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THE DEVELOPMENT OF SHIPPING

IN GUYANA

WITH SPECIAL EMPHASIS IN BULK

by

Henley M John/Smart
Guyana
South America

This Paper is submitted to the Faculty of the World Maritime
University in partial satisfaction of the requirements for the
award of a

MASTER OF SCIENCE DEGREE

in

GENERAL MARITIME ADMINISTRATION

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

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- A C K N O W L E D G E M E N T -

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I am also indebted to several persons who have contributed in making this project a succes. But, here it will be a greater task to mention all of their names. Nevertheless, I will take this oppotunity to mention a few here. In this aspect, my special thanks goes to Comrades: Stella Odie-Ali, Permanent Secretary in the Office of the President; Winston Griffith, General Manager -Transport & Harbours Department; Danny Ainsworth, Permanent Secretary Ministry of Housing; Yule C. Gooding, Manager Guyana National Shipping Corporation; Watson James, Representative of CARICOM in Guyana; O. Jordan, Manager -Statitical Bureau, Georgetown. It must not be taken that their contribution was not significant, but time and space will not permit.

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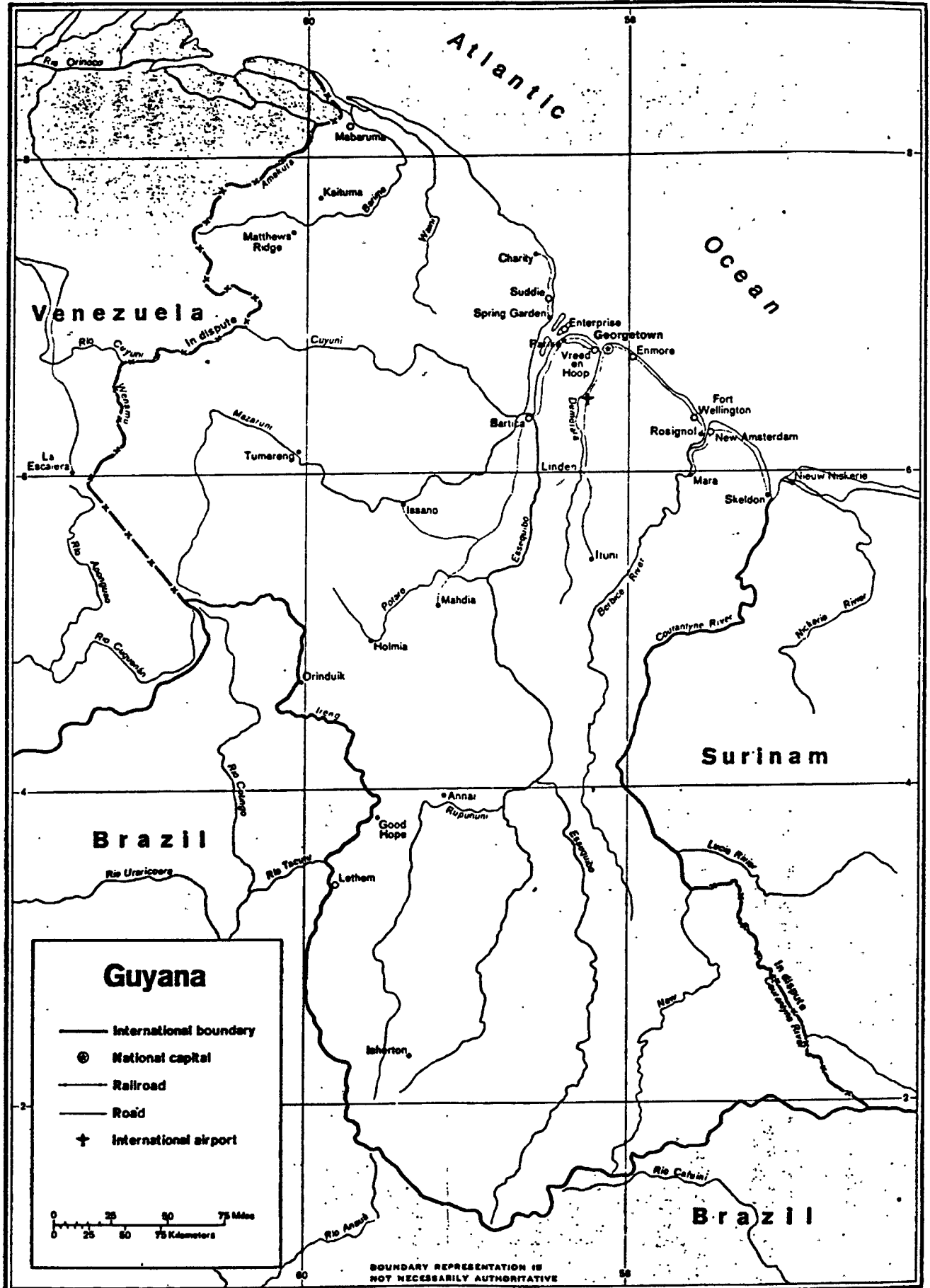
I N T R O D U C T I O N

The main aim of this research to probe into the development of shipping in Guyana to review the factors that help in shaping the policies in this direction. At first, it must be stated that my country's major exports are bauxite, sugar, rice and timber and its major import centers around petroleum products. As a result, my research will show a bias towards shipment of the above commodities in terms of bulk. However, in the process of developing a frame cognisance will be paid to other areas but not in depth as bulk transport or tramp shipping.

Moreover, the choice of this topic was derived out of thoughts that pre-occupied me and made me wonder if there is nothing happening in shipping in Guyana that is worth noting as those appearing of other Caribbean Countries in a monthly review of Caribbean Shipping Magazine. This reviews the shipping activities of several countries and their ports, but never have I in one instance read about anything about Guyana shipping. A foreigner to Guyana may say that perhaps shipping was andled under the caption of the Latin America. But even this is not evident. Yes, we are members of the Economic Commission of Latin America (E.C.L.A.) but the point is that we are a founder member of CARICOM and are closer to the peoples of the Caribbean through our colonial past and the inherited English Language.

It is in the light of the above that I have undertaken this research with the hope that this project will prove to be a starting point for further similar projects wich will provide additional information which will be beneficial to shipping as a whole. The following is an attempt to apply Parsons's theory of the "Social System" in the development of shipping in Guyana.

GUYANA



C H A P T E R 1

Review of literature on shipping.

Overview on Shipping.

In our main theme, there are two concepts that we consider needs defining before we journey into this review. Firstly, what do we imply when we speak of 'development'. It is evident that no analysis of society considers it as being static. We speak of change, growth and development. In the aspect of change, we simple mean that the condition and nature of a society become different from what they were before. Thus it is clearly possible to have a theory of change with necessarily having theories of growth. Moreso, growth is the simple process in which we visualize an increase in whatever specialized factor. It may be an increase in sheer density, size or complexity and consequently may permit an explanation of change.

Development is a more tricky notion. As a matter of fact, several theorists have consider it as multi-dimensional or may be a matter of pure inference. However, we will be more specific and relate this to specific social situations in which certain changes lead directly and decisively to other changes. (1)

Development in all its complexities may imply quantitative economic growth. It may also render fairly the idea of well-being in such growth as a phenomenon which is measureable in terms of increased national income or per capita income. In the latter, the well-being of the population indicates a higher standard of living which in itself proves to be complex and difficult to quantify; since it encompasses such various factors as the level of satisfaction of the needs of the population in terms of food and nutrition, housing, health, education, recreation, security, spiritual satisfaction etc .

Development in shipping in the light of the foregoing, is the outcome in a sense of qualitative and quantitative changes occurring in this area and conveying the effects of a rise in time the standards in this field

as a total system.

'Shipping', on the other hand can be defined as Tinbergen has stated:

"Shipping is the business of transporting trade i.e. commodities and passengers by sea from a required port of origin to a required port of destination at a required time. " *

(2)

Shipping as a link in the transport chain of cargoes.

In the following, we intend to handle shipping in a broad perspective but as we go along we will strive to more specific, taking cognisance of our main theme concerning bulk. Never-the-less, within this frame, ocean transport can be considered as part of the total transport chain of a commodity from the place of production to the place of consumption. As a result, ports are changing their roles that traditionally they were considered as final terminals for sea and inland transport of cargoes. In the new concept of 'Multi-modal transport', ports are now acting as points for the interchange of goods. Looking at transport as a integrated activity, documentation is facilitated by unification (one document used in the entire transport). Such documentation facilitates international transport in conjunction with I.M.O. efforts to reduce the 'red tapes' which impede international trade. These efforts encouraged Contracting Parties to accept the 1973 amendments to the International Convention on Facilitation of International Maritime Traffic (FAL) 1965 and to bring them into force on June 2, 1984.

In addition, the application of the new concept of 'door to door' in transport, will reduce considerably wastage of material, manpower and time. It is also considered that the transit period and the possibility of damage, delay or loss could be reduced to a minimum. With this, different systems of unitization were adopted . Some of these were simple and inexpensive (pallets and preslinging) , while others (containers and their handling equipments- gantry cranes, transteiners, straddle carriers etc.) are more sophisticated and expensive.

* Tinbergen, J., Shaping of the world economy page 8

To facilitate the free flow of commodities through transport, the United Nations Convention for the International Multi-modal Transport of goods was adopted in May, 1980. This Convention will come into force after 30 states have become contracting parties. Out of this text, the unit load systems are as follows :-

- (1) Preslinging.
- (2) Palletization.
- (3) Roll on, Roll off (ro/ro).
- (4) Barge carrying vessels.
- (5) Containerization.

Also, in the sphere of bulk cargoes transport, different specialized vessels have been introduced in that trade. Specialization means the building of special ships which are designed for carrying a particular cargo. The specialized ships have special holds and special cargo handling gears. The service of this type of ships can work in conformity with the whole transport chain, from point of production to point of destination. The transport of bauxite can begin with barges to deep sea ships, thence to an unloading port and the journey is completed by haulage by trains to the factory.

However, there are some main components that are worth noting. These are as follows:-

- (1) Nature of vessel,
- (2) Nature of trade,
- (3) Condition of port,
- (4) Shipping Organization,
- (5) Shippers Organization .

The nature of ship

The ship is the backbone of the service. All the characteristic of the ship must be studied in detail and considered before it is committed to the specific service so as to enhance the desired result. During the past decade the trend has been towards faster and larger vessels with advance machinery and improved cargo handling equipment. Moreso, there has been extensive use of computer with regards to ship type, speed, capacity, draft, beam length

etc. The number of specialized vessels has also increased and this tendency is likely to continue. The specialized built modern vessel offer the cheapest means of international trade distribution. This in itself is one of the paramount reasons for the rapid development of trade in the past decade.

Tonnage measurement and the relationship between deadweight tonnage and cubic capacity are important factors in determining the economic viability of a vessel. For, weight and space are the two dimensions that affect the carrying capacity. Because both weight capacity and measurement are vital factors in shipping as freight rates are charged based on either ton weight or ton measurement. The relationship between the weight and measurement of a commodity is known as the storage factor or loadability. In calculating the stowage factor, bulk is expressed in measurement of tons per 40 cu.ft. and weight generally in long tons (2240 lbs).

The ship suitability is influenced mainly by three appropriate choices in consideration; Firstly, it has to be acquired at the right time and price with the necessary design; it has to be employed in the right trade and it must be sold at the right time. (whenever its operation prove inadequate or uneconomical).

The ship as a technical plant is the operational unit of the shipping industry. It has technical economies of scale relative to the individual vessel. These are administrative and financial economies of scale in regards to the business unit. Moreso, the tendency is for continual increase in ship sizes from economies of scale. The resulting gains would however depend on a variety of factors such as :- shorter time in ports, larger optimal size of ships. The longer the sailing distance, the larger the optimal size will be. The availability of full load cargo would lead to the tendency of increasing the optimal size of ships.

Nature of trade

The size and structure of world trading fleet are determined by the volume and structure of international trade and the world production and consumption patterns and this is translated into ton miles. Usually, the nature of the cargo to be transported dictates the type of service required.

The shipowner's desire will be towards satisfying his desire for commerce. For example, we may have a cargo liner which serves a regular traffic between two ports thus offering a scheduled service on a predetermined route. In this trade, general cargo, which is generally composed of packed finished or unfinished goods, dominates. The liner ship will be constructed to suit the requirements of that trade. Ships plying on these routes are generally of higher speeds with their holds separated into compartments suitable for the stowage of a variety of commodities (some sensitive cargo requires separation from others). To generate more income and serve the trade more effectively, many vessels are equipped with added facilities such as refrigerated holds, air conditioning system, special tanks for transporting liquids and in some cases heavy lifting equipment which are invaluable in ports which do not have the necessary facilities.

Modern technology has made goods available in places where they were not been hitherto. Meats, fish, prawns, and perishables like vegetables and fruits are now transported by reefer ships in reefer containers. The same can be said of the banana industry as specialized ships are constructed to transport bananas.

The nature of ports

At each link in the voyage, there is a port. The suitability of a port are determined by a variety of factors which include depth of both the approach channels and the waters surrounding its berths and quays, ability to handle cargoes efficiently, industrial climate etc. However, there are a series of services relevant for the smooth operation of the ship whilst it is in port. These may be summarized as follows :-

- (a) Piloting from anchorage to alongside berth and return to anchorage.
- (b) Loading and discharging.
- (c) To a lesser extent may include repairs and supplies.

Nevertheless, it has been said that conventional vessels spend about 60 percent of its life in ports for one reason or the other. Thus the task of any shipping organization will be to reduce the turn around time of vessels in port. As a consequence, container ships, bulk carriers,

and tankers with higher rate of loading and discharging of transported cargoes, engendered their growth. (3)

Economics of tramp shipping

In keeping with our main theme, we will divert for a while from the general scene to look into the demand for this type of transport. Here, we see the magnitude of demand for this service depends on the following factors :

- (a) the volume and structure of international trade,
- (b) geographical pattern of world trade and consumption of materials - industrial and agricultural commodities,
- (c) new demand for commodities transported by tramp ships at the countries of origin and distribution.*

Moreover, the quantities of cargo transported within a given period of time, offers a period indication with regards to the time period in question. Thus any estimate of the magnitude of demand for sea transport or facilities can not be indicative of the true position unless the time and distance factors taken into consideration.

However, it should be stated here, the volume and structure of international trade is in constant flux and such changes are due to a variety of causes such as political, social, economical and or physical. For example the Russian grain failure twice within the last two decades due to bad climatic conditions, has caused sharp increases in demand for tramp shipping. Also, a change in the governmental structure of a country may result in a shift in its foreign policy and consequently its foreign trade may be reoriented. Moreover, such reorientation may affect the demand for tramp shipping (decrease or increase) .Thus any analysis of demand depends on factors both exogenous and indogenous. However, the available data has shown that the general increase in tramp shipping go with increase in international sea-borne trade and world prosperity.

* B.N. Metaxas, The economics of Tramp Shipping page 32.

Elasticity of demand

One of the most significant characteristics of the demand for sea-transport, based on the above, it is clear that its demand is derived. Nevertheless, tramp shipping services are needed to bridge the gap mainly, either between different stages of production of a commodity at different geographical points or between points of production and points where the commodity will eventually be consumed.

Most cargoes carried by tramp consist of bulk materials. As a result, the demand for such services depends on the demand for these commodities at the importing countries. But the demand for the raw material are dictated by the demand for the finished or semi-finished products and services that generally go with them. The same is applicable in the case where the tramp is used as a substitute in the liner trade where such demand depends on the demand for the finished or final products at the importing country. Also, the demand for tramp shipping will affect the freight rates as increased demand tend to up freight rates in the short run and vice versa . However, to get a better picture of the influence of demand on freight rates, we must consider the following factors.

- (1) the elasticity of consumers demand for the final product that the bulk is used for at the importing country,
- (2) the quantitative importance of freight rate in the market price for the final product.
- (3) the availability of substitutes, that is to say, alternatives means of transport. *

Here with certainty, we can say that the elasticity of demand for tramp shipping services varies directly with the consumer demand for final goods that bulk commodity is necessary for. More specifically, this situation is reflected by the following. A rise in freight rate causes a rise in the cost of the bulk commodity and consequently a rise in the cost of the final product. Increases in the cost for the final product or service causes reduction in the quantity demanded- the percentage of reduction depends on the elasticity of demand for the final goods. Thus reduction in the demand

and its decreased production causes reduction for bulk and hence the demand for sea-transport. As a result, the more elastic is the demand for the final product, the more elastic will be the demand for sea-transport for the bulk commodity used in its manufacture. On the other hand, the more inelastic is the demand for the final product, the more inelastic will be the demand for the sea-transport for the bulk commodity that are used in its production.

Never-the less, we acknowledge that the demand for tramp shipping services is a collective one due to the fact that there are a variety of commodities that are transported by tramp shipping services. Consequently, the various elasticities for final products (bread, electricity, machinery and furniture) that bulk commodities (grain, coal, iron ore and timber) are necessary for their production , may differ. However, it has been established that with the possible exception of timber (used in the manufacture of furniture) consumer demand elasticities for the final goods for which these bulk materials are used tend to be inelastic. Thus it follows that the demand for tramp transport for these commodities will tend to be also inelastic.

In addition, the smaller the cost of sea-transport as a proportion of the total cost of the final product, the more inelastic will be the demand for the transport of bulk cargoes. This situation is most glaring in the goods carried by tramp ships as we can see, the smaller the cost of transport as a proportion of the cost for the final product, the more inelastic will be the demand for the transport of the final goods in question.

To illustrate this point , let us review a situation manifesting two bulk commodities p and q. Here the sea-transport of commodity p makes up to 30 percent of the total cost for the production of the final good r. On the other hand, the cost of transport of commodity q makes up only 10 percent of the cost of production of final good s . A 10 percent increase in the cost of transport of both commodities p and q will result in an increase of three percent in the production of final good r while there will only be an increase of one percent in the production cost for good s . As a result, a

10 percent increase in the sea-transport of commodity p would occasion a larger increase in the price of final good r and hence a larger reduction in the demand for good r and also for the transport of commodity p than a corresponding increase in the transport of commodity q for the production of good s and thus the demand for the transport of commodity q. In general, the smaller the proportion of total cost of production of goods r and s, that are comprised of sea-transport cost, the more inelastic will be the demand for sea-transport services in respect of commodities p and q and their final products r and s. This situation is considered most significant with the existence of substitutes or product sources nearer to the importing country.

Anyhow, the demand for the services offered by a particular form of transport will be more elastic wherever the possibility exists for the substitution of these services by another form of transport. Moreover, whenever the cost for a particular transport services rises, the cost of that service becomes more costly in relation to the services offered by other means available. In the present stage of technological development, the services rendered by tramps can also be done by other productive units belonging to neighbouring industries of dry cargo liners, bulk carriers and tankers - especially in the transport of grain.

In this aspect, the existence in the short run, of alternative means of transport for trading routes, widens the scope of the choice for the users. Here, we can assume that the elasticity of demand in the particular routes, tends to be greater than unity over a limited period of time. However, generally speaking, tramp shipping is a moderate substituting industry as substitution of tramp ships by productive units of its neighbouring industries is a marginal process. Nevertheless, the present overwhelming dependence on tramp freight market on the grain trade, leads us to conclude that the overall demand for tramp shipping services tends to be inelastic in the short run.

Moreover, the short run periods in tramp shipping tends to last only for a few months during which the user negotiate the carriage of his cargoes,

But in the long run, the market forces re-adjust themselves towards equilibrium. This process of re-adjustment may take years to complete.

We are also aware that the demand for tramp shipping services finds its expression in chartering by way of bulk shipments of commodities. The charterer may not necessarily present, for by arrangement his broker or representative may transact the business on his behalf. Never-the-less, regardless who the charter is, the dictates of trade engender the problem of securing necessary transport for his commodity / commodities.

Moreso, in the short run, the shipper or charterer is interested in one or more ships which are available in the vicinity and suitable for his purpose. In other words, the exporting merchant is interested in what we term 'spot ship' which will allow for the transport of his commodity without delay. However, the availability of spot ships will depend on the situation in the tramp market at a given time and a particular area. If the market is high, these ships will tend to be scarce. Whereas, if the level of the freight rate in the market is low, there will be the tendency of over supply of tonnage. Thus in this situation, there are two very important factors facing the shipper as regards to tonnage requirement: the time limit within which he must ship his cargoes and the availability of tonnage in a geographical area of interest at the time.

Basically, he has three alternatives to choose from; he can make a shipment, making a loss financially; he may store or stockpile his commodity either at home or abroad (speculating), or he may sell his commodities locally. However, what is most important is the fact that the shipper takes cognisance not only of the price of his commodity at the importing country or countries but also development in the freight market.

Anyhow, with the availability of tonnage, the determining factor if a cargo will be shipped or not, is the price of the particular commodity at the export market. In some instances, however, the shipper may be faced with the situation of shipping his cargo within a definite time or lose his market. Here, he may have to conclude fixtures at a high rate and be a price taker.

Long run considerations.

After looking at the situation in the short run, we will review the situation in the long run also. If the market is in a depressed state which allows excess tonnage in a particular area as freight rates fall to non-renumerative levels, some tonnage will be withdrawn from the route to be laid up or in situation where there is general low freight rates to be chartered in other areas where it would be more remunerative to operate. However, in the long run freight rates would tend to rise as the cycle is repeated.

On the other hand, if the situation requires additional tonnage, freight rates will tend to rise. High rates in the particular area will invite further tonnage either again from the less remunerative routes or from the laid up position (even new tonnage may be admitted). The growth of tonnage due to the inflow will eventually lead to over-supply which will result in a fall in the freight rate.

Several factors contribute to the constant fluctuation in the market conditions. These have the tendency of changing the average freight rates both locally and internationally. The pattern of consumers demand change constantly and this influences the quantity and composition of demand and supply for tramp shipping services. This frequent change do not allow for any permanent long run equilibrium. Further, due to the fact that bulk transport tend to be uni-directional (one leg cargo transport) , this situation makes it difficult to establish an equilibrium price.

In order to deal with such fluctuation, we will assume ceteris paribus that the average level of freight rates tends to remain at the same level for a certain period and we assume that there is a deferred demand caused by a bad harvest or miners strike. This unexpected development will immediately affect the supply and demand in the route. In our graph below, the effects of demand and supply is shown, as the price p of this commodity in country A is considerably less than the price p_e in the importing country. The apparent condition will be one favourable for the two countries to trade.

