs by Economy – 2011

Trends in Shipping Fleets in the South-East Asia

The key recent trends in the shipping fleets of the East Asian region, as summarized by UNESCAP, are as follows.

Merchant Fleet

The average rates of capacity increase in the last decade were higher than the world average for the merchant fleets registered in South-East Asia and the Pacific, slower than the world average for South and South-West Asia, East and North-East Asia, and registered merchant fleets actually decreased in North and Central Asia and the developed Asia-Pacific economies. If the fleets are attributed to the economies where the controlling interest of the fleet was located (in terms of the parent company), rather than where they were registered, the economies of the Asia-Pacific region would account for approximately 40 per cent of the world's shipping fleet.

Container Vessels

From 1996 to 1999, the number of cellular container ships and the number of TEU slots of the fleet controlled by shipping lines in the Asia-Pacific region grew less rapidly than the world average, reaching 966 ships with a total of 1.65 million TEU slots, up from 773 ships with a total of 1.26 million TEU slots in 1996. This increase from 1996 to 1999 corresponds to an average growth rate of 9.4 per cent per year for the number of TEU slots of the Asia-Pacific region's fleet and of 7.7 per cent in the number of ships. As a result, the average size of container ships of the Asia-Pacific region, measured in terms of slot capacity, grew from 1,627 to 1,704 TEU during this period.

Dry Bulk

The dry bulk fleet registered in the economies of the Asia-Pacific region declined from 43.2 million to 43.1 million gross tons over the same period.

Oil

The oil tanker fleet registered in the economies of the Asia-Pacific region increased at a similar annual rate (2.5 per cent) from 25.9 million gross tons in 1996 to 27.9 million gross tons in 1999.

Shipbuilding

The Asia-Pacific region also dominates the world shipbuilding industry. More than 80 per cent of new ships are built at shipyards in the region. Japan and the Republic of Korea together account for 63 per cent of world shipbuilding capacity.

The Growth of the Transshipment Business

Over the last twenty years, the size of container ships has grown steadily along with the volume of containers. This has in turn led to container shipping networks becoming increasingly complex producing the evolution of a "hub-and-spoke system" of international container trade, with large mainline vessels serving a limited range of major ports to which cargoes are carried to tributary ports by feeder vessels. Asia has led the world in this type of development with Singapore emerging in the late 1980's as the first port in the world that was dependant primarily on transshipment cargoes for its existence. Since then Singapore has been joined by other ports in Asia, including Colombo, several

ports in the Persian Gulf, and the new ports of Salalah, Aden and Tanjung Pelepas in Malaysia. In addition, a number of ports that have substantial volumes of hinterland cargo also play a major role in the transshipment system: these include ports of Hong Kong, Kaohsiung, Busan, Tokyo, and Port Klang, Malaysia.

Transshipment cargoes offer port authorities and terminal operators an opportunity to develop their businesses at a faster rate than the development of their economic hinterlands would permit. It is therefore not surprising that the competition for this business is fierce. However, as the recent decision of Maersk Line to move its South-East Asian hub from Singapore to Tanjung Pelepas has shown, it can also be very volatile and has little location loyalty.

One of the elements that will control transshipment loyalty in terms of location is the efficiency of port operations at rival transshipment hub ports. Accordingly the efficiency of ship to shore trading and clearance procedures are of paramount importance to economies looking to grow their transshipment business and capitalize on the ability to handle cargo far in excess of the capacity that the hinterland can either produce or absorb. This has been amply demonstrated by the historical success of Singapore in attracting transshipment trade by offering very high trading and operational efficiencies coupled with high quality customer focus.

It is expected that this trend of transshipment hubs will increase with the development of a formal network of giant Regional Hubs, medium sized Sub-Regional Hubs and smaller Feeder Ports throughout the world.

Security Issues

Recent developments have occurred in the area of security, mainly prompted by the terrorist attacks in the United States last year. The tightening of security measures in ports throughout the APEC region is impacting on the clearance of goods and vessels, especially for the major box ports trading with the United States. This in turn is impacting on the efficiency of port operations and may impact on other related areas including:

- Standard transport documentation used in many economies in the region.
- Customs procedures.
- Immigration procedures.

As well as directly impacting on US ports of entry, tightening security policy being developed in the US is impacting foreign ports of origin, many of which are in the APEC region, by placing requirements on such ports to enhance security and control of goods trafficked through them to the US.

2.3. Recent Developments in Seaborne Trade Efficiency

Coupled with increases in trade and containerization activities, the efficiency with which such trade has been occurring has increased remarkably in recent times. Probably the two

main reasons for such changes have been:

1. Increased competition in the global market place leading to the requirement for successful seaborne traders to develop efficiency edges over rivals; and
2. The growth of e-commerce and information technology.

The coupling of these two areas of development has lead to a redefinition of the trading systems used worldwide.

Increased Competition in the Seaborne Trade Market Place

As a result of growth over the last few decades being fuelled centrally by competitive cost advantages, the Asia Pacific region currently holds a dominant position in world shipping trade. However as this competitive advantage disappears, the region needs to move towards building new and innovative strategies for competing in an ever more competitive global marketplace. The business axiom that 'the only thing certain in the business world is change' holds particularly true for a seaborne trade industry which is currently riding the crest of the information age. The challenge for the APEC region is to understand that a rapid move towards the use of new technologies to enhance seaborne trade is essential to fulfil the magnitude of growth that the region is possible of achieving over the next twenty years. Conversely, if the region becomes mired in an attitude that "what has worked in the past will work in the future", it fails to understand the competitive nature of the seaborne trade market place and trade in the Asia Pacific region will drop away as cost competitive and comparative advantages of the region are reduced.

The challenge for the region is therefore to realize that future competitive advantage will be driven by improving seaborne trade efficiencies. This in turn will require both an inter and intra-governmental approach in each of the Asian economies of APEC to ensure harmonization of regulations, policies and processes to streamline the seaborne trade system.

Such harmonization should produce standardization of systems across economies to integrate customs, quarantine, immigration and PSC procedures. Such efficiencies, when coupled with increases in efficiency in port operations, will allow vessels to turn around faster at individual ports thereby improving overall ship to shore transfer processes. This is particularly important considering the continuous growth in the size of vessels operating in the region and worldwide.

The current push towards the privatization/corporatisation of port and stevedoring operations in the region will further lend weight to the push to improve the efficiency of the regulators of seaborne trade processes. If the developing economies of APEC are to attract investment, governments of the region must display a willingness to embrace more of a business focus to the seaborne trade operations for which they are responsible to ensure that they don't unduly impede the profitability of port operations. The efficiency of regulators and the overall seaborne trade regulatory environment is a key component to business risk assessment when private sector organizations review maritime transport infrastructure investment opportunities.

The Growth of E-Commerce and Information Technology

When addressing initiatives to improve the efficiency of seaborne trade and the competitiveness of an economies seaborne trading operations, the harnessing of information technology and information systems is a key focus of attention. Technology is one of the key driving forces which organizations can use to shift the business environment and capture competitive advantage over rivals. This is no different to economies when seaborne trade efficiency is examined. The growing focus of e-commerce and the use of Electronic Data Interchange (EDI) systems for trading transactions is one of the major changes that have occurred in the worldwide business environment overt the last ten years.

For seaborne trade efficiency it is indeed a key development. The move towards a paperless trading system will generate major efficiencies and cost advantages for developing APEC economies. Indeed the importance of electronic commerce as a vehicle for improving the efficiency of transport services and for promoting the participation of developing economies in global trade can not be underestimated.

Paperless trading is likely to lead to greater efficiencies in developing economies than developed economies because of higher freight charges paid in developing markets. For example, UNCTAD estimates the total freight costs as a percentage of the value of imports on a cost-including-freight (CIF) basis in developed economies in 1996 was 4.2 per cent. The figure for developing Asian economies was 8 per cent, suggesting considerable potential exists for e-commerce to streamline processes involved in shipping goods across borders.

The ultimate impact of the e-commerce initiative should be a growth in levels of intra-regional business-to-business e-commerce as barriers to the transfer of data digitally at domestic borders are reduced. The savings in intra-regional transactions suggest that ultimately the pattern of trade between economies could be affected. For example there is a possibility that some trade will move to economies where complementarities are high and trade facilitation gains through e-commerce technology are maximised.

Other key drivers of efficiency with respect to information technology include:

- Computerization of port handling and ship scheduling will improve efficiency.
- The transfer to a system of rapid clearance of goods prior to ships arriving in port. This system should be based on a risk assessment process of probability and consequence focused around the origin of the vessel and the nature of the goods being shipped.
- For goods to be inspected, the use of a fully scheduled system whereby goods are inspected as soon as possible after they arrive at the port. The aim of such a system is to have goods cleared, handled and moved away from the port as soon as possible to allow the next batch of cargo to be processed. By not delaying ships, more and more vessel operators will be attracted to the port, thereby improving overall port throughput, revenue and profitability through economies of scale.
- The computerization of quarantine services to provide advance notice of quarantine arrangements for any given vessel, as well as an easily accessible information

system aimed at facilitating the transfer of goods through the quarantine system in as short a space of time as possible.

- The development of an EDI based immigration system to streamline the processing of immigration procedures and simplify the identification of unwanted arrivals.
- The development of a regional based EDI system for PSC. This will need to be supported by extensive training and international auditing to ensure common standards of inspections between nations in the region. Such a system should ideally be internet based.
- The amalgamation of customs, quarantine, PSC and immigration information systems into one integrated system that operates on a common EDI platform to ensure cross-referencing and horizontal traceability between each component of the system. This will improve the efficiency of the overall system, reduce duplication inefficiencies and reduce the likelihood of corrupt practices in all four areas.
- The reduction of corruption and errors which in turn will lead to increased tariff captures by providing a fully traceable and accountable and integrated computerized information system for customs, quarantine and immigration that can be easily audited by third parties.

These information system processes should combine to enhance trade through the regions ports, thereby increasing overall regional trade and enhancing the economies of APEC.

3. EXISTING SEABORNE TRADE PROCESSES AND PROCEDURES

3.1. Background Information

The key focus of the *Efficiency in the Facilitation of International Seaborne Trade Project* is to increase the efficiency of processes and procedures relating to vessel arrival, stay and departure in the South East Asian region through streamlined and simplified customs, immigration, quarantine and port authority procedures.

As such the project required the initial development of a thorough level of baseline information from which meaningful focus areas could be developed to form the basis of a best practice model. Having summarized the broad context of seaborne trade and efficiency importance in the Asia Pacific region in the preceding section, the following sections discuss the existing situation in each of the four key areas of the study.

3.1.1. Customs

Interaction with the Customs Department forms the main regulatory interaction for vessels approaching ports in the APEC region. Currently the processes adopted by the Customs Departments throughout the region vary greatly between economies and often between individual ports themselves within any given country. This makes the planning process for accommodating and streamlining customs procedures difficult for vessel operators and very much a port by port consideration.

In response to such problems, 1994 saw the APEC Sub-committee on Customs Procedures (SCCP) established to address APEC's agenda to facilitate trade by simplifying and harmonizing customs procedures in support of APEC's goal of achieving free and open trade.

To this end APEC SCCP now produces an annual *Blueprint* which outlines detailed programs for the streamlining of customs procedures in the region each year and in 1995 established a guiding framework and principles embodied in a nine-point Collective Action Plan (CAP). Subsequently, there was a broadening of the CAP as additional elements were including for collective activities. The objectives of the final thirteen-point CAP elements are outlined in Figure 3.1.

OBJECTIVES	EXPECTED OUTPUTS
1. Harmonization of Tariff Structure with the HS Convention To ensure consistency of application, certainty and a level playing field for business through the HS Convention, the standard international harmonized system for the classification of goods.	• The accurate, consistent and uniform application of the HS Convention by all APEC member economies.
2. Public Availability of Information on Customs Laws, Regulations, Administrative Guidelines and Rulings provided to the business sector on an ongoing basis. To ensure traders have access to all the pertinent information for business decisions through the provision of accurate, consistent and user-friendly information to business on an ongoing basis.	• To improve transparency of APEC Customs Administrations • To enhance the APEC Customs Administrations' competency in the dissemination of information on customs laws, regulations, procedures, rulings and guidelines
3. Simplification and Harmonization on the Basis of the Kyoto Convention To improve efficiency in customs clearance and the delivery of goods in order to benefit importers, exporters and manufacturers through simplified customs procedures and best practices.	• Simplified and standardized customs procedures implemented by all APEC members
4. Adoption and Support for the UN/EDIFACT / Paperless Trading To use the standard UN electronic messaging format for automated systems, the United Nations/Electronic Data Interchange for Administration, Commerce and Transport, to promote an electronic highway for business.	• The implementation by member administrations of UN/EDIFACT international electronic messaging standards as the basis for their computerization programmes
5. Adoption of the Principles of the WTO Valuation Agreement To facilitate administration of the World Trade Organization's Valuation Agreement on standard procedures for valuing goods.	• The implementation of the Agreement by members, in a timely and orderly manner, to meet members' international obligations under the Agreement.
6. Adoption of the Principles of the WTO Intellectual Property (TRIPS) Agreement To implement border enforcement procedures for protecting intellectual property rights.	• A strategic programme designed and developed to implement border endorsement of the Agreement by members, in a timely and orderly manner, to meet international obligations under the Agreement.
7. Introduction of Clear Appeals Provision To provide business with an opportunity to challenge potentially erroneous or inequitable Customs decisions through mechanisms for transparent, independent and timely appeals.	• Implementation of Customs appeal mechanisms by all members. • The enhanced transparency and effectiveness of the appeals process and client service initiatives within APEC customs administrations.
8. Introduction of an Advance Classification Ruling System To establish simplified procedures for providing classification information prior to importation, thus bringing certainty and predictability to international trading and helping traders to make sound business decisions based on legally binding advice.	• The introduction of simplified procedures for an advance classification ruling system to the customs procedures of each APEC economy, by the year 2000.
9. Provisions for Temporary Importation, e.g., acceding to the A.T.A. Carnet Convention or the Istanbul Convention To help business move goods such as commercial samples, professional equipment, tools of trade and exhibition material across borders with a high degree of certainty as to how these goods will be treated by Customs by having standard procedures for admitting goods on a temporary basis.	• The implementation of the terms of the A.T.A. Carnet and Istanbul Conventions. • The provision of a common import/export document for the temporary importation of goods. • An internationally accepted security for goods entitled to temporary admission without payment of duties and taxes.
10. Harmonized APEC Data Elements To develop a comprehensive directory supported in UN/EDIFACT which includes a simplified "core set" of data elements, largely derived from commercially available data, that would satisfy the standard data requirements of the majority of APEC trade transactions and so facilitate the exchange of information and provide a foundation for common forms and electronic commerce.	• The development of a set of trade data elements required for ordinary goods for home consumption. • The development of a set of best practices guidelines for the processing and clearance associated with the movement of goods until the goods are no longer under any customs controls.
11. Risk Management Techniques To focus Customs enforcement efforts on high-risk goods and travelers and facilitate the movement of low-risk shipments, through a flexible approach tailored to each APEC economy.	• The implementation of a systematic risk management approach will allow APEC Customs administrations to facilitate legitimate trade and travel while maintaining control.
12. Guidelines on Express Consignments Clearance To implement principles contained in the WCO Guidelines on Express Consignment Clearance, the international standard procedures for clearance of express goods, working in partnership with express industry associations.	• The timely implementation of the international standard for customs clearance of express shipments. • Trade facilitation while maintaining essential customs control responsibilities.
13. Integrity To raise level of integrity in Customs Administrations.	• More accountable, consistent, reliable and transparent Customs Administration

Source: APEC

Figure 3.1: SCCP Collective Action Plan Objectives and Expected Outputs

In addition, APEC's 2001 Osaka Action Agenda highlighted the aim of APEC economies in facilitating trade in the Asia-Pacific region by simplifying and harmonizing customs procedures. The processes specifically stated in the agenda which directly apply to the enhancement of international seaborne trade include:

- APEC economies will enhance computerization of customs procedures by adopting and supporting the UN/EDIFACT standard and endeavouring to reduce or eliminate the requirement for paper documents needed for customs to realize paperless trading.
- APEC economies will introduce a risk management approach to allow customs administrations to facilitate legitimate trade and travel while maintaining high-level border control by 2002.
- APEC economies will explore the feasibility of harmonizing among APEC economies common data elements based on international standards under the auspices of World Customs Organisation for customs processing of cargo to facilitate international trade.
- APEC economies will implement programs to raise levels of integrity of customs systems.

The major reform occurring in Customs processes in the region is the harnessing of information technology to improve efficiencies and accountability. Customs procedures in the South-East Asian economies currently vary between manual, partly computerized and fully computerized. Singapore is by far the most advanced with the fully electronic system MARINET being established in 1999. MARINET is an internet TCP-IP based system which incorporates all aspects of vessel arrival and departure documentation and has resulted in a streamlining of the customs procedures in the island state. This has directly:

- Reduced the cost of customs procedures by simplifying the processes and by greatly speeding up customs processing.
- Reduced the possibility of illegal trade activities, something that occurred under previous systems.
- Improved customs services and the overall image of customs.
- Vastly reduced the paper flow through Singapore's customs organization.

The other major trend occurring in the region is the trend towards a red and green lane system of customs inspection based on risk based assessments of goods entering the country concerned (i.e. a Selectivity System). This system subjects all cargoes to computerised scrutiny to determine the extent of examinations required based on their risk levels. Such a system improves the effectiveness of a given level of inspection procedures, with the aim being to clear the majority of vessels prior to them arriving in the port. The selection of vessels for inspection is based on risk assessments, mainly associated with the nature of the cargo being handled and the country of origin. If inspection is considered to be required, then both the ocean carrier and the forwarder arranging clearance are notified in advance of arrival.

Such a system fits with APEC's stated aim of focusing *"Customs enforcement efforts on high risk goods and travelers and facilitating the movement of low risk shipments, through a flexible approach tailored to each APEC economy".*

Specific Country Issues

Indonesia

In 1995 Indonesia introduced its new Customs Law which heralded comprehensive reforms of its outdated customs system governing customs activities at its 137 ports which are open to international shipping. The customs law is based 90% on international conventions - i.e. WCO which Indonesia has been a member since 1994. Such reforms involved the implementation of self-assessment supported by post-clearance audits on a selective basis, the use of an electronic data interchange (EDI) system to allow traders to submit returns electronically, and increased emphasis on professionalism and customer service. These reforms have been accompanied by the adoption of a red and green lane system for imports, which has reduced the amount of physical inspection of shipments, however does not fully address a number of inefficiencies in the system. The formal adoption of an integrated EDI based information system for Customs is still in the process of development and implementation and until that time, many of the present inefficiencies will continue. Indonesia has also indicated that a major obstacle to efficient operations in Customs is training. Indonesia has requested that APEC consider additional training resources as the international training opportunities are reportedly declining, thereby reducing the effectiveness of operational staff.

There are no formal bodies, committees or Memorandum of Understanding's (MoU) to facilitate interdepartmental coordination or liaison between Government agencies with respect to Customs activities. A forum has recently been established which meets on a bi-monthly basis. Another means which assists coordination between agencies is the movement of officers between ports. On average officers are posted to a port for a 2-3 year period.

The nature of inspections very much depends on the nature of the port and the type of typical cargo to go through the port. Ports require a permit to accept international ships and the port must have a representative of all the Government agencies present. It is believed by the Customs Department in Indonesia that the customs clearance documentation is not overly bureaucratic, mainly consisting of 5 sets of ship arrival notification information. Similarly, agents must lodge 5 manifests, 24 hours prior to arrival. A number of hard copies of the manifest are also required and some manifests are over 1000 pages in length.

For out-clearance, a number of agencies are involved including Harbour Master, quarantine, customs and immigration. The number of agencies involved suggests that out-clearance is a potential area for delays. One procedure that assists in ensuring that the vessel is cleared within a reasonable time period is what is called deemed acceptance. Under this procedure the Harbour Master will release a vessel if he doesn't receive a report to hold the vessel within 24 hours.

Philippines

Following the automation of customs procedures using the ACOS based ASYCUDA (Automated System for Customs Data) electronic information system in 1996, the Philippines has recently introduced the Super Green Lane (SGL) to further improve Customs efficiency in the country. The SGL is a special, risk based customs clearance facility that allows advance processing and clearance of imports for traders that are deemed to represent a low risk to Customs. Effectively this system allows such shipments to be cleared before they arrive at the port, thereby vastly improving the speed of processing. Previous APEC investigations have documented that the system has reduced the time for release of low risk goods from 6 to 8 days down to just 3 hours, whilst reducing the costs of such procedures four fold. On the ground however, the Customs department in The Philippines has indicated that the use of the ASYCUDA EDI system is still somewhat limited in the area of exports and more work needs to be done to upgrade the overall usage and effectiveness of the system with respect to this facet. The system is reported to currently work well for imports to the country.

