

2000

Towards a shipping policy for Guyana

Earnestine Gracelyn Mars
World Maritime University

Follow this and additional works at: http://commons.wmu.se/all_dissertations



Part of the [Public Affairs, Public Policy and Public Administration Commons](#)

Recommended Citation

Mars, Earnestine Gracelyn, "Towards a shipping policy for Guyana" (2000). *World Maritime University Dissertations*. 255.
http://commons.wmu.se/all_dissertations/255

This Dissertation is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.

WORLD MARITIME UNIVERSITY
Malmö, Sweden

TOWARDS A SHIPPING POLICY FOR GUYANA

By

EARNESTINE GRACELYN MARS
The Cooperative Republic of Guyana

A dissertation submitted to the World Maritime University in partial
fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE

in

SHIPPING MANAGEMENT

2000

DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

..... (Signature)

..... (Date)

Supervised by: Hodgson, Dick
 Associate Professor
 World Maritime University
 Malmo, Sweden

Assessor: Donner, Patrick
 Associate Professor, Shipping Management
 World Maritime University
 Malmo, Sweden

Co-assessor: Per Jessing
 Secretary General
 Swedish Shipping Forum
 Visiting Professor
 World Maritime University
 Malmo, Sweden

THIS STUDY IS DEDICATED

TO

MY DAUGHTER

WRENESA NEGILANNA ROMIA

ACKNOWLEDGEMENTS

The author wishes to express her very sincere thanks and appreciation to the many persons who have contributed in different ways to the success of this paper. Although it is not possible to mention each name, she would like to expressively thank the following individuals and organisations:

The Carl Duisberg Gesellschaft e.V. of Germany for sponsoring the two years of study at the World Maritime University.

The Government of the Republic of Guyana and the management of the Transport and Harbour Department for his nomination to pursue the course of study.

Messrs. Ivor English, General Manager, Transport and Harbour Department and Mrs. Brenda Taharally, Confidential Secretary, Transport and Harbour Department for responding to various questions and for supplying valuable information relative to shipping development in Guyana.

To Professor J. R. F. Hodgson for the invaluable assistance given in terms of supervising and guiding the author at every stage of this project.

The faculty and staff of the World Maritime University both Visiting and Resident Professors for the high quality of lectures and general knowledge which they imparted.

To friends and fellow students, especially those from the Caribbean, for their support and encouragement.

Last, but surely no means least her loving daughter, Wrenesa, for the love, care and understanding she has shown throughout the two years of this course. Heartfelt love and gratitude also go out to her mother, sisters and brothers for their support and mutual assistance.

ABSTRACT

Title of Dissertation: **Towards a Shipping Policy for Guyana**

Degree: **Msc**

This study examines the historical and contemporary operating environments of Guyana's shipping industry. These conditions have been the driving force which has influenced the writer's ideas, and led to the formulation of broad policy principles to guide the formation of a strategic national shipping policy, which are likely to yield positive results if adopted.

A general introduction of the existing policies, which have guided maritime development, sets the scene for the description, examination, analysis and evaluation of the ensuing problems.

It will come as no surprise that the existing policies, which were introduced by the British to foster their mercantile interest, need significant modifications in keeping with the rapid changes that have taken place in the global shipping industry.

It is therefore, vitally necessary for administrative policies to be carefully enacted and the shipping objectives modified to enhance economic, safety, and environmental development in the country.

With the rapid growth of globalisation in the world economy, there is an urgent need for Guyana shipping policy to be updated to reflect the economic objectives of the state,

and at the same time meet the demands of the regional and international shipping environment.

Most Caribbean countries have adopted maritime conventions and instruments in their national law, thereby reflecting global maritime standards. Failure of Guyana to adopt a similar course may lead to its eventual marginalisation in relation to regional approaches in particular, and the international maritime community in general.

These pressing issues have motivated the writer to undertake this project, which aims at the development of appropriate policy principles after carefully examining and evaluating the past and present operating environments of shipping in Guyana.

KEYWORDS: Analysis, Environment, Policy, Principles, Shipping, Strategies.

TABLE OF CONTENTS

Declaration		ii
Acknowledgement		iii
Abstract		v
Table of Contents		vii
List of Tables		xi
List of Abbreviation		xii
CHAPTER 1	Introduction	1
1.1	Background to the study	1
1.2	Objectives of the study	4
1.3	Methodology	5
1.4	Constraints	6
CHAPTER 2	Current Structure and Operating Environment of Guyana Shipping Industry	7
2.1	International Shipping	8
2.1.1	Globalisation and Liberalisation	9
2.1.2	Acquisition, Mergers and Alliances	11
2.1.3	Logistic management	11
2.1.4	Information and Communication Technology	11
2.1.5	Technology	13
2.1.6	Crew Training and Certification	14
2.1.7	Multimodal/Intermodal Transport	15
2.2	Coastal Shipping and its Operating Environment	17
2.3	Inland Water Transport	20
2.4	Support Services	20
2.5	Freight Forwarders (FFs)	22
2.6	Guyana's Waterborne Trade	22
2.6.1	Imports	23
2.6.2	Exports	24
2.7	Safety of Ships Design and Construction	24
2.8	Human Resource Development	25

2.9	Flag State Control (FSC)	27
2.10	Port State Control (PSC)	28
2.11	Aids to Navigation (ATN)	29
2.12	Pilotage	30
2.13	Information Technology (IT)	31
2.14	Rates and Tariffs	33
2.15	Pollution Prevention and Environment Protection	34
2.16	Policy, Legislation and its Administration	35
CHAPTER 3	Evaluation and Analysis of the Current Structure and Operating Environment of the Guyana Shipping Industry	37
3.1	Government and Policy	37
3.2	Policy Analysis	37
3.3	Maritime Policy	42
3.4	National Shipping Policy	43
3.5	Economic Evaluation and Analysis of Coastal Shipping	44
	3.5.1 Intermodal/Multimodal Transport Policy	49
	3.5.2 Limitation of Liability and Insurance Policy	51
	3.5.3 Ports and Ports Services to Shipping	54
	3.5.4 Tax Policy and Tax Administration	56
3.6	Evaluation and Analysis for Improving Safety within the Local Shipping Industry	59
	3.6.1 Safety of Ships	60
	3.6.2 Standards of Training and Certification	60
	3.6.3 Maritime Investigations	61
	3.6.4 Piracy and Armed Robbery	62
	3.6.5 Safety Services	63
3.7	Maritime Pollution and Environment Protection	64
CHAPTER 4	Examination of Options Available for the Creation of a Cohesive Shipping Policy	66
4.1	Examination of Economic Options	67
	4.1.1 Trade Restrictions Policy	67
	4.1.2 Registration and Licensing of Ships	68

	4.1.3	Maritime Subsidies Policy	68
	4.1.4	Intermodal Transportation Policy	70
	4.1.5	Port State Control Policy	72
	4.1.6	Cost Recovery Policy	73
4.2		Safety and Environmental Options	74
	4.2.1	Role and Function of Maritime Safety Administration	75
	4.2.2	Information Technology (IT)	76
CHAPTER 5		Proposed Framework to Guide the Formation of a National Shipping Policy	78
5.1		A Mission Statement	79
5.2		Policy Principles	80
5.3		Strategic Directions	81
	5.3.1	Building the Foundation for Development	81
	5.3.2	Developing Human Resources	83
	5.3.3	Developing Transportation Infrastructure	83
	5.3.4	Improving Safety	85
	5.3.5	Cooperating with Regional Partners	86
5.4		Specific Policy Initiatives	86
	5.4.1	Institutional Reforms	88
	5.4.2	Human Resource Development	88
	5.4.3	Regional Cooperation	89
	5.4.4	Marine Sector	89
		5.4.4.1 The Creation of a National Port Authority	90
		5.4.4.2 The Creation of a Maritime Administration	91
		5.4.4.3 The Commercialisation of T&HD Ferry Operations	91
5.5		Implementation Approach	93
CHAPTER 6		Conclusions and Recommendations	96

References		101
-------------------	--	-----

Appendices

Appendix 1	T&HD Statistics for 1998	106
------------	--------------------------	-----

Appendix 2	Hellenic Table and Tokyo MOU Post State Statistics	108
------------	--	-----

LIST OF TABLES

Table I	T&HD Services and Net Effect	105
Table II	Cargo, Passenger and Vehicles Transported	106
Table III	Imports by End Use	23
Table IV	Exports of Major Commodities	24
Table V	Hellenic Table	107
Table VI-IX	Tokyo MOU Port State Inspection Statistics for 1998	107

LIST OF ABBREVIATIONS

ATM	Aids to Navigation
BIMCO	Baltic and International Maritime Council
BOG	Bank of Guyana
CARICOM	Caribbean Community
CBCSL	Courtney Benn Contracting Services Limited
CIF	Cost Insurance and Freight
CNN	Cable News Network
CNS/ATM	Communications, Navigation, Surveillance Air Traffic Management
COLREG	Convention on the International Regulations for Preventing Collisions at Sea
EDI	Electronic Data Interchange
EEC	European Economic Commission
ETB	External Trade Bureau
FFs	Freight Forwarders
FOB	Free on Board
FSC	Flag State Control
GATT	General Agreement on Tariffs and Trade
GNIC	Guyana National Industrial Company
GOG	Government of Guyana
GT	Gross Tonnage
G\$	Guyana Dollar

HELMEPA	Hellenic Marine Environment of Pollution of the Sea by Oil
H&M	Hull and Machinery
ILO	International Labour Organisation
IMO	International Maritime Organisation
IRD	Inland and Revenue Department
ISM	International Safety Management
IT	Information Technology
LL	International Convention on Load Lines
MARPOL	International Convention for the Prevention of Pollution from Ships
MNCs	Multinational Companies
MOU	Memorandum of Understanding
MSC	Maritime Safety Committee
MTOs	Multimodal Transport Operators
MTS	Multimodal Transport Service
NTT	National Task Team
NVOCC	Non Vessel Operating Common Carrier
OILPOL	International Convention for the Prevention of Pollution of the Sea by Oil
P&I	Protection and Indemnity
PSC	Port State Control
SAR	Search and Rescue
SOLAS	International Convention for the Safety of Life at Sea
STCW 95	International Convention on Standards of Training, Certification and Watch-keeping for Seafarers
SUA	International Convention for the Suppression of Unlawful Acts against the

	Safety of Maritime Navigation
TEU	Twenty-foot Equivalent Unit
T&HD	Transport and Harbours Department
TT	Through Transport
UK	United Kingdom
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNCTC	United Nations Centre on Transnational Corporation
UNDP	United Nations Development Programme
USA	United States of America
US\$	United States Dollar
VIP	Vision, Intelligence and Passion
VTM	Vessel Traffic Management
VTS	Vessel Traffic Service
WIPO	World Intellectual Property Organisation
WMU	World Maritime University
WTO	World Trade Organisation

CHAPTER 1

1. INTRODUCTION

This chapter introduces the background to Guyana's shipping industry, the objectives of this research, the methodology used in the development of this research, and the constraints encountered during the process.

1.1 BACKGROUND TO THE STUDY

The development of shipping in particular and maritime transport infrastructure, in general, from a Guyanese perspective, must essentially be ascertained relative to the total socio-economic political system in Guyana from the colonial era to the post-republican period. It is understandable therefore; that maritime policy or shipping policy has been somewhat constrained, in a domain of competing and conflicting priorities.

It is however, not the purpose of this research to examine in minute detail every facet, which promoted or constricted the development of a coherent shipping policy in Guyana. But rather to highlight those significant elements, which can give focus to the study and enhance the quality of the final output.

Of course, some ideas and arguments are presented on policies appropriate for maritime transport development and the diverse forms of control, which hitherto existed, and those, which fall within the ambit of the contemporary maritime institutional and legal framework. Many pundits concede that there has been very little change in the approach to shipping policy, while some worry about the notion as to whether there is any policy at all.

Guyanese history and economic development policies have been rooted in the institutions of the plantation economy which formed the basis for a relationship that was dynamic but yet conflictive, restrictive, and in some instances, exploitative. In this regard, shipping policy formulation was oriented towards the promotion of bulk shipping since the major focus was on the trans-shipment of primary products from Guyana to its colonial master.

Indeed, one of the major legacies of the colonial era has been the entrenchment of the 1894 British Merchant Shipping Act. This Act has guided maritime policy for over one century in Guyana and the rest of the English speaking Caribbean. It must therefore be clearly established that this type of policy was in no way unique to Guyana for ostensibly Britain promoted a similar system of administration in all of her dependent territories.

Since 1970, when Guyana became a Republic, the economic policy adopted has been one of a planned market economy. There was a heavy state involvement in the productive forces. It is therefore understandable that all maritime and shipping related activities would fall in this same mould. There was the establishment of the External Trade Bureau (ETB), which regulated trading, and shipping activities for imports were restricted since the intention was to restrict the importation of certain commodities. This restrictive approach generally led to the emergence of the “underground economy”, which was characterised by smuggling, the evasion of customs duties, and illegal shipping.

A national shipping service was established to facilitate the trans-shipment of bulk cargoes from Guyana, especially, bauxite. This service was referred to as GuyBulk, which initially allowed for the employment of some Guyanese seafarers. However, this kind of arrangement quickly faded away for the crews since the vessels that operated were of foreign origin. Hence, the manning conditionalities that were pre-determined were strictly associated with the notion that the ships were registered under a foreign

flag. For any serious arguments to be purported in this regard in the future would necessitate the promotion of a national fleet, which was constrained by the dictates of Guyana's National Registry which historically had eroded.

Over the last five decades there were many studies undertaken in Guyana, which reflected the need for serious modifications, in a general sense, to be made to the existing system of transport administration in Guyana. In recognition of this, a primary concern should be the careful implementation of a needs assessment strategy, which would form the basis of any new development thrust.

Although it should be recognised that transport policy should be viewed in a wholistic sense, since it is an integral part of overall economic policy, any study undertaken should first focus upon a specific issue or sector in the transportation network, be it road, rail, air or water. It is the writer's view that since it is a well established fact that transport is perceived as the catalyst for economic development, the inter-relationship between the various modes should not be ignored whenever a serious analysis is made of any particular sector. This is precisely why this study refers to the other modes, and attempts to justify the importance of an overall transport policy for the country.

The only serious attempt that was made to address the issue of a transport plan for Guyana was undertaken in 1975 by the Central Transport Planning Unit with the assistance of the Israel Institute of Transportation Planning and Research. Although that report identified the need for change in the maritime, aviation and road transportation systems, there was little done in terms of implementation, for essentially, it did not transcend the stage of being a mere draft document.

Guyana's maritime transport system in general, and shipping in particular, cannot be fully analysed without a clear understanding of the operations of vessels in its internal waterways. This is a very important endeavour, given the geographical configuration of Guyana.

It is indeed ironical that despite Guyana becoming a member of the International Maritime Organisation (IMO) in 1987, it failed to significantly amend the 1894 British Merchant Shipping Act so as to accommodate the implementation of international maritime conventions, codes and customary practices. This seems to suggest that because of the lack of a powerful and influential faction of persons in the private and public sectors in the business of transportation, the transport policy of Guyana is still in its infancy.

Since 1995 there has been a progressive move by the government to draw from the collective wisdom of the principal actors in the business of transport in order to formulate a national transportation policy. This process continues to move at a very slow pace since it lacks the full cooperation of all parties involved. However, such an approach should not be single-minded, but viewed as part of a total national strategy aimed at economic development.

Based on the foregoing, it is easy to conclude that very little has been done in terms of fostering a new and strategic policy framework for shipping administration and the development of a legal regime that is consistent with developments in the international maritime community.

1.2 OBJECTIVES OF THE STUDY

This research intends to examine the current structure and operating environment of Guyana's shipping industry, with particular reference to:

- Economic factors
- Safety and environmental protection factors
- Current policy, legislation and administrative factors

It also intends to identify and analyse the shortcomings of the shipping industry in an attempt to evaluate the best option available in creating an efficient and coherent shipping industry and to propose some broad principles that should guide the formation of a strategic national shipping policy.

1.3 METHODOLOGY

The methodology applied is of significance to this research for it influenced the quality of the research and determined the extent to which the intended objectives were realised. The methodology took the following form:

- The collection of primary data based on contacts and interviews with several persons within the local transport industry that enabled the writer to collect and analyse information on the current situation.
- The method of participatory observation was fully utilised during the writer's exercises and field study. Visiting experts and Chief Executive Officers of shipping companies were interviewed so as to obtain first hand information on shipping and its related issues. Information from lecture notes, handouts, seminars, lecturers and professors of the World Maritime University (WMU) was fully utilised.
- Secondary data were collected from books, journals, magazines, periodicals, articles, and the Internet with a view to summarising and analysing relevant information on various issues and concepts.
- Where necessary, quantitative charts, graphs and tables were used for analysis of the economic, safety and environmental elements of shipping activities. These were carefully analysed and allowed for appropriate conclusions to be drawn after making the necessary evaluations.

1.4 CONSTRAINTS

There were a number of constraints that may have affected this study and the quality of the output. These include the inability to obtain a wider-cross section of views that relate to the assessment of the elements that either affect or promote the operation of shipping in the local environment. In addition, the length limitation and the paucity of time for the completion on the research did not allow the opportunity for specific analysis of the relevant options for developing a strategic national shipping policy.

CHAPTER 2

2. CURRENT STRUCTURE AND OPERATING ENVIRONMENT OF THE GUYANA SHIPPING INDUSTRY

In this Chapter, the writer describes the present trends and developments in international shipping that are pertinent to policy issues, and the current structure and operating environment of Guyana's shipping industry. The description of Guyana's shipping environment is approached from an economic, safety and environmental protection perspective, followed by a brief explanation of its current policy, legislation and administrative framework. Careful consideration of the present system is given to the following areas: -

ECONOMIC FACTORS:

- domestic shipping and its operating environment,
- inland water transport,
- support services,
- freight forwarding,
- import and export of Guyana's waterborne trade,

SAFETY FACTORS:

- safety in the design and construction of ships,
- human resource development,
- flag state and port state control,
- navigational aids and pilotage,

- information technology,
- rates and tariffs, and

ENVIRONMENTAL FACTORS:

- pollution prevention and environment protection

MANAGEMENT FACTORS:

- Policy, legislation and its administration.

The writer's description does not cover in detail all underlying factors, rather only those factors that are of significance in the current shipping environment.

2.1. INTERNATIONAL SHIPPING

For Guyana to sustain a sufficient level of shipping services at a tenable cost depends on a host of factors, including the supply of shipping services available at any given time and the extent to which competitive factors prevail in the respective trades. There are a number of current trends and developments that have emerged and have significantly upset international shipping. Given the paucity of time and other inherent limitations, it is not the writer's intention to describe in minute detail all contemporary present day trends but rather to highlight those significant elements that have serious implications for Guyana's shipping policy.