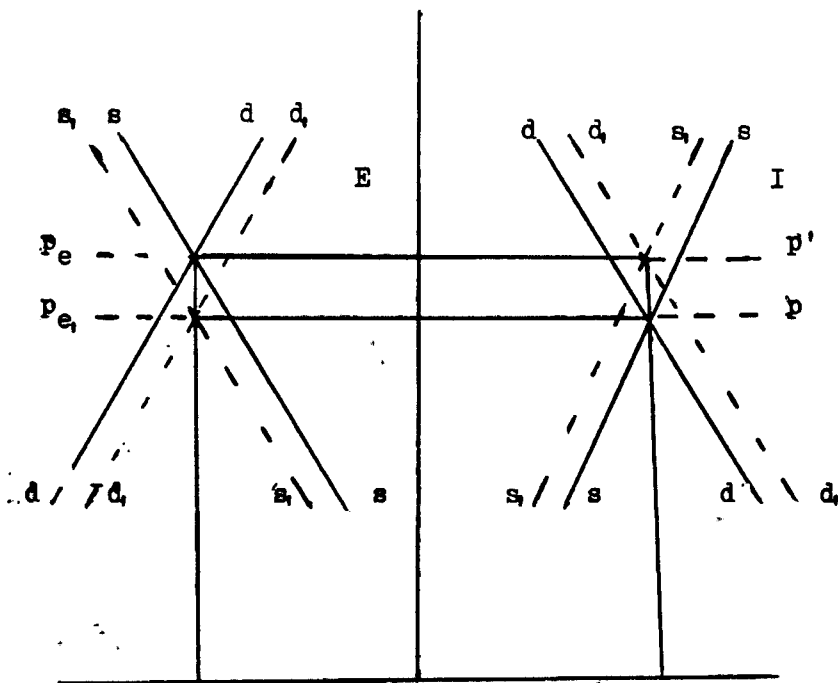


Fig 1 Conditions for the demand and supply for a commodity in two countries in the long run.

The price of this commodity in country I will tend to remain at p' at a high level and profitable trade will continue for as long as there is a deferred demand. Herein, the freight rates will tend to be high and tonnage will be on the increase in the area. If the global freight rates are higher, the freight rates in the area will be adjusted accordingly. If on the other hand, there is surplus tonnage at the time and the average freight rates are low, the level of freight rates on the traditional route will rise slowly at a level approximating to the equilibrium point. Thus tramp shipping will be able to make normal profits. As we have seen, in both cases the increase in demand for tramp shipping services and their cost will tend to increase.

As a result of increase in demand for a commodity in a foreign market and demand condition s in country E will be changing from $ddss$ to $d'd's's'$. Therefore the price will increase from p to p' . However, when the deferred demand is satisfied in country E and home production or regular supplies from abroad of the commodity or its substitutes eventually increases, supply and

demand conditions will also be changing from $d d s s$ to $d' d' s' s'$. As a result, the price will fall from p_e to p_e' .

On the basis of the above, we can conclude that the demand for tramp shipping may rise sharply, but in the long run, will again decrease as soon as the marginal requirements of the importing country are met for that particular commodity.

Not-with-standing, shippers will always endeavour to have the cheapest freight rates and at the same time the shipowners is out to get as much as the trade can bear in freight. Moreso, in our assumptions above, we consider the behaviour of all charterers in keeping with the relatively small merchant. Now we will drop this assumption and look at the chartering operation of a liner firm, a government or a large industrial firm. In this operation, the charterers operate on long term basis. To avoid the problems of sudden fluctuations in demand, these business enterprises generally conclude time charter agreement with shipping concerns which tends to last for several years. This does not imply that voyage charters are not used. On the contrary, these are used as the trade necessitates as in the case of a special order for a specific quantity. We can therefore conclude that the demand for tonnage in a given trade route will fluctuate continually with the trend for the trade in that particular route in the long run. (4)

Sea transport effects on trade

In concluding, we think it is opportune to review some of the grounds that prompted some developing countries to invest in shipping. In as far back as 1609, a Dutch thinker had recognized the need for shipping routes on the high seas be open to all nations. Then, he declared Mare Liberum or freedom of the sea. This principle saw its development overtime in the caption of free competition for all ships which ply in the world freight markets. This phenomenon gives shipping an international character.

Never-the-less, it is important that shipping be considered both within a time and a place frame. Moreso, we are aware that the economist defines production as the creator of utilities. Transport as a phase of production is an object of consumption (people may take pleasure trips). As a creator

of place utility, transport carries a commodity from one place where its utility (value) is low to another place where its utility is higher. While time utility implies the combination of storage and transport of goods when and where their values are low to and where they are higher.

The demand for sea transport is a derived demand since such demand depends on the demand for traded goods. Thus sea-transport is the vehicle of bridging the gap, either between different stages of production of commodities at various geographical points or between the points of production and place of consumption. Here, it is not uncommon that the output of one producer can be used as input of another. Moreover, it is an established fact that the oceans cover about three fifths of the globe; therefore, there exists an interdependent relation between international trade and sea-transport. It is also stated that about 90 percent of all international trade is carried by ships. As a result, if there is no trade there will be no sea-transport and conversely without sea-transport there will be no trade.

Because sea-transport depends on international or foreign trade, it is sensitive to fluctuation in the international economic activity. Consequently, any decrease or increase in the volume of commodities demanded at the international level leads to corresponding decrease/increase in the volume of sea-borne trade and thus to similar decrease/increase in the demand for transport by ships. In the same way, both the volume and changes in international trade are influenced by changes caused by economical, social, political or physical factors. Based on the above, we can conclude that the demand for shipping increases with the general increase in international sea-borne trade and world prosperity.

At the same time the cost for transport play a decisive role in the consideration whether a commodity is tradeable or not. This will depend on whether the cost of transport is smaller or greater than the difference between the marginal cost of production in the countries concerned. Marginal cost is the increase in total cost resulting from raising the rate of production by one unit. However, advance technology utilized by shipping in the last two decade, has caused significant continuous reduction to the real transport

cost. Bigger ships with more powerful engines operation at slower speeds have resulted with lower levels of consumption. Safer navigation aids and more economical cargo handling gears and cargo storing devices were also introduced. These innovations and their accompanying economies of scale realized, caused continual decrease in the cost for sea-borne trade.

As a consequence, the ton miles cost decreased and became smaller than the difference in the marginal cost of production between the two countries greater distances apart. This facilitated the opening up of new markets. Further, if for simplicity sake, we omit trade barriers, we can arrive at a conclusion that there exist a direct relationship between the level of cost of living and sea-transport. In this direction we can appreciate that competitive goods and or their substitutes are on the markets causing stability in prices- thus preventing one or a few products of the same commodity with higher price from dictating the supply side of the market. The consumer will thus be in a better position to choose the most efficient and less costly product to his own advantage- owing to sea-transport making it available.

The advantages derived from trade are best studied by considering the differences between a country with trade and one without. Without trade, the individual country will have to depend on only local production for all its needs. Here the living standard will be very low. However, on the other hand the other country by its involvement in trade, participates more deeply than merely that country trade with another. It participates by its contribution however small to the scenario of the international trade that permits each country to develop its potential by specializing in the production of certain commodities in which she can excel. This principle is known as the 'division of labour'.

The gains from trade and specialization are caused by what is termed the 'absolute advantage'. In the simplest form, this situation becomes evident when the quantities of a particular resource which is required to produce a commodity in one country differs significantly from the quantities of the same resource required to produce the same unit in another country. In our example country A is said to have an 'absolute advantage' over country B

in the production of commodity X by using less resources. If, however, the two countries in producing two different commodities X and Y, Country A has the 'absolute advantage' in the production of commodity X and country B on the other hand has the advantage over A in the production of commodity Y, then it will be reasonable to assume that total productions of commodities X and Y could be enhanced if each country specialize in the commodity for which it has a comparative advantage. This will result in better utilization of resources to the benefit of both country. (5)

The role of maritime transport in economic development.

International trade is both a generator of economic growth and at the same time one of the consequence. Phrase differently, growth occurs when trade is created and growth itself creates trade. Since trade cannot be undertaken without the provision of the necessary transport, it is accepted that the availability of reasonable efficient transport is a essential element of the development process. In relation to developing countries, shipping remains overwhelmingly the most important form of international transport that is viewed with much concern.

Sea-transport services have a dual role within trade. In one instance, sea-transport is developed to serve trade and in the other it foster trade.

To illustrate the importance of ocean transport and its role in global seaborne trade, UNCTAD Secretariat has estimated that the value of world trade in 1970 at 2,605 million tons valued at 21,000 millions U.S. Dollars. Out of this C.I.F. value, the figure showed that the cost for transport was estimated at about 10.9 percent. Never-the-less, in 1974, significant increase in the price of oil affected the cost of shipping by inflation. Faced with this situation, it was the desire of the shipowner to have at least a freight rate to cover his shipping cost in the long run. But this situation in the short run gave rise to higher freight rates in the dry cargo market. However, in the tanker market the situation was the reverse as the rates went below the 1970 level.

Never-the-less, the acknowledged importance of ocean transport in the process of trade creation stirred many developing countries to foster the development of their merchant marine. (6)

Efficient low cost transport by ocean shipping is of major importance in world trade; particularly in the case of developing countries in their effort to raise their standard of living through production and consumption. Moreover, shipping is affected by two main trends. One is the development of trade itself and the other is the technological and institutional developments in its two sub-sectors - Viz : regular schedule general cargo liner services and bulk cargoes non schedule shipping of minerals, grains, petroleum and similar products. The major technological developments which have taken place in shipping include cargo unitization (pallets, containers ect.) in the general cargo liner shipping , great increases in the sizes of bulk carriers as a direct consequence of the closure of the Suez Canal that started the real jumborizing of these carriers. The closure meant that longer distances had to be covered as vessels had to round the Cape. This growth also permitted greater use of increasingly more specialized vessel such as the liquified natural gas L.N.G. carriers. A more recent trend has been toward automation aimed at the reduction of crew (particularly on the vessels of the developed market economy countries. In spite of the fact that these developments have reduced or at least restrained increases in cost per unit of cargo carried they by the very means have increased the acquisition cost for the more specialized vessels, container vessels, L.N.G. or L.P.G. carriers, oil tankers etc. (7)

Never-the-less, the concern of the developing countries in the 1960's and 1970's for their participation in their foreign trade , were reflected in the resolutions of UNCTAD and other international forums. The adoption of the United Nations Code of Conduct for Liner conference in 1974 was in response to such 'calling'. Though this Convention has not entered in to force , we have witnessed increases in the merchant marines of several developing countries + Yugoslavia, China, Korea, India Brazil etc. In the carriage of bulk , institutional development include the growing use of contract of affeignment and pooling arrangements.

Much attention was paid to their shipping policy that led to investments

in shipping, even in liner shipping to serve a multiplicity of their economic, political and strategic objectives. They have developed an awareness of their dependence on foreign owned ships and the growing belief that by carrying a significant share of their international trade in national owned vessels, they could save scarce foreign exchange, reduce freight cost, exploit new markets and generally facilitate easier flow of their foreign trade include that with other developing countries.

Code of Conduct for liner Conference

In Chapter II Article I, the Code gives any national line the right to become a full member of a conference serving its trade. To qualify, the national is required only to show evidence of its ability and intention to operate a regular, adequate and efficient service and to abide by conference rules. Article 2 deals with the rights of carriers to participate in the carriage of cargo. Whereas Article I allows a national shipping line the right to full membership in a conference serving the foreign trade of its country, Article 2 ensures that the national carriers of the respective trading partners receive the rights to a dominant share of the cargo. Third country shipping lines, if admitted to the conference, are assured of the right to acquire a significant but lesser share (such as 20 percent) of the trade. Chapter I defines several other Code terms which generally are non-controversial. Since in further discussion these terms may be used, the reader should become familiar with the Code specific definitions.

Third Country shipping line

A vessel-operating carrier in its operations between two countries of which it is not a national shipping line.

Shipper

A person or entity who has entered into, or who demonstrates an intention to enter into, a contractual or other arrangement with a conference or shipping line for the shipment of goods in which he has beneficial interest.

Shippers Organizations

An association or equivalent body which promotes, represents and protects

the interest of shippers, and, if those authorities so desires, is recognized in that capacity by the appropriate authority or authorities of that country whose shippers it represent.

Goods carried by the conference -

Cargo transported by the shipping line members of a conference in accordance with the conference agreement.

Promotional freight rate -

A rate instituted for promoting the carriage of non-traditional exports of the country concerned.

Special freight rate -

A preferential freight rate, other than promotional freight rate which may be negotiated between the parties concerned. * (8)

Development of a merchant marine

Anyhow, to participate meaningfully in their foreign trade there are a range of option available to many developing countries. At one extreme, goods could be negotiated on a c.i.f. basis and exports sold f.ob. - thus in theory, leaving all the shipping arrangement to trading partners which gives up any control or influence over these arrangements and their cost. On the other hand, a national flag fleet could be developed with a capacity (even by chartering or leased tonnage) to carry a significant amount of the country total foreign trade as well as an involvement in cross trade between third countries.

Conceptually, however, the investment in vessels to be used in trades route to and from the investing country, that are presently served by foreign flags (liner or bulk vessels) can be considered as an import substitution. Investment in bulk vessels for cross trading, on the other hand, can be considered an export industry. Similarly, investment to exploit new markets or routes where there was no service previously could also be considered as an export industry.

Thus the potential benefits to be derived from shipping investment can be summarized as follows.

* The Implementation Of The U.N. Code Of Conduct For Liner Conferences

- (a) net foreign exchange savings on the country's present or normal traffic;
- (b) assistance in the form of value added to the country's foreign trade and economy generally through the economic activity generated by lower freight rates and/ or new/ , better and more secure shipping services and/ or better
- (c) export returns on essential bulk commodities;
- (d) backward and forward linkages with the rest of the economy which lead to greater economic diversification and development; and
- (e) net profits from the shipping operations. This latter item is likely, in fact, to overlap with (a) and care needs to be taken to avoid double counting.

Never-the-less, a review of the limited information on the profitability of shipping, indicates that some investments are likely in some saving of foreign exchange. But these savings will be greatest where the company can operate profitable and where in the initial build up period, the country can utilize domestic resources as far as possible rather than foreign shipping resources. (crew, management and overhead, insurance, communication, vessel repairs, spare parts and supplies and if possible locally built ships.

The second potential benefit can be derived is its positive effect on the foreign trade balance. This can be achieved by reduced freight rates on current import/ export and result in traffic generation effects of a more suitable and improved shipping service. But these benefits will only accrue if the national line operate efficiently at competitive rate and to the extent that the new services are integrated into the general co-ordinated trade expansion programme or a specific foreign oriented project.

The profitability in a shipping operation is a major factor influencing most of the decisions to invest in sea-transport by many developing countries. Anyhow, analysis of these operations seems to suggest that some nationally owned shipping companies appear to be profitable. The same can be said of a privately owned company operating in developing country in the light of its rapid expansion. Also, it is evident that several shipping companies in developing countries have either been losing money or earn marginal returns. However, the economic benefits from sound investments in shipping and its potential for broader developments will depend significantly on how shipping integrate with and contribute to the economic development of the investing country. Economic linkages depend on the pattern of that country's resources allocation and or the degree to which the national fleet draws on the domestic industries such as ship-repairing yards, marine insurance, ship financing organization, ship classification services, marine research institutes etc.

We are reminded that any embarkment on such a venture as shipping, this is a capital-intensive industry with at best moderate direct employment created effect. This fact is more conspicuous especially in the acquisition of modern container vessels and large bulk carriers. Unless important backward linkages exist, the number of jobs created indirectly may be fairly limited. Capital investment may be reduced by focusing on relatively more labour intensive sectors by using second hand vessels or through joint-ventures with established shipping nation or lines. These joint-ventures will permit means of acquiring operational experience and most importantly contact with the market.

Shipping is extremely risky business subjected to considerable fluctuation in demand and supply and in the case of bulk, to volatility in freight rates. It is also in vessel technology, rapid movement of exchange rates, and national and international regulations of various kinds that can affect the cost of shipping (increases or decreases) and a multiple of other factors. The extent of the risk involved varies significantly with the type of shipping or operational pattern used. In bulk shipping that

is part of a more integrated project or is under long term charter arrangement, the risk is comparatively small. Liner shipping based on a country's normal bilateral agreement is also less risky relatively than is cross trading in liner or bulk trades. Often, also in many cases, there are less costly alternatives to investment in shipping that need to be exploited such as a domestic forwarding industry whose main task would be to achieve lower transport cost . This cost can be realized through the international door-to-door freight control over cargo movements between inland points, strengthened shippers organization as a means of balancing the powers of shipping conferences and providing a medium for commercial consultation, and long term chartering and or leasing of vessels by national shipping lines.

In summary, the relative capital-intensive nature of shipping, its riskiness, the uncertainty surrounding the potential benefits to be derived, and the fact that alternatives exist for using national flag vessels which are generally available, suggest that very careful consideration of inter-sectoral investment priorities and proper evaluation and feasibility studies must be undertaken before new investment are committed into this sector. From a national point of view, assertion of the key factors must include: present and prospective trade volume and pattern; the suitability of the shipping services; the potential benefits from institutional improvements and provision of related facilities (i.e. ports); the likely available supporting institutional operational and other types of facilities required for the national shipping fleet. These may include ship financing available for the procurement of ships.-after prior consideration on the potential benefits to be accrued as against alternative investments in other sectors. In this connection, cognisance must be paid to the fact that shipping is an international industry requiring an internationally oriented framework. Here, we are reminded that money can be available from abroad but this binds the receiver to the donor. Also it is acknowledged as a fact that ships are moveable assets which can be bought, sold, and chartered on the international market . (9)

The Role of Ports in Economic Development

In the above, we concentrate on the role of transport in economic development, but to have a look only at this mode without viewing it in the context of its complementary industries will be one sided. Thus we will examine the other side of the coin in the important role played by ports also. Here, the concept of 'role' is synonymous with the 'part' or function. Moreover, we are asserting that the relationship of a port and economic development of a country in so far as it relates to the trading patterns which include the type of shipping or transport required, will have a direct impact on the trade. This position we have taken as a result of the developments in trade and its interplay as a consequence. We have witnessed the effect of containerization introduction into shipping. Also, ship sizes have been on the increase, and ports are following this trend by expanding their activities where possible in order to cope. In some cases where facilities prove inadequate, new ports have been established.

Bremenhaven is one of such ports which was developed as a specialized container and car/ vehicle port when the facilities (depth of waterways, space for expansion etc.) proved to be inadequate.

However, elements of cost combined with efficiency determine whether a port is competitive or not. This situation can be verified if we look at the largest European ports. Rotterdam, La Havre, Antwerp, Hamburg, and Bremenhaven have all developed enormously their capacities and facilities to become cost effective and thus competitive to attract as much of the trade as possible.

However, let us return to our notion of role. Here, again we stress that the port is a 'node' in the total transport chain. But before the question is asked what we imply when we speak of node, we will answer this question by returning to the development of containerization. This development was devised to permit the smooth flow of commodities from the factory of the manufacturer in one country to the designated place of the buyer in another. By this mode of transport, it is implied a total system of transport- inland and sea. As a result, we can envisage the importance of ports

as links between the two modes. Within the ports, enormous flows of goods or people are transferred from marine vehicles to be broken down into smaller flows for further transport by land vehicles.-railways, inland waterways, highways or in some cases by air-routes. On the converse, the port receives small quantities for consolidation into larger shipments for foreign trade. Thus the port is a critical subsystem with the total transport chain.

In addition the main objective behind this transport system, was to minimize the real cost of moving commodities. Thus to achieve this goal, it became necessary to sub-optimize each of the sub-systems. The gains derived to this end became evident in that with the increase in the sizes of ships, the cost per ton for the transport of commodities decreased. But these benefits cannot be forth-coming if the capacity of the port do not increase correspondingly to cope with the increases. This generally result in longer ship's time in port (and demurrage payments). We may face the situation where there is a gain from decreased freight but an increase in demurrage that can be more than such gain. As a result the total transport cost rises.

However, it would be unwise for a port to tailor all capacities required for the biggest vessel which calls; for such an investment may prove not compensating for the expenditure incurred in catering for larger vessels. For the investment may increase more rapidly than the cost of the ships time decreases. In this case, there would probably be an optimum point in the total cost curve between the ships time and the port cost that the port should provide. Further, while added economies of scale can be realized in some trades by using larger ships, it would require an increase of up to 50 percent to maintain turnaround times. But it must be taken into account that the port's capacity may be improved with the expressed idea of achieving quicker turn around time while the inland link do not keep abreast with the developments. Thus the cost for providing port facilities must be considered in relation with and appreciation of the relationship among the various cost structures in the total transport system. This can be the guide to timing the amount to be invested in port development.

It is also important to identify where bottlenecks or the highest cost are incurred. Many studies have been undertaken in this area. In one case study, in an South-East-Asian country, in a total transport system, it was

found that the greatest individual cost was incurred over a relatively short distance between the port of discharge and the selling place in the hinterland. It must be noted here that such a situation will influence significantly the cost or selling price of the commodity. Also, the port handling facilities may be improved but at the other end the movements to the hinterland may prove to be inadequate and thus ineffective. This may lead to congestion in warehouses on the pier or wharf. Thus we see the need for an integrated plan if any development is forthcoming within this chain.

In looking at development in terms of a 'total system' port planners will be in a better position to phase investments in port development and at the same time advise the land link operators of such improvements and the appropriate changes necessary in their linkage. Information leading to the adoption of new technology such as palletization or containerization and the advantages to be derived from processing or semi-processing of exports at the points of collection will give rise to new forms of hinterland distribution and collection.

In the other sphere, the ports are the places where the economic or commercial activities are organized. Depending on the terms of the shipment and other related factors, the port is the focal point where goods leaving and entering the country are often subjected to custom formalities, payment of taxes and duties, change of ownership and sometimes even quality control inspections

The influence of ports in the socio-economic structure

This situation mostly revolves around what we may refer to as the 'capacity' of the port. At the first glance, we tend to think of a port as an area within the designated port limits i.e. on the landward side, the area between the port perimeter and on the sea-ward-side, the area within the laid down limits such as wharf, pier, sheds, anchorage etc. However, looking at it in a wider perspective, we can see that the official designated areas of the port limits are just essentially the heart core of port activities, the surrounding areas and port related activities conducted within, are of great significance. The continued operations are vital since

they are the lifeline of any port.