Thailand

The Customs Department in Thailand operates under the Ministry of Finance and has selected "UN/EDIFACT" as the standard format for the exchange of information between the Customs Department and trading partners. A test EDI system was installed in the late 1990's with the following documents being approved for use in the system by the Customs Working Group in Thailand:

- CUSDEC - General Customs Declaration on Export - for Customs Brokers/Exporters to send export declaration data to the Customs Department.
- INVOIC - Commercial Invoice Message - for Customs Brokers/Exporters/ Importers to send invoice data to the Customs Department.
- CUSREP - Vessel and Flight Schedule Message - for Freight Forwarders Airline Agents to send vessel and flight schedule data to the Customs Department.
- CUSRES - Customs Response Message - Customs' computer sends information to the computers of EDI Trading Partners to inform them about data status and to offer instructions for further action. This message is used for responding to all types of EDI documents.
- CUSCAR - Customs Cargo Report - for Customs Brokers/Exporters/Importers to send cargo manifest data to the Customs Department.
- EFT - Electronic Funds Transfers – for "entrepreneurs" to transfer duty and fee payments to the Customs Department.

The test EDI system essentially allows for customs entry information to be transferred via an online system. Traders can link directly to the system or use a licensed customs broker and only need to meet customs officers for document verification.

The Thai government has instructed its customs service to allow the trading community to access the Trade Siam EDI gateway through the Internet as a matter of high priority.

One initiative that seems to improve efficiency in Bangkok is to reward high quality agents with a gold card which results in reduced inspections by customs. This facilitates a faster discharge of cargo. Approximately 1% of agents currently have a gold card with it being reported to be "difficult to get and easy to lose". Customs watch closely to ensure the issue of cards is not open to misuse.

The inspection of cargo is a weak point for customs. Customs officials believe that the clearance of cargo is fast in Thailand however, customs are also given the mandate to maximise revenue – faster clearance results in less revenue and vice versa. This results in a contradiction of its mandates.

Thailand is in need of customs brokers. However, it will take some time for this expertise and industry to develop. Customs needs to maintain a professional culture amongst officers as they are subject to many offers by unscrupulous traders.

The Thai officials are keen to promote an officer exchange program and greater training from international agencies.

Brunei Darussalam

In Brunei the clearance system used in Customs procedures is a traditional, manually based system. All cargo is inspected due to relatively low volumes with most cargo being inspected in the yard when it is unloaded. Additional inspection requirements such as health and HALAL are also undertaken at this time. Brunei is a member of WCO and uses this organisation to keep track of latest methods and efficiency measures in terms of Customs procedures.

3.1.2. Immigration

Immigration has been a point of much debate in South-East Asia in recent times with the growth in illegal immigration, mainly emanating from the Middle East and South Asian regions. Whilst this is a concern, it is not the focus of immigration issues associated with this project, which is concerned centrally with immigration procedures through the main commercial ports of the region.

Investigations carried out under the project indicated that there is effectively no clear and workable cross border policy to address the issue of illegal immigration amongst the nations of South-East Asia. This is an area of current focus amongst the participants in this study – for example in Indonesia, the Immigration Department is currently working on a scheme to develop information systems to improve immigration procedures and to keep accurate records of ships crews, whilst Brunei's Immigration operations are based on Singapore procedures which are generally considered somewhat of a benchmark in the region.

In general, Immigration agencies in the region support the APEC aim of improving seaborne efficiency. However, obstacles at the operational level often frustrate increases in efficiency. Immigration also is faced with the challenge of ensuring that people entering a

country possess the appropriate paperwork and this poses challenges for a paperless system which would need to be implemented along an extensive array of land and sea border stations. That is not to say that such a system would be inappropriate however, only that the implementation of an EDI based immigration processing system would involve a major project in itself with extensive hardware and training components. Indeed such an EDI system, which should be both inter and intra-nationally based, should form the basis for any major future efficiency improvements implemented in the regions immigration procedures.

3.1.3. Quarantine

Quarantine services perform an important component of controlling the importing and exporting of produce throughout the APEC region to preserve biodiversity and protect the livelihood of natural industries producers throughout the region. This is of particular concern with island economies of the APEC region such as Japan and Australia where quarantine is the first line of defence against invasion by pests and diseases which could devastate the agricultural, horticultural and forestry sectors.

APEC has recognized the importance of quarantine procedures, with the Osaka Action Agenda of 2001, agreeing that APEC economies will "*strengthen regional cooperation in plant and animal quarantine and pest management through, for instance, the establishment of an information network*".

To achieve this goal, a cultural shift throughout the region will need to be coupled with efficient electronic based information systems operated on an international level. Such information systems would include the establishment of an information network on plant and animal quarantine and pest management throughout the region which has already been highlighted by APEC. This will improve availability of information for individual quarantine operators in the region thereby improving efficiency of trade across borders, including sea borders.

In the consultation, contact group discussions and workshops carried out under this project, no major impediments to efficiency of seaborne trade were identified as emanating from the quarantine area. This indicates that improvements in quarantine will contribute minor efficiency improvements in the overall scheme of seaborne trade, despite the critical nature of quarantine issues with respect to ongoing primary production and biodiversity in any given country.

3.1.4. Port State Control

Port State Control (PSC) is the inspection of foreign ships in national ports for the purpose of verifying that:

- the condition of the ship and its equipment comply with the requirements of international conventions; and
- the ship is manned and operated in compliance with applicable international laws.

The primary responsibility for ensuring that a ship maintains a standard at least equivalent to that specified in international conventions rests with the flag State. Accordingly if all flag States performed their duties satisfactorily there would be no need for PSC. Unfortunately, this is not the case as is evidenced by the many marine accidents around the world caused by ships in poor condition - hence the need for additional control.

The authority for exercising PSC is the national law based on relevant conventions. It is therefore necessary for a port State to be party to those conventions and to have promulgated the necessary legislation before exercising PSC. In accordance with the provisions of the applicable conventions, Parties may conduct inspections of foreign ships in their ports through PSC Officers (PSCOs). While national PSC alone will enhance the safety of ships and the protection of the marine environment, only a regional approach will ensure that sub-standard ships and sub-standard operators have fewer places left to hide.

Unless a regional approach is adopted, operators will just divert their poor conditioned ships to ports in the region where no or less stringent PSC inspections are conducted. This may seriously hamper the economical situation of the ports of those economies that do conduct proper inspections. To remedy this and to generally improve the effectiveness of inspections, many regions of the world have already or are beginning to enter into regional agreements on PSC. In the first instance, such an agreement covers the exchange of information about ships, their records and the results of inspections carried out. This information is important as it enables subsequent ports of call to target only ships that have not been recently inspected. In general, ships inspected within the previous 6 months are not re-inspected unless there are clear grounds to do so. Another reason for co-operating with other ports in the region is to ensure that identified sub-standard ships are effectively monitored. This applies especially to ships that have been allowed to sail with certain minor deficiencies on the condition that these are rectified in the next port of call. Such ships can only be monitored by a constant exchange of information between ports.

In the APEC region, the role of the Tokyo MOU in improving PSC inspections is particularly important. The Tokyo MOU has resulted in a more coordinated approach to inspections across the region with overall inspection numbers increasing and more economies in the region becoming involved. Through the MOU, PSC inspections across the region are becoming more consistent and the number of inspections is increasing. Greater intra-regional cooperation has also resulted: member economies share information on PSC on a more regular basis, and economies with strong PSC records are able to provide technical assistance and expertise to those still developing their PSC capabilities. With recent moves to link the Tokyo MOU database with those maintained by the US Coast Guard and the Paris MOU (the European equivalent of the Tokyo MOU), information sharing on PSC is expected to increase even more within the region. This increased information exchange can only strengthen the ‘name and shame’ strategy which has been successfully employed over the years to identify non compliant operators or flag states and pressure them into instituting needed reform. With improved public access to these databases, commercial sectors of the industry would be in a better position to make informed choices about the ships they use or hire.

The full benefits of the sharing of information will be realised when commercial interests also participate in information sharing on the quality of ships. Information flows should be

two way - from PSC data bases to commercial users so they can select quality ships and avoid problems associated with delays and detentions, and from commercial users to PSC agencies to advise of substandard ships that warrant targeting for inspections. Best practice will only be achieved when the commercial sector fully adopts a quality approach in its use of ships. This requires an open approach to information sharing, sophisticated IT systems, good fixed line communications and a high standard of IT hardware in the industry.

The most important benefit from co-operation, however, is ensuring that port State inspections are implemented in a uniform manner by all economies, and ultimately regions, and that similar standards are applied with regards to the detention of ships and the training standards of PSCO's. The purpose of the Tokyo MOU is to facilitate consistent interpretation of the conventions for undertaking PSC inspections. Universal adherence to the MOU contents will achieve consistency in PSC inspections. This achieves a number of objectives. Firstly, a coordinated and regional approach to PSC prevents delays to compliant ships. Over zealous inspections across all ships will result in increased shipping costs as compliant ships are unduly delayed, detained or financially penalised. Coordinated and targeted inspections on substandard ships will raise the costs for the ships owners and gradually reduce the competitive advantage that these ships have achieved through lower maintenance costs.

To achieve this, it is common practice of many existing agreements to conduct joint seminars for PSCOs in order to harmonize procedures. Armed with the information made available as a result of regional co-operation on PSC, APEC can work towards a change of attitude within the shipping industry, where transparency will ensure problems are revealed and solved. The development of PSC in APEC gives the region a chance to increase transparency and openness thereby enhancing overall trade efficiency.

Refinements to targeting systems to better combat substandard shipping continue to be made, and with the introduction of the ISM Code, compliance with the code is increasingly being incorporated into PSC inspections. Greater attention is also being placed on government-industry cooperation so that more sectors, for instance, pilots and harbour masters, become actively involved in reporting non compliant vessels.

Despite the many successes of PSC, a number of problems continue to plague the implementation of PSC in the Asia Pacific region of APEC. Many of the findings in this project are consistent with the observations by Asia Pacific Maritime Institute for APEC, which are:

- **UNEVEN PSC PERFORMANCE QUALITY.** Despite the intention that standards of PSC are applied by all signatory economies to international agreed standards, some anecdotal evidence suggests that the degree implementation of PSC is uneven among APEC economies. Some economies are not actively enforcing the agreed standard. This difference is mainly a reflection of the level of government commitment and funding given to PSC activities. Some economies demonstrate a much higher level of concern for compliance whilst in some developing economies, economic concerns tend to overshadow safety concerns.

- **RELIANCE ON PSC AS A PRIMARY MECHANISM FOR COMPLIANCE.** The role of PSC is being diluted because increasingly it is being used as a primary measure of defence against substandard shipping instead of its intended role as a secondary measure. In too many APEC member economies, more attention and care is given to PSC inspections than to flag state inspections which should act as the primary defence measure. In addition, it is being incorrectly used as a cheap substitute for technical inspections.

- **DIFFERENT INTERPRETATIONS ADOPTED BY PSC ADMINISTRATIONS**. The interpretations adopted on regulatory and convention issues vary greatly between APEC member economies, between PSC administrations that enforce minimum requirements only and those that interpret a convention or regulation far beyond what many believe is intended.

- **LACK OF COMMERCIAL SHIPPING EXPERIENCE OF MANY PSC INSPECTORS**. This issue creates problems because many inspectors are not equipped to make commercial judgments on what is really an unsafe practice or when a defective item poses a safety danger.

- **LACK OF SUITABLY TRAINED PSC INSPECTORS**, which often results in a lot of wasted time, effort, and frustration on the part of ship personnel, and which raises serious doubts about the correctness and reliability of the inspection.

- **EXCESSIVE USE OF GENERIC CHECKLISTS,** which often requires a ship to comply with many items that are irrelevant to its operations. This problem is exacerbated in the hands of PSC inspectors who are not appropriately trained or lack commercial maritime experience.

- **LACK OF PROPER GRADING OF SHIP DEFICIENCIES**, which results in a good ship with minor deficiencies being put into the same basket as another ship which is a complete rust bucket.

- **USE OF THE QUOTA SYSTEM RATHER THAN A RISK BASED TARGETING SYSTEM**. Under the present system, high quality ships are getting just as many PSC inspections as ships with poor safety records. This deficiency needs to be corrected through the application of a risk based targeting system. Integrated within this issue is addressing the political, legal, and commercial will of individual APEC governments to commit to PSC inspections on contentious shipping lines at the risk of losing trade volumes to other less stringent states.

- **CORRUPTION**. Abuse of power and corrupt practices by PSC inspectors in some port states have also been reported, notably, the payment of fees or in kind and the unilateral imposition of PSC authority in case of disagreements over inspection results.

- **LIMITED FREELY AVAILABLE INFORMATION.** Although a lot of information on ships is present in the international marketplace, very little of this is freely available to member economies for PSC uses without obtaining membership to organisations to obtain this information. Even if accessible, existing information databases present various problems to users. A common problem is that each party presents information from a different context so users don't necessarily get the complete picture.

Another problem with information available for PSC usage is that it can easily be taken out of context. The Asia Pacific Maritime Institute cited the example of PSC deficiencies whereby detention lists often detail the classification society for each ship on the list without differentiating whether the deficiency is a class item or not. This produces results which can be misleading unless the origin of the deficiencies is investigated.

Given the potential variation in emphasis and orientation, it is therefore difficult to say if information obtained from databases is complete or even accurate, and therefore whether when comparing information between databases one is comparing "apples with apples".

The most comprehensive database on ship deficiencies in the Asia Pacific region is maintained by the Tokyo MOU, whose annual reports on PSC statistics are available in print and through their website. However the Asia Pacific Maritime Institute cites recent estimates that put the usage level of this information only at approximately 50 per cent of all Tokyo MOU signatories.

3.1.5. Specific Areas of Concern Emanating from Consultation with Stakeholders in Participating Economies

Consultation carried out during the project has indicated the following key issues of concern for efficiency of seaborne trade in South-east Asia in the areas of Customs, Immigration, Quarantine and PSC:

- Standardisation of FAL Form Issue
- Introduction of Electronic Based Information Systems
- Improvement of PSC
- Theft and Piracy

These aspects are discussed in more detail in Sections 3.2 to 3.5.

3.2. Standardisation of FAL Form Issue

General Discussion

The implementation of the IMO FAL Convention 1965 aims to facilitate marine transportation by simplifying and minimising documentation related to clearance (in and out) of seaborne trade. The Convention's main objectives are to prevent unnecessary delays in maritime traffic, to aid co-operation between Governments, and to secure the highest practicable degree of uniformity in formalities and other procedures. In particular, the Convention reduces the number of declarations which can be required by public authorities with the following Standardized Forms for seven of these declarations being:

- IMO General Declaration
- Cargo Declaration
- Ship's Stores Declaration
- Crew's Effects Declaration
- Crew List
- Passenger List
- Dangerous Goods

Two other documents are required under the Universal Postal Convention and the International Health Regulations.

The Convention also requires that all ships carry certificates that establish their seaworthiness, type of ship, competency of seafarers and so on. These certificates are provided by the flag State of the ship and may be inspected by PSC officers. They include (some dependent on type of ship):

- International Tonnage Certificate;
- International Load Line Certificate;
- Intact stability booklet; Damage control booklets;
- Minimum safe manning document;
- Certificates for masters, officers or ratings;
- International Oil Pollution Prevention Certificate; Oil Record Book;
- Shipboard Oil Pollution Emergency Plan;
- Garbage Management Plan;
- Garbage Record Book;
- Cargo Securing Manual;
- Document of Compliance and Safety Management Certificate (ISM Code).

In its Annex, the FAL Convention contains "Standards" and "Recommended Practices" on formalities, documentary requirements and procedures which should be applied on arrival, stay and departure to the ship itself, and to its crew, passengers, baggage and cargo. The Convention defines standards as internationally agreed measures which are "necessary and practicable in order to facilitate international maritime traffic" and recommended practices as measures the application of which is "desirable". IMO has developed eight standardized forms covering arrival and departure of persons and goods and is promoting the global use of electronic data interchange (EDI) to relay these forms between port and ship.

Anecdotal evidence suggests that local, unwritten systems are widely accepted as the standard in the Asian region. These local systems are adopted by industry to overcome the complexity of bureaucratic Government provisions. Adherence to the onerous legislative provisions can place heavy administrative demands on shipping agents, ship owners and

operators, which appears to have led to unofficial practices. In relative terms, the shipping agents/companies consider these arrangements to be preferable to the vessel's operational costs that may be incurred as a result of delays in clearance. The risk of non-compliance with IMO Conventions is significant under this arrangement, as local systems do not account for the intent of the legislation and supporting policies.

The efficiency of vessel clearance is also dependent on the professional conduct of Government officials. It was recorded that at outports in the Philippines and Indonesia delays can occur due to local social events. The extent of the delay is at the discretion of Government agencies. Night arrivals at tanker terminals can also delay a ship's clearance.

Country Specific Issues

The position with respect to the FAL Convention in the economies of South-East Asia is summarized in Table 3.1. Of the economies participating in this project:

- Thailand is a signatory to the *FAL Convention*, although actual practice suggests that older documentation is generally in circulation.

Country	FAL Convention 1965
Australia	**x**
Brunei Darussalam	
China	**x**
Cambodia	
Indonesia	
Japan	
Lao People's Dem. Rep.	
Malaysia	
Myanmar	
New Zealand	**x**
Papua New Guinea	
Philippines	
Republic of Korea	**x**
Singapore	**x**
Thailand	**x**
Viet Nam	
Hong Kong SAR, Mainland China	**x**

Table 3.1: Status of FAL Convention in South-East Asian Region of APEC

- The Philippines and Indonesia are both not signatories to the *FAL Convention*, although form requirements used in these two economies are similar. Customs and immigration form formats are not consistent with the Convention standards. Evidence suggests that there have been efforts to adopt the protocol, although it is

understood that ratification is unlikely in the immediate future. Meetings in Indonesia indicated that it is still in the process of ratification of the convention.

- Brunei is presently not a signatory to the FAL convention, however has stated that it would be in agreement with the use of a standardised set of clearance forms and procedures such as the FAL forms.

During the consultation phase of the project it was reported that, in the case of Thailand, Philippines and Indonesia, form completion is generally cumbersome for the shipping companies as a result of excessively complex forms. This in turn results in a large amount of time being spent by the shipping companies preparing forms prior to issuance in each country.

Singapore, a signatory to the FAL Convention, is the most progressive of the regional economies in terms of complying with the intent of the convention. FAL form procedure in Singapore is in accordance with the IMO format. The majority of the ships, comprising mainly container vessels and tankers, are 'pre-cleared' and vessels can proceed directly to their nominated berth on arrival. General cargo and bulk vessels are still cleared manually. Brunei has ensured its forms are similar to Singapore to increase ease of clearance due to the high proportion of Brunei bound vessels that emanate from Singapore.

Thailand has ratified the Convention since 28 November 1991 with 12 items different from the suggested FAL standard forms listed in the Annex. So as to implement the FAL Convention and minimize such differences, particularly on documentary procedures, a national law has been prepared to determine format and number of documents and procedures required by relevant government agencies to be in conformity with FAL suggestions. Such law is under the process of refinements before submitting to the Cabinet for approval.

It is evident in Thailand, Indonesia and the Philippines that the shipping industry and the Port Authorities would encourage co-operation between the Government agencies, however, the surveys suggest that there is no on-going communication between them on issues of improvement or co-ordination of existing procedures to facilitate a vessel's clearance.

Indonesian clearance forms are reported to be not unlike FAL Convention forms, despite the fact that Indonesia is not a signatory to the *FAL Convention*. Government officials occasionally create their own rules that can cause delays. Agents are reported to resort to seeking agreement through unofficial channels to obtain clearance if they face difficulties. This can lead to Government officials being in a position to individually influence vessel clearance.

3.3. Introduction of Electronic Based Information Systems

General Discussion

The introduction of inter-organisational electronic based information systems (i.e. EDI) to

the areas of Customs, Immigration, Quarantine and PSC will form the corner stone of any major efficiency improvements in each of these areas. Harnessing the power of adequately planned and designed information systems in an electronic format is essential if the economies of South-East Asia are to achieve a significant shift in the improvement of efficiency and effectiveness levels in these areas.

Such EDI systems have and will greatly reduce the need for paper documents and the time and cost associated in storing and accessing them. For example, each year currently approximately 9 billion documents are used around the world to support global trade in goods worth approximately US$5 trillion. The United Nations has claimed that about 7 per cent (US$350 billion) of this total global trade value is made up of paper administration (UNCTAD 1994). That cost alone is roughly equivalent to twice the total revenue of the world shipping industry (APEC 2000a).