These trends and developments are explained in the following order:

- Globalisation and liberalisation
- Mergers, alliances and acquisitions
- Logistic management
- Information and communication technology

- Technology
- Crew training and certification
- Multi-modal Transport

2.1.1. GLOBALISATION AND LIBERALISATION

The globalisation of production and the liberalisation of trade have become engines of growth and mechanisms for integrating countries into the global economy. The establishment of institutions like the General Agreement on Tariffs and Trade (GATT) and the World Trade Organisation (WTO) has reduced trade barriers between nations. Consequently there has been a fragmentation of production processes across international borders as a result of the proliferation of business entities. Multinational companies (MNCs) have mushroomed and in some instances there has been a major increase in economic activities in areas which were hitherto stagnant. According to a joint report by International Labour Organisation (ILO), and United Nations Centre on Transnational Corporation (UNCTC) (1988), 'many markets have become increasingly transnational and interdependent, and account for about 20% of world manufacturing output'. While the shipping industry has been responsible for aligning different stages of production, the MNCs have gained huge bargaining power and today regard ocean transport as no more than one of many links in an often complex international distribution chain. MNCs, therefore, seek out total transportation providers who are willing to meet stringent deadlines and not affect their just-in-time production system. This trend has significantly affected the shipping industry in the following ways:

- **Increased demand for services:** - Globalisation has led to an increase in foreign trade at a rate that is faster than the growth of the world economy. According to the WTO Yearbook of 1998, on average, merchandise exports grew by 6 % in real terms in the 50-year period from 1948 to 1997, as compared to an average annual output growth of 3.7 %. This trend has led to an increase in shipping activity from 490 MT in 1948 to 4,491 MT of seaborne trade in 1997.

- **The increasing role of MNCs:** - MNCs today are looking for global transportation providers rather than just shipping services. Given their large business contribution to the industry, shipping companies have had to establish offices across the globe and shift personnel in order to fit the global vision of the parent companies.
- **Reduced freight rates:** - According to WTO statistics, unit cost of sea freight has declined by 70 % in real terms in the last 10 to 15 years. Shipping companies have to be innovative in an effort to offer efficient services at lower costs by achieving economies of scale through mega carriers and by acquisition, mergers and alliances.
- **Shipping companies' strategies:** - The shipping function is increasingly shifting from a physical shipment of goods to a value added process through new services and economic values at each step of the logistic chain. Shipping transport and communication networks are adjusting in order to benefit from the great opportunities that are evolving with logistics and multi-modal development.

Coupled with globalisation, most developing countries, especially in Asia and Latin America, are gradually favouring liberalisation of shipping, privatisation or commercialisation of State-owned enterprises, or encouragement of private sector involvement and greater competition among shipping enterprises, national and foreign (United Nations Conference on Trade and Development (UNCTAD), 1992). These changes in policy have liberalised the economies and given greater freedom of choice to shippers with respect to the utilisation of shipping companies and vessels as well as lower freight or charter rates.

Many pundits have conceded that globalisation and liberalisation have produced a dramatic rise in container trade, including further increases in the container share of the general cargo market, and a continuous increase in the incidence of transshipment that

promotes induced growth in the level of container traffic. These phenomena have impacted upon port throughput and service capacity, and on the number and size of ships needed to handle world container trade.

2.1.2. ACQUISITION, MERGERS AND ALLIANCES

In the increasingly competitive environment, network economy companies are seeking economies of scale and scope with the desire to satisfy market requirements, through better asset utilisation, wider service coverage, higher frequency of sailing and improved market capabilities. In view of the above, most prominent shipping companies are focusing on differentiating their services and products, and expanding by merging, take-overs, acquisitions and alliances. Presently, it is not uncommon to hear of significant cross-border and multinational deals in an attempt to provide shipping services on a broader geographical basis in order to meet trade requirements.

2.1.3. LOGISTIC MANAGEMENT

Professor Ma (1999) pointed out that logistic management is an optimization process involving the location, movement and storage of resources from the point of origin, through various economic activities, to the final consumer. This concept facilitates the trends mentioned herein, creating greater demands on international shipping services, including their performance, reliability, flexibility and quality. Thus, shipping companies, especially, in liner operations, have to arrange shipping schedules according to market requirements.

2.1.4. INFORMATION AND COMMUNICATION TECHNOLOGY

In a world of information technology (IT), everyday evolution and rapid changes continue to swamp the news. Many innovative and advanced IT technologies have saturated the shipping industry.

The advances in IT and communication that have brought significant developments to international shipping include the use of electronic data interchange (EDI) and the Internet. The use of electronic commerce to facilitate international transactions has benefited the shipping industry, especially, in the area of electronic bills of lading. EDI offers faster means of communication that saves time and costs, increases the level of security against fraud associated with the use of paper documents and reduces documentation errors. There are legal and technical issues regarding the use of electronic documents, which include the lack of legal recognition, writing and signature requirements and the need for document of title and negotiability. However, these issues are today solved with the use of digital signatures, private key encryption and the accommodation of the E-commerce Modal Law of the United Nations Commission on International Trade Law (UNCITRAL) into domestic and international legislation (UNCTAD 1998).

Further, according to A. Asay (2000), there was the launching of a new international shipping service in September 1999, the bolero.net. This service is designed to meet internationally accepted standards and proffers an open commercial model, a distinctive legal framework and a complete security system that facilitates international electronic transmission of documents and data between the various elements of trade, and produces similar results to those of paper transaction.

Today the Internet is the largest IT tool used in international shipping for shipping companies, port authorities, shipyards, and agents. These agents have opened electronic brochures describing their services, facilities, and costs/tariffs and are even tracking shipments, and issuing and transmitting bills of lading to many destinations. In addition, smaller companies are gaining exposure on the international market while shippers and other service users access schedules, track cargo and make bookings via the Internet.

2.1.5. TECHNOLOGY

International shipping has undergone significant technological changes that have not been confined to the shipping industry but extended to its supporting transport modes and transfer points such as ports and inland terminals. Developments in shipping technology are prevalent in all shipping markets, albeit to varying degrees. In the dry and liquid bulk trades the trend has focused on economies of scale through larger sized and specialised transport units. However, the liner shipping market has progressed beyond this factor by involving changes in transport concepts towards those of multimodalism and transport logistics. This is necessary for meeting its growing demand on the international market.

The basic technological innovation that has dramatically changed international shipping is containerisation. Since its introduction vessel sizes have increased to a capacity of about 8,000 twenty foot equivalent (TEU), reflecting the desire of operators to reduce costs through economies of scale at the expense of operating flexibility, with competitive sailing speed being a critical factor. Information systems, shipboard automation, navigational equipment and aids, and satellite communication continue to be progressive factors in international shipping.

Reductions in manning scales for reasons of cost and social developments are made possible through technology. The working environment and duties of seamen, deck officers and the ship's master have changed considerably due to changes in vessel design, navigational aids, cargo handling systems and improved communication. Monitoring equipment exists which permits engine rooms to go unmanned for long periods, and automation produces better results on engine performance than that which is generally achieved manually. Basically, tankers' automated cargo receiving and handling systems are more accurate, reliable and safe than manual ones.

The reduction in crew size, aided by technology, has kept pace with the elimination or simplification of shipboard tasks without reducing ship safety. Today, typical crew sizes of a modern container ship range from about 15 to 18. Although, further large-scale reductions in crew size might be technically possible, it appears doubtful whether it will actually happen. According to Goss (1988, p.13), the path that may be followed lies in the qualitative upgrading of crew enabling the concept of quality assurance to be applied at sea. Moreover, reduction in crew numbers carries with it a connotation of a higher level of crew competence, including the ability of the crew to exchange responsibilities. This aspect is discussed in the following section.

2.1.6. CREW TRAINING AND CERTIFICATION

Today the focus of the international shipping industry is centered on the implementation and enforcement of the International Convention on Standards of Training, Certification and Watch-keeping for Seafarers (STCW 95) by IMO member states. This is a critical aspect of international shipping, for failure by states which are party to the convention to fulfill the necessary requirements, especially those that provide seafarers to the industry, may result in a shortage of seafarers.

IMO through the sub-committee on flag state implementation, in accordance with resolution A.847 (20), has prepared guidelines to assist flag states in the implementation of its instruments (IMO 1998). In collaboration with this, Article XI of STCW 95 has provisions for parties that request technical assistance for training, establishment of training institutions, supply of necessary equipment and facilities, development of programs, and measures to enhance seafarers qualifications (IMO 1996).

Generally, a state's obligation under the convention is to ensure safety and protection of the marine environment, and that those seafarers that are on board ships, are qualified and fit for their duties. This requires the communication of relevant information to IMO for its approval, as stated in Article IV of STCW 95, and for the subsequent publishing,

as a “white list”, of those nations that fully comply with STCW 95 requirements and are qualified to provide the world with seafarers.

Many States, for example Indonesia and the Philippines, are still in the process of meeting these mandatory requirements and are seeking IMO’s approval in extending the transition period so that they may be included in the first round of the white list (Lloyd’s List, 2000, April 12).

The Philippines, which is the single largest supplier of seafarers in the world as it relates to international commercial fleets, is battling with the important single issue as to which agency is ultimately responsible for ensuring STCW 95 compliance. According to A. Almazan (2000, March 30), this was pointed out by IMO secretary general, William O’Neil, in his response to deficiencies in the report submitted; ‘the panel is concerned that there still does not appear to be a single entity that has full responsibility for administering the STCW convention’.

Crew training and certification is an international issue for everyone in the business of shipping, for seafarers must have the necessary skill, competence and ability in order for them to operate safely in the maritime industry. This aspect is coupled with the International Safety Management (ISM) Code of safe practices and procedures, where the focus is on inculcating in crews, the necessary awareness and attitudes of a safety culture.

2.1.7. MULTI-MODAL/INTERMODAL TRANSPORT

Presently, a product sold under an American brand name may have been designed in Europe and assembled in the Far East from components produced all over the world. This global strategy that takes advantage of labour cost and productivity differentials, is facilitated by the concept of multi-modal/inter-modal transport. Basically, it is the

movement of goods, which uses successively several modes of transport that may be under the control of a multi-modal operator.

No matter which terminology is used, as a result of globalisation of production and liberalisation of trade and technological developments, international shipping provides multi-modal/inter-modal transport service. This type of service, which is dominant with global shipping lines of the containerised trade, facilitates the movement of goods under the continuous supervision and responsibility of a single operator. Thus, unlike traditional transport, it primarily takes account of the needs of the cargo, rather than the transport mode, by ensuring an integrated transport process between the consignor and consignee.

International shipping no longer constitutes an isolated process of moving goods from point to point but has become an integrated part of total production and marketing processes in the context of marketing-logistic concepts. The general point of departure was the realisation that port-to-port container transport had become a commodity service, with resulting pressure on freight rates forcing liner companies to cut costs to an absolute minimum. Strategic responses by shipping lines to this challenge have ranged from the maintenance of a port-to-port approach aiming at attaining large transport volumes on a low-price basis to an outright direct involvement in land transport operations with an aim to provide quality logistic service.

Although, the decision to invest in land-side operations is not an easy one, given the fundamental differences between shipping and inland transport, a growing number of liner shipping companies, under the pressure of their customers' logistics requirements and their desire to provide value-added services, have diversified into multi-modal/inter-modal transport operations. Shipping companies today provide this service through acquisition of trucking and freight forwarding companies or by buying inland services from reliable suppliers on a sub-contracting basis. This service, which is considered as a way of ensuring a return on the shipping investment through tighter cost control and

the improvement of potential revenues, is achieved, according to UNCTAD (1992), through:

- Improved control over container movements
- Control over inland transport links
- Realisation of economies of scale in inland transport
- Concentration of cargo movement through a limited number of ports
- Offer of complex distribution services
- Increased flexibility in the establishment of tariffs

Based on the foregoing, it can be seen that the international shipping industry is dynamic, therefore, a full understanding of the underlying factors is significant for Guyana's policy on shipping.

2.2. COASTAL SHIPPING AND ITS OPERATING ENVIRONMENT

Historically, the bulk of the domestic cargoes were transported by private operators and persons operating unscheduled water services that catered for their own particular needs. However, with the establishment of the Transport and Harbour Department (T&HD) in the year 1931, the water transport system became better organised. The intention was that it would be recognised as the principal agency for the operation of the ferry and coastal shipping services (Government of Guyana (GOG), 1931).

Following its establishment all ferry and coastal services were to be operated under a licence given by the Ministry of Transport. T&HD is a government department, which has, as part of its mandate, the responsibility for offering scheduled, efficient and reliable coastal and ferry services across the major rivers of Guyana. There is no stated rule or policy on the issuance of licences or certificates of registration to private or independent operators, nor on the requisite criteria with respect to qualification, experience, surety deposit (minimum bond), adequate insurance for liability, being a registered company, communication facilities, etc. The issuance of a licence or

certificate of registration is based on the discretion exercised by the authority, the contractual relationship between the government and foreign companies, and on the implied policy of cabotage.

Presently, the Customs and Excise department, under the purview of the Controller of Customs, carries out the registration of local vessels. This responsibility is not assigned to the General Manager of T&HD, the designated agency. However, based on information received, this arrangement witnessed the decline of the National Registry, for ship owners were forced to pay a substantial amount for registration.

Generally, companies registered in Guyana pay a percentage of the profit earned as taxation, upon submission of audited financial returns to the Inland Revenue Department (IRD), in accordance to the GOG (1939). However, T&HD is exempted from taxation since it is a government department and its services are for public convenience. This privilege is not offered to private operators but in most cases, because the operators are not registered companies, and because the antiquated taxation system lacks coordination between tax policy and tax administration, they may be able to evade taxation.

Apart from being exempted from taxation, T&HD is heavily subsidised by the Government of Guyana. Significant financial assistance is provided towards various capital works such as the acquisition of new vessels and/or rehabilitation or reconstruction of existing ones, and for maintaining terminals and wharves in facilitating operational services. The privately owned operators are in no official way being subsidised. Bank loans to individuals for developing the local shipping industry are neither supported nor encouraged by the government.

Guyana's geographical configuration supports and facilitates effective linkages between ferries and coastal services and the primary roads in the coastal and outlying areas. These include a link between Guyana and Suriname in a fashion similar to that of an

integrated inter-modal network. However, the traditional usage of supportive water transport infrastructure, and the customs of operators and shippers, exclusively relies on segmented transportation service. Containers are extensively and consistently used in the import and export of cargoes but because the potential efficiencies in their use are not recognised, and due to a lack of efficient intermodal infrastructure, they are presently loaded and unloaded at the ports.

There is considerable traffic on the three main rivers of Guyana and along the coast. In fact in many areas the rivers are the principal means of transport. The extent of the total public and private local fleet is still being assessed, but nine vessels are operated by T&HD in providing coastal and ferry services. It should be noted that although these vessels are in excess of thirty years old, they are well maintained in accordance with local maritime standards.

T&HD offers several coastal and ferry services across the rivers of Guyana. Of all the services offered by T&HD, as shown in the Appendix I, Table I, only two consistently show profits; the Rogisnol/New Amsterdam and the Parika/Adventure. For the remainder, in particular the Berbice River and the North West services, the government has provided a cross-subsidy, funded out of the profits realised by the Harbours, since T&HD also has the responsibility for the superintendence of ports and harbours. The importance of one of the main services is reflected in the statistical figures of value/volume of passenger, vehicular and cargo transported in Appendix I, Table II.

As a supplement to the T&HD services there is a regular and rapidly expanding service involving privately owned speedboat operations that transport both cargo and passengers across the rivers of Guyana. The operators pay a minimum fee per day to T&HD for the use of facilities developed and maintained by the authority. This is the only service, apart from land transport, that gives some kind of competition to the scheduled services of T&HD even though the fare is little higher. This shows that people not only prefer quicker service but also efficiency in operations.

2.3. INLAND WATER TRANSPORT

Inland water transport is also performed by river barges engaged primarily in the carriage of dry bulk commodities. Inland barge transportation is important for bauxite, sugar, rice, logs and aggregates. In the case of sugar, for example, ninety eight percent of the sugar for exportation, is delivered by barges to the port of Georgetown. Drainage canals are also used for collecting sugar on the estates. In addition to the transport of these commodities by barges, small vessels of 300 to 500 tons are used, especially for the transport of rice, sugar and fertilisers.

The riverain waterways are navigable up stream by vessels of shallow draft of 7 or 8 ft. This restriction is understandable for most of the rivers carry large volumes of silt which are deposited at certain points in the rivers and along the coast to form shoals, sandbanks, islands and bars. Coastal deposits in Guyana's rivers originate from deposits of the large rivers in the neighbouring countries. These deposits present substantial obstacles to shipping because considerable extra distances must be travelled, and time and money expended, in navigating around them.

2.4. SUPPORT SERVICES

The maritime transportation industry also extends to shipbuilding and ship repairs, which are support services to the transportation industry, and the operation of ports and terminals. All of these should be part of, or subject to, government policy and regulations. A public company, Guyana National Industrial Company (GNIC) and independent contractors, Courtney Benn Contracting Services Limited (CBCSL) and E.C Vieira Investment Limited undertake inland water shipbuilding and ship repairs. Central Workshop and Mazaruni Dockyard, which are under the administration of T&HD, perform maintenance and repair work on T&HD's vessels. Essentially, these shipbuilding or ship repair companies have commercial links with maritime transportation companies, and therefore perform these activities on their own account.

The ship repair activities are carried out on a relatively competitive basis, consequently, there is the possibility for quality control.

Guyana is very much dependent upon the ports to facilitate its international and domestic trade. The port of Georgetown is the only port in Guyana with general cargo berths and facilities capable of accommodating ocean-going ships. The majority of imports and exports for Guyana pass through this port. The imports, even when destined for another region of the country, arrive there in large consignments and are then transported as smaller units by road or coastal vessels. Exports in the same way are transshipped from other regions to Georgetown.

At Port Georgetown the quays are owned and operated independently by both private and public entities whose operations are independent of each other. In general, development of berths is carried out individually, in pursuit of commercial and other objectives without consideration for others, since no constructional standards are set by the Port's Administration. However, the distance that wharves can be projected into the river is restricted by the Port Administration, while the Municipality approves all other construction.

The berths are used directly for vessels engaged in coastal and international trade, or for vessels awaiting repairs or cargo. Many of the wharves are derelicts or in a perilous state and are used for operations considered to be inconsistent with the operation of a commercial seaport. The Harbour Master, under the direction of the General Manager of T&HD carries out the functions of administering the port. This obviously results in an inefficient and highly disorganised port for, as Nagorski (1972, p.155) rightly pointed out, 'a port cannot be efficient if it is managed under rules and regulations established for railways, ferry services, ministries or the civil service'. This truly reflects the current manner in which the ports in Guyana are administered and which inevitably affects the efficiency of operations.

2.5. FREIGHT FORWARDERS (FFs)

There are several private agencies that perform the task of arranging transportation with ships, operators, and agents of shippers and airlines for internal and international voyages. They may be called “custom house agents”, “clearing agents”, “custom brokers”, “travel agents” or “shipping and forwarding agents” depending on the activities performed. FFs, according to Ma (1999), are considered as an intermediary operator acting as: “an informative, providing necessary information on the market to the clients: an intermediary in facilitating transport arrangement who is supportive in the provision of logistic services”. Thus the FF acts as an organiser of the logistic chain between the shipper or receiver, the carrier and the operators (Francou, 2000). The scope of the services may comprise part or all of the elements of the logistic chain.