Moreover, the interplay of so many divergent factors (circumstances and parameters involved) has caused the link between sea and hinterland transport, road, rail, inland waterways or coastal shipping, to develop supportive or ancillary activities. Thus, within this frame, we will introduce the concept of 'Maritime Transport' and to this we include the above transport link or supportive activities.

Thus, in order to analyse the situation, it becomes of vital importance in acknowledging the role function and impact of a port activities, facilities, and capacities to the national socio-economic development in regards to proper port planning. In this respect, such a problem must be reviewed and studied in its entirety along the lines of 'maritime transport' as defined above. To this end, we will address the topic to its basic fundamental and study it under the headings below. Never-the-less, before we develop our basic thoughts, we have glanced at the side issues that are related to the creation of infrastructure such as the civil engineering sector and we have arrived at a extremely diverse list of related activities from which we have selected ten major activities that we are noting.

Thus, out of the several factors that contribute to the pursuance of maritime transport activities our selection is as follows : lighterage, transport, warehousing, shipbuilding and shiprepairing, ship supplies, bunkering, ship operation, ship agency or freight forwarding, banking and insurance.

Cargo handling

This relatively involves the movement of cargoes from the holds of ships to a point within the port or over the side of the ship to another ship or craft/ barge. This operation can be divide into four broad categories;

- (a) container and unitized (palletized) cargo.
- (b) break bulk or general cargo
- (c) dry bulk (bulk wheat, corn, cement etc.)
- (d) liquid bulk (petroleum products in bulk -fuels and gases)

Lighterage

This activity covers the movement of commodities from the port limits to points outside even the hinter-land. For convenience these can be classified into three areas:

- (a) road or rail to inland depot or waterway and reverse,
- (b) road or rail to points within the port area or its immediate environs,
- (c) ship to ship or barges (including interim storage on lighters) .

Transport / haulage

This activity entails basically road transport by truck or rail haulage from the port area to the consignee's premises and return. This we have broken into two sub-systems.

- (a) containers,
- (b) break-bulk.

Warehousing

Such an activity is generally carried on within the port but with the necessary facilities can be organized elsewhere. For example, a container freight station C.F.S. could be established nearer to the industrial areas which can enhance stuffing and unloading containers. This we have divide into two groupings.

- (a) transit sheds and warehouses
- (b) open storage areas (for stocking containers, vehicles etc.)

Shipbuilding and shiprepairing

This activity covers a wide range of sub-activities ; but only those we consider most relevant will be mentioned.

- (a) ship building (ocean and coastal) small crafts and auxiliary vessels,
- (b) repairs work to ships, small crafts and auxiliary vessels,
- (c) repairs and maintenance work relating to mechanical handling equipment for cargo and containers.

(d) manufacture section for gantry cranes and bridges.

Ship supplies

This activity involves the catering in the supplies in provisions, ship stores- deck and engineroom stores and spares.

Bunkering

As the name implies, this involves the supplying of bunkers or heavy fuel oils if necessary to vessels as required.

Shipping operation

This operation involves the acquisition of vessels either by owning or chartering (important that this be done through a broker) and the operation of such vessel or vessels.

Ship agency and freight forwarding.

This is the activity that covers all the foregoing shipping activities and is supportive to the overall activities of shipping.

Banking and insurance

This is the activity that governs the financial aspect of the shipping industry and includes financing for leasing/chartering, provision of loans mortgages to finance the acquiring of new buildings, repairs etc. It involves the day by day transactions relating to Bills of Ladings, Documentary Letter of Credit and any other banking facilities provided to shipping activities. It also embraces the activities in insurance in so far as they relate to marine and cargo. (10)

Not-with-standing the above, in addition, there are numerous supportive or ancillary services which form an integral part to the shipping activity as a whole, but to continue in numerating them will be fruitless. Of these such items like pilotage, the establishment and maintenance of aids to navigation(both visual and electronic), communication systems , towage and salvage, firefighting and policing or port security services ; though these were not handled above, these must not be taken for granted as diligent attention must be taken of their contribution.

It must be noted that all of these activities are interrelated within the total chain (maritime transport) in which every country, while they contribute to the end result, they are in turn, to a greater or lesser degree dependent on the overall scope and orientation of it for their own existence. In consequence, each activity is both contributing to and reactive with the overall shipping situation.

Moreover, most importantly, there are two main common denominators influencing the ten listed activities ; they are the volume and type of cargo to be handled and the required number of ships and tonnage for the trade. Without prior knowledge of these two elements, it would be impossible to determine the correct quantity or factors that contribute to any of our list- lighterage, warehousing, bunkering etc. Thus the scope and orientation of each activity is not only interdependent but are all initially and fundamentally dependent on the overall volume and commodity types of cargoes on one hand and the number, size, and types of ships necessary for the particular trade transport, on the other. (11)

General Impact.

Technological progress is a challenge as well, which, on one hand, is affecting both shipping and ports. But, on the other hand, it may be derived from both sides of the market. As far as developing countries are concerned, technological development in shipping has two effects as proposed by Sturmev.

" there is, first the effect arising from the fact that the technological development has occurred in countries with different relevant prices of labour and capital than is the case in developing countries and, second that improved standards of services, for example, greater speed may be important in developed countries but not for the shippers in developing countries. " *

To this he has added that in-so-far as the technological development in sea-transport affects the advancement of technology of the equipments of ports, the shippers are not indifferent to technology because while the ton/ miles cost to him may be the same for different relative cost levels,

* S.G. Sturmev, Technological changes in shipping and its impact on ports,

handling cost in the port is likely to be quite different for diverse shipping technologies.

Sturmev has stressed the need for port planners to proceed with caution and not be carried away into making investments that may turn out to be detrimental. Thus he warned that in some cases , the technological development may not accomplish the desired end. Such a situation should be avoided at all cost. For example, a port may provide a container facility at the request of a shipping line or lines and finds that the lines later change their minds about putting container ships in the trade. Or, we may have a situation that the different lines are asking for specialized equipment for cargo handling. So to invest in specialized equipment at the whims of each line will be folly. Here, it would be wiser for the line to be committed by investments in equipments and installations that are less amenable for disappearance whenever the line choose to leave. (12)

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Guyana

Official Name : Co-operative Republic of Guyana .

Language: English, Amerindian dialects.

Ethnic Groups: East Indians 51⁰/₀, Africans and mixed Africans 43⁰/₀
Amerindians 4⁰/₀ , European and Chinese 2⁰/₀ .

Religion Christians 57⁰/₀, Hindu 33⁰/₀ Muslim 9⁰/₀ Others 1⁰/₀

Education Years compulsory ages 5 - 14 literacy - 85⁰/₀, Education
free : Kindergarden to university.

Government Type: Republic within the Commonwealth of Nations,
Independence May,26 1966, Republic Feb., 23 1970. New Constit-
ution 1980. Branches: Executive President, Head of State &
Head of Government.
Prime Minister Legislature in inicameral Nation-
al Assembly 65 elected members.

Judiciary Court of Appeal, High Court and the Lower Courts.

Regions 10 sub-regions headed by a regional Chairman.

Political Parties: People's National Congress, People's Progressive Party,
Working People's Alliance, United Force, Vanguard for
Liberation and Democracy. Suffrage: Universal over 18 yrs.

Exchange 4.3 dollars Guyana = U.S. 1 dollar Dec, 1986.

G U Y A N A

History

The 'Guianas', an area stretching between the Amazon and the Orinoco Rivers in the northern South America, was sighted by Christopher Columbus on his third voyage to the West Indies in 1498. Although the Spaniards laid claims to this area, the British, Dutch and the French were the first to open up the three Guianas to commerce. The Spaniards and Portuguese were more interested in settlement of Venezuela and Brazil that were bigger countries and lend themselves to easier settlement. As a result, the Dutch, British and French found it comparatively easier to establish trading posts with the Amerindians (combination of American and Indians) and establish settlements in these territories. (1)

The Dutch settled in Guyana in the late sixteenth century, when the Amerindians welcomed them as trading partners. Later, the European settlers began to concentrate on the production of coffee, sugar and cotton.

Colonial control and exploitation of Amerindians and later slaves brought in from the West Coast of Africa to work on the plantations, followed interrupted briefly by exploits of the British and French Privateers. In 1604 and 1609, the British under Captain Charles Leigh and Robert Hardcourt, made unsuccessful attempts to settle in the small colonies as they were resisted by the Dutch who had established settlements in Pomeroon and as far as Kyk-Over-al (see over all) at the junction of the Essequibo and two of its tributaries, Mazaruni and Cuyuni. However, no formal government was established until the Dutch West India Company was formed in 1621. By 1750's, the Dutch sugar plantations were prosperous and sugar cultivation was on the increase. The Dutch hold on Guyana was enhanced by the administration of the Director General of Demerara and Essequibo- Laurens Storm Van Gravesande (1743-72). By 1775, there were over 300 plantations of sugar, coffee and cotton and they were worked by over 100,000 slaves. (2)

However, during the war with Holland, the British captured the

settlements in Essequibo, Demerara and Berbice. But between 1781-1803, the control of this area changed hands several times between the French, British and the Dutch; falling in 1803 to Great Britain. Finally, at the end of the Napoleonic Wars, the Netherlands ceded Berbice, Demerara and Essequibo to Great Britain by the Treaty of London (1814) which ratified the Articles of Capitulation of 1803. In this Treaty, the terms of Capitulation made provisions for the rights and privileges of the Dutch people. By this, the Dutch Constitution and Roman Dutch Laws were upheld. The legislature consisted of a Court of Policy and a combined Court under the Financial Representative, controlling finance and taxation. This Dutch styled constitution lasted until 1891. Meanwhile in 1831, by the Congress of Vienna, the three colonies- Demerara, Berbice and Essequibo were united into one colony and the Dutch town, Stabroek was renamed Georgetown, the capital.

The nineteenth century saw the rise and decline of the sugar industry in the colony; though sugar thereafter remained the key factor in its development (if not existence). Further, with the abolition of the slave trade in 1807 which was followed by the Abolition of Slavery in 1834, many planters were ruined. The loss experience as a result of freeing slaves and its depletion of the labour force was major contributory factor. This started the importation of indentured labour from Germany, England, Ireland, Malta, India and Portuguese from Maderia. The largest number came from India. Thus, between 1838 - 1917, 340, 962 Indians immigrants arrived in British Guiana. (3) At the end of the Apprenticeship Period in 1838, freed African slaves bought a number of estates and established villages - Agricola, Buxton, Plaisance and Victoria owe their existence to this and bear evidence of it in that today they are mainly populated by people of African descent. After 1853, the Chinese came and together with the Portuguese branched off into trade while the Indians turned to rice farming. This blending gives Guyana a proud position of being called the land of six races.

Guyana was administered by Britain through the Governor and Council which were appointed by the British Administration. Never-the-less, a new constitution, providing for universal adult suffrage, was introduced in

Geography

Guyana is situated on the north-east coast of South America and is bounded by the Atlantic to the North, Suriname to the west, Venezuela on the West, and Brazil in the South . The area of the country is about 214,969 sq.km. and had an estimated population of 900,000 inhabitants in 1983. The inland forest covers about 85 percent of the total area and there- in lies the natural resources of the country- bauxite, manganese, timber, iranium, gold and diamonds. The grass covered savannahs of Ebini in the County of Berbice and Repununi are about 20,700 sq.km., situated in the hinterland, are suitable for rearing of dairy (stock farming). The coastal plains are between 16 and 65 km. wide. This area serves two purposes: most of the population live and on which the rice and sugar cultivation are organized. Guyana is watered by four navigable rivers - Essequibo, Demerara, Berbice, and Courantyne. The climate is tropical but the north-west trade- winds mitigate the heat along the coast where the temperature varies between 22° C and 32° C. The rainy seasons are April to June, and mid November to mid January. (4)

Economy

The main feature of the economy of Guyana is that the government controls about 80 percent. This was in consequence to the nationalization of the major industries after talks on government participation in these enterprises broke down. Even the ship repairing and ship building enterprise were nationalized . Never-the-less, the government took steps to compensate the former owners.

An important area that benefited from the large expanse of the forested lands was the timber industry. This too, fell into the hands of the govern- ment through nationalization. Here we have the Guyana Timber Corporation which co-exist with the smaller privately owned enterprises. However, the marketing of timber is organized through the Guyana Timber Export Board.

Another industry over which the government do not have the type of control based on ownership, is the rice industry. The planting and reaping of rice are solely in the hads of private persons, but the distribution, both

locally and externally, is controlled by the government and in terms of export this has the Guyana Rice Export Board (G.R.E.B.)

Secondary industries include boatbuilding, manufacture of biscuits, soap, margarine, edible oils, building blocks, clay bricks, cloth and underwear, and compressed boards (including plyboards). Other items include plastic products and cosmetics.

Guyana is a founder member of the Caricom Community but unlike Trinidad and Tobago is unable to export its principal product, bauxite, to members within the Community. Increased fuel cost and deteriorating trade conditions caused shortages in the foreign exchange earnings. Faced with this situation, the Government had no alternative but to impose import restrictions on most goods (not only on goods originating outside the Community but also within). Such restrictions were not in keeping with the Caricom agreement but were necessary as the trade deficit fell from 490m in 1981 to G \$407m in 1982 although the smuggling of products such as shrimps, gold and diamonds endangers this success.

Natural Resources.

Mineral placer gold commenced in 1884 and was followed by diamond mining in 1887. From 1884 to 1973, the output of gold was 413,413 bullion ounces. In 1980, 11,000 ounces were declared as the production figure. From 1901 to 1973, the declared production of diamonds was 4,008,211 metric carats and the figure for 1980 was 10,200 metric carats.

There are large deposits of bauxite and the production of 1981 was as follows: dried bauxite 1,011,000 tonnes, calcine bauxite 496,000 tonnes, and alumina hydrate 152,000 tonnes. However, prior to 1980, Guyana was the 5th in the world production of bauxite and virtually held a monopoly in the production of calcine bauxite. Moreover, the production have dropped considerably over the years with the decline in prices for these commodities on the world market. Guyana has lost its foothold in the world calcine market due to increased production capacities in other countries.

In addition, fullscale production of manganese began in 1960's but production ceased in the 1980's. Other mineral include copper, uranium and molybdeum.

Agriculture.

The production of cane-sugar in 1982, was 292,000 tonnes and in rice it was 182,000 tonnes. Other important products are coconuts, ground provisions and citrus fruits. Other tropical fruits and vegetables are grown mostly in scattered plantings: they include mangoes, papaws, avacado pears, melon, bananas and gooseberries. Such important crops as tomatoes, cabbages black-eye peas, red kidney beans, carrots, ginger, pineapples, eschallot and tobacco are cultivated mostly for local consumption. With the Mahaica, Mahaicony and Abary Irrigation Project coming into stream, more than one million acres will be available for the cultivation of rice and other crops. This will most certainly have a significant effect on trade and consequently shipping. The estimate of 1983 livestock: cattle, 310,000; pigs 142,000; sheep, 117,000; goats, 75,000; and poultry, 14m. (5)

Forestry.

Guyana can be divided into roughly three regions: the coastal region varying in width between 16-40 km which constitutes the rich agricultural lands. There are three types of soil on the coast: the silty clay or mud forms the rice and sugar lands; Pegasse or spongy soils favours coffee and bananas; and the sandy reef lands are suitable for planting coconuts. South of the planes lies our second Natural region- the sand and clay area. Covering about one-quarter of Guyana, it extends from the Pomeroon River inland to the Mazaruni, south to Apoteri and thence eastward to the Courantyne. The sandy soils are not good for farming, but are covered by valuable forests of Greenheart, Mora, Crabwood, Wallaba and other timbers. Greenheart is perhaps most useful. It is a very hard wood and is used to build wharfs and docks because it takes a very long time to rot and resists the attack of sea creatures. The sand and clay regions contains another source of wealth- minerals. The main mineral is bauxite which is mined around Kwakwani and Linden and exported to U.S.A. Canada and Norway. The third is the hinterland of several mountain ranges and extensive savannahs. (6)

Out of a total area of 21,497,000 hectares, 19,844,170 hectares of land area is forested.

Review of Exports and Imports

We have establish in Chapt. 11 that trade and shipping are inversely related in so far as any fluctuation in trade causes similar fluctuation in shipping in a particular area at a given time. Listed below are the commercial exports and imports of Guyana for callender years in US \$^m

	1978	1979	1980	1981	1982	1983
Exports	295.6	292.7	388.9	346.4	241.4	193.3
Imports	253.5	288.8	386.4	399.6	254.2	225.7 *1 (7)

The chief imports for 1981 : 555,000 kg ; unmilled wheat 42,569,000kg; milk 4,748,000 gallons and the cost of fuel was more than half the total export for that year (180.2 US \$). The chief domestic export; Sugar,267,000 tonnes; Rice,78,000 tonnes; Bauxite,(dried) 1,011.000 tonnes, bauxite calcined,496,000 tonnes, alumina and alumina hydrate,152,000 tonnes; Rum, 3,204,000 proof gallons; timber, 36,000 cu. meters; molasses 85,344,000 kg. The major imports for that year was from Caricom Countries primarily Trinidad and Tobago stood at 35 percent, U.S.A., 25 percent, U.K., 16 percent and Canada, 4 percent. On the export side the chief receiving countries were U.K. with 26 percent; Caricom countries as a block with 17 percent and Canada with 4 percent. *2 (8)

In 1981, the economy was at its peak due to favourable prices for sugar and bauxite on the world markets. Correspondingly, there were increased demand for tonnage in bauxite and that was the period when B.I.D.C.O. was busy in chartering of tramp tonnage to exploit the market (within the vicinity of 10 vessels were engaged in transshipment or shuttle to Trinidad. In the case of sugar, this commodity was sold f.o.b.(seller delivers the goods alongside the vessel). Thus the supply of tonnage was organized by the buyer from outside - mostly for the U.K. Never-the-less, there was an increase in shipping activities and consequently increased tonnage.

However, after 1981, prices began to fall and this is reflected in the figures of 1982- a decrease of more than 100 US Sm . As a matter of fact both 1982 and 1983 showed decline and is reflected overleaf.

* The South American Yearbook P 840

*2 The Stateman Yearbook P 578

Imports (CIF) (G Sm)	FOODs	Beverage & Tobacco	Hard.w.	Petrol- eum Prod.	Animal Vegetable oils & fats	Chemicals	Manufact goods	Mach and equip.	Misc Manf. Articles	Miscell. Transact.	Total
1976	113.6	7.9	8.1	138.1	10.7	91.1	224.1	270.8	54.5	8.3	926.9
1977	100.0	4.2	8.9	160.6	14.9	73.0	152.8	223.0	43.3	22.9	803.6
1978	93.3	3.6	6.9	170.1	18.1	79.2	155.3	146.5	33.5	4.0	710.5
1979	107.2	4.3	6.9	230.7	20.0	82.1	168.3	145.4	40.3	4.2	809.4
1980	115.0	4.5	6.9	360.1	14.8	67.9	163.2	232.2	40.6	4.0	1008.7
1981	123.7	4.4	9.0	432.7	19.5	104.1	224.3	256.0	55.7	6.7	1236.1
1982	70.6	2.5	5.7	327.0	11.1	76.9	128.5	177.0	34.1	6.5	839.9
1983	31.7	2.1	6.9	319.0	4.0	69.7	102.6	171.1	24.7	5.9	737.7
Exports F.O.B.											
1976	353.5	14.1	299.8	-	-	7.1	6.1	1.9	12.1	.2	694.8
1977	274.3	9.1	341.4			7.7	5.0	3.4	10.7	.5	652.1
1978	354.0	11.6	340.7			8.8	4.9	7.2	8.2	.5	735.9
1979	340.5	15.3	342.8			11.5	6.0	7.2	7.9	1.3	732.5
1980	428.3	19.4	495.8			10.2	4.2	8.1	7.9	2.3	976.2
1981	410.5	25.0	455.1			11.2	8.5	12.9	6.9	3.1	953.1
1982	346.6	9.8	297.9			16.3	7.0	15.6	6.2	2.9	702.3
1983	278.8	8.9	216.9			15.2	7.2	6.6	4.5	3.4	541.5

Source Annual Account Relating to External Trade 1983

Statistical Bureau Georgetown

pp 1a-1b.

(9)

List of major exports and destination

Products	Importing Countries
Balata	United Kingdom, Brazil
Bauxite	Canada, U.S.A., Venezuela, U.K. Japan, Italy East Germany, U.S.S.R.
Diamonds	U.S.A., Netherlands, Belgium.
Hides and Skins	U.S.A.
Manganese	U.S.A.
Rice	Trinidad and Tobago, Cuba, Netherlands, East Germany.
Sugar & Molasses	U.K. U.S.A. France, Canada, Trinidad and Tobago.
Timber	U.K., U.S.A., Cuba, Australia.
Alcohol	Canada, West Germany, Netherlands, U.K.
Alumina	Norway

List of major imports and country of Origin.

Cars	U.K., U.S.A., Japan, U.S.S.R.
Cloth	U.K., India
Chemicals	U.K., U.S.A., East Germany, Netherlands
Hardware	U.K.
Cement	Trinidad and Tobago, Venezuela, Cuba.
Milk	Canada, Netherlands, N. Ireland, U.K.
Wheat	Canada, U.S.A., France, Belgium.
Poultry (rearing & consumpt.)	U.S.A., Brazil.
Petroleum products	Trinidad and Tobago, Venezuela, Netherland Antilles.
Machinery (including transp. & vehicles, trucks etc.	U.K. U.S.A. India, Brazil, Yugoslavia.
Electrical Appliances.	

Bauxite

The most significant percentage of Guyana's export of bauxite and its related product of alumina are shipped c.i.f. as the government conclude arrangements on a f.i.o. / f.i.o.t. basis. In some cases, these include bilaterial or barter agreements with friendly governments. However, the sand bar just off the coast, will not facilitate ships of drafts above 4.7m. Faced with this situation, small shipments of below 10,000 d.w.t. are made or vessels are part loaded at Linden or Everton and the completion is made in Trinidad. Very large shipment for Noth America, Europe and Japan are therefore made from Chaguaramas in Trinidad where Alcan has provided the self unloading and loading facilities where draft restrictions do not pose a problem. Thus developed the need for stockpiling of this commodity in Trinidad for transshipment.

Here, the policy of the Guyana's Government is to charter in the required tonnage to supplement its two Guybulk owned vessels. The Government has acknowledged that at the moment it has not the capability to acquire the necessary tonnage of its own and has reverted to a wise decision of time charter (voyage charters are utilized if traffic necessitates) for the haulage of this raw material to the shunting point. In the only market where free competition exists in shipping, it will be unwise not to use the service which gives greatest benefits(taking into account the cost of acquisition, maintenance and repairs).