Such EDI systems would include for example:

- *In the area of PSC, Theft Prevention and Security Operations*, the Automatic Identification Systems (AIS), which is being installed on vessels worldwide under IMO guidance. Following the events of September 11 2001, the mandatory installation of AIS is to be brought forward worldwide from 2008 to 2004.
- *In the area of Customs,* the ASYCUDA (Automated System for Customs Data) system is a computerized Customs reform and management system, developed by UNCTAD and covering most foreign trade procedures including manifests, Customs declarations, accounting and warehousing.
- *In the area of Quarantine*, in 1994 a system was developed for electronically transmitting data required for the clearance of Australia's animal, agricultural and fish commodity exports in partner economies. An electronic document called SANCRT has been developed for use as a health certificate, a certificate on the commodity's condition or a phytosanitary certificate. This system allows quarantine agencies to transmit certification data to trading partners before shipments leave the country.

At its last session in February, the International Association of Ports and Harbours (IAPH) Trade Facilitation Committee agreed that electronic data interchange should be encouraged worldwide to the point where it is used exclusively for ships arriving and leaving port. During the session it approved a "strategy to promote the use of electronic means to exchange information with the objective of harmonizing and simplifying procedures" which has as its aim the "Total Electronic Clearance of Ships and Cargoes". Such a system is of particular relevance to the South-East Asian region of APEC with respect to enhancing efficiency of seaborne trade through harnessing EDI.

The IMO has also highlighted the difficulties associated with electronic information flows and the fact that these can be eliminated through the use of the standardized documentation system in electronic format that the FAL Convention and IMO provide. This compendium presented IMO recommendations on the layout of several forms in electronic format including the seven listed in Section 3.2.

Reflecting the importance of EDI development for the region, APEC has developed an Electronic Commerce Steering Group which has produced a Blueprint for Electronic Commerce in the region. The APEC Electronic Commerce Steering Group (ECSG) was established by the SOM in February 1999. The role of the ECSG is to ensure continued coordination of APEC e-commerce activities and to pursue the work programme set out in the 1998 APEC Blueprint for Action on Electronic Commerce.

Standardised Data Interchange Format

One of the critical elements to be considered when implementing EDI is the selection of standardized data interchange formats between economies, regardless of the operating software systems adopted. This is essential in promoting international communication and cooperation in a region such as South-East Asia.

APEC has stated that they desire the adoption and support for the UN/EDIFACT system in APEC economies. UN/EDIFACT is United Nations Electronic Data Interchange for Administration, Commerce and Transport and represents the standard UN electronic messaging format for automated systems.

It is therefore important to ensure that any EDI development in the region is based firmly on the use of UN/EDIFACT standard communication formats.

Electronic Clearance of Goods

Introduction of Electronic Clearance to the region is a major efficiency issue and is probably the central technological advancement that can be used for enhancing overall seaborne trade efficiency in South-East Asia. It is also the subject of a separate APEC consultancy that is currently underway and, as such, only an overview of the requirements for Electronic Clearance and E-Commerce issues will be discussed in this report.

The issue of Electronic Clearance also overlaps the other major areas discussed in this report as it directly concerns efficiency improvement in customs, quarantine, immigration and PSC. That is, the existing systems used in all of these areas can be improved by converting to a paperless system of electronic information transmittal.

In the developed world for example, customs departments worldwide are rapidly moving towards modernising cargo management services focusing mainly around a system of electronic clearance for declaring, reporting and clearing cargo.

Of note amongst the Economies surveyed in this project, the Singapore Government agencies have implemented clearance processes using electronic means, and are the only economy surveyed to have largely kept pace with evolving changes associated with electronic clearance processes. Singapore's EDI system, MARINET, has been recognised as an industry leader and is a good example for use throughout the rest of South-East Asia. The Economies of Thailand, the Philippines, Brunei Darussalam and Indonesia are at early stages of electronic implementation. This includes the submission of cargo manifests for customs clearance of container vessels. Clearances by other agencies and for other vessel types are performed manually. Whilst there is dialogue between the Port Authorities and

industry representatives regarding the implementation of e-commerce strategies, verifiable progress by Government agencies was not evident. It would appear that the financial, political and legal hurdles that exist to varying degrees in these Economies may represent impediments to short term improvements in this area.

An overview of EDI systems in the region strongly indicates that the following factors represent key limitations to the implementation of electronic clearance systems in the seaborne trade industry of South-East Asia:

- the lack of appropriate national legislation;
- the costs involved;
- lack of information sharing between the appropriate Governmental authorities;
- the large number of parties involved;
- lack of examples of usage;
- commercial pressures; and
- the level of Governmental commitment.

Country Specific Issues

Thailand

Specific issues raised by the Contact Group and in industry consultation in Thailand included:

- There is no pre-clearance system adopted in Thailand. Vessels are cleared manually when they arrive in port.
- Container vessels and car carriers are allowed six hours notice of arrival but all other vessels need to give authorities twenty-four hours prior notice.
- Vessels are generally cleared within three hours and there are no major issues as a result of delays in relation to clearance. However, a considerable amount of time is spent on form preparation and gaining endorsement by the shipping companies which represents an efficiency problem for shipping companies.
- Established shipping companies and agents with vessels making regular port calls have developed relationships with the Authorities that reduces the time taken to clear their vessels.
- Electronic clearance is only for cargo manifests. The project for total electronic clearance is underway but frustrated by a lack of funding.
- Grain terminals along Bangkok's river terminals do not have a bonded area and therefore require continued customs presence during cargo operations to avoid pilferage.
- Outward quarantine clearance for grain vessels is delayed by the required fumigation processes, which take between twenty-four to forty-eight hours.

Significant efficiency improvements can therefore be made in this area relating to port operations and processes adopted.

- The Government agencies believe that much port efficiency is reliant on the efficiency of shipping agents. Manifests are currently received both manually and electronically. The development of a completely EDI based system requires the cooperation of many departments and its completion date is not known. The cooperation required to implement EDI is a major factor in its delay. Cooperation on a project by project basis between Departments is not guaranteed as other Departments do not see it as a priority nor do they perceive benefits hence there is not motivation.
- Most local shipping agents will not use computers through lack of training, lack of acceptance, resistance to change and lack of financial resources to procure the necessary hardware.

Indonesia

Specific issues raised by the Contact Group and in industry consultation in Indonesia included:

- Government agencies recognise the potential benefits of EDI for improving efficiency in the clearance of vessels. Indonesia is currently establishing an electronic clearance system targeting the importation and exportation of fauna and flora. This program is being developed under the cooperation of PT Pelindo II, Indonesian Customs and Excise and Electronic Data Interchange Corporation. This clearance system was scheduled for implementation April 2002.
- The current legislation requires that original documentation be submitted to Customs three days after departure of the vessel. Legal requirements like this are a hurdle to EDI implementation and until legislation is amended, EDI will not progress as quickly as it could under a more modern and EDI friendly legislation. It was reported that legislation is not easy to change.
- There are currently three EDI programs undertaken by the Indonesian Government:

    1. *EDI Import* was introduced in 1987 and then reintroduced in 1997 into the two biggest ports in Indonesia which deal with 70% of Indonesia's seaborne cargo.
    2. *EDI Export* has been set up but not released for operation.
    3. *EDI Manifest* has yet to be commenced.

- 5 years ago, the Indonesian Government released a strategy called E-Government where it places a priority on EDI. This is to facilitate Indonesia's move towards becoming a competitor in globalisation.
- Container port operations use EDI at the customs interface. The Port Corporation is now looking at a vessel services EDI program which should see 11-12 forms become obsolete. These programs started in early 2002. A pilot program is already in place with a several shipping lines.

- One issue that has arisen in Indonesia is the difficulty of resolving disputes using EDI. There is a misconceived perception that the lack of paper records will lead to traceability problems.
- Pre-clearance exits for container ships only and immigration does not have to board the vessel under this system. Bulk carriers however require manual clearance, whilst inter island traders have no need to clear customs unless duty is required to be paid.
- Consultation indicated that there are no efficiency issues reported relating to clearance of international vessels, which are generally cleared within three hours. However preparation of documents for clearance by shippers takes considerable time resulting in a hidden cost to shippers.
- Large companies and Government entities have preference in matters of clearance over smaller operators.
- Outports, dedicated mining and oil terminals can pose logistic issues for clearance of international freight. For such facilities, government officials have to travel to the outlying port to meet the vessel and facilitate clearance.

Philippines

Specific issues raised by the Contact Group and in industry consultation in the Philippines included:

- There is no pre-clearance in the Philippines. Once officials are on board, vessels are cleared within three hours.
- The industry has issues with the number of copies and type of forms that need to filled out by the agents. Earlier moves by Government to change the form format and vessel clearance procedures failed to produce results.
- Evening arrivals can result in waiting overnight for clearance.
- Delays are an issue particularly in southern Philippine ports.
- Customs officials remain on board vessels during the entire operation at owner's cost.
- For 'restricted' crew in transit, immigration officers have to escort them continuously at owner's cost.
- Major trading companies and established agents generally receive preferential treatment because of relationships with officials.
- Bureaucratic procedures are particularly evident in Manila North and South Ports, which are managed by different operators.
- There are still no laws in place for the electronic clearance of documents.
- The Maritime Industry Authority, currently preparing for tendering Management Information Systems (MIS) projects. The Terms of Reference states that an E-port community is to be created to provide linkages between port authorities,

government institutions and financial institutions. The project is scheduled to start in 2002 and will run for three years. Manila will be a pilot port.

- Customs and cargo processing is now automated in south harbour terminal (Manila) with online registration of cargo and manifests now being received electronically via diskettes.
- An obstacle is that not all cargo handlers can afford the hardware associated with EDI. The government therefore needs to remain flexible and tolerant with implementation.

Brunei Darussalam

Specific issues raised by the Contact Group in Brunei Darussalam included:

- Government departments in Brunei currently do not share information and there is no EDI in place to facilitate such cooperation. An obvious potential efficiency is to receive ships manifests which are currently manually received from agents.
- In Brunei, is it relatively easily to amend legislation therefore the concerns about legislation disrupting the development and implementation of EDI systems for seaborne trade (and in a wider sense) do not represent major problems.

3.4. Improvement of Port State Control (PSC)

PSC is conducted throughout the region according to the terms of the *Tokyo MOU*. Singapore conducts the most inspections relative to other ports and is used as a benchmark by the other Economies in the region. The key problems associated with PSC in the region have been listed in Section 3.1.4 from a study completed recently for APEC by the Asia Pacific Maritime Institute.

From consultation carried out under this project, it was additionally noted that:

- Owners are often subject to a quota system to achieve compliance, instead of a target system. As such, there is a considerable amount of duplication of vessels inspected.
- The system is not equitable. Consistent offenders are often not penalised and compliant vessels are not rewarded.
- Despite signatory Economies being connected to the Asia Pacific Computerised System under the Tokyo MOU, there is little co-operation between ASEAN Economies in terms of inspections.

There were too few reports of detentions to sufficiently comment on delays to shipping as a result of these inspections. International shipping companies interviewed were generally well equipped with inherent *International Safety Management* (ISM) compliance systems that adhere to IMO Conventions and the merits of the adopted systems were universally recognised by industry. Additionally, it was noted that most owners interviewed in

Thailand, Indonesia and the Philippines are sceptical of PSC and concerned that if misused, its focus can become revenue generation rather than safer shipping.

Other than Singapore, Government PSC agencies in the region appear to be hampered by;

- Lack of funding by Government;
- Insufficiencies in staffing and training; and
- A wide geographical area of responsibility.

Specific Country Issues

Thailand

Specific issues raised by the Contact Group and in industry consultation in Thailand included:

- General cargo vessels and bulk carriers are inspected on an ad hoc basis. Container vessels are rarely inspected.
- PSC is viewed by some as an area vulnerable to misuse.
- Ports in Thailand are geographically widespread reducing the effectiveness of monitoring.
- Generally, the perception of the PSC system is positive with few disruptions to clearance as a result of detentions. The effectiveness is however questionable.

The PSC Section of the Thailand Government has been positioned within the Ship Survey Division of the Harbour Department at the Ministry of Transport and Communications since 11 October 1996. It commenced its inspection operation on 27 December 1996. The results below show the inspections carried out by Thai PSC officers from 1996-2000.

Year	No. of Ships Reported	No. of Ships Inspected	No. of Ships Detained	Most found Deficiencies
1996*	2,000	2	-	-
1997	2,300	25	-	-
1998	2,500	24	1	Emergency life saving not working properly
1999	2,050	83	25	Life saving appliances expired
2000	2,250	228	99	Invalid ship's & crew's documents
2001**	1,850	107	24	Direct Lines Overboard

*Commencing date of operation on 27 December 1996
** Information up to July 2001

Table 3.2: PSC Inspections in Thailand

The Tokyo MOU requires Member Economies to achieve the target of PSC inspection of at least 50 % of total vessels plying this region. However, it was reported that due to the governments policy of freezing the number of government officers and the limited budget, Thailand' PSC work is still far behind such the target.

Training of Thai PSC officers has mostly relied on programs organized by the Tokyo MOU Secretariat and the Nippon Foundation as a result of limited PSC personnel and lack of expertise.

Indonesia

Specific issues raised by the Contact Group and in industry consultation in Indonesia included:

- PSC standards are based on IMO standards although the obstacles to carrying out timely inspections are the lack of training for PSC officers. Currently PSC officers receive international training with Japan, Singapore, Australia and the US although the actual volume of training is declining.
- There were conflicting views on Port State inspections. Some companies spoke of regular inspections at main ports, whilst others commented that inspections were vulnerable to misuse or depended on whether there was a previous Port State inspection that was in order.
- There were no detentions reported as a result of PSC inspections.
- Overall, in Indonesia there appears to be a lack of trained inspectors, insufficient training centres and high costs to local owners of vessels in maintaining ISM compliance.

Philippines

Specific issues raised by the Contact Group and in industry consultation in the Philippines included:

- Inspections are not regular as the Coast Guard is understaffed and Coast Guard officers are insufficiently trained for this role.
- There were no delays as a result of the inspections, as reliance is placed on previous port inspections by other Port State officials, such as Singapore.

Brunei Darussalam

Specific issues raised by the Contact Group in Brunei Darussalam included:

- There are no detentions on record instigated by PSC officers. If a vessel is more that 2000 tonnes, regulations state it cannot be detained.
- Regarding PSC, Brunei has observer status for Tokyo MOU. Brunei may eventually sign as they are going through the processes based on PSC.

3.5. Theft and Piracy

The word piracy is not the preferred terminology within Government agencies and shipping companies in Asia, who prefer to use the term 'theft' or 'armed robbery'.

Surveys and experience in the region suggests that, of the Economies participating in this project, theft is most prevalent in Indonesia, where most companies interviewed had at least one incident to report. In Indonesia, there was also one reported loss of a vessel by a Philippine ship owner twelve years ago. The Philippines recorded some incidents, mainly in the southern island ports, and to a lesser degree, Thailand. Whilst this has reportedly not caused any delays to shipping, the financial loss to commercial shipping is considerable. Government agencies reported that they are unable to handle the problem as they are insufficiently resourced as well as not possessing the necessary legal framework and logistic expertise.

Although there have been conferences on piracy in the region, it would appear that there is still no close co-operation between South-East Asian Economies, especially in the area of patrolling to monitor or deter armed robbery at sea. It is also evident that there have been no significant moves by regional Governments to ratify the *Rome Convention of 1988 on the Suppression of Unlawful Acts against the Safety of Maritime Navigation (Rome Convention)*. Steps towards improving this matter have however been taken this year with a regional meeting held on 3-4 March 2002 in Indonesia where a Regional Agreement on Combating Piracy and Armed Robbery Against Ships was proposed for consideration and adoption.

Investigations indicated that there has not been extensive development of a cross border policy on illegal immigration, although the region will benefit from the conference on trans-boundary crime, with particular focus on people smuggling, which was held in Bali in late February 2002. Such illegal immigration results in a direct cost to shipping in the region as well as providing safety risks. As a result, delays to shipping schedules and resultant financial costs to shippers and receivers can be significant.

There were no reports of smuggling or stowaways on vessels in any of the 37 shipping companies consulted on the project.

Specific Country Issues

Thailand

Specific issues raised by the Contact Group and in industry consultation in Thailand included:

- Incidents of theft on container vessels at Laem Chabang terminal and pilferage of rice from terminals along the Chao Phraya River were reported. However, the situation is difficult to monitor as marine police have indicated they are understaffed.

- There appears to be no specific Marine legislation to deal with theft on vessels or piracy issues.
- There are no reported issues with regard to illegal immigrants or stowaways that currently cause delays to vessels clearance.
- Whilst theft is decreasing in Bangkok ports, the statistics are unable to be verified as there is a lack of information on piracy/theft statistics generally (*participants were reluctant to discuss piracy issues*).
- The Thailand Police provided an example for the *MT Hanwei* (oil tanker on route from Singapore to Myanmar). The Thai police found the vessel abandoned at Laem Chabang Port and later caught illegal immigrants hiding in a southern province. The product (1 million litres) had been sold.
- Whilst Thailand has not ratified the Rome Convention on Theft/Piracy, it is now reported to be under the consideration of relevant government agencies to assess the necessity and other benefits in ratifying this Convention.
- With regard to the regional cooperation in patrolling and cross border operations, Thailand has participated in several regional activities such as Thailand-Vietnam and Thailand-Malaysia joint naval patrolling, Tokyo Appeal 2000 Meetings organized by Japan. The participating economies of such meetings include ASEAN member economies, Japan and some South Asian economies such as India and Bangladesh. Moreover, Thailand has also taken part in joint training on this matter with Japanese coastguards.
- In Thailand, there are two relevant government agencies responsible for combating piracy, namely, the Royal Thai Navy and the Royal Thai Police. The Royal Thai Navy has established the National Marine International Protection Cooperation Center to guard the Exclusive Economic Zone while the Central Investigation Bureau under the Royal Thai Police has been assigned to deal with armed robbery in Thai territorial waters.

Philippines

Specific issues raised by the Contact Group and in industry consultation in the Philippines included:

- There were incidents of attempted major theft (i.e. piracy) reported, however, no delays to clearance resulted from these. Similarly, there were no reported delays to clearance due to illegal immigration, smuggling or stowaways.
- The Philippine Coast Guard believes there are many unreported incidents of piracy and they do not distinguish between theft and piracy.
- The methods for dealing with theft are hampered through a lack of clear responsibilities. Confusion exists between Coast Guard, Navy and Philippines Immigration Authority. For instance, the Coast Guard is primarily concerned with sea worthiness whereas immigration is tasked with controlling people entry and departure and customs focuses of products and securing revenue.

- Nonetheless, piracy is not regarded as a serious problem. Human smuggling and narcotics is the major problem.
- Philippines are awaiting involvement from other economies in region.

Indonesia

Specific issues raised by the Contact Group and in industry consultation in Indonesia included:

- Representatives from each country interviewed reported several incidents of robbery or major theft (i.e. piracy) in Indonesian waters.
- While no major incidents that caused disruption to clearance were reported, numerous incidents of intruders boarding vessels, robbery and theft of items such as spares, cash and ropes were cited.
- Interviewed representatives were not aware of official investigation of these incidents.
- Representatives interviewed considered that there is insufficient funding for the Navy to provide adequate surveillance of a significant area.
- There were no reports of stowaways, illegal immigrants or smuggling on vessels of the shippers interviewed.
- Ship to shore communication in Indonesia is reported to be problematic, which tends to frustrate piracy control.
- The Indonesian Navy has specifically established a piracy centre to control high risk areas.

Brunei Darussalam

Specific issues raised by the Contact Group in Brunei Darussalam included:

- There were no recent reported acts of piracy raised during consultation in Brunei.
- Brunei receives good cooperation from Malaysia and ASEAN in general with respect to countering acts of piracy.

4. Proposed Best Practice Model

4.1. General Outline of Model

One of the main priorities of the APEC Transportation Working Group (TPTWG) as outlined by the APEC leaders in Bogor, Indonesia in 1994 and in 1995 by a joint Ministerial statement, was to facilitate the harmonisation, co-ordination and transparency of transport policies, regulations, procedures and standards in the region.

The economies have undertaken, by 2005, to develop an efficient, safe and competitive operating environment for maritime transport in the region through improved transparency of maritime policy, as well as to eliminate the requirement for paper documents for the key messages relevant to international transport and trade.

In order to achieve these objectives, the Efficiency in the Facilitation of International Seaborne Trade Project has been undertaken. The hard copy output of the project is the production of a best practice model which is outlined in this section.