With the recent developments in international trade, the trend towards “door-to-door service” and the corresponding development of the interior regions of Guyana, logistic operations have become important and more complex, and as such require competent, reliable and financially strong operators. The basic requirements for the operation of FF, as pointed out by UNCTAD (1995), are competence, commitment, geographical coverage, financial capability, equipment and know-how. However, the FFs that operate in Guyana do not exhibit these basic requirements and further, they lack the “necessary organisational setup, experts in planning and marketing and trained staff”, as highlighted by UNCTAD (1995).

2.6. GUYANA’S WATERBORNE TRADE

Domestic waterborne trade is expanding due to the widespread decentralisation of economic activities and the acceleration of development of the interior regions of the country. The movement of domestic cargoes is of critical importance in making available the products of farmers and other merchants for the local markets, for exports and for dissemination of imported products to all regions of the country. Generally,

waterborne trade is here to stay because of the established fact that sea (river) transport is the cheapest and most cost-effective form of bulk transport. This mode is significant to Guyana, since it is the only means of transportation in some interior regions because infrastructure development in other modes of transport has not occurred.

2.6.1. IMPORTS

The economic policy adopted by Guyana in 1970 was one of a planned economy where the state had a heavy involvement in the productive sector. This gave rise to the establishment of the ETB, which regulated trading and shipping activities, for imports were restricted since the intention was to restrict the importation of certain commodities. However, with a change in economic policy to a free market economy, the benefits of trade as advocated by theorists; Adam Smith and David Ricardo, on absolute and comparative advantages began to gain momentum.

Currently, Guyana is heavily dependent on imported commodities, which include fuel, lubricants, fertilisers, vehicles, machinery, industrial goods, processed food, wheat, beverages and detergents. The total value of imports for 1998 was US\$601.2 million dollars. Imports, by end use, for the period 1996-1998 are shown in Table III below.

Table III
Imports by End Use (Summary) (c.i.f.)
(US\$ Million)

Period	Total Imports	Consumption Goods	Intermediate Goods	Capital Goods	Misc. Imports
1996	595.0	168.9	251.0	174.1	1.0
1997	641.6	181.5	274.5	184.8	0.8
1998	601.2	193.7	244.4	162.6	0.5

Source: Bank of Guyana and Bureau of Statistics, 1998.

2.6.2. EXPORTS

It is difficult for any country to market its products in a world where competition, price, quality and delivery time are of immense importance. However, Guyana, being a member of the Caribbean Community (CARICOM), which aims at promoting free trade among the countries of the region, has a tradition of trade and commercial contacts with the CARICOM region. The exports to this region, which include rice, timber, textiles, agricultural products, molasses, rum, gold, pharmaceutical and light machinery, amount to about 25 percent of Guyana's total trade. Other products such as bauxite and sugar are exported to United States of America (USA), North Europe, Japan, the Far East, Great Britain and the European Economic Community (EEC). The total value of exports for 1998 was US\$547 million. The export figures of the major commodities for the period 1996 –1998 are shown in the Table IV below.

Table IV
Exports of Major Commodities (f.o.b.)
(US\$ Million)

Periods	Total	Sugar	Rice	Bauxite	Gold	Timber	Other
1996	588	151	94	87	104	51	101
1997	594	133	88	89	140	41	103
1998	547	129	73	79	124	31	111

Source: Bank of Guyana and Bureau of Statistics, 1998

2.7. SAFETY OF SHIPS DESIGN AND CONSTRUCTION

Under operating services previously described, private and public sector entities are involved in ship repairs and maintenance, and to a lesser extent in ship design and construction. Ships are being maintained, reconditioned, or rehabilitated on many occasions but there are no up-to-date national rules and regulations on such services offered to the maritime environment. Classification rules and guidelines that are

produced on the basis of considerable research and development and the regulations of IMO on ship structure have not been implemented in the national laws of Guyana. With the increase in speedboats being used in supplementing T&HD services, a need for appropriate rules and regulations governing the quality, design and construction of these vessels becomes more relevant to the process of ensuring safety.

At present Guyana has only delegated authority to classification societies to survey ships and issue certificates in respect of the Load Line (LL) Convention. There are surveyors and inspectors appointed by the Government to carry out surveys and inspections of vessels, however, their functions are based on the old British Merchant Shipping Act of 1894. Therefore certain modifications would be required in the future to bring them into line with modern approaches and internationally prescribed standards.

2.8. HUMAN RESOURCE DEVELOPMENT

The performance of the Guyana shipping industry is dependent on suitable individuals that can be made responsible for establishing policy, planning, enforcing laws and regulations, investing in and operating the various elements of the transport system. However, at present there is no consistent human resource development program in respect of training of seafarers and personnel for the maritime industry.

A large number of Guyanese seafarers and vessels are operating on the country's' rivers, but no adequate rules and regulations are in force to stipulate the necessary facilities and the desired standards of training necessary for the local fleet as well as for employment on foreign vessels. This situation exists because prior to 1997, Guyana was not a party to any of the key international maritime conventions. However, plans should be put in place to have the requisite regulations gazetted so that effect can be given to conventions such as STCW 95, the International Convention on Safety of Life at Sea (SOLAS) 74 and the protocol of 1978, the Tonnage Convention of 1969 etc., to which Guyana has acceded. These conventions, especially STCW and SOLAS, would

pave the way for improved training of our seafarers locally which would undoubtedly enable them to function on foreign going vessels.

T&HD undertakes in-house training for pilots, engineers, marine officers and clerical staff, including managers, based on its own rules and guidelines. There is an apprenticeship scheme for trainees in the field of electrical, machining, carpentry, welding and mechanical at the Central Workshop branch, in an attempt to procure future employees on the various activities.

Over the years management has sponsored employees on programs at universities and colleges. Of these sponsorships seven have graduated from the WMU and two are due to graduate at the end of 2000. Others have graduated from other universities and colleges in areas of management, accountancy, economics and technology. These training and education opportunities are intended to equip the employees with the knowledge and competence they need to perform their duties.

Generally, there is a need for specified standards for training and certification of seafarers, surveyors, port state control officers, inspectors, registrars of ships and other personnel in an effort to enhance overall safety of shipping and the protection of the marine environment. Further, there is need for training institutions that are prescribed by law in order to deliver the desired training in keeping with internationally acceptable standards.

Additionally, on board the local ships there is a lack of a safety awareness culture among the crew, since the ISM code on safe practices and procedures is not mandatory under the laws of Guyana. However, with the new Shipping Act of 1998, and the recent interest by Government in terms of giving recognition to, and accepting, international standards as being mandatory, this culture will surely develop.

2.9. FLAG STATE CONTROL (FSC)

Guyana became a member of IMO in 1987, and its obligations under the organisation prescribed that the State adopt international maritime conventions, codes and customary practices as part of its responsibility to act as an efficient and competent Flag State to all ships under its flag. Ensuring that its ships meet the standards of the conventions, including those with respect to safe manning, is part of its continuing duties.

This responsibility of the State or the prescribed administration is increasingly important since the rivers of Guyana are filled with ever expanding movements of domestic cargo, vehicles and passengers. Moreover, ships that fly its flag on international voyages must operate in accordance with international laws and regulations.

Flag State control is a concept that not only focuses on the implementation of the relevant conventions in national legislation but on the supervision of ships under its flag. This involves the issuing of certificates, following up on deficiencies and pollution reports, making offences punishable, ensuring that personnel are properly trained, investigating incidents and accidents, notifying IMO on detention of ships and providing reports on investigation.

This concept is also of importance under ILO conventions, where the Flag State has similar obligations, including measures for shipboard conditions and living arrangements, compliance of the ship with labour conventions, laws and regulations, and collective agreements, and adequate procedures for seafarers' engagements and investigation of complaints.

At present Guyana lacks the capacity to effectively carry out its responsibility as a flag State with respect to the underlying conventions, even though it is willing to participate fully in meeting the goals of ensuring safety. First, Guyana needs the political will to

legislate or regulate the industry while taking into consideration the relevant international conventions, codes and recommendations. Second, it needs the necessary administrations to implement and enforce the laws, and third, it needs competent human resources to carry out the necessary activities in the relevant cases. Suggested ways of resolving these issues are discussed in the Chapters that follow.

2.10. PORT STATE CONTROL (PSC)

Every member State of IMO, apart from fulfilling its responsibility as a flag State, must participate in port state control activities in a complimentary effort to ensure safety at sea and pollution prevention. Acting in the capacity of a port State, a party must ensure that foreign ships visiting its ports are safe to proceed to sea and are not likely to cause any danger to passengers, crew or the environment.

A State can effectively perform the duties of Port State control only if its national laws and regulations are adequate and in accordance with international standards. In 1997 there were 1638 foreign ship visits to Guyana's ports. These visits were made by 332 ships under various flags of which 236 were general cargo ships, 78 were bulk carriers and 18 were tankers. The bulk carriers and tankers were all over 500 gross tonnage (GT) while of the general cargo ships, 201 were over 500 GT, 13 were under 150 GT and 22 were between 150 and 500 GT.

Guyana, because of the deficiencies mentioned under FSC, has not been equipped to fulfil its responsibility in respect to safety and environmental protection. A continuity of this practice will facilitate the existence and operation of substandard ships that will create an unsafe and unhealthy marine environment.

PSC takes into consideration at least SOLAS, MARPOL, LL, STCW, ILO, TONNAGE and COLREG conventions. Every foreign flagship is subject to PSC in order to: -

- verify that ships' certificates are valid
- check crew on board for valid certificates in respect to STCW
- check for clear grounds for non-compliance to international conventions
- detain any ship that is not seaworthy in respect to the ship, crew and pollution risks
- check control of discharges in respect to MARPOL

The international environment is promoting the concept of regional cooperation on PSC that is based on agreement between states in a form of a Memorandum of Understanding (MOU). So far there are about ten such MOUs, which include those to be completed in the year 2000. The Caribbean MOU, which was established in 1996, is to facilitate this regional cooperation on PSC matters. Guyana is not a Party to the Caribbean MOU. Admission is pending because of its inability to undertake fully the obligations of PSC activities. Presently, this issue is under substantial consideration and attention by the relevant authorities and interested parties.

2.11. AIDS TO NAVIGATION (ATN)

According to a Canadian Coast Guard Aids to Navigation Technical Publication, aids to navigation are:

“Devices or systems, external to the vessel, which are provided to help a mariner determine his position and course, to warn him of danger or obstructions or to advise him of the location of the best or preferred route [through channels and waterways]”.

The ability of a mariner to determine the preferred route through channels and waterways is facilitated by the accuracy and reliability of the aids system.

Buoys are floating structures, anchored to the bottom that are used to mark channels and fairways, shoals, banks, rocks, wrecks and other dangers to navigation where permanent structures would be either uneconomical or impracticable.

Beacons are navigational marks constructed of wood, metal, concrete, masonry or glass-reinforced plastic, or a combination of these materials, erected on, or in the vicinity of, dangerous hazards, or onshore, as aids to navigation.

At present, Guyana uses the International Association of Lighthouse Authorities Harmonized Buoyage “System B” but, prior to its adoption, no scientific or technical study was undertaken to determine its suitability to the local conditions. The buoys that are used frequently become inoperable and out of commission in a very short period of time. Further, buoys are vandalised, and those that are unlit are constantly damaged, shifted or completely displaced by trawlers and coastal craft navigating at night or under conditions of restricted visibility.

The beacons are believed to be more reliable than the buoys as aids to navigation although their lights are from time to time out of commission. Whenever this occurs the channel is closed to nocturnal navigation and in the day they are used as “day-beacons”.

Both types of ATNs have problems for there are no strict maintenance and replacement systems.

2.12. PILOTAGE

Pilotage is navigation involving frequent or continuous determination of position, practiced in the vicinity of land and in the dangerous waterways of the nation. It requires good judgement, constant attention and skill on the part of the navigator. This service is provided by two established public entities. These entities are T&HD, which is responsible for providing compulsory pilotage in the main rivers of Guyana; and GNIC, which undertakes non-compulsory pilotage beyond the port of Georgetown, i.e. up the

Demerara River as far as the Bauxite mining town of Linden, which is 65 miles from the capital.

The importance of pilotage is not fully appreciated for it suffers from problems attributed to improper organisation and management by the ports. Further, the pilots under T&HD are traditional public servants; therefore, they are constrained by public service regulations. However, with regard to river Pilotage that is carried out by GNIC, this is more of a private arrangement, although recognition is also given to the existing Pilotage regulations. The inadequacy and unreliability of pilot launches has historically affected the pilot service. However, during the last three years there have been two nationally approved well-maintained pilot launches which have significantly improved the service.

One of today's key shipping philosophies is to reduce transit time. This implies that the right equipment and resources must be available to supply navigational services to ships and to the handling of the cargo so as to ensure a short turnaround time. Therefore, inadequate pilotage services in Guyana could lead to an increase in the prices of commodities since shipping companies' costs would escalate due to the payment of demurrage for the increased lay-time of the chartered vessels.

2.13. INFORMATION TECHNOLOGY (IT)

To facilitate trade the use of a bill of lading is necessary, for it is a receipt for goods received for carriage onboard a nominated vessel, an evidence of contract and a document of title to the goods (Debattista, Gaskell, & Swatton, 1987). The Bill of Lading must meet the requirements of all parties concerned, such as the shipper, the consignee, the bank, the insurer and governments. However, in view of the increasingly widespread use of electronic commerce, due to changes in traditional attitudes towards paper documentation and the rapid increase of trade, traders are beginning to look for a paperless system so as to trade electronically. This is further intensified by the introduction of EDI, which allows executives to arrange computer-to-computer transfer

of commercial and administrative transactions using an agreed standard to secure the data pertaining to that transaction (UNCTAD, 1995).

The shipping industry is seen by many as tending to traditionally adhere to old customs and trade practices. As a result of a constant increase in trade and the need to have short turnaround and dwell time, the timely arrival of information is vital to trade. Frequently goods arrive at the intended destination long before the supporting information that is needed by the various operators to perform their functions. To remove this delay in information production and transfer, there is a need to use modern information technology.

The concept of EDI, which is developing around the world, has created systems for the linkage of branches of the same companies, counterparts in the same industry and small groups of operational partners. These participants are constantly adapting to meet not only the changing needs associated in particular with the speed of modern transport and express freight deliveries but with the convenience attainable through the use of containers, and to take the advantages offered by IT to improve information processing, documentation and transmission.

Today information flows are based on paper documentation, documents produced by computer but sent manually, or sent from computer to computer with minimal human intervention. Where is Guyana in this process?

Guyana, as mentioned earlier, is heavily dependent upon trade. The formalities, procedures and paperwork are not only generated for government needs but also for trade operators in monitoring and controlling the movement of goods, the transfer of services, and for safeguarding every participant's legitimate interests (UNCTAD, 1995). Thus, Guyana is still in the traditional mode of paper documentation painfully filled in by hand. This is no doubt the result of historical precedents, commercial inertia, difficulty in adjusting to new methods, or ignorance of possible solutions available (UNCTAD,

1995). Further, its customs and legal systems are not prepared to accept the benefits offered by IT, especially, in the field of shipping.

The writer therefore wishes to state that any attempt to guide the formation of a strategic national shipping policy for Guyana cannot be made without giving special consideration to IT. An acceptance of this process by government would undoubtedly yield positive results for Guyana in the future.

2.14. RATES AND TARIFFS

T&HD is the principal agency mandated by law to manage and provide coastal and ferry services along the rivers of Guyana. All rates and tariffs set for the operation of the domestic transportation services are regulated and approved by the Ministry of Transport. The rates and tariffs set are claimed to be sufficient to cover all costs including depreciation and interest even though their establishment was not as a result of a detailed analysis and scientific assessment of all the factors involved. In the majority of cases the commuters do not pay the full fares because of the government's subsidies program. This is typically the case on the Berbice River service and the North West District ferry service in the outlying areas of the country where a lot of primary agricultural production occurs.

With respect to the supplemented service provided by private speed boat operators, T&HD manages, controls, determines and approves the fares for this operation. However, the department needs to be more vigilant and proactive in regulating, while commuters need to be aware of their role with regard to operators adhering to the published fares.

Guyana depends on foreign ships for its imports and exports of goods but there is no organisation that monitors the setting of international sea freight rates or sets conference policies, and which regulates against the imposition of illegal rebates and

discriminations by carriers. This is of great importance in respect to the various forms of cooperation and the organisational framework of the liner shipping industry. Thus, the government needs to implement policies, whether they are at national, regional or international levels, so that potential abuses, to which the system might lend itself, are avoided.

2.15. POLLUTION PREVENTION AND ENVIRONMENT PROTECTION

Oil pollution of the sea, especially around ports and harbours, has been recognised since the 1900s. However, the first attempt to minimise pollution by oil from ships came in the form of bans on illegal discharges of oil. After the adoption of unilateral national rules on the prevention of marine pollution by the United Kingdom (UK) and the United States in 1922 and 1924 and the adoption of the International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL) in 1954, IMO adopted a completely new convention addressing marine pollution. The International Convention for the Prevention of Pollution from ships (MARPOL) was created with the objective of preventing the pollution of the marine environment from the discharge of harmful substances. It addressed not only pollution by oil but also pollution by chemicals, sewage, garbage and air while requiring Contracting Parties to promote the provision of reception facilities.

The Guyanese society is not sufficiently educated to ensure the awareness and attitudes needed to have an environment that is free from all kinds of pollution whether it is garbage, sewage, air, operational or deliberate discharges of oil from ships or other harmful substances. A harmful substance as defined by MARPOL is “any substance which, if introduced into the sea, is liable to create a hazard to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea”. Many people have been of the belief that oceans and rivers have the capacity to absorb anything that was thrown into them. Although the sea can degrade many items, this process takes sometimes many months or years according to

Hellenic Marine Environment Protection Association (HELMEPA) in Appendix 2, Table V.

Regulations and rules on oil spill prevention, preparedness, and response, and the provision of reception facilities continue to be critical issues for Guyana. In accordance with the Environment Protection Act, the overall responsibility for pollution of the environment lies with the Environment Protection Agency but the work of this agency does not focus on the prevention of pollution from ships. T&HD, that manages and controls ships' operations in and around the shores of Guyana, is not directly involved in the work of the Agency.

Under the present national legislation of Guyana there are no rules or regulations governing pollution from ships and no organisation has been given the responsibility for administering such activities. Guyana has acceded to a number of international instruments relating to the prevention of pollution from ships and the combating of, and compensation for, such pollution. However, these instruments should be implemented and enforced under its national laws. Although Guyana participated in the entire series of workshops under the programme entitled the Wider Caribbean Initiative on Ship Generated Waste, the decisions taken have not yet been translated into tangible terms throughout the region generally, and in Guyana, in particular.