Moreso, there are proposals to establish an offshore terminal and studies have been undertaken in this direction. But we feel that such a venture needs indepth considerations. Here, it is evident with such establishment, bulk terminals generally need sheltered waters. Also, to accommodate a bulk carrier of about 200,000 d.w.t. we need 18m depth or one of 64,000 d.w.t. a depth of in excess of 12m is required since the ship will have to be afloat. To attain such a depth, it will be necessary to go to a position of between 10 to 15 nautical miles off the coast. In addition, the Equatorial

Current which in general, flows north-westward at 2 to 3 knots throughout the year will also be considered.

In this area, it would be a worthy exercise to look at alternative solutions. Consultants are excellent to have but we must be aware that they too has an interest (vested) in who is to carry out the task and they will quickly recommend an associate firm for the job. As an alternative solution we are recommending two possibilities. One is for the establishing of a deep water port in the Essequibo River at Lanaballi and dredging the approach channel to this port. This can be established as a multi-purpose port with the future in mind. This can serve the oil industry when it is developed. It will become evident that oil will need new installations when we start producing this commodity. Moreso, these installations as a prerequisite must be situated away from the towns and their populace. Bulk shipments of rice from the Essequibo Region could also be incorporated in the planning of such a port. There is no specialized vehicular port in the country. This could provide the avenue to develop the required facilities since this location will be ideal in that it is away from salt air which negates against storing vehicles in the open.

The second proposal will be the construction of breakwaters on the sand bar and dredging the access channel within. But prior studies of sediment drift or silting will have to be made.

In conjunction with the above, we feel that there is a need for a rail link between the major bauxite producing areas; Kwakwani/Everton-Ituni/linden- and perhaps Lanaballi. We have arrived at this position after considering situation wherein one of the narrow access channel may be closed due to some accident. In such a situation, what severe consequence would this have on shipping and thus the economy. These are some points that we consider need pondering about.

Before closing on bauxite, it is worth noting that in 1983, 340,709 tonnes of calcine bauxite were exported. The chief importers were Japan, U.S.A., U.K., and France with 97,230, 71786, 33,521, and 23,499 tonnes respectively. The total shipment of dried bauxite amounted to 779,768 tonnes and out of this Canada accounted for 235,652, U.S.A. 164,332, East Germany ,47,427 tonnes. (10)

Rice

In 1983, rice like bauxite experienced a decline in exports as exports fell from 78,000 tonnes to 41,720 tonnes. Reduced prices and short fall in production due to climate are all contributing factors. Anyhow, Trinidad accounted for the major purchases with 23,270 tonnes which were mainly sold c.i.f (cost insurance and freight) as local small vessels of between 400- 900 d.w.t were used . However, most of these vessels - although locally owned are registered in St.Vincent and the Bahamas. The other major importer was East Germany with shipments of 12,550 tonnes sold f.o.b. (11)

Never-the-less, in 1986 the Guyana Rice Export Board recorded a 31 percent increase as its export earnings rose from 1.75m US to \$6.5m for the same period in 1985. This was mainly due to an increase from 7501 metric tons to 21544 exported to the European Economic Community (EEC) . In addition, 1986 proved to be a successful year for the Guyana Rice Export Board (G.R.E.B) as it secured a three month contract with the World Food Programme (W.F.P.) to supply 4106 metric tons of rice to Nicaragua and Honduras and was able to re-enter the Jamaican markets after an absence of nearly three years, supplying 5413 tonnes. However, these developments are in keeping with the objectives of the G.R.E.B. which was established in 1985 for the expansion of export trade in rice, rice projects and marketing research and analysis pertaining to Guyana's export potential for rice and rice products. (12) Anyhow, these exports were sold f.o.b. and did affect the shipping of Guyana per se .

In the field of shipping of this commodity, shipment continues to be mainly in bags. However, the task of the G.R.E.B. in future if it is to serve its market, it will have to look at alternative - providing facilities for bulk shipment; especially to the E.E.C. Shipments in bag has proven to be expensive as we have seen, shipments for the E.E.C. was made from the Essequibo and the vessel spent nearly three days to complete this exercise as the bags had to be cut over the holds. This operation is expensive both to the supplier of rice and the shipowner. An assessment would have to be made if the net benefit derived to the nation as a whole is worth such an exercise. It may well for the G.R.E.B. to sell rice product but the operat-

ing cost. The demurrage cost follows long after the vessel has departed. So the rosy picture may not be as it appears. To correct this situation, and a savings to the foreign exchange, self unloaders could be introduced in the loading operation. But, most importantly, structural changes must take place in the industry to gear it for shipments of bulk rice. The time is appropriate for a change if we are to gear ourselves for the pressure which the agricultural production will exert on the already inadequate facilities when the Mahaica- Mahaicony- and Abary (M.M.A.) Irrigation Project engenders the production of agricultural commodities especially rice. It is envisaged that this project at its completion will allow more than one million acres of land for cultivation. The question we are asking, are we going to continue with bags? There are developing in shipping where shipment are made in bulk and if the need for bags at the delivery point arises, ship's bagging facilities are utilized. Not-with-standing, the trend has been toward bulk shipments to save time (in shipping like most industries, time is money and if this is foreign money it is more expensive).

Sugar

This is the second major foreign exchange earner. Here also the price of sugar and other less significant factors have resulted in a decrease in both export earning and export in terms of tonnage of this commodity. Cane-sugar has faced stiff competition from the growers of beet in the traditional marketing countries. As a result, Sugar saw a fall in its export in the peak year in 1981 when 267,000 tonnes were shipped to 210,534 tonnes in 1983. In 1983, the U.K. continued to be our chief buyer with 142,270 tonnes followed by the U.S.A. with 19,272 tonnes, Canada, 18,724, France 18,128 and Trinidad and Tobago with 10,099 tonnes. Also, its by-product, molasses fell from 85,344 to 53,938 tonnes. Here Barbados was the chief importer (for the U.K.) with 35,199 Canada, 6,875 and the U.S.A. with 5,371 tonnes. (13)

However, the U.K. is responsible for a significant part of our imports (16 percent) and 26 percent of our exports, mainly comprising cane-sugar.

The total trade between Guyana and the U.K. (British Department of Trade Returns, in £1,000 sterling)

	1980	1981	1982	1983	1984
Exports from Guyana	47,143	50,841	50,495	42,810	57,884
Imports to Guyana	30,191	28,969	13,145	13,585	14,845 * (14)

From the figures above, it shows an inbalance of trade but this is also reflected in shipping in this area as the situation where British shippings to and from the colony continues in the same pattern even after independence. The only change resulting was the decreases experienced in the Volume.

It is also noteworthy, that in 1987, the U.S. has announced a reduction in the sugar quotas for the Caribbean area. This reduction was a the trend for some years now. For example, a decade ago, the U.S.A. imported 10m tonnes of sugar. In 1987, according to the quota agreed by the U.S. Administration, the U.S. will import one million tonnes, a quota to be shared by 39 countries in the area. Barbados, Belize, Guyana, Jamaica, St.Christopher-Nevis, and Trinidad and Tobago will share a reduced quota of 53.440 tonnes from 95,864 for the 1985-86. Guyana stands to receive a quota of 10,920 from the above; representing almost 50 percent of the 1985-86 quota of 20,592. (15)

American Officials claimed that such a reduction was necessary due to increased productios of both sugar-cane and beet at home, compounded with decline in domestic consumption. In recent, years there has been a growing realization for lessening the dependence on sugar. The Guyana Sugar Corporation (Guysuco) is one of the companies in the region that have sought to diversify and rationalization of its operations. It has gone into the production of legumes, red kidney beans, soya beans, palm oil etc. with its other crop division. It is also involved with livestock rearing of cattle and sheep and in fish farming of talapia. However, these are only developed to the present for domestic use. Never-the-less, the fact remains that the sweetener remains an important foreign exchange earner for the Caribbean producer. Here again , we must state that like the other major commodities produced, sugar continues to be sold f.o.b. except to our Caricom partners who are provided with local shipping.

* The Stateman's Yearbook, Statistical and Historical Annual of States of the World, p 578.

Timber

As stated above, more than 80 percent of Guyana is covered by tropical forest and it is estimated that the annual volume of marketable timber is within the vicinity of 1m cu m., of which only 25 percent is accessible. Nevertheless, the annual production of logs is about 150,000 cu m., taken from an area of about 7,000 hectares. However, in our pilot year 1981, there was an export of 36,000 cu meters of timber, earning \$ 15,582,000 G. However, in our year of focus in 1983, there was an increase of export to 37,689 cu meters. Of this total Trinidad and Tobago accounted for 21,727 cu m., followed by the U.K. with 6,539 cu m. and Hungary with 2,389 cu. m. However, there were later important developments as the industry penetrated other markets as far as Portugal and Cuba for the supply of round logs after 1984. Also, the by-products; plywood sheets, shingles and wallaba poles (for electricity) are providing much needed foreign exchange from sales on the U.S. and Caribbean markets.

Alcohol

The export of alcoholic beverages was 3,204 m proof gallons in 1981 and 2.081 m proof gallons in 1983. Our major exporting area is rum with 2.044m proof gallons with the chief importer being the U.K. with 1.053m Proof gln.

Shrimps & fruits

This is a comparatively smaller industry to those in the foregoing, but never-the-less, is very important in terms of volume (and in relation to quantity is a valuable exchange earner). There was an export of 6,865 tonnes in 1983 as against 477 kg in 1981. The U.S.A. imported 4,254 tons and Japan 3,041 tons in 1983.

In the case of fruits for export, between fruits and their by-products as jam, jelly etc, the total shipment was about 190 tons. These products were traded in Barbados and Trinidad and Tobago.

The list of our exports is a long one but the above commodities we have consider of highlighting for they comprise the most significant foreign exchange earners in terms of trade and consequently they exert their influence on the sea-transport of our trade.

Imports

From the list of figures above, we can see an inbalance of trade. However, it is also apparent that the peak years were 1980-81 when exports stood at 1,009m G\$ and 1,236m G\$ while imports were 976m and 953m respectively. But position decline in 1982 and our pilot year 1983. In this year, imports were cut by almost 50 percent reaching 541.9m G\$. In this figure we see the domination of petroleum products as this accounts for 216.9m G\$ and foods costing 278.8m G\$. The chief supplier of Liquefied butane and propane gases, diesel and gas oil, bunker 'c' and lubricants are supplied by Trinidad and Tobago and the antilles with Jamaica being the chief supplier of lubricants. Needless to say that these are transported by chartered in vessels, shipped c.i.f.

In 1983, scarce foreign exchange, forced the Administration to cut imports drastically. As we have seen above, there were significant decreases in our foreign exchange earnings. As a result, there was major cut in the import of wheat. In 1981, the figure was 42,569 tonnes, and in 1983 that figure fell to 1935 tonnes. This was the trend of such import until the Administration of President Desmond Hoyte re-start the importation of wheat in the latter part of 1986.

Another major importer for 1983, was milk where 1385 tonnes was imported. but this figure fall short of the 1981 figure of 4,748 tonnes. Our major exporting countries were Canada with 959.4, N.Ireland, 250.0, Netherlands 165.0 and U.K. with 105.0 tonnes (1983). Our importation of chicken for consumption and poultry and eggs for breeding stock mainly centers around the U.S.A. and Brazil. (16)

The Influence of Trade on Shipping

Historically, Shipping in the Caribbean has been influenced by the trading patterns between the metropolitan countries and their colonies and this was dominated by the lines of the metropolitan countries. Moreso, this situation seems to be the explanation for Caribbean shipping being traced to mainly liner shipping as in the past, the merchant fleet plying the

area were the answer for the provision of raw material for the industries of the developed or metropolitan countries and their expansion overseas. This situation is still very much the same as these industries are still export oriented in terms of their provision of raw materials. Our case in Guyana is not dissimilar. The major export of bulk commodities are non-processed products. For example, in 1983, the total shipment of bauxite and its related products amounted to 1.1m tonnes and out of this .003m tonnes were processed alumina. The situation becomes more acute in the shipping of these commodities. Here, it is noticeable for all to see that the sea-transport is dominating by the importing nations. We still see the liner services of Saguenay with connection to Canada, U.K. and Europe; Samba, Tec, Harrison and Ned-Lloyd which covers the U.S.A., Europe and the Far-East.

It must be remembered that the influence of mercantilism influenced European states to monopolize trade with their colonies and to reserve sea-routes connecting these areas to their national ships. Such a reservation lasted for just under two centuries in the case of Britain where the Navigational Acts of 1651 were abolished in 1849. Notwithstanding, this abolition, the activities continued unchanged.

Regional Shipping

With international (extra-regional) trade heavily entrenched in the hands of importing nations in whom the exporting nations of the region depends on for their viability (livelihood); some governments in the Caribbean came together to develop a linkage which they envisage would engender the development of intra-regional trade. They started in the 1950's with the assistance of Canada which provided two medium size liner as a gift package for the former British colonies getting together to form the West Indian Federation . This line started operation by ferrying goods and passengers between the ports within the region when there were inadequate air facilities. Since then, there were significant changes as LIAT another Caricom government owned venture, service the islands with small aircrafts. But a boat service was still required to take cargo into many of the islands

where some airports were little more than short paved strips, hence the early optimism about the West Indies Shipping Council. In 1976, the name was changed to the West Indies Shipping Corporation (WISCO) following a decision by the Caricom leaders in 1975. In 1980, WISCO started a service out of Miami to counter the decline in regional trade. The chief aim of this service was to develop and strengthen the Miami-Port-of-Spain route, and then spread its wings to Kingston and several Eastern Caribbean ports.

Moreover, the General Manager, Sherman Thomas noted that the total cargo carriage for 1984 was in the region of 191,000 tons. The intra-regional carriage was about 81,000 tons and the Miami-Caribbean service was some 97,000 - 100,000 tons. The difference was transshipment cargo, moved from Ponce, Puerto Rico. (17)

The manager, argued that the most significant cost facing WISCO was the cost of having an extra ship without sufficient volume. The problem of disposing of the Caricom Enterprise is a direct result of the decline in shipping which has vessels sitting idle allround the world. Moreso, WISCO has complained of having stiff competition from outside lines and had hope that the governments would offer some protection. This was not forth-coming and the enterprise experience a loss of \$ 9m (TT) in 1984 and \$4m (TT) in 1985. Trinidad and Tobago is the line main financiers and the site of its headquarters could offer no shelter. The loss making situation is responsible for two of its dozen members signifying their intention of withdrawing from the line and a third member suggesting its liquidation in favour of private enterprise with a modest subsidy if necessary. However, some of WISCO's problems could be served by having fewer call especially in ports that these calls are non-renumerative and arrangements of feeder services to these smaller ports.

WISCO makes monthly calls to Guyana with an average of between 12-18 consolidated loaded containers. Also, Guyana has a 10 percent equity share in its assets. However, the special feature of WISCO is that as the regional carrier, its vessels are equipped with cargo handling gears which are indispensable in ports where the necessary equipments are not available.

The Caribbean Shipping Association.

As a counterpart of the West Indies Shipping Corporation, the Caribbean Shipping Association was established to collaborate with governments in the region and private enterprises/sectors to build trade volumes while providing the region with efficient competitive and reliable shipping services. It is significant that in a relatively short period of existence, the CSA has matured from an informal meeting of shipping agents from a handful of territories. Today the Association is the principal voice of all ports and shipping interest in the region. Not only has the Association broaden the scope of its membership over the years but also the geographical areas which it covers. The eligibility for membership in regards to the 'Caribbean Region' is countries of the Greater and Lesser Antilles, from French Guiana (Cayenne) to Mexico including Columbia.

Further, the Association major task is translate or at least assist in translating regional negotiation into action. For, in recent years, the countries of the Caribbean have been negotiating preferential treatment for export. In this regard, there are arrangements with the European Community (Economic) under the Lome Convention; with the United States under CBI Caribbean Basin Initiative; with a number of industrial countries under General System of Preferences G.P.S. and more recently a proposed package Carican involving the Caribbean and Canada. However, all these negotiated result will be useless if increased trade is not realized. There must be increased production to make use of these market opportunities. But increased production is not it all. It is necessary to have the appropriate supportive services including shipping, available on a reliable basis and at competitive rates.

Based on the above the CSA has a decisive role to play . Moreover, shipping in this hemisphere has not gone unnoticed, as UNCTAD has established in the region the Latin American Economic System (SELA) which is looking at regional corporation in the field of shipping as it is felt that greater benefits can accrue to the region. In this area Central America pays out

nearly US \$1,000 million in freight charges each year and almost all of this to extra-regional shipping companies.

Never-the-less, The CSA has provided the forum in which problems of mutual interest could be discussed, where knowledge, skills and ideas could be exchanged and where recommendations for their resolutions are put forward in a joint effort. This situation is commendable. It demonstrates a true spirit of cooperation to obtain the common objective. Here, it is worth noting that Guyana is represented in this Association by Bunny Fernandes, the Managing Director of the only private owned shipping agency in Guyana. Also a total of 27 countries in the region is represented. (18)

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- Caribbean Shipping May, 1985 (17)
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Development of Liner Shipping in Guyana.

The shipping history of Guyana is inextricably bound up with three elements: Liverpool, Guyana and sugar. It is evident that historically sugar trade from the colonies flourished from as far back as Dutch occupation in the 16th century and continued throughout the British Administration. Evidence of shipping under the British could be traced mainly to a catalyst in creating the Booker Line.

This owed its creation as a consequence to Josiah Booker, the third son of a Lancashire miller migrated to Demerara in 1815. Perhaps, he was among the first of the British settlers after the Dutch had ceded the colony to Britain in 1814. By 1818, Josiah was managing his own plantation and by his success his brothers George and Richard joined him in British Guiana. Together they purchase^d the business concerns of Lucas and Cook in Guiana and later those in Liverpool also. In 1835, George and Richard Booker had difficulties with the ship-owners operating from Liverpool for the West Indies and Guiana, and bought their first ship the 'Elizabeth'. However, this brig proved inadequate and was sold and replaced in 1837 by the 'Palmyra', a 400 tons barque.

As far as 1842, there were advertisements of monthly sailings out of Liverpool for Berbice. By this time the company's fleet had grown to several ships; the British built fast sailing barques- John Harrock, John Bond, Commander, and others offered superior passenger accommodation with the possibility of touching Maderia if sufficient freight was available. Unfortunately, the records on the many ships brought by this company were destroyed during three great fires in Georgetown in 1864, 1945 and 1947 or the complete record of the company's activities was destroyed in London during the last war; so that only fragmentary records of the early days are left.

In the meantime, John McConnell who started working in 1846 as a clerk with the Booker brothers, prospered and left Demerara to form his own business enterprise- John McConnell and Company in London. Close association with George Booker and Company resulted in a merger in 1900 when the

firm, Booker Bros McConnell and company came into existence. To Guyanese, this company represented Britain. For up to the nationalization of the holdings of the Company, this company not only controlled the production of sugar but provided outputs for finished goods from Britain.

Anyhow, the shipping venture prospered and there were regular direct service from Liverpool to Guiana and became known as the Liverpool Line. This line operated owned or chartered vessels until 1911 when the line was renamed the Booker Line. The first vessel owned by the new line was the single screw steamer 'Imataka' of 1796 G.R.T. and this was followed by the 'Amakura' and 'Arakaka' of 2262 G.R.T. which were lost in the First World War. They were later replaced by the 'Imataka 11' and 'Amakura 11'. These too, suffered similar fate in the Second World war. Not-with-standing, the company was not to be deterred and in 1946, the 'Amakura 111' and 'Arakaka 111' of 2814 and 2961 G.R.T. respectively were built to add to the existing chartered fleet. Thus at the end of the Second World War the Company pattern of trade had remained unchanged for over 120 years.

Moreso, from the 1950's the company had owned through one of its subsidiary or associate company Booker Shipping Demerara, some coasters originally sailing ships which had been operating in local waters transporting sugar from the sugar estates to the bulk terminal in Georgetown. In 1955, Bookers acquired the Liverpool Firm of S. William Coe and Company, and the operation of bulk sugar was added to the Booker Line. It is worth noting that in the 1960's, Bookers employed consultants who recommended that the shipment of sugar from the estates should be in bulk instead of in bags as was hitherto transported. As a result, a 40,000 bulk store was built in Georgetown (Demerara Sugar Terminals) from which shipments of bulk sugar to foreign markets are made.

In 1961, a specialized bulk carrier of 8,227 D.W.T. was acquired which was further lengthened, increasing her deadweight to 13,000 with relatively little alteration to her draft. With the 'Booker Venture' in service with bulk sugar, attention were turned to her sisterships third line 'Amakura' and 'Arakaka' which were still employed in liner service. But due to their

small tonnage, they were unsuitable for sugar and coupled with a speed of 10 knots, these were proving to be uneconomical. Both vessels were sold as a result and was replaced by the Norwegian built Booker Vanguard of 6833 d.w.t and giving a speed of 15 knots. She was the first British vessel to have twin hatches. She boasted special features of advanced cargo handling gears and in addition had high standard of accommodation. Another vessel the Booker Valance was chartered with similar size and speed. After 1964, the vessels called at ports in Antigua, St.Kitts and later Suriname was added. In 1967, the Booker Viking was added and a three weekly instead of monthly service were operated to the United Kingdom.

The Government of Guyana has nationalized the interest Of Booker McConnell in 1976; but the ocean shipping interests have widened although remaining comparatively small in the shipping scene of the U.K. as a whole.

Guybulk Shipping

After Guyana nationalized the Bauxite Industry from Alcan and Reynolds, the task of marketing of its bauxite was delegated to the Guyana Mining Enterprise (G.M.E.). Prior to this, Alcan and Reynolds chartered in vessels to handle shipments to North America and Europe from Chaguaramas in Trinidad and Tobago. The bauxite was produced in Guyana but due to draft restriction in Demerara and Berbice which allows for vessels up to five meters loaded, bauxite had to be either made in small shipments compensating to five meters or be stockpiled in Trinidad for consolidation into larger shipments from there. The other alternative was to part load at Linden in Demerara or Everton in Berbice and proceed to Chaguaramas to be topped up.