The best practice model is presented in the form of building blocks that were clearly identified during the project. Several specific objectives that were recommended by the contact group and the stakeholder bodies consulted under the project are included as an important component in the strategy of achieving best practice.

The model is shown in Figure 4.1 and is broken down into:

Macro Components: which address items requiring macro development and change within the governments of the South-East Asian region; and

Micro Components: which address specific issues associated with the processes adopted for customs, immigration, quarantine and PSC in the region.

It is noted here that the model is not all encompassing. During implementation it is likely that additional issues will be encountered that require addition to the best practice model, whilst some of the issues included in the model will require reassessment and adaption. The model contained in this report does however provide an important step along the road to improving efficiency and harmonisation of seaborne trade in the region.

4.2. Macro Components of the Model

In economies were significant change has occurred to facilitate improved border control and facilitation of trade, the process has taken many years. It has been achieved through senior policy advisers setting the strategy and identifying clear objectives.

These objectives were acknowledged by staff within Government agencies as the basic building blocks to achieve an effective protocol for managing border control and thereby improving the facilitation of trade.

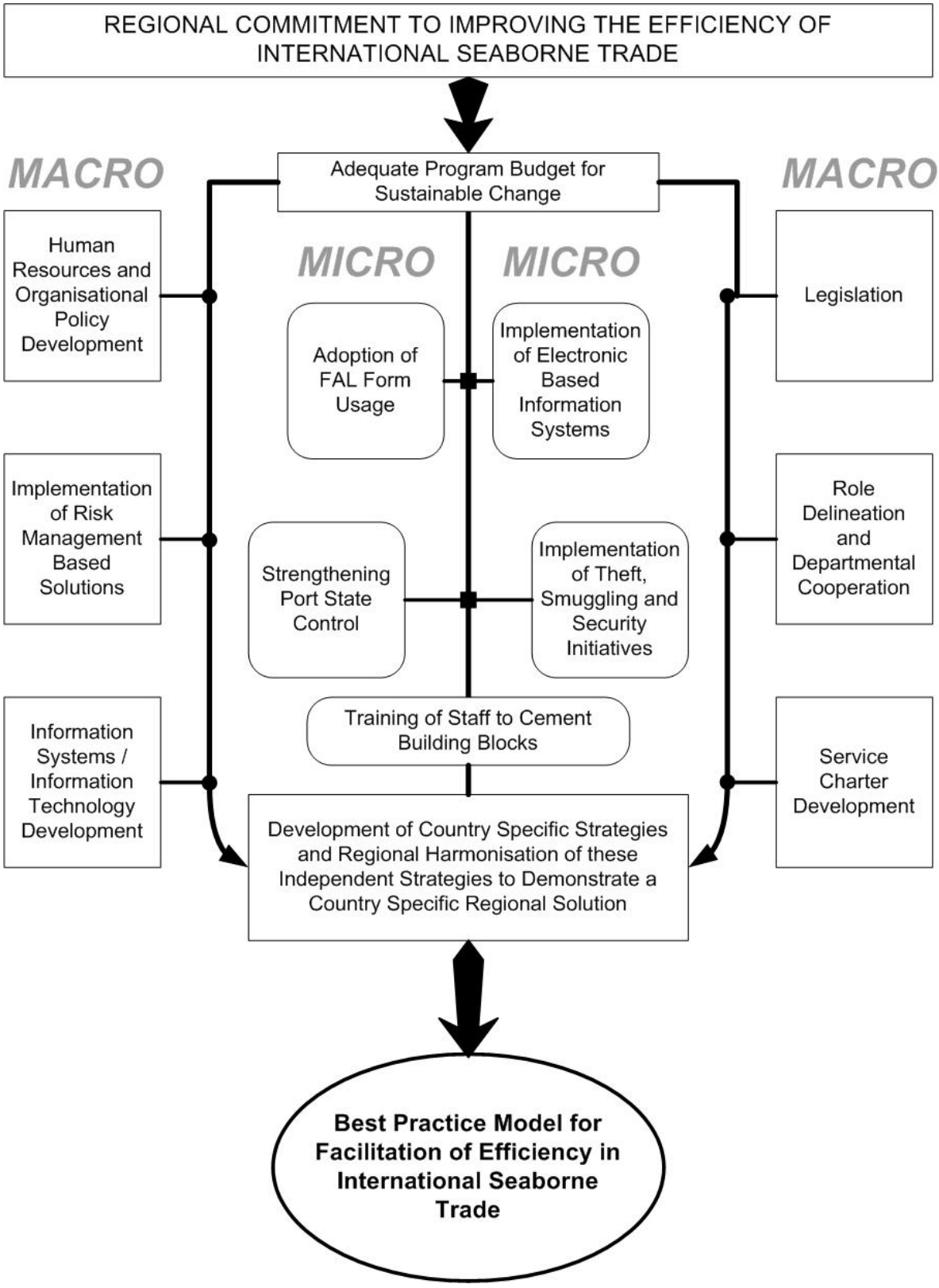


Figure 4.1: Flow Chart Depicting Components of Best Practice Model

A change in culture amongst staff, brought about by education, inter-departmental briefs and training underpins the success of the new protocol. This in itself gains the support of industry and has contributed to success of each project. APEC is in a position to propose and encourage the adoption of the macro components by APEC economies.

The proposed macro components of the best practice model can be broken down into the following categories:

Commitment

- *Ensuring full understanding and acceptance of the importance of efficiency in operations and the positive impacts that such efficiencies will have on national trade and living standards.*
- *Allocating sufficient resources for program implementation, staff and equipment.*

Legislation

- *Developing and maintaining adequate legislation with full coverage to support efficient operations of each relevant department and the introduction of electronic operations.*

Role Delineation and Departmental Cooperation

- *Delineating roles between departments*
- *Ensuring that each department understands the roles of all the other departments dealing with seaborne trade policy.*
- *Ensuring full cooperation between all departments dealing with seaborne trade operations.*
- *Developing consistent practice and procedures throughout the region and the fostering of international cooperation.*

Service Charter Development

- *Development of appropriate service charters that encourage Departments to move beyond what has been done historically or what suits the preference of the department heads.*

Implementation of Risk Management Based Solutions

- *Adoption of risk management based systems to improve operations by better targeting high risk cargo and vessels. This process should be applied across the board to customs, quarantine, immigration and port state control procedures to optimise the efficiency of such procedures.*

Information Systems/Information Technology Development

- *IS/IT development that is consistent with the intent of changes in legislation, service charters and inter-departmental cooperation.*
- *Implementing efficient IS/IT systems that allow information exchange between Customs, Immigration, Quarantine and PSC authorities within the South-East Asian region and APEC member economies.*

- *Tailoring IS/IT systems to reduce the possibility of corruption by instilling accountability, operational tracking and a formal checking procedure.*
- *Adoption of Automatic Identification Systems (AIS) as recommended by the IMO.*
- *Development of integrated systems to make use of AIS for improving electronic operations in the areas of Customs, Immigration, Quarantine and PSC.*

Human Resource and Organisational Policy Development

- *Education within the agencies to initiate a culture shift towards standardising operating procedures which will hasten the removal of informal procedures practised by agency officials.*
- *Introduction of new management tools and use of advanced IT systems.*
- *Implementation of integrity programs and activities that are related to intelligence, prosecution, post-clearance audit and internal audit.*
- *A regional approach should be adopted to training to ensure consistency in operating standards.*

The above recommendations address "on the ground" issues of trade facilitation, but should also be complimented by a high level commitment to adopt best practice. The strategy of establishing the basic "building blocks" in border control agencies will enable the participating economies to move toward best practice

The model components listed above are discussed in more detail in the following sections.

4.2.1. Commitment

Understanding the importance of efficiency in operations and how this will affect national trade and living standards essentially forms the framework surrounding the need for efficiency improvements of regional seaborne trade in the South-East Asian economies of APEC.

Generally speaking, this issue has received significant promotion and acknowledgement over recent times and is well accepted throughout the region. Nonetheless, any macro model on improving efficiency must start with a demonstration of the need for the project and, as such, the first step in implementation should involve a discussion and acceptance of that need by APEC Economies. An issue that was raised during workshop was the need for adequate program budget, setting of priorities for programs to limit redirection of resources, sufficient staff and equipment resources.

4.2.2. Legislation

The consultation carried out under the project indicated that it was evident that the shipping industry of Thailand, the Philippines, Brunei Darussalam and Indonesia is subjected by legislative requirements which can be outdated owing to the rapid pace of change in the maritime industry. Informal local procedures, developed over time by local

operators to bypass the legislative provisions, often appear to be sanctioned by Government officials and have created an ad hoc and non-uniform approach between these Economies to seaborne trade procedures.

Such informal local procedures allow the industry to operate with minimum delays, although have the potential to increase the possibility of non-compliance especially in the areas of safety, environment, customs, and quarantine. In the long run, losses to each country resulting from non-compliance are likely to far outweigh the costs associated with the rationalisation and improvement of the legislative framework and the associated cultural change required for implementation. In addition it is noted that, as trade increases steadily in the region, these ad hoc and informal processes will become impossible to maintain, resulting in serious efficiency losses to the Economies concerned.

Local procedures and practices will continue to occur as long as there is significant gap (cost and time delays) between legislative compliance and alternative informal procedures. This project must focus on reducing the extent of such ad hoc processes, thereby streamlining the seaborne trading processes relating to matters such as vessel declarations, reporting, clearance and control. In addition it is apparent that the worldwide port industry is moving rapidly towards electronic clearance procedures. Accordingly these should be included as an aspect of the project, particularly for the larger ports in each of the Economies participating in the project.

To achieve these recommendations, it will be necessary to initiate a program to shift the culture of the industry. This should be addressed in part, by identifying an overall strategy to reduce the gap between legislative compliance and alternative informal procedures. Reducing this gap will represent a significant step toward the adoption of *FAL Conventions* and appropriate PSC procedures to safeguard shipping within the region and increase trade facilitation.

An overall strategy should include amendments to legislation in each individual country, simplifying policies and adoption of IT initiatives for the transfer of information via Electronic Data Interchange. There are sufficient economies worldwide that have already tread this path to ensure that benchmark models exist for adaptation into the participating economies. For example, the Australian system being used could represent a benchmark model to be used as the starting point for this process. Australia is used as a reference because the consultants for this report were located in Australia and had ease of access to information. The Australian system is only one of several potential examples that could be considered for the purposes of setting a benchmark. As other economies systems are developed, the benchmark could change to be more appropriate to the general needs of APEC.

A clear strategy that addresses the above issues will enable the contributing Economies to move toward improved regional clearance and handling of shipping.

4.2.3. Role Delineation and Departmental Cooperation

To achieve a successful protocol it is necessary for all staff involved in Border Control to

be aware of each department's responsibilities. This includes issues relating to customs, quarantine, foreign affairs and PSC.

Unfortunately, it was often reported by participants in the project that there exists much confusion over responsibilities and roles between the many agencies and stakeholders in the seaborne trade industry of South-East Asia. Roles often merge and are generally unclear regarding border control. Integration between agencies could be improved, follow up on initiatives lacks commitment and funding for such activities is not adequately allocated to resource effective cooperation efforts.

Two examples of this are:

- Naval authorities in each country do not understand the total trade implication of border control simply because other agencies are tasked with this role.
- Customs has a revenue focus whilst immigration has a law security focus – together these are often incompatible.

For agency staff to cooperate it is important to establish mutual trust. It is also important that political concerns regarding each department's legislative responsibilities are addressed under the improved protocol.

For progress to be achieved, a fundamental change in culture is required throughout each agency that manages the clearance of vessels at their ports. It is necessary for all staff to be familiar with each agencies legislative responsibility.

Memorandum of Understanding (MoU) between each department will define the area of responsibility but it is important for agency staff to be aware of other departmental requirements and parameters. This requires an ongoing process of training. A significant part of the current process is the use of 'on the job' training. This introduces departmental staff to inter-departmental responsibilities and the process of addressing specific issues as they arise.

A building block that sets the foundation for the way in which each Agency will operate under a cooperative approach to Border Control and Vessel Clearance is a MoU between each Department.

Senior policy staff need to negotiate the terms of the memorandum with a clear understanding of the legislative requirements under which each department operates. Such a MoU will assist to resolve the confusion that exists in many departments in the region over roles and responsibilities. The MoU would need active involvement from all parties in its preparation and would require commitment and financial resourcing for preparation, implementation and monitoring. It is suggested a pilot MoU be established and its benefits documented to encourage acceptance by Government Departments.

In the report "*Customs Reform and State Modernization in the Globalization Process*" by Jaime A. Garcia, the author comments that:

"Probably one of the best examples of cooperation that I can show is the APEC Sub-Committee of Customs Procedures, they are making valuable efforts to exchange experiences among their members in order to achieve facilitation, accountability, consistency, transparency and simplification."

This illustrates that progress is being made toward the exchange of information in the region and in this area APEC are moving toward a best practice protocol.

Communication and co-operation between Government agencies is necessary to improve and streamline existing processes and procedures. In addition consultation with lead economies is required to assist in the overall change management process.

On a wider scale, international cooperation is the cornerstone of APEC. Government-to-government cooperation is an essential component in improving market access and reducing administrative impediments to trade and investment in the South-East Asian region.

4.2.4. Service Charter Development

As in the private sector, when governmental agencies operate in a service-orientated environment, trade-related efficiencies can be achieved by ensuring a customer service focus amongst service providers. Developing a service culture in government agencies is an important component of the best practice model developed under this study.

Such a customer service mentality is starting to take hold in the region thanks to initiatives by APEC and other such advisory bodies. For example, the customs reforms involving the introduction of EDI systems promote a service culture by making customs procedures easier for customers to use by, for example, completing trade declarations from their own computers and allowing importers to lodge trade entries from their own offices.

In addition to the concept of the MoU, it is considered essential to establish Service Charters for all agencies involved in seaborne trade to set the required customer service levels. These also serve as the basis for identifying how each department will perform their function, particularly in respect of other departmental areas of responsibilities. The processes and parameters for each officer undertaking a specific role should be clearly defined in the Service Charter. The use of service charters can reduce the influence of individuals to direct the change within departmental priorities.

Recent reforms adopted by customs organizations demonstrate the efficiencies that can be gained by adopting new approaches to achieving the traditional roles that board control organizations are required to achieve under legislation. A culture that is responsive to change is a significant success factor to gaining process efficiencies. This can be achieved in a number of different ways and it is beyond the scope of this study to identify appropriate change management models that facilitate the implementation of the best practice model. However, it is prudent to highlight the need for a culture sympathetic to change. It is considered that the development of service charters could alert Departmental management of the service levels that need to be achieved. The use of service charters also

encourages a culture of setting performance levels therefore moving beyond what has historically been accepted as the status quo. Effective change requires that staff within the Departments understand the importance their contribution towards achieving gains in seaborne efficiency. Similarly, departments need to understand the roles and responsibilities of other agencies which have border control responsibilities.

4.2.5. Implementation of Risk Management Based Solutions

One of the most significant building blocks required for effective and efficient border control is the management of risk. The move towards a risk management basis of inspection selection has particular relevance to most areas of border control including Customs, PSC, Immigration and Quarantine.

In Agencies that rely on risk management as the fundamental process in achieving their responsibilities, a culture of risk management is required amongst staff and officers.

Risk management is able to effectively react to changes in the market. In developed border control systems this is evident in the way that the profile of Security was raised as a result of September 11, 2001. In the case of Departments of Agriculture, systems were immediately modified to address the threat of Foot and Mouth disease.

It must be appreciated that the move toward Risk Management can be a relatively long process. In Australia, the move away from boarding every vessel by a customs officer was adopted in 1989 and since that time the process has been significantly refined. The events of September 11, 2001 and the increased awareness of terrorism impacted on the risk assessment process. The risk analysis on vessel clearance now reviews the trading nature of the vessel and the crew list to determine a risk profile based on hazard and likelihood analysis. This allows an enhanced level of effectiveness in inspection whilst using the same level of resources. It also ensures that low risk cargoes are processed through border control more efficiently thereby reducing the cost of trade for goods entering the country.

4.2.6. Information Systems/Information Technology Development

Innovations in Information Technology (IT) and Information Systems (IS) are important tools to improve productivity and quality of services in the area of seaborne trade. IT/IS is considered not only applicable to the traditional administrative roles to reduce the time of the procedures or to deal with the workloads of the public administration, but also for the new developments in services as a wider strategic framework involving:

- Harmonising and simplifying of procedures for the clearance of vessels.
- Introduction of uniform electronic means for the clearance of vessels through the accommodation of Customs, Immigration, Quarantine and PSC requirements.

A factor in the introduction of improved use of technology within border control agencies is the increasing pressure for funds from the government. Traditionally, cargo and vessel

clearance has been heavily dependent on manual systems and the exchange and clearance of paperwork.

To achieve advancements in IT/IS, information sharing is essential. Dissemination of information throughout the region is of paramount importance as there is an immense amount of information already held by governments and organisations such as APEC, UNESCAP and UNCTAD. Information systems should be designed to allow individual country department's access to such information for their own development. Such information would include:

- PSC inspection statistics.
- Additional information for Customs, Quarantine and Immigration to assist with risk based decision making.
- Ship vetting systems for safety control.

Participants in this project strongly support the need for easy access to quality information by all relevant parties; indeed, they see it as crucial in ensuring that efficient seaborne trade practices are implemented in as short a period as possible by learning from the practices of other economies. For many participants, information exchange can be made more effective through increased information sharing and more regional based forums on seaborne efficiency issues.

An Australian Example of Appropriate IS/IT Solutions

In Australia, Customs is rapidly moving forward with their Cargo Management Re-engineering project for which Trade Modernisation legislation (International Trade Modernisation Act 2001) was passed in 2001. The aim of this project is to modernise the way Customs manages the movement of cargo to and from Australia through:

- Creating the legal foundation for an electronic business environment for cargo management
- Establishing a new approach to managing compliance
- Improving controls over cargo that fails to comply with requirements

Aligned to the change in legislation are the introduction of an electronic Integrated Cargo System and the important aspect of education. This is also an important building block when introducing change and reaching for an improved protocol for, in this case, cargo clearance.

The same process will be required to improve vessel clearance. This is the next move toward an improved protocol. In Australia the fundamental requirements of legislation, service charters and inter-departmental cooperation are in place. The next step of improving the processing of paperwork associated with vessel clearance will enhance the existing system and the adoption of IT processes.

4.2.7. Human Resource and Organisational Policy Development

Human resources policies related to the relevant departmental institutions will play a key role in improving efficiencies. These will include:

- Adoption of a formal evaluation and selection process for staff.
- Continuous training and evaluation to strengthen employee's capabilities and specialization whilst also reinforcing the importance of the jobs they are undertaking for the economies development. Such training should include international training only where this can be demonstrated to provide a firm return on investment. Too often international training programs are ineffectual, cost a significant amount of money and are seen by some participants as a cause for a holiday in a foreign country.
- The adoption of adequate salaries will contribute to improved staff culture and will reduce the likelihood of corruption infiltrating the system.

The introduction of new management tools and use of advanced IT systems will lever their organizations to a new level of effectiveness. This should be implemented only after instigating the appropriate culture within the organisations concerned and will need to be supported by adequate funding commitments.

Implementation of integrity programs and activities that are related to intelligence, prosecution, post-clearance audit and internal audit will assist with improved service delivery and reduce the incidence of corruption. Programs such as this should inevitably prove cost effective if implemented correctly, not only because of the improved efficiencies they will foster, however also because of the enhanced direct revenue they will generate by reducing "leakage" from existing revenue collection methods.

An example of the above is the Customs and Excise Department in Singapore, which has gone through many developments and organizational changes in the past two decades. Singapore has one of the most efficient customs administrations in the region with its computer system having been awarded the ISO 9001 certification in 1995 and the Department attaining ISO 9002 certification for revenue collection, cargo clearance and passenger clearance since 1998.

It is a well know fact that whilst laws can change in response to a need, culture tends to slow change because of a natural in-built resistance in organisations to change. This was demonstrated in the consultation phase of this project where the issue of changing culture was not well received in Brunei or Indonesia. Both of these economies regarded their culture as not requiring change.

Education and training is one area which received a significant amount of attention from study participants. To a great majority of them, education is the single most important factor in improving safety standards in the region. In Thailand for example, most of the officers who travel internationally are part of the international affairs group, therefore the international experience is not widely disseminated. Overseas experience tends to be limited to policy sectors rather than the operations sectors that equally need the overseas

experience. The Thai Government prefers to invite international specialists to Thailand to save on travel costs although this denies the perceived reward/recognition/motivation benefits associated with overseas travel. It was also noted in Thailand that APEC training needs to be followed up, for without follow up actions, the value of training and seminars is quickly diminished.