2.16. POLICY, LEGISLATION AND ITS ADMINISTRATION

As was highlighted in Chapter One, and explained in Chapter Two, the present economic development and shipping policies are in no way adequate for Guyana. The legislation that presently guides maritime policy, apart from being exploitative, restrictive and conflicting, is inconsistent with developments in the international shipping community. Further, the administration of the current legislation is carried out by three public entities; the Customs, Commissioner of Lands and Surveys and T&HD, whose respective purposes of establishment, roles, functions and undertakings are not well

equipped to foster and promote a healthy, workable and safe shipping environment. This has led to the belief by many that there is a need for the coherent development of a shipping policy to be administered by a single agency designated by law to implement and enforce the shipping laws of the State, as well as, other major international maritime laws and regulations.

With the enactment of a new and modern shipping Act, the Guyana Shipping Act 1998, it is expected that efforts from the public and private sectors, including the Government, to ensure its full implementation will continue apace. To enable the Shipping Act to have full effect a number of regulations are essential in order to amplify its provisions. These regulations will provide the details and specifics required for effective implementation of the Act while taking cognisance of the international requirements, and the express standards that Government determines as necessary for the country.

The Act also provides for standards that will ensure increased safety for passengers, crew and cargo, which will undoubtedly benefit the country in terms of saving lives and property and ensuring the economic and reliable transport of goods. However, there are no provisions with respect to the economic management of shipping, including the prospects for business opportunities and the promotion of private operators in local shipping activities. Nor are there provisions directed at environmental management issues in line with IMO's objective of cleaner seas through prevention of pollution and environmental protection.

This is just the first step in a long and hard road to establish a fully functioning maritime administration that signals the beginning of a great opportunity to move forward towards the development, standardisation and regulation of shipping activities as regards maritime safety. The assistance and ideas of IMO technical committees and maritime countries, especially those of the immediate region, should be fully utilised during the entire development process.

CHAPTER 3

3. EVALUATION AND ANALYSIS OF THE CURRENT STRUCTURE AND OPERATING ENVIRONMENT OF GUYANA SHIPPING INDUSTRY

In an attempt to establish conceptual clarity and to guide the process of the research, the writer considers it prudent to review the work of previous writers on the subjects of “Government and Policy”, “Policy Analysis” in general, “Maritime Policy” and “National Shipping Policy” in its strictest sense. Preceding this, will be an analysis and evaluation of the current structure and operating environment of the Guyana shipping industry from an economic, safety and environmental perspective while taking in consideration pertinent information gathered from the various policy issues examined earlier.

3.1. GOVERNMENT AND POLICY

Historically, governments’ policies were reactionary responses to pressure exerted by a number of powerful and influential factions. In this respect, pertinent questions that need to be answered include: how do governments make policy? How does the process of making policy impact on the content of policy and on policy outcomes? And why is it that policy frameworks have not delivered significant change? Pluralists, such as R.A. Dahl (1961) and C. E. Lindblom (1965) argued in early works that the role of the State in formulating policy was minimal. They indicated that although political leaders, as members of the bureaucracy, were seen to be policy makers in the sense that they veto public policy decisions, their choice of action was influenced and largely determined by pressure groups.

Further, J. J. Richardson and G. Jordan (1979) argued that in contemporary times State action and the policy process can only be understood by reference to group theory. They further contended that policy and decision-making in a democratic political system is influenced by a multiplicity of participants. Pressure group participation is issue specific and as a result, influence in the policy process is dynamic and changes overtime. This means that a single group, such as the economic elite, does not dominate all major aspects of the policy process. This theory rests on the notion of power which, B. M. Gross (1968) argued, is exercised in order to achieve specific purposes that may take many forms including persuasion, bargaining or threat. Lindblom (1968) describes the process as a 'play of power' which proceeds by interaction and a series of negotiating steps between groups using a variety of resources and techniques to reach a solution.

A system of public (government) institutions is an asset to a nation if it is used for the making of policy, and is as important to national development as economic resources. The problem, however, is that it is far from clear how systems of government are to be built up so as to function properly from administrative or management perspectives. The concept of a public sector includes what kinds of activities public institutions carry out and how decisions are made and implemented by these institutions. Thus, on the one hand, there is the theory of the public sector as a branch of government involved in allocation, redistribution and regulation, and on the other hand, there is the dynamic policy perspective of a public sector involved in the making and implementation of policies.

3.2. POLICY ANALYSIS

Policy analysis offers serious guidance as to how to go about handling policy problems, since it produces rules and guidelines that allow the exercise of some discretion and choice within acceptable limits. Lasswell (1951, p. 5) identifies the scope of policies with the set of choices. He stated that the word "policy" is commonly used to designate the

most important choices made in an organisation or an institution. Perhaps such a general definition of the concept of a policy was never strictly adhered to, as the connection between policy and the public sector has remained a very close one.

Laswell's perspective on policy analysis is not simply the understanding of policies as important public choices but also the need to locate data and provide interpretations of the policy problems, which according to him, are often the fundamental, and neglected problems. The writer, in an attempt to examine the policy problems existing within the local shipping system, has located a wide base of data, which are used to evaluate and interpret the underlying policy problems.

In policy examination there is tension between objectivity and subjectivity, and between neutrality and relevance. But any approach to policy examination and formulation has further implications, for it includes, in addition to knowledge about the policy-making process itself, the assembly and evaluation of knowledge about the policy problems (Lasswell, 1951, p. 14).

C. Ham and M. Hill (1984, p. 4) differentiate between 'analysis of policy' and 'analysis for policy'. They advocated that this distinction is important in drawing attention to policy examination as an academic activity, for it is concerned primarily with the advancement of understanding of policy formulation as an applied activity and its contribution to the solution of the existing policy problems.

There are sometimes problems in identifying the characteristic properties of the policy examination process, the proper techniques to be employed during this process and the congruence between the theoretical position and the resultant practical recommendations. While Lasswell underlined the practical aspects of the policy orientation and warned strongly against too close a contact between policy analysts and political life, Y. Dror (1974) advocated the opposite position.

Two of Dror's main components in policy making are economic rationality and the use of qualitative knowledge. Economic rationality is considered in Chapter Four under the section examining economic options.

Since there is little quantitative information available for policy-making purposes, the writer will only use qualitative data and "extra-rational" mechanisms, such as intuition, non-routine behavior and guesstimate. This policy analysis needs to be based on a set of principles, which are expected to guide the overall process. But according to Dror (1974, p. 198), such principles are not enough, as there must also be an 'optimal policy-making structure' which in this case, is the Maritime Administration, as discussed in Chapter Five.

Dror, (1974, pp. 197-213), also identified certain characteristics of an optimal policy-making structure, which the writer wishes to endorse as being useful in policy examination and formulation. They are of a formal kind and include:

1. Participation by many and diverse groups
2. A minimum amount of formalisation of the policy process in assigning various policy tasks to different groups
3. Redundancy between groups and tasks as well as isolation of some groups from the others
4. Integration of groups and periodical reexamination and reform of the structure

This idea of having an actual policy-making structure, according to Dror (1974, p. 261), is to establish and reinforce this special organisation for policy examination and formulation that is charged with taking a fresh look at basic policy issues.

E. Quade's (1976, p. 21) interpretation of policy analysis is that it seeks to help a decision-maker make a better choice than would otherwise have been made. It is thus

concerned with the more effective manipulation of the real world, which should be accomplished with a full understanding of the underlying phenomena.

Quade further outlined a model of policy analysis that involves both intellectual cogitation and social interaction with policy-makers. He pointed out that there are three stages associated with policy analysis. First, discovering the best and feasible alternative. Second, acceptance of the findings, which are incorporated into a policy or decision. Third, implementing the policy or decision (Quade, 1976, p. 254).

According to Wildavsky (1979, p. 17), policy analysis is an activity that solves tensions between resources and objectives, planning and politics. He observed that the specific policy challenge is to resolve these tensions.

As policy in real life involves ends and means, so policy analysis must be a set of theories about the relationship between ends and means. Policy analysis implies rationality, which means searching for ends as well as responsibility, and the proper resources needed in achieving suitable objectives. Since policy analysis deals with contested and value-ingrained materials, it must be practical, evaluative and reconstructive, and based on solid theoretical foundations.

Wildavsky wrote that these, then, are the tasks and tensions of policy analysis, relating resources to objectives by balancing social interaction against intellectual cogitation (1979, p. 19). Few would argue with this sound identification of policy analysis since it creates opportunities for a better appreciation of the concept particularly as it relates to the development process of policy in the society as a whole and the maritime industry in particular.

3.3. MARITIME POLICY

Maritime policy from the standpoint of a purely national or regional approach should undoubtedly incorporate a number of key areas. These areas include ports, shipping, maritime education and training, and maritime legislation among other areas. It is therefore important to refer to these areas since there is a direct relationship between shipping and these maritime related issues.

According to Professor Ma (1999), maritime policy can be understood as an integral part of the overall economic policy of a country since it embraces regulatory, financial and fiscal measures to be employed by the authorities in relation to the country's maritime transport sector. He further points out that maritime policy defines the State's attitude towards the maritime industry.

Professor Ma's interpretation is relevant; consequently, it is used as a guide to this research. Essentially, the development of any society, must of a necessity, take into account the total transport sector, in general, and maritime transport, in particular, as an element of the total development strategy.

He further categorises maritime policy by squarely placing it into two groups: intervention and liberalism. This kind of explanation bears a direct relationship to the two approaches, the free market economy and the planned economy. However, in the international world the cry is for liberalisation of trade policy due to economic globalisation, deregulation, re-regulation, commercialisation and privatisation. But the principles of maritime liberalism calls for a total non-governmental intervention, which is a relative term, for even with a liberal shipping policy, there will be certain intervention measures of varying degrees. These intervention measures may be promotional, protectionist or market oriented, and may be applied individually or in a combination.

Whatever the approach, it is a well established fact that maritime transport plays a leading role in the development of any society and it is important to ensure that, whatever future system is contemplated, it is properly supported in future development.

3.4. NATIONAL SHIPPING POLICY

National shipping policy is developed based upon an analysis of the present situation and that of the international community. This policy focuses on the domestic needs of the country, in creating an environment that can foster economic growth, and furnish the necessary regulations on safety and environment protection of the international regime. According to I. Chrzanowski (1985), it constitutes an element of overall economic policy that expresses the attitude of the State towards shipping, the attitude to its own fleet, and the fleets of other countries. It therefore implies an established fact that a nation that lacks the factors conducive to growth and the supporting policy framework will not produce the economic commitment that it eagerly desires even if there are a number of investments in transport.

English (1993) pointed out that it is crucial that consideration be given to the total social system and the broader economic policy of a nation whenever shipping policy or strategies are formulated, while Alderton (1990) included consideration of the protection of the national interest. This is a necessity in fostering economic development especially for the movement of bulk transport cargo through maritime transport as proposed by many theorists in transport economics because of it being a cheaper and more effective means of transport.

G. Fromm (1969) observed that any nation attempting to construct a national shipping policy must determine the national purposes that shipping is intended to serve, how much is needed, where to provide this service and for what benefits to the nation. Basically, it must decide to what larger ends the shipping system should be designed.

Policy analysis is the only method that can be effectively used in determining what ends the policy can facilitate and the means necessary for its accomplishment.

Based on the foregoing, it can be concluded that the development of a national shipping policy depends on the play of power, the quality and process of the inquiry undertaken by the designated institution in relating resources to objectives, the means-ends relationship, and the maritime policy adopted by the nation. The success of its development is dependent on the flexibility and adaptability of the policy and the system contemplated, and its overall ability to support future developments in the field of shipping.

3.5. ECONOMIC EVALUATION AND ANALYSIS OF COASTAL SHIPPING

Prior to the establishment of T&HD as the sole agency responsible for providing coastal and ferry services across the main rivers of Guyana, a foreign private company, Sprostons Limited, operated specific services under contract with the government. However, in negotiating renewal of the contract, the demands by Sprostons were too exorbitant and the government decided to operate the service on its own. This seems to imply that there was either no specific coastal shipping policy in respect of the local privateers involved, or that there was an open shipping policy where services were assigned to whomever the government thought was capable of offering the services.

As explained by Professor Ma, many countries have moved towards some degree of protectionism in maritime policy. The 1894 British Merchant Shipping Act that has guided maritime policy in Guyana did not focus on protectionism of Guyana's 'own' trade because its focus was on the trans-shipment of primary products from Guyana using private services of the then colonial government. Thus, a liberal policy suited perfectly its immediate needs. In fact Britain had been a major initiator of protectionism, since Oliver Cromwell's Navigation Act reserved portions of English sea borne trade to

domestic flag ships, in order to guard against encroachment from the Dutch (E. Gold, 1981).

Great Britain was not the only nation providing a domestic navigation monopoly to vessels of its own flag. O. Mance (1945) noted that others countries had reserved their coastal trades to the national flag or had permitted either vessels of all or certain other nations to ply these trades. Cabotage and the principle of reserving a country's coastal trade to its own ships and its own seaman is widespread. The US Jones Act of 1919 is a case in point, requiring US-built and US-manned vessels to perform all coasting trade movements.

As was discussed earlier, protectionism in shipping can take many forms and it is by no means exclusively practiced in any one economic or political bloc of countries. However, the writer purports the view that the form of protectionism existing in Guyana is unique. Its focus is not to protect domestic trade from foreign operators, for imports and exports of commodities are totally dependent on foreign ships. But is to protect coastal trade and ferry operations from local operators to the benefit of a designated public agency.

Protectionist policies of both an overt and a covert nature are persistent even though they are not stated in the country's political platform, or supported by appropriate legislation and are in conflict with the country's stated free-market economic policy. The visibly engrained and non-pecuniary protectionist practices affecting local shipping include the following: -

- (a) Cabotage restriction or unilateralism
- (b) Direct and indirect subsidies
- (c) Shipping 'etatisme' or centralised control of shipping

(a) Cabotage restriction or unilateralism

The term 'cabotage' is the movement of goods between one place in a country, to another place within that country. According to Goss (1977), cabotage is coastal trade or navigating and trading along the coast between ports. T&HD has a mandate to provide coastal and ferry services. In order for private local operators to offer this service, a licence from the Ministry of Transport would be needed. This would not be given since the objective of government is to promote and protect the agency from competition by creating barriers to entry of companies with legitimate interests in the trade. This restrictive and discriminatory shipping practice existing in the coastal water of Guyana is the most recognised form of cargo reservation in the internal trade. By totally excluding, not only foreign ships, but also other local ships, and therefore, competition, the goal of promoting the establishment and development of a public merchant marine on specific areas, routes and trades is achieved through guaranteed supply and demand.

It should be understood by the agency and the government that competition is inevitable. Development of the economy, and the increased awareness and changing attitudes of the people will continue to bring competition to the agency's operations. The construction of a bridge across the Demerara River, the proposed construction of other river bridges and the speedboat operations are forms of inevitable competition.

It has been established that river transport is important due to the geographical makeup of the country and that it is the cheapest and most effective means of bulk transport, which is pertinent for the Guyana coastal trade. However, the government has a responsibility not only to protect the employment of public servants but also to create and protect the employment of its people.

The licences that were eventually given for the speed boat operations were as a result of the constant outcry by society for more options, better, reliable and efficient ferry

services. But measures were put in place to recapture so-called 'loss earnings' to the Agency and for the use of berthing facilities. Moreover, fares stipulated for this service were determined by the Agency. These measures are therefore not directed at protecting the interest of the shipper or consumer but at maintaining dominance of the Agency in the sector.

(b) Direct and Indirect Subsidies

The most common forms of direct subsidies given to the public shipping agency are shipbuilding, rehabilitation or reconstruction, and operating subsidies. Indirect subsidies include construction and maintenance of terminals, wharves, ports and canals. This investment capital is made available through capital allowances allocated by the national budget. Indirect subsidies include also taxation and customs exemption, depreciation and interest allowances.

The government should offer such assistance not only to its own maritime agency but also to those that are privately operated because the costs of developing and operating a merchant fleet are significant. Further, the long-term social and economic benefits that maybe derived from such an approach will be substantial to the nation, which is in search of opportunity for improvement. This can only be achieved through carefully planned programs that are supported by government.

It is the government's responsibility to ensure that an efficient transport network is established, especially for the development of the rural areas of the country. For it is recognised that access to resources, markets, jobs, or social and recreational interests, and its security interest are all dependent in one way or the other on the provision of efficient transport services. Government cannot do it alone, thus private entities should be encouraged, and also subsidised where transport services cannot be provided and operated profitably without subsidies.

However, it is important to note that the foregoing analysis does not attempt to suggest a tacit assumption that subsidies are inevitable. But in order to provide a “level playing field” in the quest for a competitive environment private operators should be given similar consideration as the public operator. Perhaps a bidding process involving several operators should be established for subsidy allocation. An alternative solution may even be to subsidise the transport users; for example the farmers, rather than the transport service providers.

(c) Shipping ‘etatisme’ or Centralised Control of Shipping

T&HD is a centrally controlled merchant marine that is associated with the political ideology of a planned economy. One of the reasons for its protection may be the perception that its services are for public convenience and not for profit. But this kind of protection is against the present political ideology of the country, which is pursuing a free market economy.

Though a country must weigh non-pecuniary benefits of controlled shipping against its pecuniary costs, the weight of evidence is against centralisation, which is known for inefficiencies, heavy subsidy and non-competitiveness.

Based on the foregoing, it can be seen that a unique form of protectionism is prevalent within the Guyanese society. The national outcry is for creating a national shipping environment that includes the private sector, thus liberalising the country’s coastal trades and ferry services. This would give greater freedom of choice to shippers in respect of shipping companies’ utilisation and access to better, more reliable, more efficient, more flexible, more adaptable, and more competitively priced shipping services. Further, the impact on protectionist policy can be seen also from the standpoint of economic globalisation, as was discussed in Chapter 2. In addition, the United Nations Development Programme (UNDP) Report of 1998 signified an

increasing interdependence of national economies as the international transaction of capital, technology and goods intensifies.

Although these international transactions are not new phenomena, the process of carrying them on has brought about changes. The UNDP report (1999), pointed out that today there are new actors, and new financial and service markets that are globalised, with action at a distance and in real time, accompanied by new rules and norms of re-regulation, liberalisation and privatisation, and new tools of communication, as was discussed in Chapter 2.

In general, shipping services have become more integrated with other transport modes in the supply chain, thus making it more difficult for nations to maintain any form of protectionist policy, including the kind existing in Guyana, for this would only stultify the movement of trade within the borders of the country.

3.5.1. INTERMODAL/MULTI-MODAL TRANSPORT POLICY

Over the last thirty years shipping has been relentlessly drawn into the concept of an integrated transportation system. Shipping, in all its forms, must now adapt to inter-modal and interface requirements. As a result, ships are increasingly being built to operate as part of the larger transport system. Thus policy must be implemented, and infrastructures developed, to aid and facilitate the process.

The efficiency of multi-modalism has a direct bearing on its scale and market penetration for it is capital intensive and requires less labour than the traditional handling methods. However, a high level of utilisation is essential to fund the capital expenditure involved, even though the investment period for equipment and human resources is shorter because of changes in technologies, trading patterns and new business opportunities, including the commercial and regulatory environment.