The Guyana Bauxite Company in delegating the task of marketing of its bauxite to the above named branch, approached A.S. Bulkhandling of Norway which it considered to be capable of haulage of a significant percentage of its export. This company had a distinguished tradition in this field and was established by Torvald Klaveness in 1963 in partnership with other Norwegian Shipping Companies for the purpose of operating a pool of bulk carriers. The main philosophy of this Company is to meet the sea-transport requirements of major industries through long term customer relationship - as a result, 80 percent of its dry bulk activities are based on long-term contract of affreightment. Operational flexibility is secured by a large number of vessel of varying sizes/ranges. The service provided to the Guyana Bauxite Company (GUYBAU) fostered such deep cordial relationship that both officials of A.S. Bulkhandling and GUYBAU developed the rationale leading to the formation of a joint-venture in shipping. This Norwegian Company has also developed another such venture with Guinea called Guinomar in 1978.

In 1974, the two companies entered an agreement by which both parties agreed to co-operate in forming and financing a shipping company to provide an efficient service for the transport of its products and other shipping

activities relative to Guyana and the Caribbean Region. Both companies hold 50 percent share in Guybulk Shipping Limited. A decision was taken to register the company in Bermuda. The reason being that Bermuda has a Merchant Shipping Act where as Guyana has none. The Board of Directors of Guybulk consists of four persons. They are the Chairman and Vice President who is responsible for marketing of GUYBAU and two representatives of Bulkhandling. Both partners have two alternatives and the Board of Directors alternates between B.I.D.C.O. and Bulkhandling every year.

Guybulk started operation in 1975 with two (2) 16,000 d.w.t. self-discharging bulk carriers. These were Motor Vessel 'Arrowcane' and M.V. Hariwa acquired in March of the same year. In addition the fleet consisted of three (3) ocean-going barges which were purchased from Reynolds, the former operators in Berbice. Further, the agreement, entered into by the parties, allowed for time and voyage chartering of vessels as traffic dictates. The ensuing traffic involved the exportation of different grades of bauxite and alumina globally and the importation of bulk cargoes such as grains and caustic soda from America and Canada and oil from the Caribbean for the bauxite industry in Berbice and Linden.

With the establishment of Guybulk Shipping, there was created a Shipping Department within the Marketing Division of B.I.D.C.O. to deal with Guybulk affairs. Also, in 1975, one of the shore superintendents from Bulkhandling went to Guyana to train local personnel for this department. At present, the department is serviced by two shipping supervisors who benefited from training in Norway and are responsible for ship services, crewing and manning and a Benefit Officer who was appointed to handle crew benefits in accord with union representation. The department, comprising several clerks is headed by a manager who maintain a daily contact with his counterpart in Oslo. Guybulk organization in Oslo consists of between seven - eight persons in administration, catering, operation, accounting and secretarial functions. In addition two to three persons are engaged in ship-management and education and another two persons engaged in brokerage

and marketing

The partners of Guybulk must always act in accordance with B.I.D.C.O.'s Mission. Articles 3 & 4 are reproduced below.

"
Art 3 :To determine and recommend to the Minister of Energy and Mines with particular reference to the Nation's bauxite resources, the optimal long term steps to be taken in deriving the greatest benefit to the nation for exploitation of bauxite and bauxite related resources, being careful to take account of possible linkage with the rest of Guyana economy.

Art 4 :To derive and continually review Marketing and Shipping strategies designed to support the on-going activities of GUYMINE as planned in the context of export strategies determined under Article 3 "

At present Guybulk owns two (2) vessels - the 1978 built 22,000 d.w.t. geared bulk carrier 'M.V. Manaka' acquired in 1984 and the 14,000 d.w.t. oil/ore bulk carrier built in 1981. The o.b.o. carrier 'M.V. Bissaruni' is specially designed for the operation in the Rivers of Guyana with optimum dimensions for the present combination trade. These two vessels are most convenient for trade generating to and from Guyana due to the fact that our trades tend to be generally bulk cargoes. The trade development along these lines are favourable since the unit cost of transport will be significantly reduced - ore on the outward journey and oil, wheat or grain on the return leg. Never-the-less, these two vessels can not satisfy the need for sea-transport of bauxite and its derivatives, thus a number of vessels are chartered in on the basis of time and voyage charters (averaging 6-10 vessels at any time. The annual shipment amounts to about 2.5m tonnes.

Training

Guybulk has acknowledged that training is vital for the survival and competitiveness of the enterprise and consequently, the Norwegian partners who possess the expertise in their long tradition in shipping, are willing to share this with their Guyanese counterparts. In an effort in this

direction, Guybulk has undertaken the task of improving the technical and managerial skills within the company by systematic training its personnel. Thus within its objectives, there is the desire of having crews of international standards and has embarked on a programme of training its officers and ratings. The adult education scheme has been assisting in upgrading the basic academic skills of these men in an attempt to qualify them for admission to maritime schools.

Moreover, it is the goal of Guybulk that the company's vessels be manned by Guyanese in the future. As a result, crew members, whose educational level, on the job performance, aptitude and conduct are outstanding, are selected to receive special training to the grade of officers. Within this ambit, about 10 Guyanese have received this education as part of a special educational programme partly sponsored by the Norwegian Development Agency (NORAD). Guybulk crew roster consists of about (50) Guyanese and Trinidadians.

There is also a supplementary cadetship scheme for officers. As another method of selection for training, young men, with adequate scholastic background and interested in the sea, are selected for necessary training for a sea career.

To date, six (6) Guyanese personnel have been to Norway pursuing studies at the Norwegian Shipping Academy's in its Professional Shipping Course. This is complemented by on the job training in Guybulk Office in Oslo. It is worth noting that the present General Manager Of the West Indies Shipping Corporation (W.I.S.C.O.) benefited from such an education in Norway.

Guybulk operations varies and the continued good performance is essential for the welfare of the entire nation. This point was emphasized on the occasion of the official christening ceremony of the M.V. Bissaruni, the Minister of Energy reiterated that the continued growth and development of Guybulk Shipping could provide the basis for a comprehensive shipping policy for Guyana.

Summary and Conclusion.

In reviewing the shipping activities of Guyana, one can easily conclude with certainty that there is hardly any conscious or very few ~~serious~~ undertakings to co-ordinate shipping and develop a comprehensive shipping policy. Consequently, there are two areas which we consider need developing if the projected benefits are to be accrued to ~~foreign~~ trade, derived from shipping. In the first instance, we consider the development of a port administration or authority to co-ordinate the activities of our ports and the development and utilization of the port facilities for better performance that will make the operation of the port competitive and cost effective. In the second, as a complementary development, there must be an administration which will be responsible for all matters pertaining to maritime affairs. These two developments are indispensable in any country's growth through a planned economy.

As we have seen, there are four major Shipping Agencies in Guyana: John Fernandes Shipping, the only privately owned and managed shipping agency; and the three government Corporations- Guyana National Shipping, Guyana National Trading, and Guyana National Engineering. At least the facilities of these state owned enterprises could be handled by one administration. This we envisage will result in better utilization of resources both in personnel and material. The operation of these three units under one head could enhance better performance rather than each unit operating separately in competition with each other. In terms of competition, this unit should be competing with the privately owned company which appear to be better organized in terms of its goods handling capabilities and turn around of ships. Competition between the two units will result in both being more cost effective to the benefit of the nation as a whole.

In many countries of the world, there are several different types of port administration. We may have municipal/local administered ports as Antwerp, Bremen, Hamburg etc., where the city or town Council play important roles in financing port development when requested to do so. Others can be state owned as Brest and Calais in France or privately owned like Manchester,

Mersey and Felixstowe in England. However, these are generally categorized further into two wider groupings- autonomous and semi-autonomous. But whichever type of administration is selected depends on the particular situation, if not political inclination of the country concerned. Further information on the operation of different port authorities are supplied in the Appendix 2.

The development of a competent body to channel the development of the sea ports, will have the task of changing the role of the ports in adapting to changes resulting mainly from shipping. Ports themselves do not give incentives for the introduction of new transport systems but have assisted new systems to succeed by flexible adjustment and adaptation to these systems. However, the degree of flexibility in adjustment parameters can be decisive for future port development or even if these adjustments are conceived of in terms of a regional port or an outlet for a neighbouring country. In the sphere of the latter, there were plans for a link between our major port of Georgetown and the northern part of Brazil. The developments of deeper access channels to the harbour and the land-river link with Brazil could result in significant development in both trade and shipping to this area. The operation could be effected by rail which we favour due to this mode proving to be cheaper relative to the distance. However, in many countries rail and road links complement each other.

Never-the-less, the investment for adjustment flexibilities in the sphere of organization will depend on the following factors; the increase in the composition and volume of the foreign trade and consideration of the consequential increase in the sizes of vessels to be handled; fluctuation in the demands for commodities both locally and foreign; and the technical aspects of cargo handling and the transportation systems which accompany these technical developments. The structural changes in the sea-borne traffic exert their pressure on the capabilities of the port administration to counter with methods that would give rise to increased productivity which would enhance quicker loading and discharging of vessels and as a result the shortening of ship's lay time.

In addition, there are two important functions which tend to determine the efficiency of the port- warehousing and distribution. But the various activities, carried on in the port, depends on the internal transport system or the movement of commodities within the port area. High priority must be given to proper functioning of the distribution system. Inadequate back-up systems to free the port area of goods can result in storing at the quay sides. This generally impedes further operations in the area. This situation is most glaring at the private owned wharf where due to shortage of space, containers are stocked on the apron of the quay. The situation is different on the government wharfs and transit sheds for these are under-utilized due to the fact of restrictions on imports among several factors.

It is evident that these facilities were more beneficially occupied before the birth of the Organization of Petroleum Exporting Countries (OPEC) when the price of oil was as such before it skyrocketed to unprecedented levels and remain relatively high today. But this situation has change the thinking and most significantly the volume of imports to the non-producing oil countries as Guyana. Countries like Guyana which depended on the importation of oil for their industries, had to expend a significant part of their foreign exchange earnings to cushion the cost for oil. Guyana, like most other countries in this dilemma, countered with import restrictions on many consumers goods- tinned foodstuffs, sardines, corn-beef, and later flour among other things. This engendered the rise of the 'barrel culture', reconditioned second hand market for cars and other transport vehicles, and a new brand of entrepreneurs- the 'traders'. These made quite a lot of items available which were not forth-coming through the governmental source. Moreso, these composed a significant part of liner shipping to Guyana especially during the Christmas season.

Never-the-less, from the latter part of last year, the Hoyte's Administration has loose some of the restrictions and a significant quantity of consumers items including flour is back on the market. The consequence to this development is that the facilities which were lying idle for years are returning to the stream of activities. Moreso, the future plan incorp-

orate the development of Guyana's off-shore potentials of oil and the development of hydro power. In the latter, in 1984, a major project was undertaken by the International Development Association as its financier which eventually lead to four companies purchasing information packages on Guyana's hydrocarbon potential. These companies had until July, 1987 to make bids, proposing their work programme, for six exploration blocks (one in the Takutu basin near Brazil and the others offshore. We can envisage the effects of having cheap electrical power for our industries. This would mean that the cost of production would decrease and thus the cost of the end product will be lesser. Our commodities could then be sold on the world market at more competitive prices. This will give rise to increase trade (in both imports and exports) and this will exert pressure on the available port facilities. Consequently, we see the need for a working port administration. There are areas that we have not covered, and it is not that we consider them less significant; but on the contrary, we consider such things as infra-structural works- maintenance and improvements of quays, sheds, buildings and in some cases break-waters and more; port security and training are just some of the tasks falling under the ambits of a port administration.

Development of a Maritime Administration.

As a worthy counterpart of the port administration, we envisage the development of a National Maritime Administration. In the development of our offshore oil potential, the body which is likely to deal with such matters at the national level would be a maritime administration (Marad). In the countries of the developed world, the Marad deals with matters related to the maritime field concerning the nation's economy and its revenue, with national security, with the welfare of the people, and with the environment in which they live. Economic factor play important role in the life of a nation. A nation must protect itself against acts of piracy, and the illegal harvesting of its mineral resources and fish resources. Its young merchant marine, of whatever magnitude, plays a crucial role in its domestic and international trade.

To maximize the collection of its revenue, legal structures may be devised which establish customs laws, identify or authorize special offshore customs zones, and set up agencies of government to enforce maritime law. Individual nations have established two hundred miles economic zones. Maritime administration, customs agencies, fisheries, port authorities, pilot associations coast guards are some of the agencies established to enforce law and supervise national programmes.

Most countries have experimented with their competent authority for shipping as a field of governmental activity. In the case of most of the scandinavian countries, shipping falls under the ambits of the Department of Commerce. Countries like the Federal Republic of Germany, United Kingdom and America (the last two have changed the administration of shipping from time to time from one Ministry to another) have considered that shipping to be part and parcel of the complex chain of transport and consequently, have confined the administration under the Ministry of Transport. France have taken a different route. For sometime now, the French had established a 'Ministry of the Sea', comprising the offshore industry, fisheries and shipping.

However, the organizational pattern of a shipping administration resembles very much that of the state in question. Generally, with a centralized administrative governing body existing, there will also be a similar type administrative whether it be in the context of port or maritime administration. Whereas, port administration in states with federal administrative structures is usually decentralized, shipping is, to a very large extent, a matter for the federal government. A typical example of this situation is the United States of America where the Federal states have their autonomy in the field of the administration of their ports, shipping is firmly entrenched in the hands of the government.

Not-with-standing, one of the major task of any Marad will be the matter of safety and the development of the necessary regulations in conjunction with internationally recognized standards with regards to the relevant conventions etc.

In the case of Guyana the situation is a sad one as regards the international Conventions. Prior to our achieving the status of independence, the U.K. Administration ratified Conventions and automatically we became contracting party. Thus we are a contracting party to the Load Line Convention of 1966 by this method. Since this time there were several Conventions to be ratified, acceded or adopted. A list of the status of Convention is supplied below in annex 3. We have witnessed the sinking of 'Titanic' which opened the eyes of many nations for the need for international standards for safety of life at sea. The stranding of the Torrey Canyon and the Amoco Cadiz resulted in major oil spills which destroyed the sea life in the areas and caused environmental problems. These accidents brought nation together to work out solutions to at least reduce the chances of likely occurrence. It is not that there were no acknowledgement of the importance of these measures before these accidents, but on the contrary, these measures were discussed at several forum before but these accident forced nations to take action. In Guyana, to all appearance, no action has been taken to accede to any of these important Conventions with regards to safety and pollution. It makes one to wonder if we are waiting for a major accident to take preventative action.

It is the duty of any Marad to bring to the attention of its government the relevant Convention which impinges on their particular situation. Parliament, on the virtue of these recommendations, will inform the International Maritime Organization of the nation's desire to accede, or ratify. It will then be the task of the Marad to prepare legislation and after discussion with all the interested parties on the proposed legislation. Parliament will then make a final consideration of the proposal and if these are accepted, these would be adopted and the I.M.O. will be informed of the regulations. This procedure is recommended by the I.M.O. so as to avoid incidence of countries promulgating regulations that contradict each other although these regulation are based on the same Convention. By this, it is conceived that there will be some standardization of the application of the particular convention. Now the task of the enforcement is delegated to the

Maritime Safety Administration within the general Marad.

Maritime Safety Administration.

Under the provisions of of the International Conventions of Safety of life at Sea (SOLAS) and Load Lines of 1966, the Administration undertakes to ensure that, from a point of view of safety of life, a ship is fit for the service for which it is intended. Further, the Convention in relation to the Registration of Ships put the onus on the individual state to exercise continuous control over the ships which are entitled to fly its flag and by virtue of the memoranda of Port State Control has an inspection target of 25 percent to inspect that percentage of ships visiting its port. In the latter aspect there should be discrimination as to flag; no more favourable treatment; and the Administration should avoid undue delays or detention and most importantly such inspection is free of charge. In cases of serious defect the flag state is to be informed.

Within the scope of these Convention, the Administration has the full responsibility for the survey (Solas 1974 requires that a vessel be subjected to an initial survey of its hull, machinery, life saving and navigating equipments etc). This survey is aimed at ensuring that the arrangements, material and the scantling of the structure, boilers, pressure gauges and valves, pumping arrangements, main and auxiliary machinery fully comply with the requirements of the Convention. The survey is generally intended to ensure that the workmanship of all the parts of the ship and its equipments are in all respect satisfactory. The latter item is generally taken care of by the owner employing a surveyor from the Classification societies who ensure that the equipments and materials used in the construction process is of the highest quality.

Never-the-less, many administrations in several countries do not have the necessary qualified staff to carry out these survey, so they are delegating the tasks to the Classification societies. However, it is still the responsibility of the Administration for certification. Here, we consider and recommend that if the task of survey is delegated to the Classification

Societies then the certification should be delegated also. These Societies have long tradition in this field and some like Lloyd's Register of Shipping are more than 100 years old. Requirement related to fire fighting, life saving appliances, crew quarters, radio equipments, stability and load line, fire prevention and marine pollution are all the concerns of the Administration. But these also comprise the tasks of the Classification Societies for marine insurance purposes.

In most countries there is a requirement laid down by the administration that hull and machinery should be built to the standard of the Classification Societies. As a rule, Classification Societies normally offer different class notations. These class notations are relative to the trade, operation in special ways in term of type of cargoes to be carried. Here, we have notations as 'Ice C'. A list of major Classification Societies is in Annex 4

For ships trading in coastal or inland waterways where the stresses from the sea and waves are not severe, a lower standard in terms of the structural dimension of hull members and the thickness of plating is permitted as these do not have to be built to the same specifications of a ship trading world wide. However, the safety standards are required in both cases.

After a ship has been in service for four to five years, it is required to have renewal or periodic surveys. This procedure is geared to ensure that a ship having a valid class notation with a recognized Classification Society is complying with the acceptable safety standards. Anyhow, it is not unusual for a ship to have a valid certificate issued by one of these Societies and at the same time is substandard. It is also a fact that some surveyor may not have done the job properly and may overlook serious deficiencies on a ship. In some cases the particular Society may not have large enough interest in an area. This may give rise to a situation wherein the ships having its class are surveyed by their appointed surveyors who are not highly qualified for the job due to their general lack of such knowledge.

However, in spite of the possibility of delegation of surveys to Classification Societies not all surveys can be delegated. In terms of the inspection of ships visiting its ports, Administration will have to develop

a nucleus of competent staff. These personnel can also be utilized for survey and inspection of vessels operating in their waters and under the national flag and other craft such as fishing vessels as required by the Convention of Safety of Fishing Vessels (SFV).

For the training of such personnel the World Maritime University in Malmo, Sweden offers a comprehensive course in both Maritime Safety Administration (navigation) and Maritime Safety Administration (engineering). These courses are designed to fill the gap in the developing countries where these personnel are in great demand but are not available. Courses are also available in Education for marine nautical and engineering; General Maritime Administration and Technical Management of Shipping Companies. These Courses are developed in conjunction with the International Maritime Organization's (I.M.O.) main task is towards "Safer Shipping and cleaner Seas". In the interim while our educators are pursuing courses at the above Institution, training of marine personnel in studies for Officers up to Master Mariner or Chief Engineer is offered by the Jamaica Maritime Training Institute. This Institute was established by the Jamaican Government in collaboration with Norway. It is a tertiary institution which offers theoretical and practical training leading to a Professional Certification in the maritime field. This we consider could be developed into a regional training institution, rather than individual government developing its own.

In closing, we must stress that Guyana has large unexploited resources but also large problems. The inherited dispute with Venezuela over the latter's claim to the Essequibo Region (more than half of Guyana), will not be easily resolved. Also, with the development of the off-shore industry in the field of oil, it will be necessary to develop a state pollution control authority. The extraction of oil poses serious problems of pollution for the producing nations; thus the need for such an authority to handle emergent situations. A chart (organizational) of such an authority is supplied in Annex 5. This can be redesigned as the needs be.

Additional Readings

- 1 Guybulk Shipping
- 2 Booker Line 1835-1978
- 3 Lecture Papers

Developments in World Shipping and Their Effects on Ports
By Professor H.L. Beth.

Establishment of National Shipping Industry in a Developing
Maritime Country by Professor A.A. Monsef.

Maritime Administration by Admiral J.B. Hayes.

Scope of Maritime Administration by Professor G. Stubberd.

Proposed Regulation for the bulk Cargo Markets by Professor
E. Georgandopoulos at the Maritime Economists Conference,
London, April, 1985.

Research Methodology
&
Theoretical Framework

The presentation of this work will generally have a sociological flavour due to my sociological orientation but I will endeavour to take an interdisciplinary approach to my explanations.

The sociologist popularly defines science as systemized knowledge derived from observation, study, and experimentation; carried out in order to determine the nature or principle of what is being studied. Such was the pre-occupation of Auguste Comte when he coined the specific term 'Sociology'. He postulated that the scientific method could be applied to the study of social phenomena. In the same way that systematic modes of interpretation in terms of natural laws are used in physics or the natural sciences, these principles could be applied to the study of social phenomena because political and social phenomena are subjected to general laws as those of Physics.

Thus, in the light of the above, social phenomena as systematized knowledge arrived through the application of the scientific method must be distinguished from common sense knowledge about social life which is often confused with Sociology.

In addition, Alex Inkeles has reiterated that the main concern of the sociologist are to understand society in a discipline manner and to offer explanation about the phenomena he studies. It follows, therefore, that the operation of the sociologist is limited by a scientific frame of reference, arising from the scientific nature of the discipline. As a result, there are several characteristics of the scientific frame of reference or scientific method by which the sociologist are bound. Perhaps, the most important of them are objectivity, scepticism, and neutrality. (1)

Objectivity is the attempt to free one's theories and research from all traces of personal or subjective bias, such as preferences and desires, loyalties and predispositions. Scepticism has been described as willingness if not indeed the eagerness to question everything before accepting it- especially those things for which there are insufficient evidence. Hence, Olsen has argued:

" the spirit of scepticism distinguishes the true scientist from the idle spectator. Although both may be curious about why something happens and both may propose theories to explain the event in question, the scientist will not accept any theoretical explanation - even tentatively - until it has been adequately substantiated by his professional role which should take no normal, ethical or value position. " (2)

Therefore, science along this reasoning should be value free.

Never-the-less, for the sociologist to achieve objectivity in his work he must be sceptical and observe the standards of neutrality. The sociologist is thus directed as the chemist in his path to inquiry in quest for scientific knowledge about social phenomena based on what is known about them and whatever critical insights the theorist suggests. Testable hypotheses are then logically derived from more general theory. These hypotheses are tested in a series of appropriate, unbiased and independent empirical studies and are shown to be valid or invalid. On the basis of the findings, the theory is either tentatively accepted or rejected.