Some of the participants in the study also commented on the experience that they learnt much from overseas training but owing to a culture of resistance to change, they were unable to implement new learning's. They emphasised the need for APEC funded training.

In many ways the training needs of the region are beginning to be addressed with numerous APEC, IMO, UN and inter-governmentally funded training schemes being developed each year. The Tokyo MOU, for instance, has in place a technical assistance program to help maritime safety authorities develop requisite technical expertise for PSC issues. It is currently training PSC inspectors in the region, for instance, to improve the quality of PSC inspections.

A regional approach is considered essential to ensure consistency in information and training. It has been suggested, for instance, that funding be sought for regional information and education programs to inform people of systems in use throughout the region to improve their competence in requisite areas.

4.3. Micro Components of the Model

The proposed micro components of the best practice model can be broken down into the following categories:

Adoption of FAL Form Usage

- *Implementation, by law or policy, of the IMO FAL Convention format to achieve universally accepted, simplified procedures and documentation for the facilitation of international maritime traffic.*
- *Communication and co-operation between Government agencies to improve and streamline existing processes and procedures to improve facilitation of vessel clearance.*
- *Education within the agencies to initiate a culture change to overcome informal procedures which, by their practice, risk non-compliance with IMO Conventions.*

Implementation of Electronic Based Information Systems

- *Implementation of a regionally standardised system (based on UN/EDIFACT) for electronic information transfer and communication between vessels and relevant Port Authority Departments utilising a variety of methods for communication including the internet. These should include appropriate and specific systems in each of the areas of Customs, Immigration, Quarantine and PSC (some or all of these areas may already have electronic systems developed in embryonic or advanced form).*

- *Consideration for adoption of the ASYCUDA system (or a compatible similar system) for customs control in each country.*
- *Government agencies, with the assistance of shipping industry consultation, to develop clear legislation and policies to support the implementation of electronic data exchange in each country. This process should be supported by regional dialogue between economies to ensure that the legislative processes adopted are compatible throughout the region.*
- *Governments to allocate sufficient funding for training, hardware and software to support the initiatives adopted.*
- *Application of regional standards with respect to electronic systems: such as the convergence of data requirements for cross-border trade through the UN/EDIFACT standard in the logistics industry. This makes the creation of a single entry window based on internet protocols a reality. These standards now need to be applied to the government trade documentation systems of APEC economies.*
- *Improvements in telecommunications infrastructure: such as high speed optic fiber networks, lower cost internet services and broader access to the internet by businesses to support greater demand for paperless trading services throughout the developed economies. Improvements in Internet access and infrastructure in developing economies.*

Strengthening Port State Control (PSC)

- *Co-operation on PSC to be implemented in the regional economies.*
- *Adoption of standardised PSC procedures based on the requirements of the Tokyo MoU.*
- *Education with respect to the content and information systems available under the Tokyo MoU to be initiated.*
- *Development of a target system based on risk, which should be used in preference to the quota system that is currently used in most economies of the region.*
- *Development of a system whereby consistent offenders are detained and/or compliant vessels are rewarded. Consideration of additional fee's for repeat PSC inspections once a risk based system of vessel selection is instigated.*
- *Resources allocated for the staffing and training of Government officials, which will partially address the cultural change required to improve efficiency. Assessment of methods to better use the training opportunities offered by the Tokyo MoU.*
- *Implementation of a naming and shaming protocol for the region (as per Tokyo MOU) to be instigated at both a regional and country level.*
- *Release of full inspection data currently held in the region on PSC.*
- *All APEC economies should become a signatory to the Tokyo MoU.*

Implementation of Theft, Smuggling and Security Initiatives

- *Ratification of the Rome Convention on Theft/Piracy by regional governments.*

- *Co-operation between the regional economies in patrolling and cross border operations.*
- *Assistance with the implementation of Automatic Identification Systems on all vessels in the region.*
- *Promotion of regional cooperation between governments as well as inter-organisational cooperation within economies to foster a cooperative approach to combating piracy in the region. This should include regular dialogue and conferences on the subject.*

Training

- *Many of the building blocks of the best practice model require training of staff to ensure the new policies and methods are implemented and change occurs is a sustainable manner. Without sufficient resources set aside for the training of staff, efficiencies are not gained as staff are unable to comply with new standards to achieve competence and proficiency.*

These categories are discussed in more detail in the following sections.

4.3.1. Adoption of FAL Form Usage

It is recommended that the participating Economies move toward adopting the *FAL Conventions* to simplify and standardise documentation for vessel clearance within the region. This should affect the removal of the local, unwritten systems that are widely accepted in the region and should simplify the complexity of existing bureaucratic Government provisions.

Accordingly Indonesia, the Philippines and other relevant economies in the region should pass the necessary legislation to adopt the 1965 FAL Convention to meet international IMO standards.

The adoption of the FAL Conventions in each country will need to be supported with communication and co-operation between Government agencies to improve and streamline existing processes and procedures to improve facilitation of vessel clearance.

Education through training within the agencies to initiate a culture change is also required to overcome the existing informal procedures which, by their practice, risk non-compliance with IMO Conventions. Such training will assist in the hands-on implementation of the FAL Conventions which will meet natural resistance from elements of the existing Governmental organisations concerned.

The APEC TPT-WG has recently commissioned the Electronic Port Manifest Project to be conducted by the Port Experts Group. The objective of this project *"is to identify options for decreasing the amount or number of times information is collected, and options promoting ways to share the information once it is collected"*. The project identifies

current practices and produces best practice recommendations regarding port manifests and declarations in electronic form and paper format in APEC economies.

The key recommendation from the Electronic Port Manifest Project seeks to address the lack of unified and enforceable global standards for the shipping industry, stating that "the benefits of such standards are so great that every opportunity to forward this agenda must be taken". The development and implementation of such standards will provide numerous opportunities to re-engineer and streamline the exchange of information between the stakeholders while greatly reducing the cost of international trade.

The study discusses the advent of eXtensible Markup Language (XML) technologies which provide significant opportunities for a unified, global set of standards and business processes that could result in a single global marketplace where all organisations, large and small can exchange messages via the Internet. However, the study points out that without the structures to manage and enforce shipping industry standards, the benefits of XML will not be fully achieved.

4.3.2. Implementation of Electronic Based Information Systems

The introduction of adequately designed and standardised electronic based information and communications systems is a process that is currently ongoing and is of paramount importance to the improvements in efficiency in seaborne trade in the region. Technology is a base element in the development of competitive advantage in business. As such if the region does not embrace technological advancements in the electronic age, its businesses and ultimately its trade volumes will suffer.

Electronic information and communications systems have core applications in all elements of seaborne trade including the focal elements of this project; Customs, Quarantine, Immigration and PSC.

In customs for example, the adoption of the ASYCUDA system or similar should be examined for each country with the aim of ensuring communication and transfer of information is possible between the systems adopted by each country. This should prove feasible if the UN/EDIFACT data system is adopted as the core of the system in each country.

The implementation of electronic systems to the seaborne trade industry in each country will require considerable support from Government agencies in the form of domestic legislation, funding programs, training and mentoring support. The planning and implementation of these systems should be carried out in consultation with the shipping and port industry in the region to ensure that the procedures adopted have firm legal standard and a realistic and thus workable basis. The government initiatives will need to result in clear strategies in relation to policy, training and implementation of electronic data exchange for simplifying overall procedures and moving towards paperless trading. The absence of domestic legislation supporting e-commerce creates uncertainty about the legal status of transactions initiated through such a system. Allowing broader access from the trading community to Electronic Commerce services through an Internet interface presents

a number of challenges to the government agencies. Considerable investment in training, hardware and programming needs to be made before electronic systems become efficient in most South-East Asian economies.

The Automated System for Customs Data (ASYCUDA) for customs control.

ASYCUDA (Automated System for Customs Data) is a computerized Customs reform and management system, developed by UNCTAD and covering most foreign trade procedures. The system handles manifests, Customs declarations, accounting and warehousing.

ASYCUDA aims to speed Customs clearance through the simplification and computerization of procedures, thus minimizing administrative costs to the business community and country's economies. At the same time, it is designed to fight fraud through the application of risk management and targeting techniques. Furthermore, it aims to increase revenue, which is the major contributor to national budgets in most economies, by ensuring that all goods are declared, that duty/tax calculations are correct and that development exemptions are properly managed. It aims to produce reliable and timely trade and fiscal statistics to aid the economic planning process automatically, as a by-product of the Customs system. ASYCUDA's functional design has been based on the Kyoto Convention and the ASYCUDA system continues to be an excellent tool to support the use of the Harmonized System, which is being supplied to the user economies as a first option for the base tariff.

ASYCUDA has become the de facto world standard of Customs clearance systems, since the programme has been, or is being, implemented in over 70 economies and regions (as at January 1997) - a number which was expected to grow to over 100 user economies by 2000.

Both the World Bank and the IMF strongly support the use of ASYCUDA to reform, modernize and automate Customs administrations.

Government support will need to focus also on improvements in telecommunications infrastructure: such as high speed optic fiber networks, lower cost Internet services and broader access to the Internet by businesses in the regional economies.

Standardisation is of paramount importance in the planning of new technology systems to ensure compatibility and the long term survival of the system. This is particularly important in the information age where numerous data interchange systems exist and was the basis for the UN to develop the EDIFACT data exchange system during the 1990's. UN/EDIFACT is a standard system for data exchange that is used worldwide. It is essential that this standard system forms the corner stone of the individual EDI systems adopted in each regional country. The assistance of regional organizations such as APEC should be sought to ensure such standardization occurs. More specifically regional

economies should be familiar with the Blueprint for Electronic Commerce that APEC's Electronic Commerce Steering Group has developed for the region, the E-APEC Strategy that was developed in late 2001, and various other APEC initiatives such as the paperless trading projects currently underway.

Implementation of EDI systems into the shipping and port sectors of each country needs to be regionalized. This is a major challenge for the economies of South-East Asia which often have minor international ports located in remote regions.

That is not to say however that individual systems can't be used in each country. Other systems can be specifically developed for individual country ports such as the one currently being developed outside of APEC by the Kenya Port Authority. This electronic, internet based commerce system represents a form of Community Based Computerised System (CBS) aimed at speeding the exchange of information and cargo documentation between stakeholders associated with port and shipping activities at Kenya's ports. This system aims to reduce clearance time for cargo from the existing 4 days, down to 24 hours, thereby attracting additional seaborne trade to Kenya's port for transshipment into the interior of East Africa. The key is however ensuring that the individual systems used in each region can communicate with each other by using a standard protocol for EDI data such as UN/EDIFACT.

As the Economies of the region are generally at the early stages of electronic systems implementation, significant opportunity exists for the economies of the region to lay a common groundwork and move forward together to a common, integrated goal with respect to EDI systems in seaborne trade. The window of this opportunity is however fast closing and thus regional cooperation to achieve standardised regional systems is of paramount importance.

An example of a system for EDI usage in the Customs area could involve the flowchart shown in Figure 4.2, which is based on the Thai system currently being implemented.

4.3.3. Strengthening Port State Control

From the information developed under this project and with specific reference to the Asia Pacific Maritime Institute report on Safer Shipping in the Asia Pacific Region prepared for APEC in December 1999, it is determined that improvements in PSC will mainly be achieved by concentration of the following six components:

- **REGIONAL COOPERATION.** The use of regional cooperation will cover the exchange of information between economies of the region about ships, their records and the results of inspections carried out. This information is important as it enables subsequent ports of call to target only ships that have not been recently inspected, thereby improving effectiveness for any given number of inspections. Another reason for co-operating with other ports in the region is to ensure that identified sub-standard ships are effectively monitored. The Asia Pacific Computerised Information System (APCIS), which is effectively the Tokyo MOU's database system, should be used throughout the region to assist in regional cooperation.

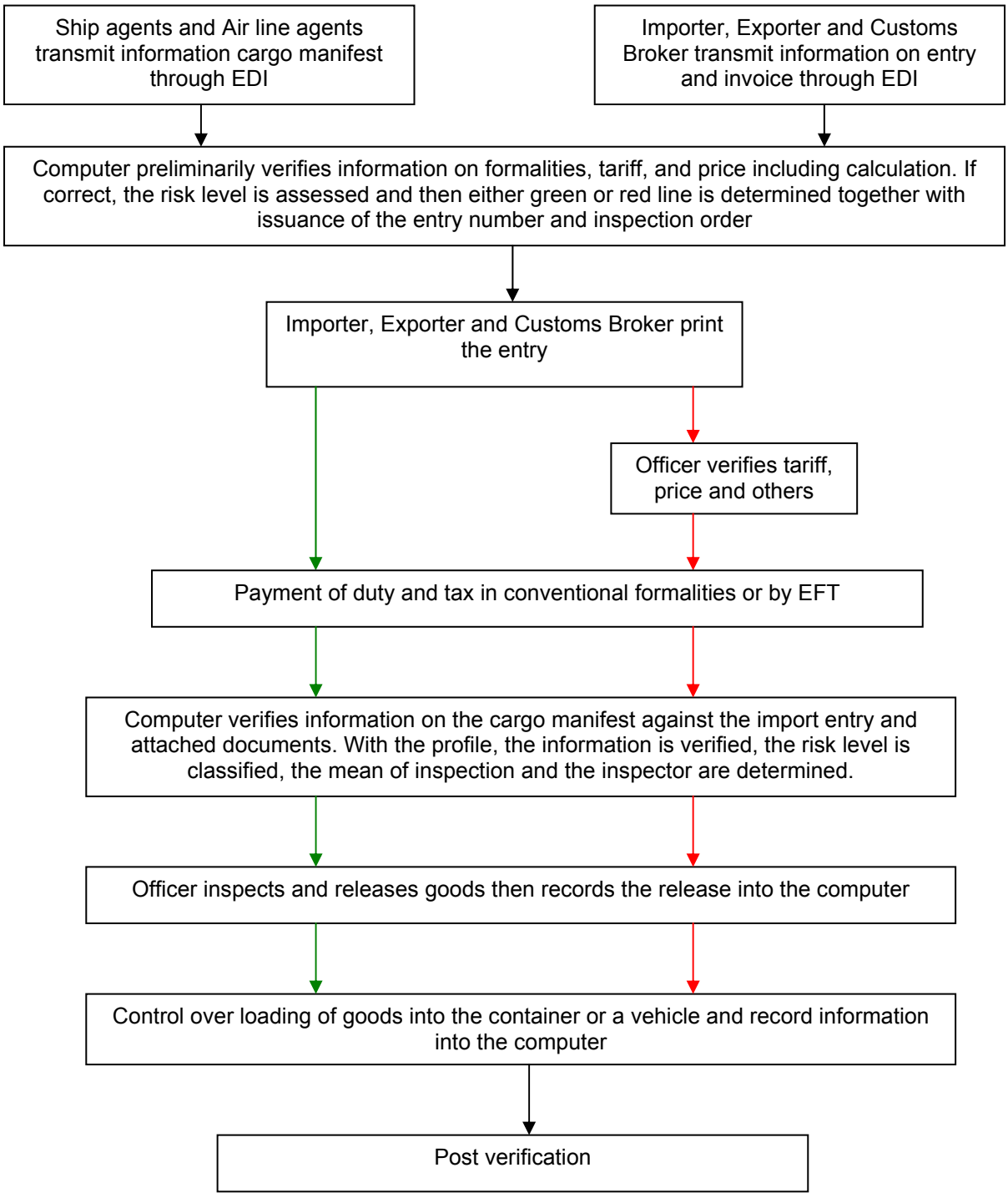


Figure 4.2: Typical Flow Chart of Customs Formalities in EDI System

- **STANDARDISATION OF PSC SYSTEMS.** The Tokyo MOU has resulted in a more coordinated approach to inspections across the region and is invaluable in achieving regional standardisation and similar activities such as concentrated campaigns on critical issues of PSC systems. According to the Asia Pacific Maritime Institute report prepared for APEC, key areas where standardisation is most needed are the inspection process, assessment standards, training of inspectors and dissemination of information. The goal should be to achieve a consistent standard of compliance across the region. As an example of standards used to this effect, reference to the Australian system for the conduction of PSC inspections by surveyors, which is based on the Tokyo MOU guidelines, can be made.
- **PSC TARGETING BASED RISK RATHER THAN QUOTA.** Considerable efficiency improvements can be gained by transferring from the existing quota based systems in use throughout the region to a risk based system concentrating on consequence and hazard. This will improve effectiveness for any given number of inspections. It is expected that through the Tokyo MOU, bilateral or regional cooperative programs will be established to assist economies in setting up better targeting systems. For example, the Australian Government has developed a Decision Support System for PSC inspections based around the targeting of high risk vessels.
- **INTRODUCTION OF A PSC FEE OR DETENTION SCHEME.** The introduction of either or both a PSC Fee and/or Detention Scheme will act as an incentive to improve the quality of shipping in the region to reduce compliance costs for individual ship operators. This system must however be carefully managed as it will be open to corruption on a number of fronts. As such additional costs can also potentially be transferred directly to charter costs, which can also have the desired effect of encouraging charterers to hire ships with better safety records. Another option is the system currently adopted in Australia, where the initial inspections are funded through the levy system (i.e. free of charge to the individual ships being inspected). However if deficiencies are found, then any follow up inspections to assess whether the deficiencies have been rectified are charged to the vessel concerned. A detention scheme is preferred to a penalty scheme because of its simplicity.
- **NAMING AND SHAMING.** A successful method currently used in PSC around the world is the "name and shame" strategy (this is effectively what the Tokyo MOU's database on PSC achieves). This system needs to be better implemented in the Asian region by adoption and adherence to the provisions of the Tokyo MOU. Port states can use this strategy to promote compliance by publishing the details of any ship that is found to be deficient or is detained.
- **TRAINING.** A major contribution to increased and more consistent PSC inspections can be achieved by adequate training such as that provided under the Tokyo MOU's technical assistance program and the IOM's Technical Cooperation Program. These schemes include PSC training, fellowships, use of standard procedures, work experience secondments and bilateral agreements.
- **RESOURCING.** To improve the efficiency and standard of PSC inspections in the region (and thus meet the inspection requirements specified under the Tokyo MOU) will require that additional resources in terms of staffing and training are committed to each country.

- **RELEASE OF FULL INSPECTION DATA**. Maritime authorities in the region often only release ship deficiency and detention information at present. However, to improve the usage of PSC information, full details on PSC inspections should be made publicly available. This will make the PSC system more transparent and will enable users to understand PSC activities more fully.

4.3.4. Implementation of Theft, Smuggling and Security Initiatives

While piracy, smuggling and security were not raised as significant issues resulting in additional costs as result of vessel delays amongst the representatives surveyed, these issues appear to be generally a problem in the region. A more co-ordinated approach by the Economies in the region to patrolling and cross border co-operation and the ratification of the *Rome Convention* could reduce instances of these actions.

Following the events of September 11, 2001 the United States, as part of an international effort to stamp out terrorism, approached the United Nations and the IMO to address the issues at hand.

IMO expressed concern for the security of passengers and crew on board ships, and the associated risks to persons ashore in port areas or offshore terminals.

The organisation has since resolved to address the threat of terrorism and agreed to review and revise its existing legal and technical instruments. This includes the Maritime Safety Committees Circular 443 on "Measures to prevent unlawful acts against passengers and crew on board ships". The IMO will also consider possible new measures to prevent and suppress terrorism against ships and to improve security onboard and ashore.

In February, 2002, the IMO held a working group to assess the scope of the task and to recommend a work program for the various IMO Committees. In relation to the clearance of ships, the working group recommended the following measures;

- *Automatic Identification Systems (AIS*) – mandatory installation to be brought forward from 2008 to 2004 to enhance ship tracking and monitoring. Some APEC economies have been trialling this technology and other cost effective systems such as Inmarsat C polling.
- *Ship and Offshore Facility Security Plans* - to be incorporated into the Safety Management Code of all ships above 500 GT.
- *Seafarer identity and background checking* - as a means of checking if seafarers have previous convictions on serious criminal offences, to prevent them from being given security sensitive positions. This suggestion has been referred to the International Labour Organisation for urgent attention.
- *Ship Equipment and Incident Alerting* – in addition to the AIS to activate an alarm to notify authorities and other ships of a terrorist incident.

- *Information on the ship, its cargo and people* – to monitor and improve the flow between ships, ports, flag states and port states, on ships, cargoes, crew and passengers.

APEC has endorsed the need for member economies to adhere to relevant international requirements for security of maritime transport. As such each country in the region should consider the implementation of the five key points raised by IMO.