Essentially, it is a global operation with no time or trade barriers to impair its development. It gives shippers greater choice of routing and the best combination of transport modes that in turn provides them with a more efficient and less expensive service. Basically, it results in the concept of the total product being applied to transportation on a global scale in a way that is seamless and that makes continuous door-to-door service possible.

The key to this operation are the FFs and the multi-modal transport operators (MTOs), but the agency that provides local transport services does not take into consideration multi-modal transportation service. This kind of service is only provided by privately owned agencies involved in multi-modal transport services (MTSs) even though they lack the basic requirements and suffer from a number of problems, as explained in Chapter 2.

The writer must admit that the focus of the service is oriented towards the facilitation of international trade and not local coastal trade and ferry operations. This may have resulted from the outmoded and stagnated environment of local shipping. However, the writer is confident that, upon stimulation and inclusion of the private sector, and with increased awareness of society as to the benefits to be derived from the latest trends in transport operations and trade, the local shipping industry will become highly dynamic, resulting in the facilitation and development of integrated local and international inter-modal network systems.

The government needs to be aware of, and guide, the overall development of the transportation sector by identifying what it ought to be doing better, what it should no longer do, and what it could do in collaboration with other entities. The government, service providers and traders are the nucleus for manpower development in the field of multi-modal transport, transport management and trade facilitation. A close relationship between these main players that are interested in the promotion of trade is essential in rationalising and coordinating policies related to trade, transport and fiscal measures.

The trade and transport problems that are visible today stem from institutional, intergovernmental and legal issues of the decentralised decision-making process and the complex or conflicting responsibilities of governmental units, including the problems experienced in merging public goals with those of the private sector. However, according to UNCTAD's comprehensive technical assistance program, 'UNCTAD GROWTH PACKAGE', there is an implied consideration of the inter-linked roles of the players closely involved in the trade and transport sector of the country (UNCTAD, 1998).

This system of a 'partnership for growth' package, which consists of productive measures for combining door-to-door logistics, trade services and customs reform and automation, covers economic, commercial, operational and related transport issues of trade (UNCTAD, 1998).

The package of UNCTAD, along with a number of workshops, seminars, lectures, conferences, articles, magazines and the use of other media, should assist in solving the inter-modal problems. In addition measures should be adopted to protect shippers' interests and promote national MTOs.

3.5.2. LIMITATION OF LIABILITY AND INSURANCE POLICY

The concept of protecting shippers raises the important issue of liability and insurance coverage necessary not only for the indemnification of cargo owners for the loss of, or damage to, cargo but also for the loss of life, personal injury, damage to property and pollution of the marine environment.

Transport service operators have historically taken a great interest in the insurance of their ships and liabilities arising in the performance of their activities. Today few operators would even consider trading without Hull and Machinery (H&M), and Protection and Indemnity (P&I) insurance. The advent of the P&I clubs, and their

forebears the hull mutual, stemmed from shipowners clubbing together to provide insurance to give them the peace of mind and the necessary financial protection to trade.

The laws of Guyana do not require ship operators to provide evidence of financial responsibility against third parties. Which means that there is no legal obligation for them to be insured against any financial liability which may result from accidents, pollution, damage or loss of cargo, loss of life or personal injury, damage to property or otherwise. This signals that the local insurance industry has not been exposed to marine insurance.

The above illustrates that an acute problem exists in the local shipping environment that should be corrected if the local shipping industry is to be developed. The necessary laws and regulation must be in place and the local insurance industry must be in a position to offer marine insurance services to local operators at reasonable prices.

Over the years there have been several cases of loss of life, and personal injury to crew and third parties in the operation of public transport services, but claimants may have been compensated based on the company's judgement. Private licensed operators, on the other hand, do not even bother sometimes to compensate because of the absence of regulations that make compensation or indemnification compulsory. There are many cases of accidents that have resulted in loss of life or personal injury, but the private operators do not award compensation for they see it as an acceptable risk taken by the commuters when they made the choice of utilising their transport service. The public agency transports various kinds of cargo across many rivers but the risk of loss of, or damage to, cargo is the risk that the cargo owner must bear and is not considered as part of the transport service package. The company may, to a certain extent, and in accordance with its local national rules, make the ship seaworthy, and ensure that it is properly manned, equipped and provided with sufficient supplies, but not in respect of making the parts of the ship that carries the good 'fit and safe for their reception,

carriage and preservation' (IMO, 1993). Shippers have to provide the necessary facilities suitable for the carriage of their goods or suffer the consequences of loss or damage.

The same conditions apply to passenger ferries as regards compensation for injury or loss of life. This is a matter that is determined by the Agency and is not based on any stated policy. In addition, the discharge of pollution from a ship, whether operational, deliberate or accidental, is not covered by law and, ultimately does not receive insurance coverage. Consequently, one is not legally obligated to compensate for damages caused if one happens to have caused any of the afore-stated forms of pollution.

The existing situation is not encouraging for the local shipping industry. Thus steps should be taken to enlighten the government and the many transport operators of the importance of insurance provided by P&I and Through Transport (TT) Clubs and the responsibilities undertaken in deciding to transport cargo and passengers on an intended voyage. The Hamburg or Hague-Visby Rules need to be implemented into the law of the land, thus making shipping operators liable when accidents occur or goods are damaged, destroyed or lost.

Generally, in the field of maritime law, shipowners/transport operators can limit their liability, but in some cases the shipowner has strict and complete liability. However, in the operation of the ship so many things can occur because it is a business that is very dangerous. Thus shipowners limit their financial exposure to risks (liabilities) by insurance, which is used to compensate for losses or damages caused by negligence or through vicarious liability or respondeat superior (IMO, 1993).

Shipowners are happy with countries that have limitation of liability legislation, for arresting a ship and detaining it in cases where it is liable for damage causes serious difficulties for the owner.

It was shown that for local shipping to flourish and meet the needs that it so desires financial exposure to risks are inevitable. Therefore, in order to survive in this activity and to procure its existence, insurance coverage and appropriate liability regimes are essential in fostering a productive shipping industry.

3.5.3. PORTS AND PORT SERVICES TO SHIPPING

As described in Chapter 2, the administration and operation of ports in Guyana have suffered from mal-administration, and lack of 'proper' organisation and planning, which has resulted in poor services to ships, as well as inappropriate and inefficient facilities for operation. Thomas (1992) pointed out that the nation's economy suffered huge losses as a result of disorganised ports. He further argued that most shippers who import foreign commodities are just content to pass on the extra cost incurred to the consumers, while local exporters bore the extra cost for export commodities due to competition on the international market.

Thomas, in his research, carefully explained and analysed the role, functions and importance of port infrastructure in the nation's economy and emphasized the need to establish an efficient agency to manage and develop the ports, while English (1993) focused on government and policy development particularly for port efficiency. As a consequence the writer's analysis will strictly focus on contemporary developments in the evolution of ports in the quest to provide quality service to ships, cargo, shippers and, in general, to the shipping industry.

Historically, a port has been a place that gives safe shelter, aids to navigation, mooring and berthing of ships and the loading, unloading and storage of cargo (Ma, 1999). Over the years, the services that are provided by ports have expanded from being the supplier of excellent technical facilities and infrastructure, to include not only industrial and transport facilities, but to offer a range of high quality ancillary services, to cope with the demand from shipowners and shippers in the industry.

The current trends of globalisation in the economy and trade liberalisation, coupled with developments in technology and IT, including the various strategies invented by the shipping industry, such as, containerisation, bigger ships and intermodalism, all of which was discussed in the prior chapter, have exemplified why ports should adapt to changes in the shipping industry. Thus its concept has evolved from a simple tool to perhaps a speculative business.

The contemporary thinking of many port personnel in the developing countries is that the ship will bring the goods so they must build a good infrastructure for the ships (Francou, 1999). The writer tends to agree to a point with the statement but what of the quality and extent of services that are being asked for by shippers and shipowners? Today the thinking of modern port personnel has changed in an effort to sustain a port's position in the logistic chain. This means that ports must not only be excellent tools, with good infrastructure and equipment but also suppliers of all the services needed in a logistic platform.

The main concern of shipowners and shippers is the time spent by ships and cargo in ports. The increasing size of ships and their related daily cost has led shipowners to require a faster turnaround time of ships. Shippers, on the other hand, have encountered stiff competition in international trade, and as such, any dollar loss in port operations either reduces the chances to export, or increases the cost of imports. In addition, the worldwide just-in-time policy requires no time loss in the logistic chain. Thus they seek to have less dwell-time for cargo in the port.

Francou (1999) in his lectures pointed out that one of the most important features in the logistic platform is the capacity of ports in processing and distributing information. He argued that the information system is the key to efficiency of ports for, by providing relevant information, it serves all partners of the logistic chain well, including shipowners and shippers.

He concluded the debate by signaling that the key to port operations management in supplying quality services to the shipping industry is reliability, efficiency, adaptability and low cost, which can be distilled to the concept of “reduced time in port” for ships and cargo.

The analysis has shown how vision, intelligence and passion (VIP) have created an innovative idea that is used by port administrations in sustaining its position in the logistic chain. This analysis is relevant and applicable to Guyana for there are a number of public and private ports operators in the country who need to inculcate the concept of “reduced time in port” and serve as a logistic platform for shippers.

There have been huge increases in the movement of cargo across the rivers of the country. Further increases can be stimulated if ports become aware and innovative through VIP, and develop the attitude of being an efficient tool and a logistic platform for shippers so as to achieve sustainability in the logistic chain of the nation’s trade. Great benefits should accrue not only to the optimistic entrepreneur but also to the national economy.

3.5.4. TAX POLICY AND TAX ADMINISTRATION

It is accepted today that maritime liberalism is a relative term, for some degree of intervention measures by States, mainly in the form of financial aid and fiscal relief to shipping and shipbuilding, is inevitable. A majority of countries provide significant assistance to shipping either in the form of support to the industry as a whole, or to the merchant marine industry, specifically. Some countries give little assistance to shipping or none at all, as shown in the case of the public transport agency, T&HD.

The fiscal system relating to the taxation of shipping may under certain conditions have beneficial effects for the shipowners in terms of financial assistance. However, fiscal provisions most often apply to income tax liability, and consequently, will usually only be

relevant provided that profits are made (GOG, 1939). On the writer's field trips to Greece and Norway, she observed that the systems of tax policy and administration are the same, except for the case of shipping where taxation is based on ships' tonnage and not on income, hence, it is a system of fixed taxation.

Frankel (1982) pointed out that U.S. shipping firms are subject to income tax on all their income, regardless of the source but credits are given for taxes paid by foreign subsidiaries if dividends are repatriated. He indicated also that significant incentives, provided through the tax laws, are available to the maritime industry. The U.S. tax policy with regard to shipping is designed not only for encouraging construction and operation of modern vessels but also to restrict evasion of taxation by incorporating shipping companies abroad.

The US taxation program is not only the most elaborate and most comprehensive but is also the one that brings out clearly all the important principles, features, characteristics and motives for maritime tax benefits (Ademuni-Odeke, 1984). However, it is not the writer's intention to analyse, which taxation policy is better but to bring to the fore the relationship that should exist between tax policy and tax administration for it is an acute problem in Guyana, in particular, and the shipping industry, in general. T. Gray (2000, April 7), pointed out that the UK's impending tonnage tax regime needs clarification on several aspects before the legislation is implemented. Whatever is the policy, the administration must be able to achieve the desired objectives.

Put simply, tax administration serves to carry out tax policy within the framework of the law that represents tax policy, and consists of the efficient and effective processing of paper and the conduct of investigations to ensure compliance in the payment of taxes. Thus, tax policy should be premised upon a realistic understanding and appraisal of the capabilities of tax administration.

There are several implications resulting from this relationship between policy and administration. First, tax administration should take the decisions of tax policy and transpose them in a comprehensive manner that is understandable to the taxpayer. Second, tax administration should be consistent with the criteria of the tax policy upon implementation and not concentrate its total efforts on one form of taxation to the neglect of the rest of the tax structure. This would result in the distortion of the tax policy and an eventual inequitable policy measure. Third, tax administration should aid tax policy planning in an affirmative way by accommodating the constant challenge of changes in economic and social goals and those in economic conditions, like e-commerce, globalisation, liberalisation, MNCs, multi-modalism and flags of convenience, which are prevalent in the world today. Modern international trade and investment have shown an accelerated increase in the growth of multinational enterprises and shipping strategies. Tax administration should, therefore, keep abreast of these developments and anticipate likely problems of administration that may be encountered in their relationships.

More and more, it is being recognised that tax policy has a major role to play in promoting economic growth accompanied by reasonable price stability. It is equally being recognised that the path to this objective is not that of rigidity in policy. Economic conditions, affected both by internal and international developments, can change rapidly, and today's satisfactory tax policy can quickly become the course of disaster under changed conditions. Therefore, the tax policy planner should try to follow a flexible tax policy, and to that end seek to determine which kinds of taxes and their variations lend themselves to such flexibility.

The overriding need in the relationship between policy and its administration, in general, and, specifically, between tax policy and tax administration is one of harmony that should be based on mutual understanding and informed communication. The essential function of both can only be accomplished if they share fully in a frank appreciation of the problems and goals of each other. The degree to which tax policy can serve in

procuring satisfactory economic development and desirable social changes rests on the success they both have in achieving a harmonious relationship.

3.6. EVALUATION AND ANALYSIS FOR IMPROVING SAFETY WITHIN THE LOCAL SHIPPING INDUSTRY

The guiding light of IMO is “Safer ships and cleaner oceans” but for a nation this renewed concern of safety is squarely placed at the feet of private and government sectors. Low local standards or sloppy practices of government, operators and mariners that have become a norm ashore and afloat should no longer be tolerated by the local shipping industry. In Chapter 2, the description of safety showed that maintenance, rehabilitation of vessels, training of crew and other marine personnel are carried out in accordance with local standards that are approved by the government’s public transport agency. But these standards are not even implemented or gazetted into the national laws of the country. Moreover, the surveys and inspections of vessels are based on an old Shipping Act that is out-dated and inconsistent with modern day approaches and prescribed standards.

It is difficult for a country to formulate its own maritime safety and environmental standards since the effects on maritime sector are not restricted to national boundaries but have international implications. One vivid international implication is port state control interventions where foreign ships are inspected to ensure compliance with statutory requirements. These statutory requirements are based on international maritime conventions, which have to be implemented and enforced under national laws. Generally, national policy-makers, in formulating maritime standards and policies are subjected to pressure from foreign countries, regional and global institutions and from the increasingly powerful multinational companies.

The new and modern shipping legislation enacted to take Guyana into the twenty-first century has the necessary international prescribed standards, which among others,

specify how ships are to be built, maintained, manned, and how seafarers are to be certified so as to ensure safety of passengers, crew and cargo.

3.6.1. SAFETY OF SHIPS

Part X and XI of the new Shipping Act, which contain provisions in respect of SOLAS and LL, deal with the safety of ships themselves ensure that ships are built and maintained to the required standards. Certificates are required as evidence that ships continue to meet the required standards in ensuring high levels of safety. Section 250 of the Act states that “the Safety Convention [SOLAS 74/78] ...applies to all Guyana ships and all other ships while they are in Guyana waters”. Further, a surveyor of ships may inspect any ship to ensure compliance with the relevant regulations and shall give written notice of any deficiency to the owner or master of the ship, and his opinion on the action necessary for its rectification (GOG, 1998).

Provisions were not explicitly made in respect of ship construction and maintenance, radio-communications, life-saving appliances and arrangements, safety measures for high-speed craft, and the ISM code. However, it was anticipated that this would be developed upon the implementation of the SOLAS convention to which Guyana has acceded.

Generally, the opportunity is created under the new Shipping Act to implement and enforce modern and acceptable prescribed safety standards that can be applied to improve safety onboard Guyanese ships.

3.6.2. STANDARDS OF TRAINING AND CERTIFICATION

The standards of training and certification of seafarers, surveyors, port state officers, inspectors, registrars of ships and other marine personnel are critical to the overall safety of shipping. This importance is underscored by the existence of international

standards, guidelines, codes and recommendations. Part VI of the Shipping Act provides the opportunity for Guyana to give effect to STCW 95, which sets new international standards for seafarers, and obligations for training institutions, administrations and companies. The training prescribed needs to be delivered through training institutions under the auspices of the dedicated administration that would confirm the authenticity of certificates issued in accordance with the Convention.

The training and certification of other marine personnel mentioned therein are guided by resolutions on international codes, guidelines and recommendations produced by the Maritime Safety Committee (MSC). Considerations should be given to their immediate training requirements to complement the needs of the maritime administration.

The writer wishes to endorse the view of David Cockcroft (2000), that special attention needs to be given to the recruitment of young people to a seafaring career and that the poor perception of a maritime career has depressed intake levels to the industry. This should be given much consideration, for the local shipping industry may face a sharp decline in trained marine personnel in the near future.

Under the sub-topic analysis of government and policy discussed earlier, it was shown that State action and the policy process are dependent on group theory and the play of power in the process of reaching a solution. Ongoing interaction, and negotiation between the Government, shipowners, seafarers, shipping companies and training institutions, including the assistance of IMO and other maritime countries on the matter of training and certification, will surely achieve the specific purpose of improved safety.

3.6.3. MARITIME INVESTIGATIONS

Inquiries and investigations into marine casualties are fully provided for in Part XVIII of the Act with the established purpose to determine the causes of the marine incident so that measures can be taken to ensure that such incidents will not be repeated in the

future. The writer wishes to emphasise the importance of inquiry into maritime casualties within the local waters, for there have been a number of accidents that resulted in the loss of life and severe injuries, where, in the writer's view, no serious investigation or inquiry was undertaken in these cases. Investigations into marine casualties within local waters should be given the same level of attention as those that occur on the high seas. This approach can only be perceived as being part of an accumulated effort to improve safety worldwide.

3.6.4. PIRACY AND ARMED ROBBERY

The Act does not include provisions in respect of incidents of armed robbery and piracy that has become a menace to the shipping industry. IMO recognised the importance of this issue by retaining the initiative and maintaining impetus through several regional missions and seminars. The MSC has produced guidelines; MSC 623, and recommendations; MSC 622, for preventing and suppressing piracy and armed robbery against ships. The missions, seminars, guidelines and recommendations, according to William O'Neil (2000, p.69), were intended "to increase awareness of the problem, impress upon the governmental representatives concerned the need for action, and more importantly, motivate political will to act at national and regional levels".

In addition, IMO has adopted the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA), which seeks to ensure that States take appropriate action against any person who committed offences against a ship, or persons onboard, or endangers the safety of navigation. Although this convention is designed with the aim of combating terrorism, it can be applied to most incidents involving piracy and armed robbery against ships.

Guyana has encountered major problems in dealing with armed robbery and piracy. This situation was highlighted by the MSC's 71st session in May 1999 that reported on the missions and seminars held in the region (IMO 1999). References were made to the

nature of those incidents in an effort to combat this increasingly important issue. The government of Guyana needs to give full effect to the SUA Convention and take the necessary action to implement, as appropriate, the recommendations of MSC circular 622, into its national laws. Further, it should bring these circulars; 622 and 623, to the attention of all national agencies concerned with anti-piracy and anti-armed robbery activities, including, shipowners, ship operators, shipping companies, shipmasters and crew. Abhyankar (2000) pointed out the need for a collective and coordinated response on shore, coupled with the need for greater priority to be given to piracy and armed robbery on the agenda of national law enforcement.