If, however, we look for one minute at what the scientist actually do when he is engaged in a research, it will become quite clear that : (a) theory and fact are not diametrically opposed but are extricably intrewined ; (b) that the scientist is very much concerned with both theory and fact. However, the way a scientist may view theory and fact is indeed quite different from the ordinary conception of them. A fact is to him, an empirically verifiable observation. Thus to the scientists, theory refers to the relationship between facts or the ordering of them in some meaningful way. It can also be said that facts of science are the product of observations that are not selected at random but are proven to be meaningful i.e. theoretically relevant. (3)

* Marvin Olsen, The process of Social Organization page 8

Moreover, every science is organized by as structure of concepts which refers to major processes and the objects to be studied in the 'facts of the science'. Such terms make up a specialized vocabulary which the scientist uses. These change as the science develops, as different phenomena come to be of major importance. As a result, it becomes quite clear that if knowledge is to be organized, there must be some system imposed on the facts which are observable. As a consequence, the major task of any science is for the development of a system of classification, a structure of concepts and an increasingly precise set of definitions for these terms. Another important task performed by theory is to summarize concisely what is already known about the object of study. These summaries could be divided into two simple categories viz; (a) empirical generalizations and (b) systems of relations between propositions.

Moreover, each science, by its specialization, abstracts from reality within a broad field but attention is kept upon a few aspects of a given phenomenon rather than upon all aspects. Here, as stated by Goode and Hatt :

* " only thus can a science reduce to manageability in its works. "

The broad orientation of each field, then, focuses upon a limited range of things while ignoring or making assumptions about others."

It is within this light that much of the contention of nineteenth century sociology may be understood, for a major task of such masters of theories as Comte, Spencer, Tonnies or Simmel was to define the task and object of study for the future science. Theory, then helps to define which kinds of facts are relevant. (4)

It is within this frame of reference, I have selected and will endeavour to develop the idea^s of Talcott Parsons which he proposed in his writings -: The Social System and its further explanatory schema in The Structure of Social Action and Towards a General Theory of Action .

Sociology is an extremely variegated discipline. Differences of theoretical outlook and methodology split into numerous competing traditions and schools of thoughts. Never-the-less, there are generally two approaches to

* William J Goode et al, Methods of Social research p 9.

to sociological theory and this dichotomy can be retraced to its origin and discerned to the political dilemmas which are more or the less directly linked to a definite political orientation. The first 'approach' is labelled 'structural functionalism' or 'integration theory' or plainly 'value theory'. From the late 40's and early 50's, has been very prominent in Western Sociology but was most dominantly developed in American Sociology. The second which is referred as 'coercion' or 'conflict' theory is strongly represented in the works of European Sociologists especially in the works of Karl Marx and his followers who include such names as Cassanova, Gunder-Frank, Baron and Sweezy to mention a few.

Talcott Parsons is the most eminent contemporary representative of the first 'school'. In Parsons' 'zero sum' conception of power, he conceived this to be possessed by one person or group of persons to the degree that it is not possessed by a second group over whom the power is wielded. Power, to Parsons is defined in Max Weber's mode in terms of mutually executive objectives; so a group or individual is held to possess power in-so-far as it can realize its own wishes at the expense of those without. This to Parsons tends to produce a perspective from which all exercise of power appears to be serving sectional interest. Thus, he has proposed that power can be generated in a similar way as wealth is accumulated in the productive processes of economic organization. To this, in criticizing C.W. Mills' 'Power Elite', he argued: (5)

"Power is not a facility for the performance of function in, and on behalf of a society as a system but an interpreted exclusively as a facility for getting what one group, the holders of power, wants by preventing another group the 'outs' from getting what it wants. What this conclusion does is to elevate a secondary and derived aspect of a total phenomenon into the central place." *

To Parsons, this situation is most apparent in politics where it is common to identify the power held by a party or governing body (in colonial times) in a social relation with the coercive sanctions it is capable of

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Talcott Parsons, The structure and Processes of Modern societies, p 221

of employing against subordinates if called upon to do so - including primarily the capacity to use force. Again, Parsons made an important point as he commented that a party may wield considerable power while at the same time having few coercive sanctions with which to enforce its command if they are questioned by subordinates. However, this becomes possible when the power holding party enjoys a broad 'mandate' to take authoritative decisions ceded or acquiesced in by those subject to the decisions - i.e. if those over whom the power is exercised 'agree' to subject themselves to that power. In such circumstances, the party in power depends, not on the possession of coercive sanctions with which it can over-ride non-compliance, but on sheerly the recognition by the subordinate party or parties of its legitimate right to take authoritative decisions. The latter, in some sense acquiesce in their subordination.

Moreso, in situations where subordinates agree to allow others to command their action and at the same time, those who receive this mandate have few coercive sanctions to employ if their directives are not obeyed, then there will exist a situation of power not based on control of the means to coerce. It is because of the possibility of such a development, that Parsons emphasized that the question of 'how much' power a party holds and the question of what sanctions to be employed in case of disobedience. The two, he concluded, are analytically separable. It must be conceded also that lack of capacity to command a defined range of sanctions does not necessary imply that this is a lack of power; for the 'amount' of power held by a party cannot be assessed simply in terms of the effective sanctions it is able to enforce if faced with possible or actual non-compliance. It is noteworthy that the 'amount' of power wielded in any concrete circumstances, and the effective sanctions that can be used to counter non-compliance, are usually closely related. Studies of all type of social structures, from small groups to total societies, have shown that power holders always do command or develop sanctions which re-inforce their position. Moreso, in any group which had a continued existence over time face problem of dissensus and the possibility of rebellion. The very fact of possession of a 'mandate' from the

subordinate, allows the dominant party to use this 'good will' to mobilize sanctions of the conforming against a deviant or potential deviant group. If a power-holding party does not possess sanction to use in case of disobedience, it tend to rapidly acquire them, and can in fact use its power to do so.

This position he re-affirmed in his later writings as he elaborated the analogy between power and money as we will trace later. Within this frame, he developed the parallel between the two based on the assumption that each has a similar role in two of the four sub-systems which he has identified previously (and which we will deal with below for convenience) . Power has a parallel function in polity (goal attainment sub-system) to the role played by money in the economy (adaptive subsystem).

The main function of money in the modern economy is that it is the circulating medium of exchange :- as a standardized medium of exchange in relation to the value of products that are comparable and assessable. Thus money in itself has no intrinsic utility. It has a 'value' only as far as a standard form of exchange. In addition, he posited that it is only in primitive system when money is made of precious metal that it comes close to being a commodity in its own right. In a developed economy, precious metals figures directly only in a small proportion of exchange transactions. As we can see in a sense in which the economy is 'founded' upon the holdings of gold that is really symbolic in so far as its relationship in forming a 'reserve' made in the esteem to the extent of the stability of the economy is threatened for some reason. (6)

Power, on the other hand, is conceived by Parsons as a 'circulating medium' in the very sense; generated within the political system as money is generated in the economy; but also forming an 'output' into the three other functional sub-systems of the society. Herein , he has relegated power to the generalized capacity to serve in the performance of binding obligations of units in the system of collectives in the organization when obligations are legitimized with reference to their bearing on collective goals. In the binding obligations Parsons implied the condition under which those in power and those over whom power is exercised are subjected to legitimation which

allows them that power. Thus all power relations requires a certain 'mandate' which may be more or the less an extensive giving to the power-holders the right to command and at the same time, imposes certain obligations towards those who are subjected to their power. In this aspect, the collective goals rest upon common value systems that determines the major objectives which governs the action of the majority of the society. So, to illustrate his position, he has pointed out that the American society is characterized by the primacy of values of 'instrumental activism' - this entails that the main 'collective goal' of that society was the furtherance of economic goal. In the same way, money as value has become the common agreement in its use as a standardized mode of exchange, so too, power has become a facility for the achievement of collective goals through 'agreement' of members of the society to legitimize leadership positions. This gives those in power or in such positions a mandate to develop policies and implement decisions in the furtherance of goals of the system. This, he emphasized was at variance with the 'zero sum' conception of power which dominated his thinking in this area of his studies. Further, he added the net amount of power can be expanded if those who are ruled are prepared to place a considerable amount of trust in their rulers. This process is thought of as credit creation in the economy. Thus individuals invest their confidence in those who rule them through for example , a general election from which a party is given a mandate to form a government. This is applicable to the esteem that the electees will initiate new policies which will effectively further collective goals. Everybody, as a result, gains from the process as those who have invested in their leaders receive back in the form of effective realization of collective goals - an increase return on investment.

Moreover, he added power is a direct derivative of authority which is the institutionalized legitimization that underlines power. Herein it can be defined as the institutionalization of the rights of the leaders to expect support from the collectivity. By speaking of the 'binding obligations' Parsons deliberately brings legitimation into the very definition of power. So for him there is no such thing as illegitimate power.

In relation to illegitimate power which Parsons conceived as non-existing, he argued :

" The threat of coercive measures, or compulsion without legitimation or justification, should not be properly be called the use of power at all; but is the limiting case where power, losing its symbolic character, merges into an intrinsic instrumentality of securing compliance with wishes, rather than obligations. " *

In line with general approach, Parsons has stressed that the use of power is only one among several different ways in which one party can secure compliance of another to a desired course of action. The other way of obtaining compliance should not be regarded as form of power, rather, it is a case where the use of power (i.e. the activation of 'binding obligations') is one of the several ways of ensuring that the party produces a desired response. Parsons here distinguished two main 'channels' through which one party may seek to command the actions of another and two main 'modes' of control, yielding a four-fold typology. Ego may try to control the situation in which alter is placed, or try to control alter's intentions. But the modes of control depend on whether sanctions which may be applied are positive (i.e. often something which alter may desire) or negative (i.e. hold out the threat of punishment).

Situational channel, positive sanction like the offering of positive advantages to alter if he follows ego's wishes or an inducement (the offering of money) necessarily entails the coercive imposition of one individual or group over another. In this direction, he has developed some valueable correctives for sociological thinking on problems of power.

By treating power as necessarily (by his definition) legitimate and thus starting from the assumption that consensus of some kind exist between the holders of power and those subordinate to it, Parsons virtually ignored quite consciously and deliberately, the necessary hierarchial character of power and the division of interest which are frequently consequent upon it. However much of it is true that power can rest upon 'agreement' to cede

* Anthony Giddens, Power in the recent writing of Talcott Parsons, p 260

authority which can be used for collective aims. It is also true that the interest of the holders of power and those subjected to it often clash. Moreso, it is beyond dispute that positions of power offer to the incumbent definite material or psychological rewards and thereby stimulate conflict between those who want power and those who have it. This brings into play, of course, multiplicity of possible strategies of coercion, deceit and manipulation which can result in either new holders acquiring power or a reinforced hold on to powers by the original holders.

Never-the-less, he has made a distinction between 'power' and 'inducement'. The rationale for this position in the distinction was that these can be considered parallel 'media' in the sub-system of the economy and polity. Obviously, inducement is often a basis of power and the reverse may frequently be true- a person or group holding power is often in a position allowing access to various forms of rewards. The relationship between positive and negative sanctions may be quite complicated as they operate in the social system. This inducement of offering some definite reward in exchange for compliance often offer the possibility of being transformed into negative sanctions; the with-holding of rewards as a punishment represents a definite form of coercion.

In Parsons's treatment of power, coercion and force are pictured as an end of the line of a progression of corrective sanctions which can be applied to counter any tendency towards power deflation. Force is the sanction which is applied when all else has failed. But only when a system shows lack of 'confidence' that the open use of power becomes frequent. Hence, he argued that the stable system based on power are related indirectly or 'symbolically' to the use of force. But in power 'inflation', coercion and force may be the 'foundation' of consensual order in a quite different way. However, in the above when Parsons spoke of power 'inflation', he was implying or referring to a situation in which there exist a spiralling diminution of 'confidence' in the agencies of power, so that sub-ordinates to them come increasingly to question their position. But, he did not propose the answers to why power deflations occur, except to indicate that once they get under the way they

resemble the 'vicious circle' of declining support characteristic of economic crisis.

In addition he has stressed that the history of societies shows quite repeatedly, structural arrangements are often, at first, implemented by force or some form of definite coercion or coercive measures used to produce and re-enforce a new legitimacy. Force allows manipulative control which can be used to diminish dependence upon coercion. While in previous ages this was probably a process of conscious manipulation in part, in more recent times, through controlled diffusion of propaganda, it has become much more a deliberate process. (7)

General Approach by 'Structural Functionalism'

The neo-evolutionary theory present a typology or classification that it considers to be the major structural characteristics of societies at different stages of development or general evolution. In Parsons typology, he claimed that it was not necessary to develop a truly advanced analysis of social change in order to depict the structural patterning of evolutionary theory. Thus he stressed that it was well established in Biology where morphology, including comparative anatomy, is the backbone of evolutionary theory.

In this respect, comparative analysis of structural characteristics of different societies at different historical periods as well as of different societies at the same period, juxtaposed against the evolutionary criterion of a general greater adaptive capacity that may engender sequential ordering of structural types. By so generalizing on the basis of likenesses or differences existing between those structural types, we can legitimately formulate the evolutionary paradigm. Therefore, he posited that evolutionary is a process of differentiation, adaptive upgrading, inclusion and value generalization. (8)

However, within the structural functionalism of the 1950's, evolved the modernization theories that developed into the most popular and prolific theories of social change in contemporary developing countries.

Never-the-less, the methodological premissis of structural functionalism

is founded on four basic pillars as cited by Ankie M. Hoogvelt:

"

- (a) Society is a system that is a whole of interdependent parts;
- (b) This systematic whole comes before the parts, meaning that one cannot understand any single part (that is culture, belief, legal institutions, social pattern of family organization, political institutions, or economic/technological organizations) except by referring it to the larger systemic whole of which it forms a part;
- (c) Understanding a part by referring it to the whole occurs by seeing that part as performing a function for the maintenance of the equilibrium of the whole. Thus the relationship between the parts and the whole is a functional relationship;
- (d) The interdependence of the parts is a functional interdependence; the parts are mutually supportive of each other and are mutually compatible with each other which serves to maintain a whole. "

As we can see, the fourth is a logical derivative of the first and third from which we envisage the imperatives of compatibility as those which limit the range of co-existence of the structural elements of the same society. For example, in a structural element as a given class of occupational role system, the type of kinship system that goes with it must be fixed within the specific limits. (9)

In structural functionalism, the pre-occupation is with imperatives of compatibility or functional reciprocities and consequently has relegated the concern with cause and effect to a secondary place. As a result, this School, in studying modern societies, concentrated on the compatibility of full monetisation of the economy and legal institutions of private property and contract, the industrial occupational complex and the prevalence of nuclear and conjugal family patterns, coupled with a relatively degree of social mobility. Also, to these they posited that the educational system becomes more formalized with subsequent high literacy rate which engenders extensive occupational specialization, comparative pluralism and democratic organizations of polity

which allows full enfranchisement of citizens and a multi-party system. (8)

It was within this frame, Parsons conceptualized and developed his ideas in writing the Social System which forms the central theme of our theoretical frame of reference.

Social System

Here, we consider to start with Parsons's own definition or what he implies when he spoke of the 'social system'.

" 'System' is the concept that refers both to a complex interdependencies between parts components and processes that involves discernible regularities of relationship, and to a similar type of interdependency between such a complex and its surrounding environment. 'System,' in this sense, is therefore the concept around which all sophisticated theory in the conceptually generalizing disciplines is and must be organized. This is because any regularity of relationship can be more understood if the whole complex of multiple interdependencies of which it forms part, is taken into account. " *

In consequence to the above, Parsons posited that methodologically, we must distinguish a theoretical system, which is a complex of assumptions, concepts and propositions having both logical integration and empirical reference from an empirical system which is a set of phenomena in the observable world that can be described and analysed by means of a theoretical system. In for example, an empirical system such as the solar system, as relevant to analytical mechanics, is never a totally concrete entity, but, rather a collective organization of those properties of the concrete entity defined as relevant to the theoretical system in question.

Thus, to illustrate his position he reiterated that in Newtonian solar system mechanics, the earth is 'only' a particle with a given mass, located in space, velocity and direction of motion and as such, the scheme do not pre-occupy itself with the earth's geological or human social or cultural characteristics. Thus, to him, in this sense any theoretical system is abstract.

In this respect, as a theoretical system, the social system is specially

* International Encyclopedia of the Social Sciences Vol 15 p. 458

adapted to describing and analysing social interactions considered as a class of empirical systems. These systems are concerned with behaviour as distinguished metabolic physiology of living organism. So among the categories of organism, we center our interest on human social interactions which are organized at the symbolic levels we call 'cultural'. (10)

Moreover, he has considered such aspects of behaviour which is directly concerned with 'cultural levels' systems and labelled them action. Here, action includes four technical generic types of sub-systems- the differentiation of which has evolved thus allowing clear definitions during modern intellectual history. In the first, we conceiveⁿ the organism which is treated as a concrete entity in one set of terms, becomes, on a more generalized level, a set of abstract components in the culturally organized system of action. Another sub-system is the social system which is generated by the process of interaction of individual unit, whose distinctive characteristics are conditioned by the specific modes of interrelationships obtaining among living organisms that constitute the units.

In the third is the cultural system in which action is organized and characterized by specific symbols and exigencies that give rise to that stable system. This is structural in terms of patterning of meanings which in times of stability imply generalized complexities of constitutive symbolism which give the action system a primary 'sense of direction' and which must be treated as independent of any particular system of social interaction. But, inspite of the many ramifications in such areas as language and communication, the prototypical cultural systems are those of beliefs and ideas. Thus the possibilities of their preservation over-time and their diffusion from one personality / and or social system to another, illustrates the importance of the independent structure of cultural systems.

In the fourth, we see the analytical distinction between social and cultural systems that has a correlative relation to distinguish between the organism and those aspects of the individual actor which we generally call the personality. Moreso, within the achieved cultural levels of control of behaviour, the primary sub-system of action can no longer be organized or

structured primarily about the organic base, which, is in the first instance, is anatomical or physical. Personality, is the aspect of living individual as 'actor' which must be understood in terms of the cultural and social content of the 'learned patterning' that make up his behavioural system. Here 'learned' refers not merely to the problem of origin of the patterning heridity sense, but also to the extent of the level of kind of the content.

As a result, we treat social system when involved at the action level as one of the four sub-systems of action, all of which articulate with the organic bases of life and with the organic adaptation of the environment in the broadest biological sense. Also, in some ways, the social system tend to be the primary link between the culture and the individual (both as personality and as a organism).

Further, the secret of the evolutionary capacity evidently lies in the possibilities for 'reverberation' among the inter-communicating members of a social system, each of which is both an 'actor' orienting himself to his situation in terms of complex cultural level, intended meanings and an object of orientation meaningfully to other orienting 'actors'. Furthermore, each person is both actor and object to himself as well as the others. Thus, interaction, at the symbolic level, becomes a system analytically and very appreciably, empirically independent of its pre-symbolic base (though still grounded in them) and is capable of developing on its own.

On this level, insights to this basic complex of facts constitutes a principal foundation of modern social science theory. This situation is achieved by convergence from at least four sources. Freud' psychology, in the aspect of its medical biological base, Weber's idealism/ materialism, Durkheim's analysis of the individual actor's relation to 'social facts' of his situation, and the propositions of the American Symbolic Interactionist- Colley and Mead based on the philosophy of pragmatism.

In our dealing with the social system, one must distinguish terminologically between an 'actor' as a unit in the social system and the system as such. The 'actor' may be either an individual or some kind of a collective unit. In both cases, the actors within a system of reference will be spoken as acting

in situation consisting of other actor-units within the same frame of reference, who are considered as objects. The system as a whole, functions (but does not act in a technical sense) to its environment. Thus whenever we refer to a collective, i.e. social system, is acting as in the case of a government conducting foreign relations, this will mean that it and the objects of its action constitute the social system of reference and in this light, these objects are situational not environmental to the acting collectivity.

The social system and its environment.

The social system, like all living systems, is inherently an open system engaged in processes of interchange input/output relations; with its environment as well as the interchanges among its internal units. In addition, its interdependence with other parts of a more comprehensive system or system and hence, partly dependent on them for essential inputs. Here the dependencies of the organism on its physical environment for nutrition and respiration, is prototypical. This forms the foundation on which the concept of function as applied to social systems and all other living system. For, in any system of reference, functional problems are those concerning the condition of maintenance and or development of interchanges with environing system both for inputs from them and output to them.

Here, functional significance may be determined by the simple criterion of dysfunctional consequence of failure deficit or excess of an input to a receiving system as asphyxiation is the consequence of failure of oxygen input and as a result, the oxygen is functionally significant for the organism as an input. Thus function is only the basis on which a theoretical systematic ordering of the structure of a living system becomes possible. In this context, functional reference is quite clear on the possibility of structural arrangement since the biological concepts of variation, selection and adaptation, have long been couched in a framework for analysing the widest variety of change processes.

Goal-attainment processes explicitly intended to fulfil functional requirement constitutive of a limiting but very important case. Outputs, in this

sense, have primary functional significance only for the system which receives them and which is situational or environmental to the system of reference; although they have secondary functional significance to the latter. For although the economic output (commodities) goes to the 'consumers', the maintenance of certain levels of salable output clearly has great significance to the producing organizations. It is the inputs that have primary significance for any given system of reference. The 'factors' of production of economic theory are classic examples, being the crucial inputs of the economy.

In a crucial sense, the relation between any action system, including the social and any of its environment is dual. On one hand, the particular environment constitutes a set of objects which are 'exterior' to the system in the Durkheim-Cartesian sense. On the other hand, through interpenetration, the environmental system is partially and selectively included in the action system of reference. Internalization of social and cultural objects in the personality of the individual is certainly the prototypical case of interpenetration, but the determining principle should be generalized to all the relations between action systems and their environment.

In this respect neither the individual personality nor the social system has any direct relation to the physical environment. The relationship with the latter is mediated purely through the organism which is action primary link with the physical world (now commonplace in modern perceptual and epistemological theory). Relatively, in this sense, neither personalities nor the social systems have direct contact with the ultimate objects of reference and the ultimate 'reality' which poses 'problems of meanings' which is associated or developed in the thoughts of Max Weber. The objects which personalities and social system know and otherwise directly experience, are in our terminology cultural objects of which empirical cognition are human artifacts in much the same sense as are the objects of empirical cognition. As a result, the relations of personalities and social systems with ultimate 'non empirical reality' are in the basic sense mediated through the cultural system.