In addition a meeting of APEC transport security experts in Singapore during January 2002 agreed to progress four proposals for further consideration:

- *A piracy and maritime security conference*
- *A security technology conference, examining 100% baggage screening for passenger ships*
- *A feasibility study for a terrorism crisis management exercise*
- *A survey of maritime security training requirements and capabilities.*

The Governments of the region should also, as soon as possible, commence discussions with Port Authorities and the shipping industry to assess threats and identify security measures that are required to address not only terrorism, however also the niggling incidence of piracy and theft.

4.4. Implementation

4.4.1. Overview

The Best Practice Model developed under this project is aimed at incorporating the set of APEC Principles on Trade Facilitation developed by APEC's *ad hoc* Task Force on Trade Facilitation in their meeting in Shenzhen, China of 29 May 2001. The principles are:

- Transparency
- Communication and Consultation
- Simplification, Practicability and Efficiency
- Non-discrimination
- Consistency and Predictability
- Harmonization, Standardization and Recognition
- Modernization and the Use of New Technology
- Due Process
- Cooperation.

Whilst recognizing these principles, the implementation of a project of this nature will require an inherently flexible approach. Each country in the region will be unique and as such implementation in each country will require its own methodology and pose its own set of problems to solve. The Best Practice Model components outlined in Section 4.3 are generic in nature – just as they need to be. Accordingly the next follow on project will be to tailor a specific model addressing the issues raised under this project to each of the participating South-East Asian economies, as well as additional issues that will undoubtedly come to light during the implementation stage.

4.4.2. Preliminary Implementation Plan

The preliminary implementation plan suggested to progress the project through its next phase involves the creation of a sub-project for each of the macro and micro components identified in Section 4.3. *These sub-projects should not be aimed at producing a study report of which APEC already has many - they should be aimed instead at producing clear and identifiable progress towards specific implementation objectives in each of the components identified.*

The sub-projects should be conducted by firstly developing "umbrella" goals for each component on a regional basis. This will help ensure standardisation of the solutions adopted throughout the region. The sub-projects should then focus on each individual country participating and more specifically develop the macro or micro component within the country concerned.

It must be recognised that each of these sub-projects concern major issues and the implementation of the follow-on phases to this project will not represent a minor project. Adequate funding will need to be provided both by APEC (to provide the guidance role) and by the individual economies concerned (to provide counterpart arrangements). It is likely that the projects will be ongoing for some time with individual objectives being split into short-term aspects (eg fine tuning existing EDI systems) and long term aspects (eg legislative changes).

It is also noted that at least some (and often quite significant) progress has been made by the economies of South-East Asia on many of the initiatives identified under this project. Accordingly the required works in each country for each component will vary from simply fine tuning to actually starting from nothing.

Implementation will need to be tied in with the parallel initiatives of both APEC and other regional agencies such as IMO, UNCTAD, ADB and the World Bank.

Cooperation implemented through APEC initiatives.

8. Identification of funding arrangements required by firstly APEC to facilitate the guidance role for the project and secondly the individual country concerned to support the implementation of the project in-country.

9. Assessment of draft scope of works for each sub-project and tendering for consultants to undertake the APEC funded guidance role for each sub-project. The draft scope of works should list the broad, but not specific, objectives of the project.
10. Identification of counterparts in each country. These counterparts should be given enough autonomy, authority and freedom from there existing positions to be able to focus on the project.
11. Selection of overall guidance consultant for each sub-project.
12. Initial phase of each project will involve additional fact finding, consultation and analysis to determine the precise scope of works to be completed under the project. This will identify actual steps required to achieve the required goals of the project and should be carried out in agreement with APEC. Timelines for completion of the sub-project would be identified at this stage.
13. The main body of the sub-project would then be carried out. This would involve implementation of the sub-project to achieve the required goals.
14. Once the goals have been achieved the project would be finalized and closed out.

The time required to complete each sub-project would be highly variable and will be determined during the implementation stage.

4.4.3. Overall Guidance for Future Projects of this Nature

The rationale of establishing a generic best practice model and then customising it to the specific economies was accepted by all economies participating in this project at the projects commencement. To achieve this, the project was framed around the use of a contact group of government officials in each country to facilitate discussion. It was and still is recognised that the judicious use of such contact groups is one way to generate ongoing commitment and ownership of a project such as this. However, the project experienced difficulties in the facilitation of discussion within the contact group which delayed the overall project process and limited regional discussion and specific contact group input. This was mainly due to a combination of a lack of available time that contact group members could give to the project and a lack of electronic communications capabilities meaning that sometimes fax and generally phone had to be used to obtain feedback from the contact group.

To overcome these difficulties in future APEC projects involving remote discussion contact groups, the consultant recommends a number of improvements be put in place prior to the selection of a consultant for the works. These improvements include:

- The names of contact group officers in each country should be published in APEC correspondence to give recognition to there roles and ensure legitimacy in the eyes of their senior management.
- APEC should ensure that each participant has allocated time to undertake the contact group discussions.

- Each participant should clearly understand his or her role as contact group member for their country and recognise that this will involve extensive investigations, the preparation of material for the group and industry consultation in their country.
- Each contact group member must be given a secure e-mail address and sufficient training in e-mail usage to be able to communicate effectively with the contact group by such means.
- APEC needs to focus efforts on contact members to motivate them – whether through a workshop in another country or some type of newsletter or some other means to create the feeling that the project is worth their involvement – otherwise their domestic duties will prevent them from anything more than a cursory involvement. Some type of commitment needs to be engendered from each economies Government departments.

Finally, it is recognised that the value gained from speaking to contact members and being there in person to respond to their questions was significant and beneficial for all persons concerned and thus workshop consultation should be included in contact group projects as a supporting role to electronic communications.

Appendix A - Towards Best Practice: The Australian Experience

In the following Sections, the experience of the Australian border control agencies in moving toward their best practice protocol is illustrated. Each is summarised as follows –

- Legal enactments to support improved processes
- The specific processes and mechanisms undertaken by the Australian Customs, AQIS and AMSA to streamline and improve the efficiency of vessels clearance
- Regional co-operation initiatives undertaken by each agency

The "building blocks" summarised in paragraph 2 are the familiar theme observed in each agency.

A1. Australian Customs Service

A1.1 Authority and Power

Australian Customs derives its authority and powers principally from the Australian Constitution through the:

- *Customs Act 1901,*
- *Customs Administration Act 1985,*
- *Customs Tariff Act 1995*

However, the agency also administers and exercises powers on behalf of other government agencies through other Acts and legislation. Examples of these statutes empowering Customs in relation to their co-operation with immigration and quarantine are the

- *Migration Act 1958,*
- *Quarantine Act 1908*

A1.2 Use of Technology in Data Submission

In the early 1970's Customs pioneered the delivery of on-line services with the *Integrated National System for Processing Entries at Customs Terminals (INSPECT)*

.

This has been expanded to include Electronic Data Interchange (EDI), and extended access to allow inter-agency co-ordination across a number of transactions.

The continued growth in trade and travel, a rise in trafficking of prohibited drugs and goods, and an extensive area of border responsibility, meant Australian customs had need for reform. The Australian Customs Service has, since 1994, recognised the need for efficiency and delivery of tangible benefits to government and industry.

A strategy to *cope with the workload* and *maintain its effectiveness* in an ever-changing environment had to be developed.

A1.3 Change Management Process

The underlying themes of the process of this reform strategy included

- *Risk Management- identifies areas of high risk and targets them, and facilitates areas and transactions of low risk.*
- *Closer working relationships with other Government agencies such as the Australian Quarantine and Inspection Service, Department of Immigration and Multicultural Affairs, Australian Federal Police and the Australian Maritime Safety Authority.*
- *Building partnerships in industry through the Frontline program which formalises co-operation between Customs and industry with a Memorandum of Understanding (MOU).*
- *Greater service orientation and being thoroughly professional in delivering Customs services.*
- *Effective use of technology*.

To support the reforms, Customs, in 1995, established a Customs Quality Management (CQM) program which focused on a team based approach to problem solving using Quality Improvement Teams, developing an externally accredited management training program, and national surveys of staff and client groups.

Risk management is the approach Australian Customs has taken to maximise the effectiveness of enforcement whilst preserving the efficiency of vessels movements.

The benefits of risk management to *industry* include:

- *Faster clearance through better targeting of high risk cargo*
- *Facilitation of the vast majority of low risk transactions almost instantaneously*
- *Reduced delays for industry, cutting the cost of doing business*.

To *Customs*, the benefits of risk management include:

- *Accurate selection of high risk transactions*
- *Maximising efficient allocation of resources to those result areas*
- *Eliminating time and resource wastage by fast tracking trade transactions*
- *Providing a basis to meet accountability requirements*

The policy of risk management is undertaken in accordance with best practice. This requires compliance with the Australian / New Zealand Standard for Risk Management and is complemented by a handbook. Processes and decisions are taken with due regard of the Customs code of conduct and values.

In 2000-01, significant progress was made by Customs in re-engineering its cargo management systems to ;

- *Deliver new import and export processes,*
- *Increase cargo management efficiency for industry*
- *Deliver improved targeting of high-risk cargo*.

A review of business processes was conducted to look at the impact of *cargo management re-engineering (CMR)* on the way Customs does its work.

Commencing in July 2002, the major benefits to the trading community will be more open and easy access to the functions of the system and streamlined business processes associated with the reporting and clearing of cargo. It will also provide a single window to government agencies for the movement of goods into and out of Australia.

To underpin the CMR process Parliament passed the *Customs Legislation Amendment and Repeal (International Trade Modernisation) Act 2001.* The main aim of this legislation is to create a legal foundation for an electronic business environment for cargo management.

A1.4 Cooperation with other Agencies

Customs has strong relationships with other State and Commonwealth agencies such as AMSA, AQIS and Department of Immigration and Multicultural Affairs (DIMIA),

AMSA - In relation to vessels clearance, Customs authorises AMSA access to its computer systems to down-load ship arrival data to determine vessel inspection priorities.

AQIS - Customs electronic cargo management systems integrate with those of AQIS to facilitate clearance of cargo. The two agencies work together to avoid duplication of effort and to ensure maximum coverage of quarantine risks within available resources. The threat of foot and mouth disease in 2001 has seen joint

working arrangements between the two agencies through a memorandum of understanding. Thorough inspections were carried out on roll-on roll-off cargo, steel and timber imports into Australia.

DIMIA – Customs, through a Memorandum of Understanding (MOU) with DIMIA process passports and crew documents through the FAL form process without referral to DIMIA. Referral in only made when special situations dictate such as a stowaway or an illegal migrant.

A1.5 Australian Customs and APEC

Australia, is a member economy of the *APEC*. As part of its involvement in the *APEC Sub Committee on Customs Procedures* (*SCCP)* Australia promotes the acceptance and implementation of the *World Customs Organisation (WCO*) revised International Convention on Harmonisation and Simplification of Customs Procedures (the revised Kyoto Convention).

Australian Customs co-shepherds the integrity, paperless trading and risk ,management items of the SCCP Collective Action Plan (CAP). Australian Customs assists with the provision of technical assistance to developing member economies in these and other areas, including the Kyoto Convention.

Australian Customs also promotes acceptance and implementation of the revised Kyoto Convention through various other international forums.

Australian Customs has also hosted a number of visits by APEC economies' Customs administrations seeking advice and training on technical customs issues.

A2. Australian Quarantine and Inspection Service

A2.1 Authority and Power

The Australian Quarantine and Inspection Service (AQIS) is empowered by the *Quarantine Act 1908.*

Australia remains relatively free from serious pests and diseases such as Foot and Mouth disease. This can only be achieved by the stringent enforcement of the Act by AQIS. The Act provides its officers the powers to deal with quarantine matters, viz, the importation of fresh produce, plants, animals and farm machinery into Australia, and determines the offences for breaches of the Act.

A2.2 Monitoring by Technology

Prior to 1992, AQIS relied on manual entry of vessels inspection reports, with the result that agency officers at every Port had to keep records and inspect every vessel.

The introduction of the Vessel Monitoring System, set up by AQIS in Canberra in that year, provided a national database to store AQIS' Ship Inspection Reports. The use of this system enabled AQIS to identify high and low risk vessels and giving a one in three inspection regime for each ship

A2.3 Impact of Foot and Mouth Disease

With the onset of *Foot and Mouth Disease (FMD*) in March 2001 AQIS has had to revert back to the practice of 100 per cent intervention, in line with Government policy. As a result, AQIS have had to double the number of inspection staff required to carry out these tasks.

All vessels arriving in Australia are now inspected by AQIS, with particular attention to those ships where the last port has been identified as a FMD risk. AQIS ensures that all vessels:

- *Undergo an inspection of galley and store areas.*
- *Bond all food and stores from FMD risk economies on board or seize and destroy them.*
- *Only release bonded food and goods prior to vessels departure at the last Australian port.*

Livestock vessels pose a high FMD risk and have to undergo disinfection and disinsection treatments prior to arrival in Australian waters.

Cruise and military vessels undergo 100 percent supervision of waste removal due to the potential risk of the high numbers of human traffic entering or exiting the country.

Australia is a large importer of agricultural and industrial machinery. All such equipment require an import permit and have to be dismantled and cleaned to AQIS standards. AQIS provides the importer of this equipment the opportunity to conduct an offshore inspection prior to the equipment being loaded on board a vessel. These inspections:

- *Reduce the risk of machinery not being permitted entry into Australia*
- *Reduce the risk of introduction of pests and disease*

A2.4 Ballast Water Protocol

Risk assessment has been used by AQIS to minimise the introduction of aquatic pests to Australia. Australia was the first country in the world to introduce ballast water management guidelines for international shipping which has been in use since 1991.

In September 1999, the Government announced that mandatory ballast water management arrangements would be introduced for all international vessels arriving in Australian ports from July 1, 2001.

The “Ballast Water Decision Support System” using risk assessment technology and enforced under the Quarantine ACT 1908, requires vessels to manage their ballast water in accordance with AQIS requirements. It provides Masters with options to minimise the risk of their vessels introducing harmful aquatic organisms into Australian waters.

Information provided by the vessel prior to entering Australia is entered into a *Ballast Water Decision Support System (DSS),* which is a computer software application developed by AQIS in consultation with industry. Information provided by the vessel is lodged with the DSS for a risk assessment. The results provide the Master of the vessel with the best possible ballast water management. This process also allows ships more time to perform treatment prior to arrival in Australia or the necessary exchange of ballast water before entering Australian waters.

A3. Australian Maritime Safety Authority (AMSA)

A3.1 Authority and Power

AMSA, amongst other regulatory functions such as vessels registration, undertakes the responsibility of sea-worthiness and safe operation of foreign vessels in Australian waters. AMSA, was established under the *Australian Maritime Safety Act, 1990.*

The Act contains the authority for AMSA surveyors to board a vessel at any time. These powers extend to detention should the vessel jeopardise the safety of the marine environment.

AMSA is a Commonwealth authority and regulatory safety agency operating under modern administrative law, and is largely *self-funded through levies on commercial shipping.*

A3.2 Tokyo Memorandum of Understanding (Tokyo MOU)

The Australian Maritime Safety Authority (AMSA) was the first interim secretariat for the *Tokyo Memorandum of Understanding (Tokyo MOU*) on PSC. It was based in Australia and through its initiatives, provides on-going training, seminars and exchange programs for Port State officers from Tokyo MOU signatory economies.

AMSA through its involvement as a signatory to the Tokyo MOU initiates action to achieve a consistently high standard of Port State inspections in the region. Australia has chaired Tokyo MOU Port State Committees and assisted other APEC members in

- Training and on-going seminars for PSC officers. For example, inspectors from Malaysia and Indonesia were trained in 2000. The Australian Agency for International Development (AusAID), as part of an Australia-Indonesia Government Sector Linkage Program is also involved in training of Indonesian PSC officers.
- Exchange programs for PSC officers of the Tokyo MOU to discuss experiences and exchange opinions on inspections criteria.

A3.3 Vessel Inspections – Ship Inspection Programme (SIP)

AMSA Surveyors are guided by the *Ship Inspection Program (SIP*) manual which is a set of Instructions to Surveyors based on IMO resolutions. Surveyors undertaking inspections undergo a *structured training program,* developed in 1998, which all newly recruited AMSA surveyors now receive at the commencement of their service. All surveyors provide their input into the manual which further strengthens its relevance. Up-to-date reference material can be accessed through

AMSA's internal website which enables surveyors to search, browse and print reference documents.

A3.4 Ship Inspection Decision Support System (SIDSS)

This system uses risk management techniques to target vessels by risk ranking each ship. In view of the large geographical area that necessitates coverage, a method of *prioritisation of eligible ships* or *targeting* is employed for higher risk vessels. To assist surveyors in the selection of ships, AMSA developed a Ship Inspection Decision Support System (SIDSS).

This system is based on a program of extensive analysis of more than 16,000 inspections of vessels since 1995. Results are incorporated into the SIDSS to provide a risk ranking for each vessel. Since November 2001, this information has been entered into an ORACLE database.

The Tokyo MOU at its 10th meeting in Tokyo in October 2001, has set up a task force to develop a ship targeting system based on the Paris MOU model.

The SIDSS system utilised by AMSA differs from the APCIS system under the Tokyo MOU. AMSA has access to the APCIS database for details of previous inspections, but the SIDSS also provides ASMA surveyors with:

- *risk ranking,*
- *safety aspects of vessels and marine incidents,*
- *inspection results of particular vessels such as livestock carriers and grain survey results of bulk carriers,*
- *operational issues such as bridge visibility of navigational lights,*

A3.5 Interaction with other Government Agencies

In addition to prioritisation, Customs AMSA has *strong relationships with other State and Commonwealth agencies* such as the Australian Customs Service, conducting surveillance in major ports, to provide assistance in tracing vessels, and also search and rescue through its Coast-watch service. In relation to vessels clearance, Customs allows AMSA to download ships arrival data to determine vessel inspection priorities.

Through AQIS, who is responsible for day-to-day management of ships ballast water, AMSA is able to ensure vessels safety aspects of ballast water control.

Appendix B - Results of Consultation Interviews

B.1. Background

As an introduction to the documentation of interview summaries contained in this appendix, it is first considered prudent to illustrate some major differences in shipping and trade development patterns between the participating Economies. This, including geographical statistics, has a bearing on the consideration of issues affecting vessels trading in the region.

B.1.1 Singapore

The Port of Singapore is unique in its geographical position in terms of having a natural deep-water harbour at the southern entrance to a major shipping waterway, the Straits of Malacca. Due to its regional significance, shippers have traditionally relied on the hub port of Singapore for East – West cross trade vessels and this process continues today.

Through continual infrastructure development and growth in world trade, Singapore has become the port with the largest container throughput in the world. No other port in the South East Asian region has near the number of ship calls and containers handled. The Port of Singapore is considered to be a decade or more ahead in infrastructure development compared with the ports of Bangkok, Manila or Jakarta that are unable to handle modern Post-Panamax container vessels due to draught restrictions in their ports. In 1997, the Singapore Government owned Neptune Orient Lines purchased American President Lines (APL) to take the operator to the top six internationally in terms of container capacity.

In terms of container traffic Bangkok, Manila or Jakarta are regarded primarily as 'feeder' ports with limited main line haul callers on Far East / Atlantic or Pacific routes. These three ports provide regional coverage for the main line haulers that call at Singapore.

As Singapore is limited in its resources, the country has invested in the development of its harbour, marine related services including ship repair, and Flag Registry. This has raised revenue for the island republic. It has an industry accepted international Maritime Law code based on the British model.

The Port has developed integrated technology systems and software to facilitate electronic transfer of trade data and vessel clearance. This has encouraged international carriers and ship-management companies to set up regional offices in the Republic. The Port of Singapore Authority (PSA) has become an international identity in container stevedoring with representation in several major ports including Italy, China and Belgium.

In the last 20 years, Singapore has developed into a major chemical, oil trading, refining and bunkering centre. More recently an international cruise centre has been developed for the region. Many international oil shipping firms and cruise lines have their regional offices in Singapore.

Jurong Island in the South West of Singapore has developed into a world recognised logistics hub for chemical, LNG and LPG cargoes. This has included investments in

information technology infrastructure including fibre optic broadband networks for shared IT services on the island.

The bulk of the container traffic through the Port of Singapore is transhipment business to and from the regional ports whilst the major import trade through the port is containers of manufactured goods. Crude oil for the refineries is generally processed and re-exported by sea. Bulk industrial commodities for the building sector find their way to the port in the form of cement, steel and chemicals.

B.1.2 Thailand

The Port of Bangkok sits at the mouth of the Chao Phraya River. It dissects the country of Thailand and is the transportation life-blood of the country. It serves as the main egress point for agricultural export products from the Economies interior as well as access for raw materials such as fertiliser, grain, steel and oil products.