3.6.5. SAFETY SERVICES

Part IX of the new Act deals extensively with prevention of collisions and navigational safety. It also fully considers Search and Rescue (SAR) obligations when a ship is in distress. It does not cover pilotage in its strictest sense for the inherent problem with this form of navigation is associated with the organisation and management of the ports. However, this problem should be solved with the proposed establishment of the maritime administration.

Thomas (1992) analysed vessel traffic management (VTM) and emphasised the need for vessel traffic services (VTS) in planning, informing, advising and monitoring of ships' movements, the equipment necessary for communication and the training of personnel in operating the VTS system. This analysis also considered IMO recommendations on harmonising VTS worldwide. The writer wishes to endorse his well-articulated analysis for it extensively covered all necessary areas. However, to aid the process of promoting safety within national waters, policy makers need to be proactive in developing a relevant and comprehensive safety policy.

3.7. MARITIME POLLUTION AND ENVIRONMENT PROTECTION

It was revealed in Chapter 2 that the present legislation of Guyana contains no rules and regulations governing marine pollution. This situation was thoroughly examined by Joseph (1991) where he pointed out that the major obstacle that has prevented Guyana from ratifying MARPOL 73/78 convention was the lack of financial resources for establishing reception facilities. He argued that there should be a lead agency and a contingency plan that defines policy and responsibilities and, which identifies the lead agency responsible for the preparation and implementation of the plan together with the supporting legislation.

Reception facilities continue to be a major problem for developing countries and assistance is being sought from IMO technical committees and other maritime countries. According to D. Renwick (2000, April 18), the Argentina Government is providing technical assistance to Trinidad and Tobago on the establishment of adequate reception facilities for all ship-related waste covered by MARPOL 73/78.

Guyana has acceded to a number of international instruments relating to the prevention of pollution from ships and the combating of, and compensation for, such pollution, but needs implementation of these instruments in order to derive the full benefits thereof. The Ministry of Public Works and Communication has established a National Task Team (NTT) with the lead agency being the proposed maritime administration to deal with the implementation of the MARPOL convention. The team is presently under the chairmanship of the Permanent Secretary of the Ministry and consists of representatives of T&HD, Coast Guard, Port Health Control, the Environmental Protection Agency, the Attorney General, and the Fisheries Department. However, serious consideration should be given to upgrading the status of the NTT by re-constituting the team as a Cabinet appointed inter-ministerial committee so as to ensure and facilitate full and complete implementation of the instruments relating to marine pollution. In addition, the committee should be mandated to ensure the establishment

and development of any mechanisms required for full implementation and, where necessary, to make recommendations for accession to related instruments.

It has been shown that Guyana is in the process of enacting modern and comprehensive shipping legislation and putting in place mechanisms to ensure its full implementation. Much support and assistance will be needed from IMO technical committees, regional committees and other maritime countries to ensure that the system is implemented in a timely manner.

CHAPTER 4

4. EXAMINATION OF OPTIONS AVAILABLE FOR THE CREATION OF A COHESIVE SHIPPING POLICY

Guyana has many pressing transportation needs that are difficult to prioritise, but priorities are necessary since resources are limited. The analysis, which was made in Chapter 3, showed that the development and success of a national shipping policy depends on the play of power, the quality and process of the inquiry undertaken in relating resources to objectives, the means-ends relationship, the adopted maritime policy and its overall ability to cope with developments in shipping. This would enable the local shipping industry to flourish and meet its desired demands through the development and implementation of a coherent shipping policy.

The actions of the government and the role it plays are critical to the process of developing policy. During the writer's field trips to Greece and Norway, it was pointed out by the Hellenic Chamber of Shipping, shipowners, experts, economists, and executive officers of shipping companies that governments should basically create the environment to support the shipping industry from an economic and safety perspective, including those with respect to safety of the marine environment.

This Chapter's examination of the areas providing feasible and potential solutions necessary for the development of a coherent shipping policy is presented from an economic and safety perspective, including those with respect to the marine environment. During this process full consideration will be given to the analysis undertaken in the previous Chapter.

4.1. EXAMINATION OF ECONOMIC OPTIONS

In Chapter 3 it was pointed out that one of Dror's major components in policy-making is economic rationality. Therefore the areas evaluated in determining the optimal solution and those that are covered under the new shipping Act are as follows: -

- Trade restrictions policy
- Registration and licensing of ships
- Maritime subsidies policy
- Intermodal transportation policy
- Port state control policy
- Cost recovery policy

4.1.1. TRADE RESTRICTIONS POLICY

The analysis of Chapter 3 showed that the unique form of protectionism prevalent in Guyana within the business environment restricts freedom of choice, a situation, which prohibits the utilisation of competitively priced shipping services. It further explained that the consequences of centrally planned shipping are inefficiencies, heavy subsidies and non-competitiveness. Evidence revealed that the subsidised services operated by T&HD show constant losses (see Appendix I). It has become increasingly clear that shipping in Guyana is less efficient than it ought to be. Its lack of competitiveness has imposed high costs on users, which in turn has had a multiplier effect on competitive trade. Inefficiency, high costs and the inability to compete in the international market place are persistent conditions.

The new Shipping Act, Part III contains provisions covering cabotage and the principle of reserving a country's coasting trade to its own ships and seamen. This will provide an opportunity to develop shipping in local waters. This Part also required ships to provide evidence of financial responsibility against third parties, which means that they should

be insured against any financial liability, which may result from accidents, pollution or other incidents. The local insurance industry should be in a position to make available such insurance for shipping at reasonable prices.

4.1.2. REGISTRATION AND LICENSING OF SHIPS

Provisions are made in the Part IV of the Act for registration of ships, which relate to the ownership of vessels, and for the measurement of tonnage for these ships. Provisions are also made for the licensing of vessels that are 24 meters or more in length, which are prevalent in local trade. There are provisions applicable to both registered and licensed vessels for the transfer and transmission of ownership with respect to mortgages to facilitate shipowners offering credit and to protect loans, and, with respect to maritime liens to protect investors, service providers and seafarers' wages. The existence and application of these provisions should provide economic comfort to the banking sector and facilitate lines of credit for shipowners.

4.1.3. MARITIME SUBSIDIES POLICY

According to Kain, J., Meyers, F. and Wohl, M. (1965), subsidies for transportation are justifiable if economies of scale are great. Thus, if the form of transportation is characterised by significantly increasing returns as the scale of operations increases, then consumers can only reap the full benefits of scale effects by subsidisation. Further, many contemporary economists advocate transport subsidies in cases where economies of scale are extensive and the price elasticity of demand is high.

Increase in trade that was brought about by globalisation and liberalisation, and the constraints of transit time and increased fixed cost of shipowners, has led the industry to develop strategies to cope with this problem. These strategies of merger, joint venture, alliance, etc., as was discussed in Chapter 2, are based on the concept of economies of scale, which appears to be the most appropriate solution to the problem.

According to Ma (1999), the concept of economies of scale is one of the major strengths of maritime transport, for in principle the bigger the ship the cheaper the unit cost of transport and, consequently, the more competitive the ship in the prevailing market.

In industries of decreasing cost, output can be expanded with a less than proportionate increase in total costs. This, according to Studnicki-Gizbert (1974, p.278), means that incremental or marginal costs will be less than average total costs. Jones (1978) pointed out that to satisfy the requirement that total cost equals total revenue, average cost pricing would have to be imposed and output should be priced at marginal costs to ensure optimum allocation of resources.

In addition, Ma (1999) pointed out that marginal cost pricing means that for a given amount of output in a sector, the society benefits the most when the price is set equal to the marginal cost. With the use of a graph, he clearly showed that when price is lower than marginal cost the producer will incur a loss, and if the price is fixed higher than the marginal cost level, society is paying for more than what it can get. Thus, pricing at marginal cost would result in total cost being more than total revenue and a subsidy will be required to make up the difference between marginal and average cost pricing.

The foregoing analysis is particularly applicable to maritime transport within the local shipping industry in Guyana. Economies of scale, for instance, through joint ventures between the government and private entrepreneurs, and marginal cost pricing are a necessity for improving the local shipping industry. This, including the need to combat depression and unemployment, the strategic necessity of maintaining at home the necessary skills and facilities, and the need to aid and protect the local industry, should motivate the government to grant subsidies with respect to maritime transport.

Notwithstanding the foregoing, and the need for competition, and a "level playing field", it should be noted that subsidies, if justified, can only be part of the solution. To be

successful there is a need for careful analysis and development of a comprehensive strategic package.

4.1.4. INTERMODAL TRANSPORTATION POLICY

Many pundits have conceded that MTOs have developed without regulation to aid the process. However, the rising problems and failures of freight forwarders and MTOs have stimulated the quest for the government to establish measures that ensure qualifications of MTS providers, protect shippers' interest and promote national service providers. Policy options put forward by UNCTAD (1995) for governments include the following:

1. Self-regulation by a national or international organisation of MTOs, which would require: -
 - The filing of necessary information about MTOs for public inspection
 - Registration of MTOs by an appropriate national authority
 - A licensing system by an appropriate national authority
 - Publication of a list of MTOs which meet certain qualifications established by a national or international organisation
2. Elaboration of an international instrument on elements that may not be of a similar nature for countries on a regional or national basis.

According to UNCTAD, the two types of policy measures that should be employed are: -

1. Promotional policies, which aim at improving the competition, between, and establishing and creating the framework for the operations of, national MTOs.

2. Comprehensive regulatory policies that aim at ensuring a desired level of competition by influencing the market structure.

However, it was argued that, practically, the preferred policy mix depends on the socio-economic political system and the country's capability to implement formulated policy principles.

Chapter 2's description of the local operational environment pointed out that Guyana's geographical configuration supports and facilitates effective linkages in an integrated intermodal network, but due to a lack of an efficient intermodal infrastructure, the potential efficiencies of its usage are constrained. The infrastructure difficulties that exist cannot be overcome by the promotional policies mentioned herein, but only through the creation of a climate favourable to sustainable investment in air, road, and the marine sectors. Nothing would have a more profound impact on the ability of these sectors to meet their own needs in an integrated manner, promoted by the development of a healthy capital market and a political and economic climate that is favourable to long term investment.

Marine infrastructure is the focus of this research but due to the need for coordinated, seamless, flexible and continuous door-to-door transport service, air and road infrastructure are of increasing importance. Improving road safety, and developing and preserving road networks are key issues in the road sector. Highway maintenance, protection, rehabilitation and the expansion of the highway network should be assessed, particularly, with respect to the interior, since it could be a key element to developing the long term economic potential of the country. This should improve access to the full range of resources available in the hinterland, and favour greater economic integration with the rest of the South American continent.

Air services in Guyana are essential for connecting the country with the rest of the world and to integrate its regions into national, political and economic life. Improving this

sector may require the establishment of a framework that updates the air safety regulatory regime and develops an air policy, including, the implementation of institutional reforms.

It was pointed out in Chapter 2 that the new Shipping Act of 1998 contains comprehensive and detailed provisions with respect to safety but none with respect to the economic management of shipping. There is a need for an improvement of this Act, or possible, a new Act, for it should provide for the implementation of provisions applicable to the role of facilitators, which include non-vessel operating common carriers (NVOCCs) and ocean freight forwarders, in promoting intermodal carriage.

4.1.5. PORT STATE CONTROL (PSC)

As described in Chapter 2, Guyana cannot participate in PSC inspections due to a number of deficiencies that require the development of the relevant policy measures, the necessary administration to implement and enforce the law, and the competent human resources to facilitate and undertake PSC matters. Apart from this kind of policy, PSC policy should also seek to establish a set of unified and high standard rules and procedures so as to be effective and efficient in PSC procedures. This means that the rules and procedures should be at the regional level with aims and objectives that are not too broad in scope.

An analysis of the data published in the recent 1998 annual report on port state control in the Asia-Pacific region gives space for some interesting comments. It is an established fact that PSC inspections are the most useful tool against sub-standard ships. However, in all the regions covered by MOUs on PSC inspections, Authorities are debating whether to cover the largest possible number of ships or to target the ships that should be boarded. An analysis of the tables in Appendix 2 indicates the following on Asia-Pacific region PSC statistics.

In Table VI the inspection rate ranges from 64% in Australia to 3% in Malaysia, while Hong Kong and Singapore at the same level at about 10%. Table VII lists the ratio of ships detained versus the total number of individual ships and the number of inspections for each Authority. Where Australia has detained 4.4% of the ships calling its ports, Hong Kong 2.2%, and Singapore have detained only 0.4%. However, in relation to inspections, Hong Kong has detained 21.6% of ships inspected while Australia only 6.8%.

Table VIII shows that more than 50% of the ships boarded had deficiencies, and the average number of deficiencies per ship ranged from five to seven. This means that when inspectors have boarded a vessel, deficiencies were found in at least one out of two vessels.

However, the picture completely changes in Table IX where in Australia, 41% of the ships calling its ports would have had deficiencies, but only 7% of these were detained. In addition, only 9% of the ships have had deficiencies in Hong Kong but 22% of them were detained, and practically all ships calling at Singapore harbour were found to be seaworthy.

The figures demonstrate that a targeted boarding system should guarantee a level of detentions close to the level of the Authorities inspecting a large amount of ships. Such a targeted inspection system has the great advantage of punishing the bad owners without disturbing the goods ones. This exemplifies the view that PSC inspection policies of MOUs should be of a high and unified standard, and have specific aims and objectives.

4.1.6. COST RECOVERY POLICY

The key to achieving sectoral improvements, apart from building new partnerships and attracting or developing qualified human resources, is to improve cost recovery. The

system for the maritime administration will need human resources that are well-trained and available in sufficient numbers. In addition it will be necessary to establish branch offices in selected areas so as to make available the services offered by the administration to the maritime public across the country.

There is a financial cost to making available such services and as funding is scarce a principle of full cost recovery should be pursued. The maritime community should pay for the services it requires. It is the duty of the State to ensure the safety of persons and property so in some cases the functions carried out by the administration are not considered to be services for which charges can be levied.

Under normal circumstances the administration will not earn enough revenue to be self-sufficient and it will be necessary for the government to make up the difference. One way of finding the necessary funding could be by the imposition of a tonnage levy on shipping with a minimum and maximum limit for a specified number of voyages annually. The proceeds of this levy could be used to assist the development of the administration and to support other activities such as training facilities for seafarers.

Cost recovery principles should also be applied to the improvement of the air and road sectors. For instance, a highway maintenance fund should be created, and user fees should be reviewed and adjusted annually, with a view to ensuring that there are sufficient funds to cover the highway long run marginal costs. However, the burden of cost recovery should be shared between each user group, based on the costs imposed on the systems and the ability to pay.

4.2. SAFETY AND ENVIRONMENTAL OPTIONS

Under policy analysis in Chapter, 3 Dror noted that there should be an optimal policy-making structure. The optimal structure suitable for maritime affairs is the maritime administration, which should be established to meet the requirements for implementing

the provisions of the new Shipping Act and other shipping legislation within an agreed transition period.

4.2.1. ROLE AND FUNCTION OF MARITIME SAFETY ADMINISTRATION

Vanchiswar (1996) pointed out that the most vital functions of the Maritime Safety Administration are those intended to ensure safety of life at sea, safety of navigation and protection of the marine environment. In this regard he contended that the primary functions are expected to take the form of:

- General superintendence and coordination
- Registration of ships and related functions
- Surveys, inspections and certification of seafarers and related activities
- Manning of ships and crew matters
- Conducting inquiries/investigation into shipping casualties
- Dealing with matters pertaining to prevention/control/combating of marine pollution and maritime search and rescue
- Ensuring safety of fishing vessels and other small craft
- Dealing with wrecks in national jurisdiction
- Advising government on all marine technical matters

Throughout this research the writer has emphasised the need for competent human resources for improving the maritime industry. This view is reinforced by Vanchiswar who advocates that duly qualified and trained personnel suitable for the multifarious and highly skilled functions is a necessity. This seems to suggest that Guyana needs to embark on a full-scale training scheme at relevant maritime institutions, for example, WMU, to fill the expanding gap of qualified maritime personnel. This should be undertaken while keeping in mind that such training must be adequate and include multiple functions to the maximum extent possible.

Ma (1999) in his presentation at the Maritime Policy Seminar pointed out that the scope of manoeuvring left to national authorities as regards safety and environmental issues is limited and the problems are better solved at the global level. IMO, which is a global institution, influences all aspects of safety at sea and protection of the marine environment. It was established in Chapter 3 that Guyana is in the process of enacting IMO's modern and comprehensive international instruments.

4.2.2. INFORMATION TECHNOLOGY (IT)

In respect of IT, the principles emerged from the research undertaken by UNCTAD (1999) reveal that policies and legislation should not attempt to control, restrain or channel electronic commerce development but should be technology-neutral by not blocking innovation that precludes development of newer methods. Further, it should relate to the principle of party autonomy, which gives parties involved in electronic commerce the opportunity to decide among themselves the rules and standards that would be applicable in their business relationship. These aspects are of great importance to the development of the bolero concept used in the industry with respect to electronic bills of lading.

W. Rodger (2000, June 7) of USA Today on Cable News Network (CNN), broadcast that a District Court in USA had ordered the divestiture of Microsoft into two separate companies, an application and an operation company. Will this preclude development of newer methods? Or is it an attempt to control, restrain or to channel IT developments? The shipping industry has benefited significantly from technology innovations that has reduced cost and improved efficiency in the operation of its services. The final result of this unprecedented action by the court is eagerly awaited.

The research also highlighted that the key for developing countries, in IT, should be the identification of:

- Those areas in which an international consensus has emerged on how to treat e-commerce issues
- Those areas where domestic action is absolutely necessary to foster an environment favourable for e-commerce, and
- Those areas where it is possible for developing countries to resolve the legal issues in an expedient manner.

It further recommended that governments should adopt UNCITRAL Model Law for it represents an international consensus and a balance between public policy on security, and freedom of parties to decide how to authenticate. However, it insisted that countries should seriously consider the Berne Convention and the World Intellectual Property Organisation (WIPO) treaties in the field of e-commerce so as to ensure intellectual property protection, which is crucial to the development of e-commerce.

These proposals by UNCTAD should not be ignored for they capture the whole philosophy that bespeaks the development of a sound IT policy framework that should foster e-commerce development. This undoubtedly facilitates efficiency and the general improvement of shipping activities. The writer wishes to endorse this report by UNCTAD as a useful mechanism for adoption in Guyana, for it is broad enough in scope and useful for a country that is in the process of reshaping its shipping industry.

IT and all the other areas mentioned herein are necessary for Guyana to improve the legal, economic, safety, and operational environment of shipping. Broad principles, in this respect, are suggested in the following Chapter.