Emphasis on the lack of direct contact with what is 'out there' concern in both case certain qualities of the environing systems as objects. Moreover,

there are important contact with the physical and supernatural environs through the interpretations of the latter in the action systems. Hence such concept as knowledge is not naive illusions but are the modes of organization of the relations between various action systems and their environments as by (Whitehead 1929) and Mead in 1938, in their analysis of action on a philosophical position similarly taken by Parsons.

In this frame, we regard the relation between the sub-systems of action and the systems of non-action, as pluralistic. In this sense, there will be no one to one correspondence between any two interdependence and interpenetrating systems but a complex relation which can perhaps be understood by theoretical analysis. This is true of 'heredity' and environment, cultural and personality, and the ideal and real factors in the social system.

Here, it becomes necessary to consider the various environment of a living system due to the fact that each unit is engaged in one of the interchange relations with the system and the specialized nature of the relations which serves primary bases of internal differentiation of the system. For the instance of nutrition and elimination systems, the respiration system and the locomotion system of an organism are differentiated from each other. To Parsons, this is the essential meaning of the controversial (in the social not the biological science) concept of 'function'. The basis of differentiation is functional since it consists in the differing input/ output relations of the systems with the various environments and following from that, the internal relations between the differing parts of the system itself.

Society and Social Communities

On the understanding that all social systems are systems of interaction, the best reference point of focus among many types - for general theoretical purpose- is the society. Here we define the society as a category of social systems, embodying at the requisite level of evolutionary development and control over the condition of environmental relations through the greatest self sufficiency of any type of social system. By self sufficiency, Parsons was implying the capacity of the system achieved through its internal organ-

ization, resources and access to input from the environments which function autonomously in implementing its normative culture; especially the values, norms and collective goals. Self-sufficiency is viewed in the generalized adaptive capacity in the sense of biological theory. In addition, the term environment is pluralized here to emphasize the fact that the relevant environment is not just physical as in most formulation of general biological theory; but includes the three basic sub-system of action as outlined above.

The core structure of a society, we call the societal community. In different levels of evolution, it is referred to as a tribe, the people or the nation. However, it is the collective structure in which members are united or tend to be united. But the most important property is the level and kind of solidarity in the Durkheim's sense which governs the interactions of its members. Solidarity of the community is essentially the degree to which its collective interest can be expected to prevail over the unit interest of members whenever the two conflict. This situation may call forth mutual respect among units for the rights of membership status, in conformity with valued norms institutionalized in the collectivity or yet positively contributing to the attainment of collective goals. The character of this solidarity varies with the level of differentiation in the society. Such differentiation is evident in the structures of roles in which a given individual is involved, of the system collectivities, and of its norms and specified value orientations. To clarify his position as regards to the type of solidarity he was considering he used Durkheim's two categories of 'mechanical' and 'organic' :

Both types of solidarities are characterized by common value and shared institutionalized norms. In the case of mechanical solidarity, patterns of action are in uniformity and the units are segmented since they are functionally differentiated. So to illustrate this issue, he has cited Durkheim's analysis of crime as a prototype violation of the obligations of mechanical solidarity. In this aspect, the treatment of the criminal should ideally be the same regardless who commits the crime - even though this ideal is frequently and seriously deviated from. At the societal community level in differentiated societies, the core of the system of mechanical solidarity lies

in the pattern of citizenship in T.H. Marshall sense. These pattern can be sub-divided into components of citizenship relative to the civil-legal, political and social .

In 'organic solidarity', three kinds of primary structural contexts become particularly important. Here again, he referred to Durkheim's thoughts. He argued that in the economic 'division of labour', contract and property are of vital importance. Secondly, political differentiation in both the organization of authority and leadership and the various modes of participation in collective decision making , involves the interplay of information and influence based on collective action. The third demonstrates the societal relations with its cultural involvement. This particularly concerns the society's articulating with the religious system, with arts, the system of intellectual disciplines and the relations between patterns of moral obligations and those of law.

Organic solidarity and pluralism.

In all of three contexts, 'organic solidarity' is associated with the phenomenon generally called pluralism. As a function at the level of differentiation among the articulating sub-systems, there is an increasing flexibility which facilitates the concrete relations established by relatively specific processes. But there is a pluralism of economic interest which, if left uncrotted, would tend to destroy the solidarity of the societal community. Next, we come to the situation where pluralism of interest groups, in the political context, which though of course is linked with economic pluralism, is by no means the same. The political process as such, leading to collective decision making, is the consequence in toto of a 'political struggle' among the interest groups. This has the potential of disrupting societal solidarity. Moreso, this can operate not merely to contain the struggle, but even more positively further to integrate the desperate group by its various mechanism of integrative control. Furthermore, differentiated societal community tends to be culturally pluralistic as is most conspicuous in Western societies. that have attained the level of religious pluralism.

Moreover, closely associated with this is pluralism among the intellectual disciplines which have gained institutionization in modern societies in the university system. The rise of the sciences , was in the first instance,

a profound symbol of this pluralization and has become a major factor in major developments in the future of modern societies in a variety of ways.

Notwithstanding, the problem of ethical pluralism is analytically more difficult and complex as this trend seem to move away from the special kind of moral uniformity which characterizes the societies in which 'mechanical solidarity' predominates. However, the essential point concerns the level of generality at which common moral standards are defined. Never-the-less. if the society is to integrate its various kinds of units into a solidarity at the societal community level what counts as moral obligation cannot be defined in terms of specific to the unit but must be sufficiently general to be applied to the considerable range of differentiated classes of units. This moralism ties morality to the specific sub-group or the specific stage of societal development and must be distinguished from the desire to maintain control of the actions along the lines of more generalized moral standards.

Cultural system and Political system

The most dynamic principles prevail and are articulated most directly with the cultural and political sub-systems of the society. Furthermore, it is here that the main linkage of the two relationship between 'organic' and 'mechanical' solidarity can be traced. The cultural (pattern maintenance) system centers on the institutionalization of cultural value pattern which at this level generally can be regarded as moral. Institutionalized societal values and their specifications to the social sub-systems, comprise only part of the relevance of moral valued to action. Moral values are also involved, through socialization in the structures of personalities and the behavioural organism and more generally articulate with religion, science and arts within the cultural system.

Community, in this sense, is never a simple matter of 'acting out' of value commitment. It involves the acceptance differentially in valuational terms, of conditions necessary for the functioning societies and their sub-systems.

However, in addition to a general set, establishing a presumption of legitimacy for social systems as such must rest on a more flexible set of mechanism providing for adaptation between the cultural sub-system of the society and

societal community itself. These mechanisms must cope with the changing needs and exigencies of various associational relationships in the light of their developing interrelations and other corresponding relations with the value system. This is most significant particularly in the functioning of the changing conception of the imperatives of relations by defining the nature of 'valued associations'. The commitments to the societal community is no longer ascriptive but are dependent on the need for such commitment and the evaluation of the compatibility with deeper moral commitments at the cultural level. One aspect of this flexibility, is the individual's enhanced moral independence from imperatives of unquestioning obligations to conform. But the obverse aspect is the right of the community to expect appropriate flexibility in the adaptation of moral demands to exigencies of realistic implementation.

The minimum imperatives of specified common value commitment define one pole of the structures of the social system organized with 'mechanical solidarity'. Also there is a place for 'organic solidarity' in so far as such commitment are so firm as not to be 'negotiable' and so general as to permit the kind of flexibility in adapting to particular exigencies. Moralism here is referred to as the limiting case of lack of generality (and perhaps firmness of commitments) fore-closes such flexibility. Moreover, members complementary obligations to norms and values constitute the obverse expectation of contributing to the functioning of the social system to which they are committed. The 'pay off' in the relation between the societal community and the political sub-system which is pre-occupied with the attainment of collective goals, journeys toward the mastering exigencies in the interest of implementation of values. So, too, this is not merely a matter of establishing significant relationships of solidarity but of further committing the interest of the community to specific goals within the ambits of exigencies of the particular environmental conditions. For the individual, this refers not only to his personal commitment to the goals but his obligation as a member of the community. Committing the community implies the solution to the problem of integrating the community with reference to the 'polity' in question - whether this involves a broad consensus or ruthlessly suppressing

the minority or even majority views.

In relation to the national community to the 'cultural' sub-system, two importantly different levels are involved. One relates to general 'authority' of differentiated elements in the society to commit or bind the collectivity as a whole in pursuit of particular goal within the specific situation. On one extreme, there could be an absolutist or despotic government which presumes to act as it pleases regardless of the consent or opposition of the broader societal community. The opposite to this will be a community which endeavours to make any collective action virtually dependent on unanimous and explicit consent. By differentiating the two levels, modern government systems avoid being caught in the above dilemma. They set up procedural rules defining the level of support needed to authorize collective action; binding the collectivity as a whole, including minorities which dissents in various contexts.

The development of political differentiation and pluralism, including the generalization of crucial level of political obligations, tend to broaden the scope of individual freedom for dissent and at the same time draws the lines between politically institutionalized- as distinguished from moral- rights of dissent and opposition and those institutions defined as illegitimate. Thus, the basic independence of cultural-moral and socially institutionalized systems, however, precludes any social community from being completely immune to the kind of political opposition which can lead to the disruption of its basic solidarity. The element of 'mechanical solidarity' concerns with legitimizing the decision making authority. Such legitimation must be derived from common value commitment to the societal community and hence to the type of collective action considered legitimate. This includes the identification of the agencies entitled to take such action. Obviously, this also implies the rights of membership elements to give or with-hold support for the particular policies, and more generally in particular claims to leadership status. But the appeal for this type of support must be on the basis of 'organic' rather than 'mechanical' solidarity. The procedural rules becomes the focus of commitment while particular outcomes are matters for legitimate contest.

Solidarity and the economy

Parsons, in analysing the division of labour in the economic sense, used Durkheim's organic solidarity and within this frame, the economy is conceived as the functional sub-system of the society differentiated around the production and allocation of resources within the society. This operates through a combination of factors of production: land, labour and capital and the organization to produce categories of output- commodities and services. but the economic categories are not physical objects and the behaviour as such; but are measures of control. In the case of commodities, it is essentially the property rights and in the case of services we associate the status of the employer over the performer to power and authority.

The actual combination of processes in the economic sphere, takes place within a goal oriented organization or unit referred to as firms. In strictly economic sense, this functions through the management of boundaries of the relations of the market system. This process entails determination of requirement, acquiring such requirements, guiding the production and eventually disposing of output through the market system. These processes operate by adjusting relations between demand and supply by establishing terms of transfer of control which equate quantity and price for both parties to the exchange.

Here, contract is essentially the procedural rules regulating transfers of both factors of production, and the population tends to be institutionally focused on 'organic solidarity'. Moreover, this complex not only regulate the actual settlement of contracts but also define what types of contract may (and may not) be entered into. It also determines the terms for reaching agreement, thus taking into account the interest of third parties and their obligations under special contingencies such as the development of unforeseen obstacles to the fulfillment of terms. The institution of property then is the normative system regulating acquisition, disposal, control and utilization of physical objects relative to the contractual system whether these objects are factors of production or are outputs- commodities. Further, the institutional complex of employment regulates the acquisition and utilization of

human services either as factors of production or the ultimate agents of valued consumption.

Generalize media of exchange

In sufficiently developed societies that are differentiated, money plays a central role as both a symbolic medium of exchange and a measure and store of value. Thus money may be defined as the capacity of a societal unit to command economically valuable resources through the exchange process. The payment of money constitutes the transfer of such a capacity from one unit to another. In most transactions of this kind, entities that have 'value in use' features on the side of the exchange relationship, being balanced by a monetary consideration on the other. 'To pay' money is to accept certain economic obligation defined by a proportionate diminution in one's capacity to command certain economic values in other transactions. To accept money in payment entails the right to an expectation that others will make economically valuable goods and or services available at the time and place specified by the buyer as defined by the nexus of the market. Money is of importance theoretically as it is best understood as a member of generalized symbolic media of exchange involved in the social interaction process. Political power and such associated influence used in the political leadership process certainly belong to this family.

The economy, conceived here, articulates with the societal community primarily through the institutional complex of contract, property and employment-occupation system. Solidarity is herewith maintained by keeping the transaction in line with certain integrative imperatives, by protecting both parties in the contractual relation and that of third parties and at the same time provide the basis for solidarity in relation to effective collective action; especially through making economic resources available to collective units including the government.

Money as a symbolic medium, may be called a specialized language. Like all such media, it expresses and communicates messages having meanings with reference to a code (that is a set of rules for the use in transforming and combining symbols. The institution of contract, property and employment as

part of the legal system, constitute the code terms of which the transformation between money and commodities or services and among different forms of monetary assets operate. Financial transactions, therefore, constitutes a certain type of conversation. As the generalized medium of mobilizing capacities for effective collective action which can be utilized by members in contributing towards binding the collectivity to a particular course of action, either by determining or contributing to the implementation of specific policy goals.

Moreso, the code within which powers as a medium operates, centers about the institution of authority. This in turn articulates with the pattern of institutionalized leadership and administrative responsibility for maintaining regulatory norms. Also its articulation with the cultural system as an operative medium, Parsons has labelled this sphere commitment. He further added that this is the specification of the general value patterns to the level necessary for their workable combination with other factors which are requisite for their implementation in concrete action. Also, the relevant code is the set of institutions which constitute the under-pinning of society's 'mechanic solidarity'. Thus, within this context, civil components hold precedence because they formulate the valuational basis of community membership.

So too, the societal community becomes the focus of operation in the sphere of influence as the relevant norms underlying 'organic solidarity' in so far as they relate to pluralistic structures of differentiated societies. Along this line of reasoning, since the solidarity of the society is primary, justification for the allocation of loyalties comes into focus. Here, he argued that such justification must be distinguished from legitimation; as this is less absolute and operates at the lower level in the cybernetic hierarchy. The system may well be legitimate while the question of jurisdiction of certain choices between alternative subsidiary solidarities are still left open where actual or potential dilemmas are posted. These diverse coded components are more or less adequately integrated in a vibrant social system where they constitute its basic normative structure. These should be distinguished from the primary normative components of a pattern maintenance system; since the

latter are made up of value pattern and their specification are not differentiated norms. Thus, the integrative oriented code of societal system must be anchored in a value system if it is to have a basic legitimation. Nevertheless, its structure is determined by not only value specifications but also by adjustment to the exigencies of other functional sub-system. However, in the process of adjustment, the integrative oriented code still maintains a certain level of integrity with respect to value commitment and solidarity of the societal community. However, in highly differentiated societies, this basic code system forms the core of the legal system. (11)

If we examine the entities that perform each function, we will be better informed about what Parsons mean as regards to the following. Adaptation involves the response to the demands of the environment. If we should use in our example, an organization as the Harbour Authority. Its problem of adaptation will be one of acquiring the necessary facilities for furthering goals. The Authority must secure adequate funding, competent personnel and the required facilities in order to carry out its programme. Goal attainment involves the mobilizing of its resources. In this respect, the Authority must plan the utilization of its resources (funds, facilities and personnel) towards the achievement of the desired goals. Latent pattern maintenance refers to the problem of maintaining the value pattern of the system. Any organization incorporates values and motives which assist in the performance of their various tasks. Thus the two functional imperatives focus on problems internal to the system- latent pattern maintenance / and integration and adaptation and / while goal attainment relates to the problems of the environment.

Moreso, the four functional imperatives are related to four structural categories in which each is involved in fulfilment of one of the former. Adaptation is the basic function of role. Goal attainment is the work of the collectives. Integration depends on the norms which regulate the great variety of processes that contribute to the implementation of pattern value commitment.

Norms define expectations and thereby govern the relationship and latent pattern maintenance is the function of values. In the light of the fore-going it is important to understand the nature of functional imperatives because they

are the link between structures and processes. Thus when we examine processes in the social system, we do so in the context of the four functional imperatives which are also in structural essence of any social system. (12)

Parsons went on to distinguish between process and change. For him, all processes involve some kind of change; but the processes which changes social structures should not be equated with others that do not. The former he proposed in a category of 'change'. As a result, 'change', to him, alters the social structure. Within this frame, he proposed two dynamic problems in the system. The first, is the process of equilibrium which he claims is assumed under the caption that structural patterns of institutionalized culture are given; assured to remain constant. In the second, structural change, as a process, involves the fundamental alterations in the system.

The distinction between the two type of dynamic problems does not involve an absolute dichotomy. For, there is a very important mixed case which involves structural changes in the sub-systems but not the overall structural patterning. In this respect, the most important type of such a process is structural differentiation which involves the reorganization of the system and consequently engenders fundamental structural changes in the various sub-systems and their relations with each other. Moreover, we can identify four types of processes in Parsons's thoughts.

First, we have equilibrium which characterizes the processes within the system; structural changes- involving significant alteration of the system; structural differentiation, involving changes in one or more sub-systems but not in the overall system; and evolution which is the process that describe the developmental pattern of the society overtime. These four type of processes are not, of course, mutuallt exclusive or independent, but as we have seen, they are analytically distinguishable.

It is in appreciation that our summary may not do proper justice to the position taken by Parsons in his 'social system' scheme, because of the fact that his writings do not lend itself to easy reading as even his contemporaries have accepted. Moreso, Parsons has sought to dispell his critics who have

accused him of difficult style of writing, vagueness of concepts, and unjustified psychologizing, by clarifying the issues levelled against him by his critics in his later writings ; Towards a General Theory of Action, The Structure of Social Action , Structures and Processes of Modern Societies etc. We acknowledge that his ideas were developed as illustrated above in several volumes, but the basic assumption or his position were comparatively unchanged. Thus , within this frame, we have sought to reproduce the basic assumption highlighted by Parsons and his co-author Edward A. Shils. With this in mind we will summarize below some of the main themes that pre-occupied the two authors and formed their basic contention.

In the action frame, Parsons saw the 'actor' in a situation for which he is oriented. Here action is the behaviour oriented to attainment of ends in situation by means of normatively regulated expenditure of energy. As a consequence of the above, there are four points to be noted in this conception of behaviour. Behaviour is oriented to the attainment of goals or other anticipated states of affairs; it takes place in situation; it is normatively regulated and it involves the expenditure of energy/energy or 'motivation' (which may be more or less organized independently of its involvement in action. Presumably, then, any behaviour that involves some awareness of goals and is organized in such a way as to permit the selection of means of reaching such goal which have been learned to be more effective than less effective, will be action. It is these properties of actors, situations, and orientation of actors that were manipulated by Parsons and Shils. Never-the-less, Parsons has outlined a variety of orientations of 'actor' to 'situation'. Properties of situations and orientations of actor to situation, are two major varieties. One is called the 'motivational orientation' and the other 'value orientation' .

Motivational orientation refers to those aspects of the actor's orientation to his situation which are related to the actual or potential gratification or deprivation of the actor's need-dispositions. In this area we encounter three modes. In the first, the cognitive mode involves the various processes by which an actor sees an object in relation to his system of need-dispositions. Thus this will include 'location' of the object in the actor's total object

world, the determination of its properties and actual and potential function, its differentiations from other objects and its relations to certain general classes. The cathectic mode involves the various processes by which an action invest an object with effective significance. This would include the positive and negative cathexes implanted upon objects by gratificational or deprivational significance with respect to the actor's need-dispositions or drives. In the third, we find the evaluative by which an actor allocates his energy among the various actors with respect to various cathected objects in an attempt to optimize gratification. Thus, it would include the process by which an actor organizes his cognitive and cathectic orientation into intelligent plans. Evaluation is functionally necessary for the resolution of conflict among interest and among cognitive interpretation which are not resolved automatically; and which thus necessitate choice or at least specific selective mechanism.

Value orientation refers to those aspects of the actor's orientation which commit him to the observance of certain norms, standards, criteria of selection, whenever he is confronted with a contingent situation which allows (and requires) him to make a choice. On the cultural level, we view the organized set of rules or standards as such, abstracted, so to speak, from the actor who is committed to them by his own value-orientations and in whom exist as need-disposition to observe those rules. As a result, culture includes a set of standards. An individual's value orientation is his commitment to these standards.

Here, we have also three modes of value orientations which are parallel to the modes of motivational orientation. The cognitive mode of value orientation involves the various commitment to standards by which the validity of cognitive judgement is established. Among these would be the standards setting the validity of observation, the relevant data and the importance of problems. The appreciative mode of value orientation includes various commitment to standards by which the appropriateness or consistency of the cathexis of an object or class of objects is assessed. These standards purport to give us for judging whether or not given objects, sequence, or pattern will have immediate gratificatory significance. The moral mode of value orientation evolves around

various commitment to the standards by which certain sequences of particular action or types of action may be assessed with respect to their effect upon systems of action. Specifically, they guide the actor's choice with the view with regards how the consequence of those choices will affect (a) the integration of his own personality system and (b) the integration of the social system in which he is a participant. (13)

Research Methodology

My research in terms of interviews took place while I was in Guyana within the period of December, 15, 1986 to February, 10, 1987 and was completed during my studies at the World Maritime University in Malmo, Sweden, in October, 1987. with the assistance of supportive documentation from the Statistical Bureau of Guyana and other relevant materials.

It must be stressed that we consider that in undertaking any research, there is no one way of looking at social reality. But this depends on one's orientation in viewing the phenomenon under review. For example, we may undertake to study a football. We may choose several of many alternatives: we may investigate this within an economic framework, as we may ascertain the pattern of demand and supply relating to this playing object; it may also be the object of a chemical research- for it is composed of organic chemicals as it has mass and may be studied as a physical object undergoing different stresses and attaining varying velocities under different conditions. It may also be seen as the center of many sociologically interesting activities - play, communication or group organizations. (14)

In the light of the above, I have embarked on this project from a sociological frame. Here, also, I have used interviews in preference to mailed questionnaires due to the fact that this process was unsuccessful due to poor response.