Barging is the main mode of transportation up and down river. The focus for container traffic has shifted to the Port of Laem Chabang, a privately run port, which is now Thailand's busiest port. The Government plans to focus on further development and expansion of Laem Chabang.

This has resulted in a downturn of container throughput at the Port of Bangkok, which suffers from a draft restriction of 8 metres, limiting the port to feeder ship status. Bulk ships utilise barges to top off and load to maximum deadweight at the outer bar of Bangkok called Kosichang.

Several smaller and deeper outports in Thailand have grown as dedicated steel and gypsum ports handling international shipping by virtue of their proximity to steel mills and mine sites.

There is only minimal local shipping traffic to the outports from Bangkok. Internal transportation of containers and bulk commodities utilises multi-modal transport connects by river, rail or road.

B.1.3 Philippines

Manila is the capital and main port of the Philippines. It serves as the gateway to several thousand islands that comprise the Philippine archipelago. The port is draft restricted and, like Bangkok, is unable to attract the larger container ships. It serves as a container feeder port to other regional hub ports such as Kaohsiung (Chinese Taipei) and Singapore. Bulk vessels generally have to lighten in Manila harbour.

Japanese funding is supporting the development of the nearby Clark economic zone which includes the former US Naval Base of Subic Bay. Subic Bay is a deep water harbour port with over 6km of berth space which is presently being developed into a free port. Japanese aid is paying for the construction of another 1km of new berth space within the harbour which is intended to further facilitate trade through the port as an alternative to Manila.

Accordingly Subic Bay may represent a future transhipment hub option for Asia due to its strategic location on the eastern side of the South China Sea.

The Philippines traditional agricultural base is changing and the base staples of rice and sugar are now imported regionally from Thailand, China or India. Outports, especially in the south, are under the control of local Government and present challenges for ship owners who do not understand the peculiarities of regional bureaucracies.

B.1.4 Indonesia

Like the Philippines, Indonesia is an archipelago, and is endowed with a network of 17,000 islands. They spread from the northern tip of Sumatra to Irian Jaya on the Papua New Guinea border. This makes it one of the most geographically fragmented nations in the world and creates a very demanding task for any government or company that aims to create a viable logistics network within the country.

The main island, Java, is home to approximately half of Indonesia's population and hence is the main receiver of imported bulk grain products as well as containerised manufactured goods. Although there have been substantial gains in agricultural productivity, Indonesia is still a net importer of raw foodstuff, especially in times of drought.

The main port in Java, Tanjung Priok, is draft restricted with Panamax bulk or container vessels unable to gain access. Nonetheless, it is the container port for the rest of the Indonesia and many regional and local container lines run far-east services and inter-island feeder services through the port.

Indonesia is rich in natural resources such as oil, natural gas, coal and copper, and plays a major role internationally in the export of these commodities. Mining companies have built dedicated ports that service the mines.

Despite these shipping opportunities within its boundaries, the country has suffered a decline in the amount of cargo carried by Indonesian Flag vessels (from 20% in the 1980's to 3% late 1990's) This is mainly due to laws that do not protect the Indonesian ship owner and the inability or unwillingness of banks to finance shipping ventures in the country.

The Asian crisis of 1997 caused a setback to completion of a number of port and port related projects in Indonesia which are currently on hold. International conglomerates, such as the stevedoring group Hutchison, have participated in the privatisation of ports in the country.

B.1.5 General Observations

Long before the 1997 Asian financial crisis crippled the South East Asian Economies, the absence of maritime legislation was the major hurdle to the transformation of regulatory port and maritime agency procedures. With the onset of the 1997 crisis, further complications have frustrated Government efforts in the region to fund various technological and infrastructure projects at their ports and maritime agencies.

The change of government in the Philippines and Thailand and the political turmoil in Indonesia has resulted in many regional and internal Governmental initiatives being put on hold. Rapid change in Indonesia, and the internal unrest in southern Philippines, has made it harder for these Economies to continue with reform of the port industry. This, coupled with the domestic funding shortfall has provided an uncertain economic climate for port operational development in the region.

B.2.0 Singapore Interviews (17–20 September 01)

Nine companies contributed to the consultancy in Singapore. These included:

- International and Singapore oil and chemical tanker owners and operators;
- Dry bulk, container line and roll-on, roll-off vessel owners; and
- The Maritime and Port Authority of Singapore.

All the companies have trading operations within the ASEAN region. The percentage of vessels dedicated to the ASEAN trade ranged from 30% for international companies to 80% for Singapore domiciled companies.

B.2.1 FAL Form Issue and Electronic Clearance

Singapore is a party to the FAL Convention. All Singapore companies interviewed confirmed compliance with its form requirements as a standard operating procedure.

The owners that do not have an agency division, particularly Singapore based international shipping companies, utilise appointed agents. The agents are not involved in physical clearance of the vessels with Maritime authorities.

In Singapore, the process of form clearance is usually done as a ‘pre-clearance’ prior to vessels arrival. These formalities take place prior to arrival and vessels can proceed directly to the nominated berth.

Where pre-clearance has not occurred, ships wait at the nominated anchorage for clearance but there are no delays in this regard. One Singapore bulk carrier owner advised an exception for vessels arriving in Singapore from Vietnam. They have to proceed to the quarantine anchorage for clearance. Generally, all owners commented that vessels calling Singapore and the main ports in the region are cleared within 3 hours.

In the bulk chemical industry, some products do not have a UN product identification number. Under these circumstances, customs officials require documents with full descriptions of the cargo to be cleared manually.

For communication, most vessels are equipped with e-mail, fax and Inmarsat facilities. These facilities are used to relay documents for advance clearance in Singapore. Clearance

of tankers and container vessels is processed electronically. For bulk carriers, general cargo and roll on roll off vessels, documents must be shown to the authorities after arrival.

In the other ports of the region, clearance has to be done manually with many copies of forms given to the authorities by the agents. Malaysia is likely to be the next country to initiate electronic clearance. General consensus is that the rest of the region is still far behind. Nonetheless, vessels do not generally suffer delays due to clearance.

Smaller product specific ports, such as the chemical tank terminals at Sumatran ports of Dumai, Belawan and Merak and Indonesian grain terminals at Tanjung Priok, Surabaya and Ujung Pandang do not provide night clearance based on safety reasons. Tanker terminals at the Vietnamese ports of Haiphong and Vungtau, and Kuantan and Port Kelang in Malaysia also do not provide for night clearance. Vessels proceed to the berth for clearance at the terminal during daylight hours.

Several owners have vessels that are on dedicated trades such as the container, chemical, oil and grain trade and are well known to both agents and clearing agencies. They are subject to fewer procedures, thereby reducing the time for clearance.

Generally, container vessels proceed directly to the berth for clearance at all ports in the region and can start cargo operation without disruption as long as the ships documents taken to Government officials are in order. It was further noted that in Singapore and Malaysia, officials do not board container ships.

Crude oil tanker operators comment that clearing of vessels at crude oil platforms in mid ocean in the region are usually more efficient than dedicated berths at main wharves since Government agencies have permanent staff located at these remote terminals. They board the vessel prior to its berthing at the terminal. Vessels are cleared electronically. Only at the Vietnamese off-shore oil platform near Vungtau is physical clearance of documents still required. To do so the vessel has to deviate for four to five hours to pick up government officials. Costs of deviation are borne by the shipper.

B.2.2 Theft, Illegal Immigrants, Stowaways, Smuggling

The incidence of major theft, or piracy, on the high seas in the Singapore Straits has diminished since Singapore stepped up patrols in the past two years. The general consensus among Singapore companies is that acts of 'theft' or 'robbery' in local ports in the region is often confused with piracy.

The main occurrence of theft is primarily at anchorages and ports, particularly in coastal South and East Sumatra. Ports identified by Singapore shipowners where incidents occur are Merak, Kuala Tanjung and Teluk Semangkau, the main Javanese port of Tanjung Priok (Jakarta) and Cilicap, a south Javanese port, where *Pertamina*, the Indonesian oil company has a refinery and oil terminal. Items stolen are typically ships stores and cash. In all incidents there were no injuries to the Master or crew. The frequency of incidents of theft varied from three to ten in the last twenty-four months.

Companies accounted that while reports are lodged with the local port police and harbour master, these authorities are slow to react and rarely is there an outcome. Delays were minimal (hours) to the vessel and normal procedures / operations followed. The vessels were able to sail following the incidents. The incidents of theft that occurred were also reported to the International Maritime Bureau Piracy Reporting Centre in Kuala Lumpur. Owners believe this centre is limited in its effectiveness in terms of what it can achieve to control piracy.

It was noted that theft generally occurred on smaller vessels and not the larger crude carriers that are harder targets due to their speed and size. Pirates that highjack vessels are interested in the cargo and hence small tankers with diesel oil or general cargo vessels with cargoes, such as tin ingots, are attractive targets.

In Singapore there are quarterly meetings between the association of tanker owners called *Intertanko* and the Maritime and Port Authority of Singapore to discuss amongst other issues, piracy and theft. The Singapore authorities are limited in what they can implement due to their limited jurisdiction in terms of its waterways.

The process of reporting incidents of piracy and theft in Singapore is to the Marine Department, Marine Police and the International Maritime Bureau in Kuala Lumpur. The general consensus is that whilst there appears to be patrols within the limited area of the Singapore Straits, there is insufficient co-operation between Government agencies in the wider region to address the issues of theft and piracy on vessels.

It was suggested that the ASEAN Economies should endorse the International Maritime 1988 Rome Convention on "*Suppression of Unlawful Acts against the Safety of Maritime Navigation"* to facilitate the legal introduction of maritime policies or laws within each country to protect merchant shipping.

No Singapore ship owner or operator reported any incident of illegal immigration, smuggling or stowaways from or within the ASEAN region.

B.2.3 Port State Control

Shipowners advised that inspections by Singapore authorities are frequent (about twice a year) on all Singapore Flag vessels, with Port State inspections on bulk carriers and general cargo ships, particularly older vessels (exceeding 15 years) of other flags. For oil tankers, the authorities rely on the ship vetting systems of the oil companies to check on compliance systems. The main reason for this reliance appeared to be the volume of ships calling at the Port of Singapore and the shortage of qualified staff to handle the numbers.

In order to check and identify the validity of the Port State inspections on tankers calling Singapore, *Intertanko* in Singapore have requested the Maritime and Port Authority of Singapore access the Ship Inspection Report Exchange system for tankers.

The Maritime and Port Authority of Singapore conduct Flag State inspections on vessels flying the Singapore Flag. Those who were interviewed complemented the authority for assisting the Singapore owners in their ISM status. Inspections at other ASEAN ports by

Port State officials is rare by comparison, and therefore, there have been no disruptions to port clearance due to reasons of Port State inspections. It was noted that other ports in the region use the Singapore Port State inspections as a benchmark for their reports.

Tanker owners do not face disruptions or delays in clearance of their vessels on PSC matters as all major tanker owners have implemented Safety Management Systems. The general view is there could be more co-ordination between PSC officials on the sharing of inspection reports for vessels calling at the ports in the region. As independent oil companies have their own vetting standards, this can result in duplication when it comes to inspection of ships at their terminals. Where independent inspection agencies are employed, this can result in them having their own standard procedures. Particularly in Indonesia and Vietnam, it was felt that this has led to unfair demands placed on Masters and crew unless specific criteria are met and that inspections were vulnerable to misuse.

The inspection by PSC of chartered vessels poses problems for operators in times of low freight market conditions. Owners often delay repair schedules until market conditions improve. Tanker charterers do have a 'watch list' in relation to vessels of specific flag states that have a record of poor maintenance.

All owners interviewed gave positive comments on the effectiveness of PSC in terms of its benefits to the standards of compliance for trading. All companies confirmed that their ISM systems are up to date and ships comply with the *1998 International Safety Management Code.* Masters and crew also meet standards required by the *International Convention on Standards of Training, Certification and Watchkeeping for Seafarer*s which comes into effect in July 2002.

Tanker owners stated that they saw the following problems with the PSC inspection system:-

- They are disappointed to see 'sub standard' vessels still trading and more serious cases of non-compliance avoiding detention.
- There exists a quota system rather than a targeting system. Some vessels are re-inspected at less than six monthly intervals despite this not being a requirement of the Tokyo MOU. On this, ships are being inspected and reported for minor deficiencies.
- There is little or no co-ordination and shared information on vessel inspections between Tokyo MOU signatory Economies on PSC and different methods of training of PSC officials to the detriment of ships trading in ASEAN and the Asia Pacific region.

Several owners aired their grievances on the above points. It was suggested that there should be a penalty system for consistent offenders. Singapore owners find the process of the inspections quite challenging for Masters who are encumbered with paper-work to go through the procedures, especially if or when there are different interpretations of the rules by different authorities.

Bulk carrier owners in Singapore differed in their replies on PSC inspections. Whilst some vessels on specific trades calling grain terminals in Indonesia and Malaysia are not inspected, tramp owners with vessels calling Singapore sporadically, advise their ships are frequently inspected. Indonesia was noted to be stepping up inspections but the officials are less stringent. In the Philippines, Thailand and Malaysia there are hardly any inspections to speak about. As a result there have not been any detentions that would have caused delays.

Difficulties are faced with Port State inspections in the area of language. This can result in delays due to communication problems between the inspector and the crew concerned.

B.2.4 Maritime and Port Authority of Singapore

B.2.4.1 FAL Form Issue and Electronic Clearance

Singapore, by virtue of being a party to the *FAL Convention,* has no issues with FAL form clearance of vessels in the port. There is a National Facilitation Committee where customs, immigration officials and ship owners can make representations, however its effectiveness was questioned by those interviewed.

Singapore follows closely the International Maritime Organisation Conventions and enacts its own maritime laws to give effect to the Conventions.

Vessels are 'pre-cleared' by giving advanced notice electronically, thus they can proceed direct to the berth. The physical clearance will take not more than an hour. The vessels certificates are then brought ashore by the agents to the Maritime and Port Authority before the vessel can be cleared out of port.

B.2.4.2 Theft

Theft or piracy matters within the port limits are reported to the Marine Police, the Maritime and Port Authority of Singapore and the International Maritime Bureau in Kuala Lumpur. There are no problems with piracy in Singapore waters.

B.2.4.3 PSC

Vessels are inspected on a six monthly basis under PSC as per the Tokyo MOU, however Singapore Flag ships can be inspected more frequently under the Flag State regulations if the authorities feel that the vessel requires these inspections to meet Flag State requirements. The Maritime Authority of Singapore reported few delays to shipping activity as a result of the inspections..

All certificates of foreign nationals working on board Singapore Flag vessels are inspected to ensure that they comply with the Standards of Training , Certification and Watch-keeping for Seafarers.

As a signatory of the Tokyo MOU, Singapore must ensure that it complies with the conditions of the agreement for Singapore Flag vessels. There is little communication on

Flag State issues within the region, although if there is any detention the Maritime Authority will correspond with the Port State officials of the country concerned to assist in the clearance of the ship. So far there has not been any issues with ASEAN port authorities on PSC matters concerning Singapore ships.

There are no issues with the clearance of passenger vessels.

B.3.0 Thailand Interviews (21–25 September)

The visits comprised –

- Three Thai domiciled ship owners from the liner and break bulk trade.
- A container line agent.
- A major grain shipper.
- Three Government agencies (the Port Authority of Thailand ,the Harbours Board and Ship Survey Division)

B.3.1 FAL Form Issue and Electronic Clearance

Thailand is party to the *FAL Convention* which dictates that the standard form issue is utilised by vessels for clearance in Thai ports.

For vessels arriving at Bangkok, all FAL declaration forms for clearance have to be physically presented twenty-four hours prior to vessels arrival to the relevant Government agencies. This ruling has been relaxed to six hours for vessels with a short transit time (such as container vessels and car carriers) from the last port such as Singapore or Hong Kong and Kaohsiung. Fax applications are not acceptable.

There is no 'pre clearance' and all these formalities must be completed before cargo operations can commence. Customs, immigration and quarantine will board before clearance is given. For a second port call vessels need to be cleared again.

Significant paper work (copies of clearance forms) has to be prepared by the agent prior to vessels arrival. One owner recalled that a total of 115 signatures were required on clearance forms for one vessels call. Once the vessel arrives it takes a maximum of three hours for the ship to be cleared by the authorities.

Evidence suggests the regulatory procedures have been in place for decades and Government revision has not occurred. Nonetheless, established Thai public companies do not experience delays with the clearance of vessels if they have a good relationship with the relevant Government departments.

For break–bulk cargoes, Bangkok differs from many ASEAN ports since some privately owned rice export terminals along the Chao Phraya River have no customs area and

customs officials will need to make their way there. Mid stream loading by barge requires customs officials to be physically present to deter theft.

Outward quarantine clearance for grain ships requires the vessel to be fumigated which takes between twenty-four to forty-eight hours. As this is a condition of sale, this delay is unavoidable but the time lost is a cost to the vessel or shipper depending on terms of sale.

For Thai owners trading their vessels in other ASEAN ports, there are no clearance delays in Malaysia, Philippines or Indonesia, although there can be occasions in Vietnam where officials have not been cooperative. In some Indonesian ports, it could take the officials up to six hours to clear the vessel as they may have to come from another area. Similarly, at some Sumatran ports vessel cleared at anchorage vessels may have to wait for up to twelve hours for customs, immigration and quarantine officers to arrive.

On electronic clearance of cargo manifests, the Bangkok Port Authority initially targeted October 2001 for the introduction of Electronic Data Interchange, but the implementation has been delayed. Other agencies involved in clearance are still lagging behind. Consensus on complete clearance of vessels electronically is some time away. Most vessels of Thai ownership have fax and Inmarsat facilities on board.

Although it is not a matter of clearance, the container line agency interviewed felt they would like to bring to the notice of APEC that cargo operations by customs in Bangkok Port has not kept pace with international standards of receiving cargo. The issue is in the area of exports. Customs should regulate and modify cargo operations. At present, they do not impose a cut off time for the acceptance of containers into the terminal and, as a result, containers do not have an identification number on this basis so it is impossible to check the container's owner, and whether it has been cleared by customs.

This is a logistics issue for ship owners since they are unable to create a proper stowage plan for the vessel. The impact is vessel delays, poor stowage, and boxes ending up in the wrong destination. This occurs at both Bangkok Port and Laem Chabang container terminal.

B.3.2 Theft, Illegal Immigrants, Stowaways, Smuggling

There are some incidents of theft on board vessels at Laem Chabang container terminal anchorage with reports of minor injuries to ships crew. These incidents are not of a serious nature and have been reported to the Marine Police and the Bangkok Ship-owners Association.

The Marine Police has set up a 'hot line' for such incidents and stepped up patrols. Watch-keepers are employed by owners whilst the vessel is at anchorage awaiting berth.

The Marine Police and Thai Navy have insufficient patrol craft and their boats are outdated. Owners believe the Government should allocate more funds to support the Marine Police and Thai Navy in their efforts to stamp out piracy.

The ASEAN Governments should co-operate more in this area and the endorsement of the IMO Rome Convention 1988 on "*Suppression of Unlawful Acts against the Safety of Maritime Navigation "* would be a step in the right direction.

There were no reports from Thai owners on issues relating to illegal immigration, and stowaways but theft of cargo can be a problem when loading in the Chao Phraya River if it is not monitored by customs. In the region, a Thai owner recalled a minor incident that occurred in Sumatra with cash, ropes and paint stolen from the vessel.

Thai owners are aware of the International Maritime Bureau's Reporting Centre in Kuala Lumpur but did not provide any comments on the effectiveness of the centre.

B.3.3 Port State Control

In Bangkok, PSC inspections of container vessels are rare. There are no issues regarding delays to clearance in this area. General cargo vessels are inspected more frequently and one owner reported that vessels have inspections twice or three times a month, but they are at random and there is no systematic targeting of vessels. There are detentions, which are not significant.

Thai owners believe that in more advanced Economies PSC has a part to play in maintaining standards required for ships to trade. However, in less developed nations in ASEAN, PSC is vulnerable to misuse.. PSC suffers from a lack of manpower in Bangkok with distant ports in the country to cover.

The general view of PSC system is positive in that it has helped Thai ship owners and crew to adopt a system of compliance. It was observed that major Thai owners, had International Safety Management System implemented on their ships.

Thai companies interviewed confirmed compliance with the 1998 ISM code under the *Convention of the Safety of Life at Sea,* and the *International Convention on Standards of Training, Certification and Watch-keeping* that will be implemented by the IMO in February 2002. As all their ships trade internationally, they are usually advanced in their planning on ISM matters.