CHAPTER 5

5. PROPOSED FRAMEWORK TO GUIDE THE FORMATION OF A NATIONAL SHIPPING POLICY

Throughout this research, numerous references were made to the need for the formulation of a coherent national shipping policy that should guarantee efficiency through competition and responsiveness of its operation to the national objectives. However, shipping today has lost its insular characteristics by adapting to intermodal and interface requirements. This has significantly impacted on the way regulations of the different modes of transportation are legislated.

Historically, regulation of each transport mode, with respect to sea, air and road, took place as the individual mode developed. Each regulation was legislated and administered on an intra-modal basis with no regard for coordination among the different modes. Today, due to inter-modalism, the need has arisen for coordination, continuity, flexibility, and connectivity of each mode in a seamless manner. Thus, individual commissions established for each mode should not be traditionally charged with the promotion and welfare of their particular mode. For this frequently results in competition between each commission, rather than each working together towards an integrated, intermodal system.

Coupled with this new phenomenon, many countries are deregulating or unifying regulations or having appropriate policies and legislation in place with respect to transport operations so as to cope with the challenges brought about by inter-modalism.

In addition, the maritime industry is being rapidly driven by IT, and as such, favourable policies and legislation that are conducive and supportive to IT communication and e-commerce have become a necessity.

Therefore, any guiding principles with respect to the formulation of a national shipping policy cannot be made without giving special consideration to the other modes of transportation, inter-modalism, and IT in facilitating trade.

In general, Guyana needs a comprehensive and well-articulated strategic national shipping policy to guide and promote the overall development of the maritime sector and its seamless operations. Such a policy, which will ensure that specific transportation initiatives are integrated into an overall vision for economic, safety, environmental protection, and social development, should be based on a cohesive set of policy principles and strategic directions. In addition, it should help the public sector to identify what it ought to be doing better, what it should no longer do, and what it can do in collaboration with other entities. The key elements of a strategic national shipping policy should include the following:

- A Mission Statement
- Policy Principles
- Strategic Directions
- Specific Policy Initiatives
- Implementation Approach

5.1. A MISSION STATEMENT

The mission statement is the “raison d’être” of the national shipping system, which is the fundamental shipping policy statement, and the foundation of the national shipping policy. J Hodgson (1999) pointed out that ‘a mission statement is a statement as to the purpose, or the stimulus for creating [a policy] with respect to what it needs to fulfill’.

The writer wishes to suggest the following mission statement as a vision of what the strategic national shipping policy should achieve:

The purpose of Guyana's national shipping system is to support the development of Guyana and assist in the economic integration of its regions, its neighbours, and the rest of the world by serving the needs of shippers, receivers, and travellers in an ever more efficient, safe, sustainable, affordable, responsive, accessible, reliable, comfortable, in a continuous and seamless manner.

5.2. POLICY PRINCIPLES

Policies are intended to offer serious guidance or direction, and as such, they should be fairly stable and permanent. The policy principles that should offer guidance and direction to the development of a strategic national shipping policy, should include the following suggestions:

- The State should monitor the national shipping system and foster its performance by putting in place appropriate policies and regulations, ensuring a favourable legal, political and economic climate, safety, and protection of the environment.
- Opportunities to participate in Guyana's cabotage trade should be extended to private operators
- Competition and market forces should, wherever possible, be the prime agents in the provision of shipping services that meet the needs of its users.
- Where it is practical, the users that benefit from the shipping services should pay for the costs of shipping infrastructure and services.
- The cost of developing and enforcing government regulations and policies is a cost of providing transportation services, and thus, should be recovered from transportation service providers.

- The development, coordination and preservation of the other modes of transportation should also be considered in relation to maritime transport and inter-modalism.
- An adequate framework of promotional and regulatory measures should be established to facilitate trade and the efficiency of multi-modal transport operators.
- Notwithstanding the goal of competition, the government should compensate transportation service and infrastructure providers that are required to offer services at less than fully compensatory rates through transparent payments under negotiated public service contracts.
- Information technology regulations should be technology neutral.

5.3. STRATEGIC DIRECTIONS

The writer wishes to proposed five strategic directions for the future development of the national shipping system, which include the following:

1. Building the foundation for development
2. Developing human resources
3. Developing transportation infrastructure
4. Improving safety
5. Cooperating with regional partners

5.3.1. BUILDING THE FOUNDATION FOR DEVELOPMENT

Building the foundation for development should be based on the following strategies:

- **Creating a climate favourable for investment, entrepreneurship and development.** It is a well-established fact that shipping is a derived demand. However, the creation of a climate favourable to investment, business, and

development is not a core responsibility of the Ministry of Transport, but it is a pre-condition for achieving most of the initiatives that may be put forward by the Ministry. The Ministry should be supportive of broader government measures aimed at ensuring a stable democracy as well as sound macro and micro-economic policies that facilitate the development of Guyana's industrial, capital, and labour market, which should create opportunities for the shipping sector.

- **Establishing a strategic national transportation policy.** While Guyana has, de facto, a national transportation policy, it has not been officially articulated. There is a critical need to state the fundamental principles, which should guide the development of the transportation system of Guyana. Such a policy should be formalised in a National Transportation Act. This Act should define the mission of the transportation system and facilitate a re-alignment of the role of the State in the transportation sector. It should also identify the policy principles that will guide its future development, state the respective roles of foreign and domestic actors, and include elements of the national air, marine and road policies and their relation to each other.
- **Implementing institutional reforms.** The current institutional configuration of Guyana's shipping system is not conducive to the full achievement of its potential. The State has assumed too many responsibilities of an operational nature, thus impeding its ability to look to its basic responsibilities with respect to safety and the environment, establishment of an effective intermodal network, and the facilitation of strategic investments in the intermodal infrastructure system. The provision of shipping services and its related transport sectors should be improved by broad-based institutional reforms that give:
 - greater managerial freedom, financial autonomy and commercial discipline in the provision of transportation services
 - greater influence and choice to the users of the transportation services

5.3.2. DEVELOPING HUMAN RESOURCES

Developing human resources should be based on the following considerations:

- **Developing human resources.** Sound policies and institutions should facilitate the development of Guyana's shipping system. However, this is not sufficient in itself for the industry will not be able to develop its full potential without developing its human resources. The performance of the national shipping system cannot be separated from the performance of the individuals that are responsible for establishing policies and plans, enforcing laws and regulations, investing, and operating the various elements of the system.
- **Training facility.** Numerous references have been made in prior Chapters with respect to the need for trained personnel in carrying out the functions of PSC officers, inspectors, surveyors, registrar of ships, seafarers, and other marine personnel. Consideration should be given to the establishment of Maritime College, either at a national or regional level, to train seafarer ratings, and operators of small ships in the local and regional trade. However, for the success of this venture, there would be an initial need for technical assistance, possible obtained through IMO.
- **Identification of suitable qualified persons.** Suitably qualified persons should be identified and trained for the necessary functions that are in demand. In general, a full-scale training program should be implemented for the training of marine personnel.
- **Labour compensation schemes.** Labour compensation schemes that send the right signals, and reward for value-added behaviour, should be developed and implemented.

5.3.3. DEVELOPING TRANSPORTATION AND IT INFRASTRUCTURE

An integrated intermodal network is of increasing importance in the shipping industry but the internal transport system lacks the appropriate transportation infrastructure. To

achieve the necessary infrastructure and an efficient transport system, the following strategies are suggested: -

- **Create a climate favourable for investment.** Guyana has been heavily reliant on foreign aid to sustain investment in its road, air and marine infrastructure. The proposed institutional reforms should allow the air and marine sectors to be better positioned to meet their infrastructure investment needs in the future. However, nothing would have a more profound impact on the ability of these two sectors to meet their own needs than the development of a healthy capital market and a political and economic climate that is favourable to long term investment. This favourable climate implies stability, rule of law, professional civil service, openness to foreign and private direct investment, respect of public institutions, transparency and openness.
- **Effective linkages within the coastal area.** The coastal area is the economic engine of the country where the bulk of the population lives and most economic activities take place. The five major rivers that naturally break the coastline and represent major natural obstacles to the free flow of traffic should be bridged by the operation of flexible, reliable and efficient ferry services that can cope with the existing capacity problem. These ferry operations have the potential to be profitable but capital investment to improve the physical assets of the state-owned shipping agency, T&HD, is badly needed. The state-owned ferry operations should therefore, either be privatised or operated as a commercially viable autonomous agency. While some increases in rates may accompany privatisation, it is anticipated that the quality and capacity of the service will be improved.
- Development of the interior road network and the improvement of air services are also essential in order to establish effective linkages and access to the full range of resources available in the hinterland and for greater economic integration of the most remote regions of the country into national political and economic life.

- Given the economic significance of IT and e-commerce within the shipping and maritime communities, a national strategy towards the development of appropriate infrastructure to aid effective linkages should consider:
 - The law and jurisdiction to be applied to electronic contracting
 - The permissibility of electronic contracts and the proper law to be applied to such transactions; and,
 - The secure level of encryption to ensure privacy and safety from third party tampering.

5.3.4. IMPROVING SAFETY

Safety problems in the marine sector include the lack of resources, and the focus on responsibilities of an operational nature. The proposed institutional reform of the sector should separate the functions of an operational nature from those involving the development and enforcement of appropriate safety measures.

Safety measures with respect to air and roads also need considerable improvement in order to have an improved integrated safety network.

Addressing the profound problem of safety improvement will require a long-term, multi-faceted, step-wise strategy that is sensitive to the needs and constraints of a developing economy, which, should involve:

- Re-organising the Ministry of Transport to reflect this new emphasis on safety
- Strengthening cooperation with enforcement agencies and implementing
- Arranging the involvement of the local communities and users of the services

- Conducting a review of possible approaches, and development of an implementation strategy to improve safety performance
- Reassigning powers for the licensing of operators to the Ministry of Transport
- Implementing improvements in the various traffic control systems
- Establishing a safety awareness culture through educational programs and campaigns
- Improving the availability of information that can be used to design effective safety response strategies

5.3.5. CO-OPERATING WITH REGIONAL PARTNERS

CARICOM is made up of many small developing economies that are heavily dependent on air and marine services for their trade linkages with each other and the rest of the world. There are opportunities for sharing resources and expertise and harmonising policies in the sectors to the benefit of CARICOM members. With the advent of MARPOL, and advanced aviation concepts, such as, Communications, Navigation, Surveillance Air Traffic Management (CNS/ATM), the region will be hard-pressed to follow the lead of more developed countries and will need support. This situation will be even worse if the CARICOM countries do not co-operate in the implementation of the required facilities and new technologies.

5.4. SPECIFIC POLICY INITIATIVES

In order to move forward with the broad range of reforms that are required for the efficient operation of the marine sector and its integrated activities, the Ministry of Transport needs to develop a Strategic National Transportation Policy. The creation of such a policy should provide some encouragement to intermodal transport services and should signal an official recognition at the national legislative level that an intermodal

relationship should exist between the various modes of transportation. In creating this policy, the following steps and elements are suggested:

- Submission of an aide-memoire to Cabinet to brief ministers on the broad range of decisions, measures, acts, and regulations that are required to reform the marine sector and its related integrated activities;
- Release of a White Paper, explaining the Strategic National Transportation Policy, its elements and rationale, and its relationship to air, marine and road policies;
- The development of a communication plan;
- The creation of a consultation plan with industry stakeholders, state employees and those sectors of the public that would be affected by the changes;
- The development of a National Transportation Act, as the legal foundation for the Strategic National Transportation Policy; and
- The establishment of cost recovery policies, including the need for transparent subsidies when full cost recovery are not deemed desirable.

Once the Policy has been established and the Act passed, a small project implementation team should be established to carry forward its main specifications. This team should be headed by a person with a clear mandate to effect change, and with strong leadership skills, and should include officials of the existing Ministry, as well as outside expertise, where it may be required. The responsibilities of this team should include, supporting the Minister in carrying forward the reform; identifying and securing the resources required for moving forward each element of the reform; and ensuring a smooth transition between the existing and new regime.

Principal issues that should be dealt with in the Strategic National Transportation Policy should include:

5.4.1. INSTITUTIONAL REFORMS

Reforms will need to involve a profound re-structuring of the Ministry of Transport, since it needs to divest itself of its operational responsibilities through the creation of new, independent institutions, or the reshaping of existing institutions. The key to making these institutions successful is to make them financially autonomous with access to a stable source of revenue, especially from user fees. They must be made accountable and subject to disclosure rules and transparency requirements. At the end of this transformation, the functions that should remain under the direct responsibility of the public sector should include:

- Transport policy administration
- Safety and program administration with respect to the marine sector and its related integrated modes of air and road transport

In summary, the transformed Ministry needs to focus on safety and policy formulation, including the development and preservation of an integrated network system.

5.4.2. HUMAN RESOURCE DEVELOPMENT

A key consideration in the implementation of each proposed initiative is the need to identify the requirements for human resources and human resource development so that the proposed reforms can be carried through as planned. Consideration should be given to developing a systemic response to this structural problem by undertaking an overall assessment of the current and future human resource needs in the public and private sectors of the transportation industry. This assessment should also include an identification of current and future human resource gaps, and the strategies to address these gaps. However, it is of importance that these strategies be responsive to the constraints of a developing economy.

5.4.3. REGIONAL COOPERATION

Co-operation with CARICOM countries should be beneficial for the development of the most specialised resources. Guyana, as a developing country with a small population, could benefit from technical and policy cooperation in transportation with other CARICOM countries. Suggested areas where there may be mutual interest and a basis for cooperative work include the following:

- The sharing of specialised resources, where provisions may be difficult for any one CARICOM country to justify, for example:
 - Marine pollution control capabilities
 - Search and rescue capabilities
 - The sharing of spare parts for navigation aids
 - Technical support for the maintenance of navigation aids and other electronic equipment
 - Air and seaworthiness inspections
 - The implementation of the CNS/ATM plan
- Training and education institutions
- Harmonisation of transportation policies in the air and marine sectors
- Joint research on technical issues of common interest
- Sharing of knowledge, information and technical studies

5.4.4. THE MARINE SECTOR

The economy of Guyana is almost totally dependent on the export of bulk commodities and the import of manufactured goods by ship. It is therefore critical that marine services in support of these movements be as efficient as possible. The public sector objectives of ensuring adequate services at a reasonable cost for ferry users could be effectively met by commercialising the ferry services and ensuring public objectives through contractual arrangements. This public objective relates to safety standards,

minimum level of service and maximum fees, with respect to private operators. Peak pricing of the services could be investigated as a demand management scheme and as a means of deferring costly capital investments.

It was pointed out in previous chapters that the development, implementation and enforcement of policies and regulations to ensure economic viability, marine safety and protection of the environment is a public responsibility. Institutional reforms in the marine sector should take place on three fronts:

- The creation of a National Port Authority
- The creation of a Maritime Administration
- The commercialisation of T&HD ferry operations

5.4.4.1. THE CREATION OF A NATIONAL PORT AUTHORITY

Some of the main issues that need to be considered in the establishment of the National Port Authority include the following:

- The preparation and approval of an implementation plan, including resource requirements, deliverables and a schedule
- Identification of the specific functions that should be within the ambit of the responsibility of the Port Authority, and those which should be under the Marine Administration, as well as the powers of the Port Authority, and the port model to be pursued
- Restrictions on the activities that are to be exercised within the port
- The relationships between the Port Authority and existing private port operators
- The development of basic regulations and internal administrative rules to ensure the efficient functioning of the port and the authority
- The implementation of a commercial accounting system and computerised port activity monitoring system

5.4.4.2. THE CREATION OF A MARITIME ADMINISTRATION

A maritime administration should be created to:

- administer and enforce policies and regulations related to marine safety, marine environmental protection, and related economic policy, if no other institution is established for shipping related economic policy
- ensure the provision of essential marine services that would not be assumed by the Port Authority
- administer contracts with private operators of ferry crossings

Issues that should be considered in the creation of this new administration include the following:

- The preparation and approval of an implementation plan, including resources requirements, deliverables and schedules
- On-going staffing and resource requirements
- Cost recovery policies
- The development of standard contracts and procedures for awarding ferry service operation contracts

5.4.4.3. THE COMMERCIALISATION OF T&HD FERRY OPERATIONS

P. Self (1995) pointed out that there is a tendency to reorganise the operations of government according to market theories of economic rationalism and the practices of large business corporations. He argued that the pruning of government activities has led to division of government into a host of public agencies. Consequently, each provides a service to a particular set of consumers, in accordance with tests of business

efficiency, and with a financial incentives to avoid any contribution for which it is not formally responsible.

Commercialisation is an outcome of a widely accepted government strategy directed at exposing government entities to market conditions and competitive forces in order to make them efficient. The transformation of T&HD into an efficient, competitive and commercially viable business is a necessity. If it fails this test, then the government should opt for it to be sold or privatised.

The writer is optimistic that the commercialisation of T&HD ferry services should enable the company to be efficient, competitive and a commercially viable business. This should contribute to lowering of the cost to that which meets public service requirements with respect to ferry crossings, defined in terms of reasonable safety standards, levels of service and rates. However, the public sector must be ready to negotiate a subsidy stream to cover expected shortfalls between revenue and cost that might result from these contractual requirements. Issues that should be considered in commercialising the ferry operations include:

- The specification of the minimum level of service standards, the maximum rates, and the minimum safety requirements
- The bundling of ferry services to be contracted out
- The method of payment
- Incentives and penalty clauses
- The length of the contract
- The availability of existing ferry vessels and facilities for affecting the major overhaul of vessels
- The establishment of a human resource plan, including the human resource to be transferred from the State to the new entity, the identification of training needs and human resource gap, and hiring of new resources
- The pensions of, and protection accorded to, transferred employees

- The monitoring of ferry service operator performance and resources to assume this function

The writer wishes to purport that policy initiatives with respect to the other modes of transportation, inter-modalism, IT and economic commerce, as were discussed herein, should be given full consideration, for shipping activities cannot expect to be sustainable without those additional and important supplementing elements.

5.5. IMPLEMENTATION APPROACH

The concept of implementation refers to the bringing about, by means of output, outcomes that are congruent with the original intentions. Some pundits have argued that implementation can have a double meaning. On one hand, it means to give practical effect to, or to execute; and on the other hand, it means to fulfil or accomplish (Merriam-Webster, 1988). Thus, there may be a basic ambiguity in the notion of implementation, for implementation could be an end or policy achievement, or a process or policy execution.

Given the ends and means of policies, the success or failure of implementation depends on the process of enforcing a policy, the strategies and tactics employed by the various parties, the mechanism of delay as a decision parameter, the variety of motives amongst participants, and the need for coalition building.

It is the belief of many that implementation requires more than the state of affairs in which there are policy objectives and outcomes, since the concept implies that these two entities of objectives and outcomes satisfy two different relationships with respect to the causal function and the accomplishment function.