B.3.4 Harbour Department – Waterway Transport Inspection Division and Ship Survey Division, Port Authority of Thailand

The issues discussed with representatives of the two divisions were:

- FAL form issue and electronic clearance.
- Piracy, smuggling, illegal immigrants and stowaways.
- PSC.

B.3.4.1 FAL Form Issue and Electronic Clearance

Electronic clearance of vessels is a project that is underway at the Port Authority of Thailand, but at this stage it is only for Thai Flag vessels. This project will be up and running within the next two years but it will be subject to the funds that are made available to the port by the Thai Government.

Currently, there is fax clearance only and hard copies still need to be presented. The Thai Ship-owners Association has offered to assist the Harbour Department develop this project.

The Chief of the Harbour Master's Section had some comments which he requested be brought to the attention of the APEC Transport Working Group. The Thai Harbour Board requests assistance in the procurement of equipment and technology. Equipment required are vessels tracking systems, electronic clearance, safety equipment and the Global Maritime Distress System. The Vessel Tracking System was developed by the Harbour Department at considerable expense, but the software for the interface still needs to be procured. The Department would like to request if APEC Transport Working Group can assist in the procurement of this equipment.

B.3.4.2 Theft, Smuggling, Illegal Immigrants

The avenues available to owners for reporting major theft or piracy incidents in Bangkok is the Royal Thai Navy, Marine Police, Harbour Department, Port Authority of Thailand and Bangkok Radio. There is no legal procedure enacted since there is no Marine Act in Thailand. There is only a criminal procedure code for matters regarding theft and there is no equivalent of a Coast Guard entity in Thailand.

There were no reports of piracy to the Harbour Department, but there are reports on theft from vessels involving cash and ship stores mainly at Laem Chabang Container Terminal.

There are insufficient and outdated patrol craft, insufficient trained personnel and equipment in Thailand to monitor the Gulf of Thailand and the Andaman Sea.

B.3.4.3 Port State Control

Under the Tokyo MOU, Thai authorities have to inspect all Thai Flag ships, numbering about 550, and are trying to achieve this. They confirmed that all Thai flag vessels had been inspected at least once. There are no major delays as a result of detentions but there are regular offenders. Their observations are that about 50% of Thai owners are using PSC inspections to identify deficiencies with the vessels.

According to officials interviewed, Thailand was not prepared for the Tokyo MOU as they have insufficient resources in terms of finance and trained personnel.

Officials commented that some crews have difficulty because of language problems and are not sufficiently trained in compliance.

B.4.0 Philippines Interviews (25–28 September 01)

Visits were made to –

- Two bulk carrier / general cargo vessel owners - an international bulk operator and a local entity.
- Three owners operating varied vessel types - liquefied petroleum gas, container and general cargo vessels.
- Five shipping agents,
- A petroleum company operating offshore supply vessels
- The Philippine Coast Guard.

B.4.1 FAL Form Issue and Electronic Clearance

The Philippines is not a signatory to the *FAL Convention* but have, agreed to do so in the future.

The Philippine Port Authority but has a total of 13 forms compared to seven required by the IMO.

Despite these more detailed processes, there are usually no delays experienced, and vessels are generally cleared in less than three hours at all main ports.

Most of the additional forms are those required by Customs relating to Bills of Lading and crew lists. For example, there are two separate crew lists required if there are 'restricted' crew (i.e. crew from Economies such as the CIS States or China). There is also a form for ports visited in the last three months. All forms are made out by the agent and signed by the Master.

The Philippine Port Authority has already taken the lead in preparing what changes are necessary to the form issue to comply with FAL Conventions and this was handed to Government in 1999. This has not proceeded any further.

No free pratique is practised in the Philippines although there are attempts to get this process started. Vessels can be cleared at anchorage or at berth, but operations cannot commence until the vessel is cleared. For the second port call within the Philippines, the vessel does not need clearance so time is saved. An important distinction is whether the vessel has to pass international waters to call at the second port. Generally, if this is the case then the vessel has to be cleared a second time.

Evening arrivals are more difficult as the officials have to board the vessel and they may not do this until daylight hours, even in Manila. It all depends whether the vessel is discharging in the anchorage or at berth.

At the outports, clearance can take between four to eight hours depending on which agent is appointed. An example was given of an out port called Poro Point, a fertiliser and concentrate port, where the quarantine official was attending a wedding and the vessel had to wait for the official. Poro Point is a private port and clearance is handled by private enterprise.

For regular vessels trading only in Philippine waters, no clearance is required. One owner suggested that customs are stricter at out-ports, and there may be delays in smaller ports because these areas are more prone to smuggling of imported rice.

It appears that when major importers or exporters are involved, the process is smoother. However, the authorities tend to be rather inflexible when dealing with smaller companies. Those interviewed requested standardised Port regulations advising what is required of the port officials.

Different quarantine inspections were conducted for vessels with live animals and fishing vessels.

Regionally, the only port mentioned by owners as a 'difficult' port is Batam, which is an Indonesian island, fourteen kilometres south of Singapore. This is an LPG installation where authorities do give problems to vessels on technical grounds, and it is not a clearance issue.

It was noted that in the Philippines, the customs and police are on board the vessel throughout cargo operations and are victualled by the vessel at owners cost (including the cost of transportation to and from the vessel plus 1,000 pesos per day attendance fee). If accommodation is not provided they will accommodate themselves in a local hotel again at ship owners cost. 'Restricted crews' who come from the C I S States, China or Pakistan, when being signed on the vessel, have to travel under guard to and from the vessel at owners expense until the vessel sails from port.

Manila North Port is run by Manila International Container Terminals and Manila South Port by Asian Terminals (P+O). To proceed from North Port to South Port or vice versa requires vessels clearance, except quarantine. This is because both areas are part of a different customs zone even though they are only an hour apart. At North Port, it is possible for a ship to proceed to berth for clearance but not at the South Port, where it still has to be done at the anchorage.

With reference to electronic clearance, it was noted that cargo manifests and all other forms required for clearance have to be physically handed to the authorities upon arrival, either on board or by the agents at the respective Port office.

Container shipping line association members advise that customs are investing a significant sum of money to implement electronic clearance but it is still a few years away. Bulk carrier owners however do not believe that the Philippines have the infrastructure to implement electronic clearance and the present practice is probably twenty years behind more developed Economies.

Further background was provided that low Government salaries create vulnerability to misuse of responsibility such as clearing vessels and giving dispensation for the use of a tug. The respondents considered that Governments should address this issue.

B.4.2 Theft, Illegal Immigrants, Stowaways, Smuggling

Owners do not have any issues with illegal immigrants, stowaways or smuggling within the Philippines. There are incidents of theft on board but they are at anchorages and relatively minor in nature.

In ASEAN, there was a report citing Tanjung Priok (Jakarta), where in the presence of armed guards, intruders boarded the vessel and there was theft of berthing apparatus. They did not apprehend the thieves but went to the washroom instead. There were no injuries. The incident was reported to the Harbour Master and the Police but there was no follow up. Another owner had pirates board their vessel in the Malacca Straits while the ship was on the move. This happened two years ago. 16,000 U S Dollars was stolen. There were no injuries

The only victim of piracy was an owner in Manila who had a general cargo vessel hijacked from the Philippines and brought to the anchorage in Singapore where the steel cargo of 4,500 metric tons was discharged into barges and subsequently sold to Indonesia. The vessel was recovered eight months later in South Korea where its name was changed but they managed to trace the ship by the engine number imprinted inside the vessel. The owners discovered the transfer of the cargo in Singapore by coincidence. This owner believes the IMB reporting centre in Kuala Lumpur is only a reporting centre but it has no legal 'teeth'. Other owners re-iterated this view. Owners believe with their Global Positioning System they can track their own vessels and do not need other systems to track their ships

In Manila theft is reported to the Philippine Port Authority and the Harbour Master. The Coast Guard is not involved in theft issues only piracy at sea. However, they have insufficient craft to patrol the vast area. The general view is piracy seems to occur more in Indonesia than anywhere else in ASEAN. The general consensus is that ASEAN should conduct joint patrols and the Rome Convention 1998 should be ratified although having the resources to back it up is another issue.

B.4.3 Port State Control

The problem in this area is one of insufficient trained staff within the Philippine Coast Guard to inspect vessels and as such they are unable to conduct a proper inspection. The training they receive is short and incomplete. In an attempt to overcome the problem there is a move to deputise superintendents from shipping companies in the Philippines to assist in this task. Random checks for each vessel are being made approximately once a year in Manila, but their visits are short and mainly break-bulk vessels, not container ships.

The previous port's inspection reports are usually given and occasionally owners do request inspections to verify that recommendations made have been rectified.

Ship owners that trade internationally are pro-active by conducting their own inspections and detentions are rare. Local shipping companies do face delays since they do not conduct their own inspections and their vessels usually have defective items.

Delays are not significant and there has been no disruption to clearance or cargo operations worthy of reporting.

Outside the Philippines, Singapore is the most frequent with inspections with one owner stating that his vessels are inspected on every call at the port, whilst another had a minor detention there.

Indonesia and Vietnam were the only other Economies mentioned where inspections have been conducted. The inspectors have gone into Class items, which is not the role of Port State inspectors. There is no uniformity among ASEAN Economies in following Tokyo MOU parameters on inspections and they each go in their own direction. Overall there has been no disruptions or detentions to cargo operations.

Training of the crew is the most difficult process but this is on-going. Owners are confident the crew will be fully competent to meet *Standards of Training, Certification and Watch-keeping* when it comes into force in February 2002. There is a training centre in the Philippines to train the crew, which is of international standard but this is not sufficient, and the Government is unable to cope with the licensing process. Owners interviewed declared that their vessels are already compliant with the International Safety Management system, which came into force in July 1998.

Vessels of less than 500 GT are classed locally by National Safety Management and do not need ISM certification.

Generally there is a positive view on Port State inspections however it is a very demanding task for the Captain and Engineers to keep pace with the inspections / regulations. There is a lack of support generally for local owners from local authorities to assist owners in trying to achieve compliance and they are not always clear on what they are doing. Audits need to be conducted and this is expensive and time consuming.

An incident worth noting was a judicial waiver on a PSC detention in Manila issued to the owner of the vessel with personal connections, resulting in the release of the vessel.

B.4.4 Philippine Coast Guard

Although not a signatory to the FAL Convention, the Philippine Coast Guard advises that local regulations are based on the Convention. Ratification has not been exercised due to bureaucracy and not objections to the Convention. Similarly with the Rome 1998 Convention on Suppression of Unlawful Acts against the Safety of Maritime Navigation 1998, the Philippine Coast Guard believes their Government should sign the Convention. There are issues on *United Nations Convention on Law of the Sea* regarding archipelagic states that have yet to be resolved.

The Philippine Coast Guard believes there are many unreported incidents of armed robbery on board ships in the Philippines. The Coast Guard does not distinguish between piracy and armed robbery. Regional co-operation on piracy matters was suggested and the example of the MV "Inabukwa", an Indonesian vessel hijacked and intercepted in the Philippines was cited.

As signatory to the Tokyo MOU, the Philippines PSC functions are handled by the Philippine Coast Guard.

There is a Virtual National Centre, which is a on- line database with the PSC offices having direct access to a central database in Vladivostok, Russia. The country is divided into seven PSC Centres and fifteen PSC Divisions.

For the year 2000, 418 Philippine Flag vessels were inspected and 175 Foreign Flag vessels. Detention rate was 3.73% and only on clear grounds. No penalties were imposed.

There is no co-operation between ASEAN nations on PSC matters, only regional co-operation through the Tokyo MOU in the Asia Pacific Region. ASEAN nations are linked to the Asia Pacific Computerised Information System. The Philippine Coast Guard expects full compliance of the ISM Code for vessels above 500 GT on the *Safety of Life at Sea* coming into effect in July 2002 for Philippine Flag vessels trading internationally, and this Code has now been implemented for domestic vessels.

B.5.0 Indonesia Interviews (1–4 October 2001)

Nine companies were interviewed in Jakarta. They included –

- Three shipping agencies.
- Two container lines,
- Two tanker owners
- Two bulk carrier owners.

The shipping department of the Government owned oil company, *Pertamina,* was part of the original consultation plan. Repeated requests through Messrs Barwil Jakarta, a ships agent, to secure an appointment for us with the Sea Communications Department were however unsuccessful.

B.5.1 FAL Form Issue and Electronic Clearance

Generally, Indonesia's form format for vessels clearance is not unlike IMO FAL Conventions although the terminology is different.

Port Health issues a certificate that the vessel can proceed alongside and Indonesian customs forms are used. Several copies of crew lists are prepared by the agent as well as a general declaration. Indonesian Flag vessels are required to satisfy further requirements set by the Harbour Master in terms of a certificate of sea-worthiness which again differs from the FAL Convention.

The only pre-clearance in Indonesia is for container ships where immigration does not need to board the vessel. These vessels are usually on a regular liner schedule and would therefore have a berthing priority.

Container vessels performing inter-island trade within Indonesian waters do not need a customs declaration even for international cargo provided the duty has been paid. The ports where this occurs are Tanjung Priok, Surabaya, Belawan, Palembang and Jambi.

All bulk or container vessels arriving from international waters do not face any issues of clearance, which typically occurs within 3 hours. Some regular callers could take as little as one hour. Vessels are either cleared at the berth if they are berthing on arrival or at anchorage.

The form preparation work done prior to the vessels arrival is more time consuming and this process of preparation of arrival forms could take several hours. It was noted that Thai Flag vessels that carry only certified copies of documents have issues of clearance because Indonesian authorities do not accept photocopies. The vessels are still cleared because agents come up with unofficial ways to overcome the problem. A representative of an overseas shipping line added that immigration officials sometimes 'create' their own rules, which are unknown in normal shipping practice. This causes delays but again it is an issue in need of consideration.

It is important to note that large shipping companies with major operations in Indonesia get a preference at the port as they provide a significant amount of revenue for the ports and therefore carry significant 'weight'.

Selecting the 'right' agent is most important when applying for clearance of a vessel. For example a Pertamina operated vessel will get clearance priority over any other oil tanker not operated by them, according to another agent, because it is a Government agency and they act rather slowly. At the Pertamina oil terminals there is usually an administrative office that houses all the officials involved in clearance.

It was interesting to note a comment from a major grain merchant and shipping operator that in fact the officials are normally at hand when the vessel arrives at their grain terminals, the reason being that the company is more 'proactive' in this area. For grain vessels obtaining quarantine clearance is the only issue.

Areas where clearance delays could occur are at Sungei Pakning in South Sumatra where vessels load wood pulp. The customs officials have to travel by boat from the town of Pekan Baru to the loading point and this can take up to twelve hours. But so far, even with this logistical setback it only takes two to three hours from vessels arrival to clear the ship. Delays can also occur at dedicated berths such as coal, plywood and other factory berths

located near the mines or mills. These areas are some distance from the main ports of the region and clearance officers may have to travel some distance for vessels clearance. This could be by air as in Tanjung Barnabas near Ternate in Sulawesi or by boat to Tanjung Redup near Tarakan in Kalimantan where coal is loaded by barge.

All bulk vessels are cleared manually, and documents have to be sent to the Harbour Master's office.

Container vessels can send container cargo manifests to customs electronically, but so far this is for Tanjung Priok only. Hard copies of the manifest still have to be sent once the vessel has berthed.

Other than container cargo manifests, no other forms are cleared electronically at present but Jakarta Port authorities are studying what Singapore is doing with an eye to implementing a similar process in the future. Some international owners however doubt that this will eventuate, stating that the Government has insufficient funds and too many jobs are at stake.

B.5.2 Theft, Illegal Immigrants, Stowaways, Smuggling

There was no major incidence of major theft or piracy reported by any of the shipping companies interviewed in Jakarta, but everyone mentioned that minor theft on board vessels is quite frequent at the major ports of Tanjung Priok in Jakarta, Surabaya and the Sumatran port of Belawan where the most recent incident was three months ago.

The owner of a container vessel had one container opened by thieves but they dispersed when the alarm was raised. Items usually stolen are ship spares, ropes, cash and personal effects.

The Government controlled Pertamina stated that their tankers have between four and five incidents of theft a year mainly along the Musi River in Palembang on the island of Sumatra. Tankers are also occasionally boarded at other oil terminals such as Dumai (Sumatra) at night.

All incidents were reported to the Indonesian equivalent of the Coast Guard which is the Kesatuan Penjagaan Laut dan Pantai. Statements were taken but there has not been any outcome for any of the incidents discussed with the shipping operators. A comment was also made that even when a theft is reported to the authorities "no one cares anyway." The port police have small out-dated patrol vessels, which are generally insufficient to patrol the vast area and although the Navy is conducting more patrols these thefts are still going on. Another point of note is that it is usually foreign flag vessels that are boarded, not Indonesian Flag. Such theft incidents are reported to have no bearing on vessel clearance.

There was no report on illegal immigrants, stowaways or smuggling by any ship-owner in Jakarta that could have been an issue for clearance of ships by the by regulatory bodies.

As with all other Economies, interviewees felt that there should be more co-operation between the Governments of ASEAN in patrolling common borders. There was general support for Governments to sign the *Rome Convention of 1988 on Suppression of Unlawful Acts against the Safety of Maritime Navigation* should it help resolve the attacks on ships. The International Maritime Bureau Piracy and Reporting Centre in Kuala Lumpur was not known to most of the companies interviewed as such there was little comment on the success or otherwise of its activities.

B.5.3 Port State Control

Bulk carrier operators trading internationally advise that as long as the vessel has a valid (six month) inspection report, PSC in Indonesia does not inspect the vessel.

Local Container vessel owners gave a different response. Their view is that inspections are being conducted frequently at the major ports such as Tanjung Priok, Surabaya and Belawan, and felt it was a good system ensuring that owners comply with IMO requirements.

Conversely, a major international container line advised that the inspection system is vulnerable to misuse, and that also, the inspectors do not board the ships unless there are remarks from the previous inspection. A tanker owner added that their company was being charged various amounts for inspections but they have not received any defects list.

Tanker owners cited Singapore as the port with the most inspections in the region and that it was becoming increasingly difficult for the crew who had to attend to these inspections as well as prepare the vessels for the cargo operation especially if there is a short turnaround time.

There was an incident in September 2001, where Singapore authorities threatened to detain a vessel when it switched from Singapore to Indonesian flag whereas under the previous flag Singapore authorities did not detain the vessel.

A main point of contention is that there are insufficient trained inspectors and there are insufficient training centres in Indonesia for owners to prepare their crew for ISM Code requirements. They have to be sent overseas. Furthermore, maintaining the ISM Code is expensive and some companies are feeling the strain on the costs side.

Non-compliant vessels are not being penalised and neither are compliant vessels given priority. Generally if there is a problem unofficial ways are found to solve it.

Companies in Indonesia with major ship asset bases are maintaining their fleet to international standards and are keeping their ISM Code in order by internal house-keeping. This may be because they are also subject to PSC from other International Economies with more stringent requirements. Training of their crews is generally carried out locally or internationally with their own resources.

Appendix C - List of Companies Interviewed During Consultation

Singapore 17th - 20th September 2001

1. Caltex Singapore
2. Glory Ship Management Singapore
3. Maritime and Port Authority of Singapore
4. PCL Singapore
5. Pacific International Lines
6. SAMTA Shipmangement Singapore Pte Ltd
7. Stolt-Nielsen Transportation Group Pte Ltd
8. IMC Shipping Co Pte Ltd
9. Wallenius Wilhelmsen

Bangkok 20th - 25th September 2001

1. Harbour Department of Thailand (Ship Survey and PSC Dept and Waterway Transport Inspection Division).
2. Port Authority of Thailand
3. Bangkok Container Terminal
4. Evergreen Star Thailand
5. Precious Shipping Thailand
6. Soon Hua Seng Rice Co Ltd
7. Thoresen Thai Agencies
8. Unithai Line Public Co Ltd

Manila 25th - 28th September 2001

9. Philippine Coast Guard
10. Association of International Shipping Lines
11. China Shipping Manila Agency
12. Evergreen Philippines
13. Sky International Inc (Yang Ming Line , Kyowa Line).
14. Jebsens International Manila
15. NMC Group
16. Baliwag Shipping Agency

17. Shell Philippines Exploration
18. Swan Shipping Corporation
19. Wallem Philippines Shipping Inc

Jakarta 1st - 4th October 2001

20. PT Ahdhika Lines / Gulf Agency Company
21. Bogasari Flour Mills Shipping Division
22. Barwil Agencies Indonesia
23. Gearbulk AG , Jakarta Regional Office
24. Pertamina
25. PT Pelayaran Meratus
26. Samudera Shipping Line Ltd
27. Samudera Petrindo Ltd
28. PT Zhonghai Indo Shipping