Based on the foregoing, the writer wishes to suggest that the implementation approach should consider the following:

- **Consensus building:** - reforms should be explained and based on broad consultation and consensus building, and when necessary, be phased in, to minimise disruptions on users, employees, and stakeholders.
- **Sensitivity:** - while the direction of the needed reforms is clear, the pace at which they can be introduced should be sensitive to the ability of Guyanese society and economy to accept and absorb them. It is important to move in the right direction at a pace that can be maintained.
- **Sustainability:** - for the reform to be sustainable, it is essential that they obtain sufficient political support, and that key individuals in the country be part of the implementation team to participate in the definition of the implementation plan and strategy necessary to carry forward the conceived plan. External help sought should be aimed at supplementing the resource gap of the country and at transferring knowledge and expertise.
- **Fast tracking:** - certain elements of the reforms that are more mature may need to be fast tracked.

The preceding pages have been suggestions or proposals based on a needs assessment, examined, analysed, and evaluated in this paper, that were aimed at the current overall state of shipping services and those of its integrated network system, including IT in facilitation trade. This was a fundamental necessity with respect to shipping policy, with the intention that a Strategic National Shipping Policy could be created.

The section entitled “Policy Initiatives” should clearly map the way forward. A Strategic National Shipping Policy should be created in a methodical manner, involving consultation with industry stakeholders and the various Ministries of the Government of Guyana that should be involved in the transformations. Such a policy should be enacted

in order to attain a legal foundation, and be followed by the creation of the necessary legislation.

This is the single most important aspect, for without it no strategy developed could be implemented. As was established earlier in this paper Guyana's maritime sector has been constricted, constrained and stultified because of the application of a shipping Act that was not consistent with contemporary maritime practices.

CHAPTER 6

6. CONCLUSIONS AND RECOMMENDATIONS

Apart from the identifiable generalisations reflected in the contents of this research, serious attempts have been made to identify and highlight the fundamental policy and administrative issues, which have stultified the positive progression of the shipping sector in Guyana. However, given the fact that the research was somewhat diachronic in content, that is, moving from the historical to the contemporary, every effort has been made also to reflect those policy considerations which are currently fostered, and those which are likely to yield positive results, if implemented in the future.

Although it may have earlier been stated in different terminologies or expressions, pivotal to the success or development of the shipping sector in contemporary Guyana, is the way the elements of men, money, materials, and methods are combined and integrated. These four elements of course could be subsumed under two broad headings: human and non-human resources.

It can never be over-emphasised that crucial to the implementation of any policy framework is the extent to which the human resources are developed. Therefore the strictest care must be taken to ensure that personnel are equipped with the requisite skills and expertise to discharge the varied functions with dexterity and efficiency. As was established throughout this research the underdeveloped and obviously unprogressive state of the shipping sector was in part a reflection of the paucity of appropriately trained professionals to take the process forward. Of course the writer is not attempting a fallacy of logic (hasty generalisation) that there were no personnel in

the system who were trained in relevant areas, but certainly the available skills were starkly insufficient and not collectively focused for the myriad changes which are obviously required if the industry is to reflect the desired internal maritime standards.

It is clear that central to the process of developing a useful shipping policy in any society is the necessity for certain key institutional and legal parameters to be carefully worked out and implemented. This idea is not by any means new, but credence should not only be given to the concepts of recency but to frequency as well, particularly when policy makers are considering the adoption of new strategies aimed at development.

Evidence abounds to support the fact that many writers have called for the adoption of new approaches to the administration of the Ports and Harbours in Guyana. However, it should be noted that any interpretation of shipping policy would entail a lot more than Ports and Harbours. Any cursory analysis would ultimately reflect the composition of local and international shipping, and in a broader context, even the interactions between shipping and other modes of transport. Therefore, an overarching or broad-based approach to policy formulation and application is recommended in this case.

The writer, having established that the marriage between the legal and institutional framework is so important in any formula for shipping development, recognises that there is need for financial resources and the adoption of appropriate technology. Guyana, like many other Third World countries, is constrained by the unavailability of funding to effectively develop its social infrastructure in the Ports and Shipping Industry.

Given the foregoing, the writer wishes to recommend the following:

1. Policy priorities must be established

- After a master plan or broad policy framework is decided on, various elements must be prioritised. These would allow for the more critical

elements to be undertaken first, thereby creating the possibility for a positive advancement of the proposed programme.

- A need' assessment should therefore be undertaken, not only in terms of skills but also in terms of the other critical components necessary to move shipping forward.

2. New legislation must be developed and implemented

- Priority should be given to the adoption of new and appropriate legislation, which reflects desirable local and international maritime standards. The major international maritime conventions should therefore be incorporated into the national laws and the requisite mechanisms put in place to ensure effective implementation

3. New services must be resourced and provided

- Emphasis should be placed on the development of a vessel traffic system since there is the need for planning, informing, advising, and monitoring of ships' movements within national waters
- The strictest care should also be taken to improve the maritime radio communication system, which is so vital to the shipping industry.
- Modern equipment should be acquired for the coast-station so that twenty-four hours (24hrs) per day maritime radio communication could once again become a reality after approximately one and a half-decades of dis-functionality.

4. Maritime institutions need to be restructured

- Although it should be appreciated that these advancements require money, it should be noted that the funds could be sourced more easily if the Ports and Shipping administrations become autonomous and operate as a Statutory Body.
- A small well-organised maritime body with responsibility for shipping, thereby allowing for the effective implementation of Flag State and Port State Regulations should be established. The implications of these were carefully addressed in the body of this research.

5. The regulatory infrastructure must be strengthened

- Strictest care should be taken to ensure that inland shipping is well regulated given the preponderance of vessels below twenty-four meters in length which operate in Guyana's internal waters.
- The Caribbean Cargo Safety Code should be adopted and implemented in Guyana, particularly when cognisance is taken of the fact that these small vessels will dominate maritime trade in Guyana and the Caribbean Region, as a whole.

6. International cooperation must be expanded

- Notwithstanding, Guyana's uniqueness in relation to the other Caribbean territories, in terms of her larger rivers, creeks, and streams, there are great possibilities for cooperation and harmonisation in terms of shipping. Suffice it to say that the stage has been set for this through the already existing Caribbean Memorandum of Understanding on Port State Control and the

possibility for information sharing through the Regional Maritime Information Centre in Curacao (Netherlands Antilles).

It is hoped that the adoptions of any or all of these recommendations may go a long way to making shipping operations in Guyana more economical, efficient, safe, and environmentally friendly, and contribute more productivity to the national economy.

There have, of course, been numerous inherent limitations, which have affected the final presentation of this research. These include time constraints as well as availability of research materials, and the possibility to quickly gather important primary data. However, despite these obvious limitations, the writer has been able to compile a sufficient base of information and knowledge on shipping in Guyana, for her to suggest policies relative to the development of the shipping sector. It is therefore her fervent hope that the suggestions, strategies, and approaches contained herein can be carefully analysed, and where appropriate be adopted so that the maritime industry in Guyana can be improved, thereby allowing for the enhancement of local and international shipping.

REFERENCES

- Abhyankan, J. (2000). Maritime fraud and piracy. Unpublished lecture handout, World Maritime University (WMU), Malmo, Sweden.
- Ademuni-Odeke (1984). Protectionism and the future of international shipping. Dordrecht, Boston, MA: Martinus Nijhoff.
- Alamazan, A. (2000, March 30). Training: IMO warms Philippines. Lloyd's List, p. 5.
- Alderton, P. (1990). Port administration. Unpublished lecture handout, WMU, Malmo, Sweden.
- Asay, A. (2000). Bolero.net represents an opportunity to grasp the digital trade revolution. BIMCO review 2000 (pp. 293 – 294). London: BIMCO.
- Bank of Guyana (BOG) (1998). Annual report and statement of accounts. BOG, Guyana.
- Canadian Coast Guard (1986). The Canadian aids to navigation system. Ottawa, Canada: Canadian Transport Commission
- Chrzanowski, I. (1985). An introduction to shipping economics. UK: Fairplay.
- Cockcroft, D. (2000). Manning and training: An ITF perspective. BIMCO review 2000 (pp. 89 – 91). London: BIMCO.
- Crewing: Indonesia to ask IMO to postpone training code. Lloyd's List, p. 6.
- Dahl, R. (1961). Who governs? New Haven: Yale University Press.
- Debattista, C., Gaskel, N., & Swatton, R. (8th ed.) (1987). Chorley & Giles' shipping law. London: Pitman.
- Dror, Y. (1974). Public policy making reexamined. New York: Leonard Hill Books.
- English, I. (1993). Policy consideration of a government relative to ports and shipping efficiency: A Guyanese perspective. Unpublished masters' thesis, WMU, Malmo, Sweden.
- Francou, B. (1999). Basic elements of ports operation systems. Unpublished lecture handout, WMU, Malmo, Sweden.

- Francou, B. (2000). Freight forwarders. Unpublished lecture handout, WMU, Malmo, Sweden.
- Frankel, E. (1982). Regulation and policies of American shipping. Boston, MA: Auburn House Pub. Co.
- Fromm, G. (1969). Transport investment and economic development. Washington DC: The Brooking Institute of Transport Research Program.
- Gold, E. (1981). Maritime transport: The evolution of international marine policy and shipping law. Lexington, MA: Lexington Books.
- Goss, R. (1977). Advances in maritime economics. Cambridge, New York: Cambridge University Press.
- Goss, R. (1988). "World shipping to the year 2000". In international seminar: Changes in the world shipping environment and counter-strategy towards the year 2000, 25 – 26 July 1988, Seoul, Korea (pp. 5 – 22). Seoul: Korea Maritime Institute.
- Government of Guyana (GOG) (1931). Laws of Guyana, Chapter 49:04: Transport and Harbours Act, Act No. 39 Of 1931. Georgetown: Author.
- GOG (1939) Laws of Guyana, Chapter 80:01: Income Tax Act, Act No. 43 of 1939. Georgetown: Author
- GOG (1998). Laws of Guyana: Guyana Shipping Act, Act No. 7 of 1998. Georgetown: Author.
- Gray, T. (2000, April 7). United Kingdom tonnage tax needs clarification. Lloyd's List, p. 2.
- Gross, B. (1968). An introduction to shipping economics. London: Fairplay.
- Ham, C., & Hill, M. (1984). The policy process in the modern Capitalist State. Brighton: Wheatsheaf.
- Hodgson, J. (1999). Principles of management. Unpublished lecture handout, WMU, Malmo, Sweden.
- International Labour Organisation (ILO, & United Nations Centre on Transnational Corporation (UNCTC) (1988). Economic and social effects of multinational enterprises in export processing zone. Geneva: ILO.

- International Maritime Organisation (IMO) (1988). International Convention on the Suppression of Unlawful Acts against ships (SUA). London: Author.
- IMO (1993). International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, 1924 (Brussels, 25 August 1924) as amended by Protocols of 23 February 1968 and 21 December 1979 ('the Hague – Visby Rules'). Model course 6.08: Maritime law, Annex 6 (pp.77 – 86). London: Author
- IMO (1993). Model course 6.08: Maritime law. London: Author.
- IMO (1996). International Convention on Standards of Training, Certification and Watch-keeping for seafarers (STCW 95). London: Author.
- IMO (1997). International Convention for the Prevention of Pollution from ships (MARPOL) 73/78 consolidated edition, 1997. London: Author.
- IMO (1998). Resolution A. 847 (20): Guidelines to assist flag State in the implementation of IMO instruments. Assembly resolutions and other decisions (Resolutions 839 – 873): Twentieth Session, 17 – 27 November 1997, London (pp. 36 - 45). London: Author.
- IMO (1999). Piracy and armed robbery against ship. Report of the Maritime Safety Committee (MSC) on its seventy-first session: Section 15. IMO, London.
- Jones, P. (1978). Defining demands for models of travel. Transportation, 7 119 – 125.
- Jordan, A., & Richardson, J. (1979). Government under pressure: The policy process in a post – parliamentary democracy. Oxford, London: B Blackwell.
- Joseph, W. (1991). Development of a model for maritime safety administration in Guyana. Unpublished masters' thesis, WMU, Malmo, Sweden.
- Kain, J., Meyers, J., & Wohl, M. (1965). The urban transportation problem. Cambridge, MA: Harvard University Press.
- Lasswell, H. & Lerner, D. (Eds.) (1951). The policy sciences. Stanford, CA: Stanford University Press.
- Lindblom, C. (1965). The intelligence of democracy. New York: Free Press.
- Lindblom, C. (1968). The policy – making process. New Jersey: Prentice Hall.
- Ma, Shuo (1999a). "The evolution and dynamic of maritime policy". Maritime policy seminar 13 – 17 September 1999, WMU, Malmo, Sweden.

- Ma, Shuo (1999b). Logistic and supply chain management. Unpublished lecture handout, WMU, Malmo, Sweden.
- Ma, Shuo (1999c). Maritime economics. Unpublished lecture handout, WMU, Malmo, Sweden.
- Mance, O. (1945). International sea transport. London: Oxford University Press.
- Merriam-Webster (1988). Webster's ninth new collegiate dictionary. Springfield, MA: Author.
- Nagorski, B. (1972). Port problems in developing countries: Principles of port planning and organisation. Tokyo: International Association of Ports and Harbour (IAPH).
- O' Neil, W. (2000). IMO and the fight against piracy and armed robbery at sea. BIMCO review 2000 (pp. 68 – 70). London: BIMCO.
- Quade, E. (1976). Analysis for public decisions. Amsterdam: Elsevier Science.
- Renwick, D. (2000, April 18). Caribbean: Argentina helps Trinidad set up ship waste reception facilities. Lloyd's List, p. 6.
- Rodger, W. (2000, June 7). Judge order breakup of software giant. Retrieved June 7, 2000 from: <http://www.usatoday.com>
- Self, P. (1995). The consequences of reorganising government on market lines. Australian Journal of Public Administration 54 (3), 339 – 345.
- Studnicki-Gizbert, J. (Ed.) (1974). Issues in Canadian transport policy. Ottawa, Canada: Canadian Transport Commission
- Thomas, S. (1992). A port infrastructural development plan for the facilitation of bauxite exports from Georgetown, Guyana. Unpublished masters' thesis, WMU, Malmo, Sweden.
- United Nations Conference on Trade and Development (UNCTAD) (1992). Industry and policy developments in world shipping and their impact on developing countries. Geneva: Author.
- UNCTAD (1995). Multimodal transport handbook. Geneva: Author.
- UNCTAD (1998a). Electronic commerce: Legal considerations. Geneva: Author.
- UNCTAD (1998b). UNCTAD's growth package. Geneva: Author.
- UNCTAD (1999). Legal dimension of electronic commerce. Geneva: Author.

- United Nations Development Programme (UNDP) (1998). Human developments report 1998. New York: Author.
- UNDP (1999). Human developments report 1999. New York: Author.
- Vanchiwar, P. (1996). Maritime administration / Maritime safety. WMU, Malmö, Sweden.
- World Trade Organisation (WTO) (1998). WTO yearbook of 1998: International trade statistics. Geneva: Author.
- Wildavsky, A. (1979). Speaking truth to power: The art and craft of policy analysis. Boston, MA: Little, Brown & Co.

APPENDIX 1

T&HD STATISTICS FOR 1998

Table I

T&HD Services and Net Effect
January – December 1999
(G\$)

SERVICES	TOTAL EXPENDITURE	TOTAL REVENUE	NET EFFECT
Demerara	27,738,430	20,229,603	- 7,508,827
Rosignol / New Amsterdam	143,483,936	223,854,904	+ 80,370,941
Parika / Adventure	66,690,856	67,665,009	+ 974,153
Bartica	47,939,953	14,933,278	- 33,006,675
North West District	34,558,833	24,715,072	- 9,843,761
Leguan	24,962,802	14,515,796	- 10,447,006
Total	345,374,810	365,913,662	+ 20,538,825

Source: T&HD Statistics, 1999

Table II

Cargo, Passenger, and Vehicles transported
January – December 1998

CATEGORY	TOTAL # TRIPS	AVERAGE TARRIF (G\$)	REVENUE
Passenger	3,584,367	30	107,531,010
Cycle	7,865	30	235,950
Motor cycle	2,353	77.5	182,358
Cars	30,771	360	11,077,560
Vans	42,151	480	20,232,480
Buses	4,595	1,050	4,824,750
Small trucks	10,485	2,080	21,808,800
Large trucks	3,377	3,750	12,663,750
Freight (ton)	111,960	250	<u>27,990,000</u>
Total Revenue (G\$)			<u>206,546,658</u>
US \$			<u>1,180,267</u>
Total Vehicles & Freight (G\$)			<u>99,015,648</u>
US \$			<u>565,804</u>
Exchange Rate US \$1: G\$ 175			

Source: T&HD Statistics, 1998

APPENDIX 2

HELLENIC TABLE AND TOKYO MOU PORT STATE CONTROL 1998 STATISTICS

Hellenic Table

Table V

Time Taken for Objects to dissolve at Sea

Objects	Time to dissolve
Paper bus ticket	2 – 4 weeks
Cotton cloth	1 – 5 months
Rope	3 – 14 months
Woolen	1 year
Painted wood	13 years
Tin can	100 years
Aluminum	200 – 500 years
Plastic bottle	450 years

Source: Hellenic Marine Environment Protection Association

Tokyo MOU Port State Inspection Statistics for 1998

Table VI

Authority	Inspection	Ship with deficiency	Deficiency	Detention	Inspection rate
Australia	2,946	1,864	12,558	201	64.4%
China	1,231	812	3,724	80	19%
Hong Kong	607	522	3,747	131	10.4%
Indonesia	1,223	684	4,090	17	22.1%
Japan	4,081	2,611	13,021	294	37.2%
Korea	1,276	846	4,056	152	15.2%
Malaysia	156	82	433	8	3.1%
Singapore	1,012	746	4,401	42	9.2%

Source: Annual Report on PSC, Asia-Pacific region 1998

Table VII

Authority	Detention v No. of individual ships: Ratio	Detention v No. of inspections
Australia	4.4%	6.8%
China	1.2%	6.5%
Hong Kong	2.2%	21.6%
Indonesia	0.3%	1.4%
Japan	2.7%	7.2%
Korea	1.8%	11.9%
Malaysia	0.2%	5.1%
Singapore	0.2%	4.2%

Source: Annual Report on PSC, Asia-Pacific region 1998

Table VIII

Authority	Ship with deficiencies v ships inspected	No. of deficiencies per ship with deficiencies ratio	No. of deficiencies per ship inspected
Australia	63.27%	6.7	4.3
China	65.96%	4.6	3.0
Hong Kong	86.00%	7.2	6.2
Indonesia	55.93%	6.0	3.3
Japan	63.98%	5.0	3.2
Korea	66.30%	4.8	3.2
Malaysia	52.56%	5.3	2.8
Singapore	73.72%	5.9	4.3

Source: Annual Report on PSC, Asia-Pacific region 1998

Table IX

Authority	No. of ships with deficiencies v No. of individual ship	No. of detentions v No. of ships with deficiencies
Australia	40.74%	6.82%
China	12.51%	6.50%
Hong Kong	8.09%	21.58%
Indonesia	12.36%	1.39%
Japan	23.77%	7.20%
Korea	10.09%	11.91%
Malaysia	1.62%	5.13%
Singapore	6.79%	4.15%

Source: Annual Report on PSC, Asia-Pacific region 1998