Interviews may be classified in many different ways in terms of their purpose, but all of them are social acts. Some are consciously intended to convey message and change behaviour; but others are intended to be neutral. Considering the many value and emotional laden variables which must enter into every interviewing situation, it is doubtful if any interview is truly neutral in the sense that it is merely a record of what is on the respondent's mind. Never-the-less, the most important aspect of this social act is the interplay of ideas (information) between the interviewer and his respondent in the establishment of a report. In general terms, this involves the simple sharing of common language, so that through shared frame of references each participant, in what he says or in what posture he takes, calls out in himself, incipiently, the response that there gestures, postures

and symbols call out in the other. Not only do difference in class spells differences in language, values and general perspectives; so too and often to a greater degree, do difference in ethnic and national background and in age and sex. (15)

For, example, If we mail some questionnaires probing the number of containers which were received by various forwarding agents in a particular area for export and import shipping. The information requires the supply of three categories- full, less container load (lcl) and empty. If information is not supplied by the questionnaire in regards to what we mean in the first two groups, we will be supplied with different conception of what is full or what is considered a lcl container. In some cases, we were given group of full containers(relative to 20 ft.containers) 14 to 18 tons and 16 to 18 tons and several groupings in the lcl container area. These situation poses a lot of difficulties for the researcher. In some cases the questions are not understood by the respondent who supply the information as he sees it which in most cases is not what the researcher is calling forth.

In an interviewing situation, these points can be clarified as both parties are speaking the same 'language'. Here an agreed figure will be arrived at relative to what is a full container load or a less container load. This is my prime reasons for my choosing the interview method in preference to the Questionnaire.

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Some Developments in Shipping (Ships)

The emphasis in the Shipping Industry has been clearly towards better operational economies and this has provided the guidelines for the development projects undertaken in recent years. Moreso, with the fast development in ship technology with the prime target of reducing cost, much advanced technological changes both in construction and machinery are taking place to enhance the efficient operation of ships.

New designs in engine technology are developed to reduce fuel consumption by the use of slow to medium speed engines. This new development has also affected even older ships as we have many in order to be cost effective are answering the call by changing main engines and auxiliary machinery. This is evidence as in the case of the luxury liner 'Queen Elizabeth 2' was re-engined with Main Burmeister and Wain medium speed diesel plants, a package offering high output with compactness and at the same time operating a power station mode to meet the need of propulsion and hotel load. Further, to ensure added advantages in fuel oil consumption and operation the latest slow speed main engines (long stroke large bore) and optimum propellers are chosen with reduced r.p.m. and diameter to the extent that the propellers immersion complies with Marpol 1973/78 and Solas 1978. In addition, Sulzer has researched and developed the Sulzer dual fuel R.T.A. engine. This engine is designed to run on natural gas, the engine combines high pressure gas injection with the latest design diesel technology.

Never-the-less, With the cost factor pre-occupying operators in the shipping industry, the main aim is at two areas- reductions in fuel consumption and crew. The first is achieved as stated above, the second is conceived to be achieved by the use of electronic surveillance systems. With this, there is a development towards unmanned engine rooms. These surveillance systems may include : bridge control systems; auxiliary engine control; electronic governor system; calculators, integrated control and surveillance

systems. Coupled to these systems are screen displays of components in operation. These systems also provide electrical alarms, slow down or shut down as the case may necessitate. This system is on the increase and engine room staff is on the decrease. We have also witnessed in Denmark's ship of the future, it is proposed to have only six(6) persons: two watch-keeping officers, one engineer, one radio officer, and two a.b. seamen, on a vessel of between 1700-3000 d.w.t. This situation reduces the crew by nearly 50 percent.

Computer

In the above, we have seen the operation of computers as they are combined with the surveillance systems to assist generally in operations on board, this is not the only area that these are utilized. Computers are used inter alia to store and provide shipping information of various description and to facilitate the work of those who are engaged in the chartering business. The concept of computer controlled international freight market with a data bank matching ships and cargoes on a world wide basis, has been examined but not dismissed. This is not practical feasible at the moment. Anyhow, we have witnessed electronic data processing systems (e.d.p.) which allows several countries in data link. For example, we have evidence of such a link between Norway and Belgium (Antwerp) and Hamburg in West Germany. Information on a bill of lading can be supplied by the computer telephone link. There the request for information was written in German and fed into the computer with the telephone link. The information is returned by the same process as the telephone in Oslo rings and the computer supply/ print the in-coming information.

This system of matching ship with cargoes, is available through e.d.p. systems and techniques such as Reuter Monitoring Shipping Services (Telefax and Teleprinting) used by over 300 subscribers in 31 countries. By subscribing to this system, ship brokers, ship owners, and charterers are facilitated with market data such as tonnage enquiries, ship position, list and fixtures. A considerable number of other companies also provide these information.

MEMBER STATE	MUNICIPAL/LOCAL AUTHORITY	STATE	PRIVATE	"AUTONOMOUS"
BELGIUM	Antwerp, Ghent, Ostend	-	-	Zeebrugge
DENMARK	Aarhus, Aalborg, Odense, Fredericia, Kalundborg	Esbjerg	-	Copenhagen
GERMANY	Hamburg, Flensburg, Leer, Bremen, Kiel, Lübeck, Papenburg, Rendsburg Wilhelmshaven	Eiden, Brake, Brunsbüttel, Cuxhaven, Bremerhaven fishing port	Nordenham	-
FRANCE		Bayonne, Boulogne, Brest, Caen, Calais, Cherbourg, Dieppe, La Nouvelle, La Rochelle, Lorient, Sete		Bordeaux, Dunkirk, Le Havre, Marseille-Fos, Nantes/St. Nazaire, Rouen
IRELAND	-	-	-	Arklow, Cork, Drogheda, Dublin, Galway, Limerick, New Ross, Waterford
ITALY	-	Leghorn, Cagliari, La Spezia		Genova, Savona, Trieste, Venice, Naples, Palermo, Civitavecchia
NETHERLANDS	Amsterdam, Rotterdam	-	-	Delfzijl, Terneuzen, Vlissingen
GREAT BRITAIN	Bristol		Felixstowe, Manchester, Mersey, ABP, Sealink	Clyde, Dover, Forth, London, Tees, Tyne
GREECE		Kavala, Alexandroupolis, Patra, Volos, etc.		Piraeus, Thessaloniki
PORTUGAL				Lisbon, Leixoes, Sines, Setubal, Aveiro, Figueira, Viana do Castelo, Portimao, Faro
SPAIN		Algeciras, Cartagena, Gijon, La Coruna, Malaga, Santa Cruz de Tenerife, Tarragona etc.		Huelva, Barcelona, Bilbao, Valencia

MARITIME ACCESS CHANNELS			
Member State	Cost of Investment	Cost of Maintenance	Remarks
BELGIUM	100% National Government	100% National Government	
DENMARK	100% Port Authority	100% Port Authority	
GERMANY	100% Federal Government outside port 100% relevant territorial authority within the port	100% Federal Government outside port 100% relevant territorial authority within the port	
FRANCE			
Autonomous ports	80% National Government 20% Port Authority	) ) 100% National Government	
Non-autonomous ports	30-50% National Government Balance Chamber of Commerce))	
IRELAND	100% Port Authority	100% Port Authority	
ITALY			
Autonomous ports	National Government + Port Authority in varying proportions	Varies but in general the National Government pays	
State ports	80% National Government 20% Communes + Provinces	100% National Government	
NETHERLANDS			
"Havenbedrijven"	2/3 National Government 1/3 "Havenbedrijf" (Rotterdam) or Municipality (Amsterdam)	) ) ) 100% National Government	"Havenbedrijf" in Rotterdam responsible for entire initial cost of access channel for ships drawing over 57'
"Havenschappen"	100% National Government)	
GREAT BRITAIN	100% Port Authority	100% Port Authority	
GREECE	100% National Government	100% Local Government	Local prefectural funds
PORTUGAL	100% National Government	100% Port Authority	
SPAIN	100% Port Authority	100% Port Authority	Sometimes with assistance from the National Government in the form of investment grants

LIGHTS, BUOYS AND NAVIGATIONAL AIDS

Member State		Cost of Investment	Cost of Maintenance	Remarks
BELGIUM	outside port	100% National Government	100% National Government	
	inside port	100% Municipality/Authority	100% Municipality/Authority	
DENMARK	outside port	100% National Government	100% National Government	
	inside port	100% Port Authority	100% Port Authority	
GERMANY	outside port	100% Federal Government	100% Federal Government	
	inside port	100% relevant territorial authorities	100% relevant territorial authority	
FRANCE	Autonomous ports	100% National Government)	
	inside port	60-80% National Government Balance Port Authority)	
Non-autonomous ports	outside port	100% National Government	)100% National Government	
	inside port	30-50% National Government Balance Chamber of Commerce)	
IRELAND	outside port	100% Commissioners of Irish Lights (1)	100% Commissioners of Irish Lights	
	inside port	100% Port Authority	100% Port Authority	
ITALY	outside port	)100% National Government	)100% National Government	Except at Genoa
	inside port))	
NETHERLANDS	"Havenbedrijven"	)100% National Government	)100% National Government	Except radar (see Netherlands summary para. 3.7.6.1.2.)
	"Havenschappen"	)outside the port - Position)within ports varies from port)to port	)outside the port - varying)responsibility within the)ports	
GREAT BRITAIN	outside port	Mostly Trinity House (2), sometimes Port Authority or similar body	Mostly Trinity House, some- times Port Authority or similar body	The costs are recovered from ships using the ports via light dues
	inside port	100% Port Authority	100% Port Authority	
GREECE		100% Port Authority	100% Navy	The local prefec- toral funds may help with initial investment
PORTUGAL		100% Navy	100% Navy	Except radar (see Portugal summary para 3.10.6.1)
SPAIN		100% National Government	100% Port Authority	

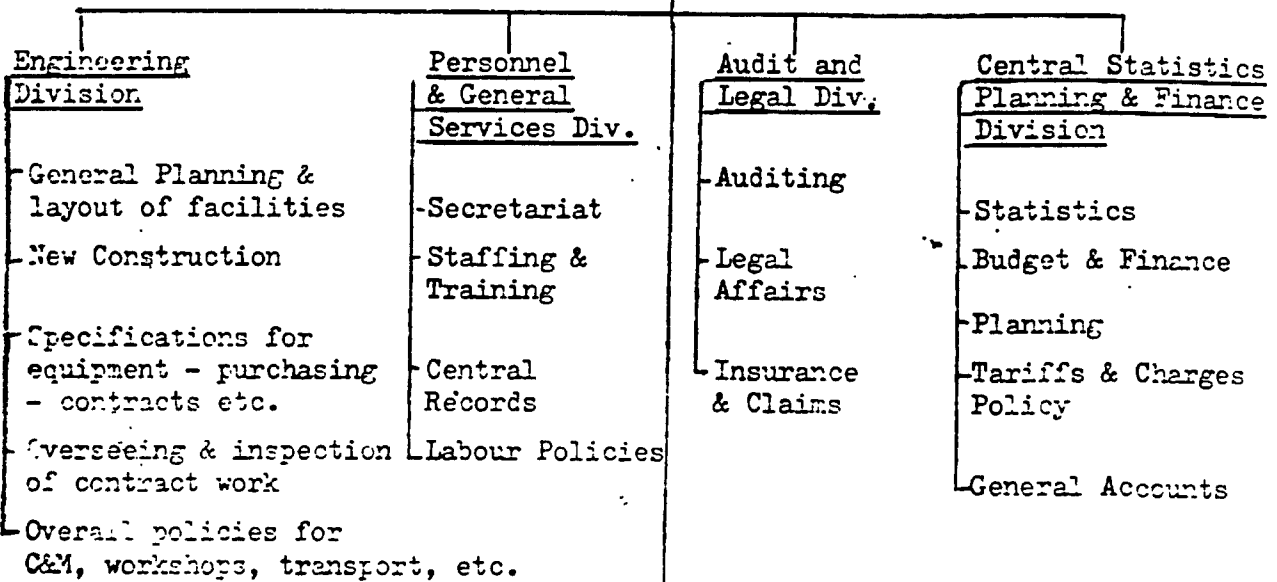
- (1) A statutory organisation responsible for all navigational aids around the coast of Ireland other than those for which the port authorities are responsible
- (2) Trinity House is a non-statutory private guild responsible for the pilotage in the Thames estuary and in 40 other ports and for most lighthouses

MEMBER STATE	SUPERSTRUCTURE	PILOTAGE	OTHER SERVICES FOR SHIPS	CARGO HANDLING AND OTHER SERVICES FOR
BELGIUM	Private sector except for certain cranes at Zeebrugge and Ostend	State at sea Private within docks	Mainly private sector	Private sector
DENMARK	Mainly private sector for sheds + buildings Mainly Port Authority for cranes	Mainly private sector (Port Authority at Aarhus)	Mainly private sector	Private sector
GERMANY	Mainly private sector - minor exceptions at Brake and Cuxhaven	Under Federal Government supervision at sea Territorial authority within the ports	Mainly private sector	Private sector
FRANCE autonomous non-autonomous	Port Authority for sheds + buildings Specialised equipment usually private Mainly Chamber of Commerce	Under Government supervision	Mainly private sector	Private sector
IRELAND	Mainly Port Authority - some specialised building and equipment private sector	Port Authority	Private sector and Port Authority	Mainly private sector
ITALY autonomous State	Port Authority Dependant upon Ministry of the Merchant Marine	Under supervision of the Government	Mainly private sector	Various arrangements private sector. Port Authority, Public Company
NETHERLANDS "Havenbedrijven" "Havenschappen"	Mainly private sector	The State at sea The Port Authority within the port at Rotterdam	Mainly private sector	Private sector
GREAT BRITAIN	Mainly Port Authority	Self-financing bodies	Mainly private sector	Nearly all by Port Authority
GREECE	Mainly Port Authority for sheds and buildings but mainly State for cranes and other cargo-handling equipment	State	Mainly private sector	Port Authority
PORTUGAL	Port authority and State	State	Mainly private sector	Private sector
SPAIN	Mainly Port Authority for buildings - mainly private sector for cargo-handling equipment	Port Authority	Mainly private sector	Private sector

MEMBER STATE	STATUS OF EMPLOYMENT	LEVIES DIFFERENT FROM OTHER ECONOMIC SECTORS	PERSON PAYING THE LEVY	PURPOSE OF FUNDS
BELGIUM	Permanent pool: employed on a daily basis by any port employer	Compensation funds 12-15% of gross wages	Private port employers	Minimum daily guaran plus various fringe benefits
DENMARK	Casual pool	Special Workers' Unemployment fund	Public Authorities	Illness or Injury
GERMANY	Permanent status with individual port employers	None	-	-
FRANCE	Permanent pool: employed on a daily basis by any port employer	National Wage-Guarantee Fund 12% of gross wages Special employment premium	Private port employers	Minimum daily guaran
IRELAND	Some in a casual pool, some in a permanent pool	Unemployment funds	Private port employers	Minimum daily guaran
ITALY	Permanent employment through cooperative companies	Special funds financed by 31% levy on port charges	Port users	Minimum daily guaran Sickness, holiday pa
NETHERLANDS	Majority permanent status with individual port employers	Special funds	Partly Government, partly private port employers	Minimum daily guaran
GREAT BRITAIN	Permanent status with individual port employers	Special funds	Private port employers	Training, redundancy payments, medical se
GREECE	Permanent status with individual port employers	None	-	-
PORTUGAL	Some permanently employed, some in casual pool	Satary Guarantee Fund	Mainly financed by port employers	Minimum daily guaran
SPAIN	Some permanently employed, some casual	Special Funds	Private port employers	To ensure fulfilment social obligations

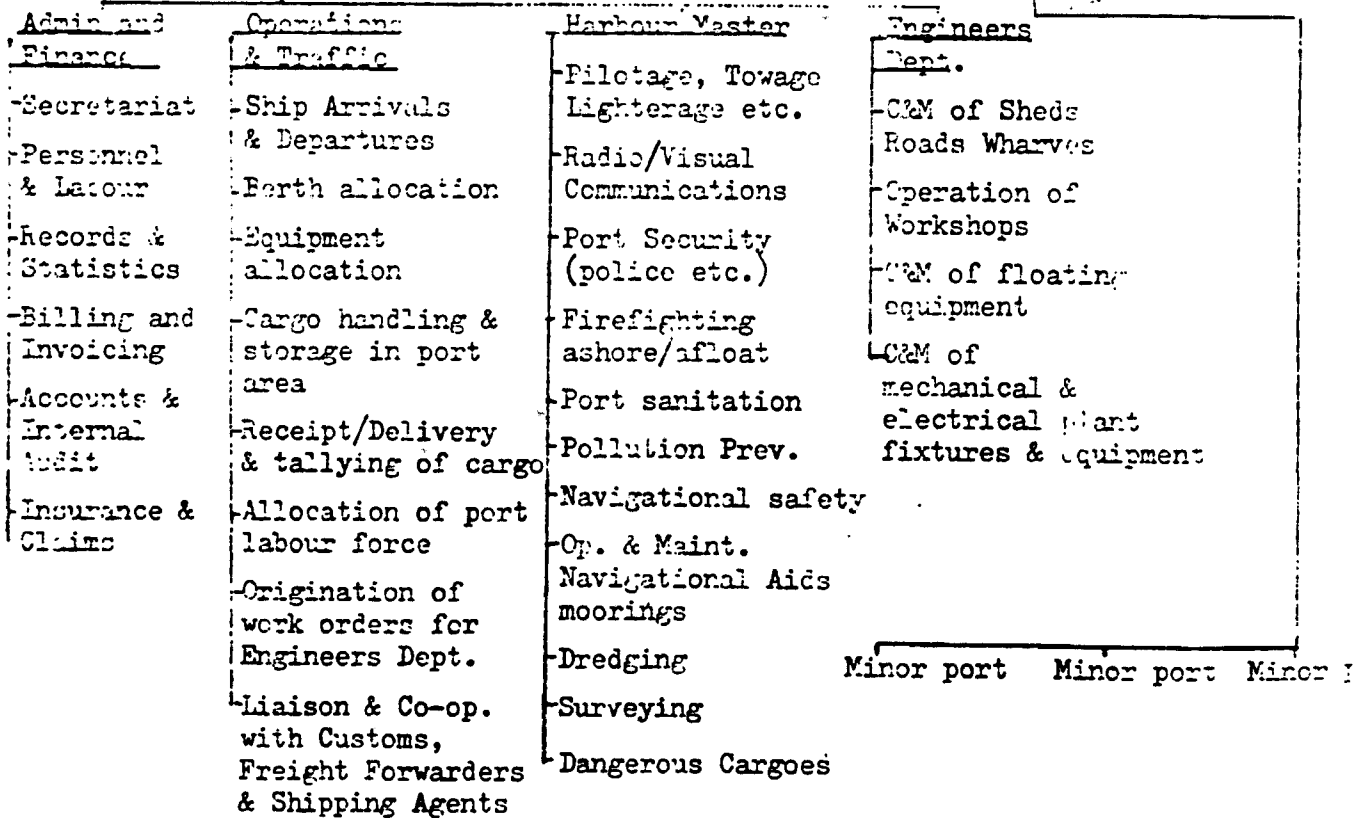
President of
Port Authority

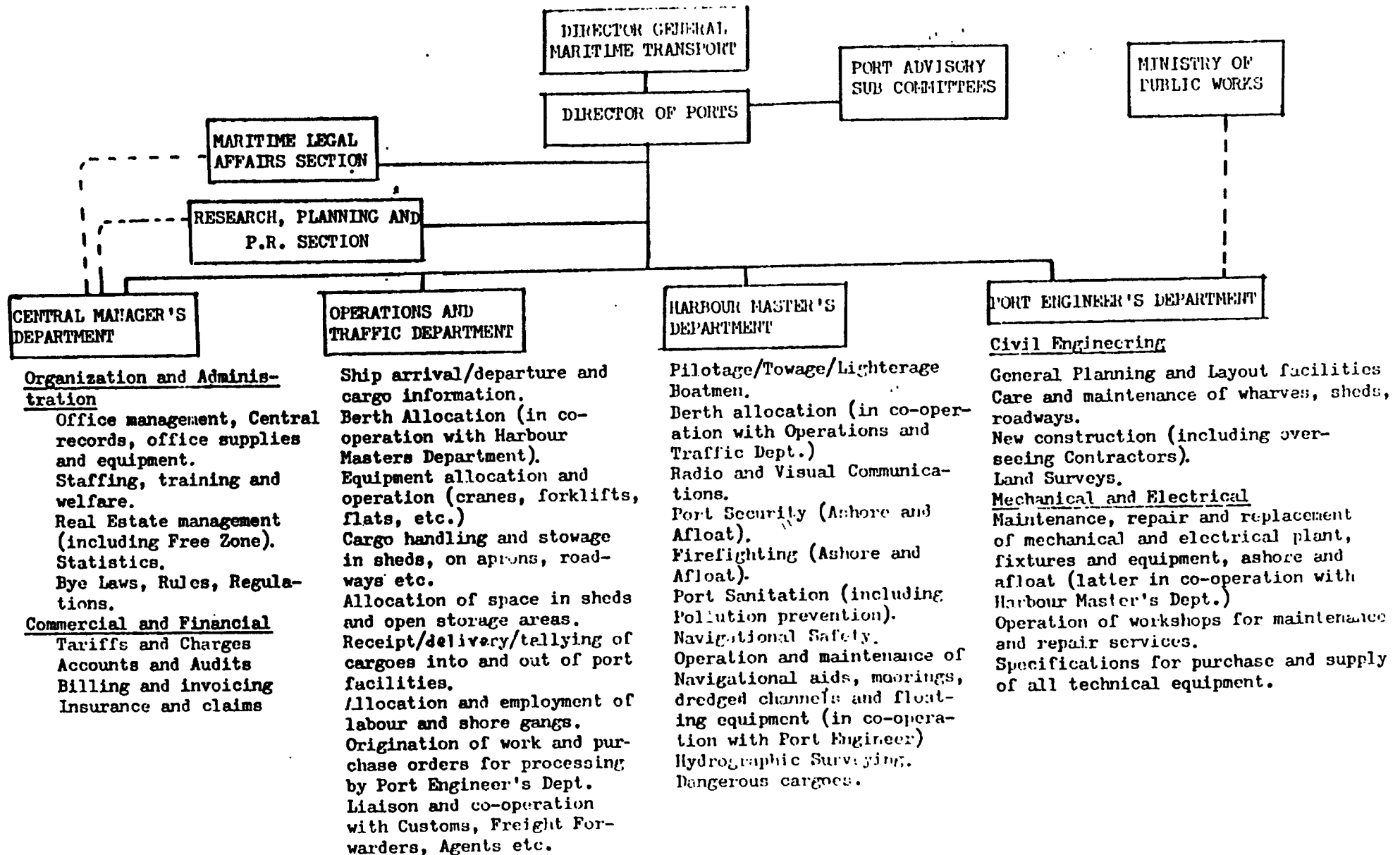
General Manager
of Port Authority

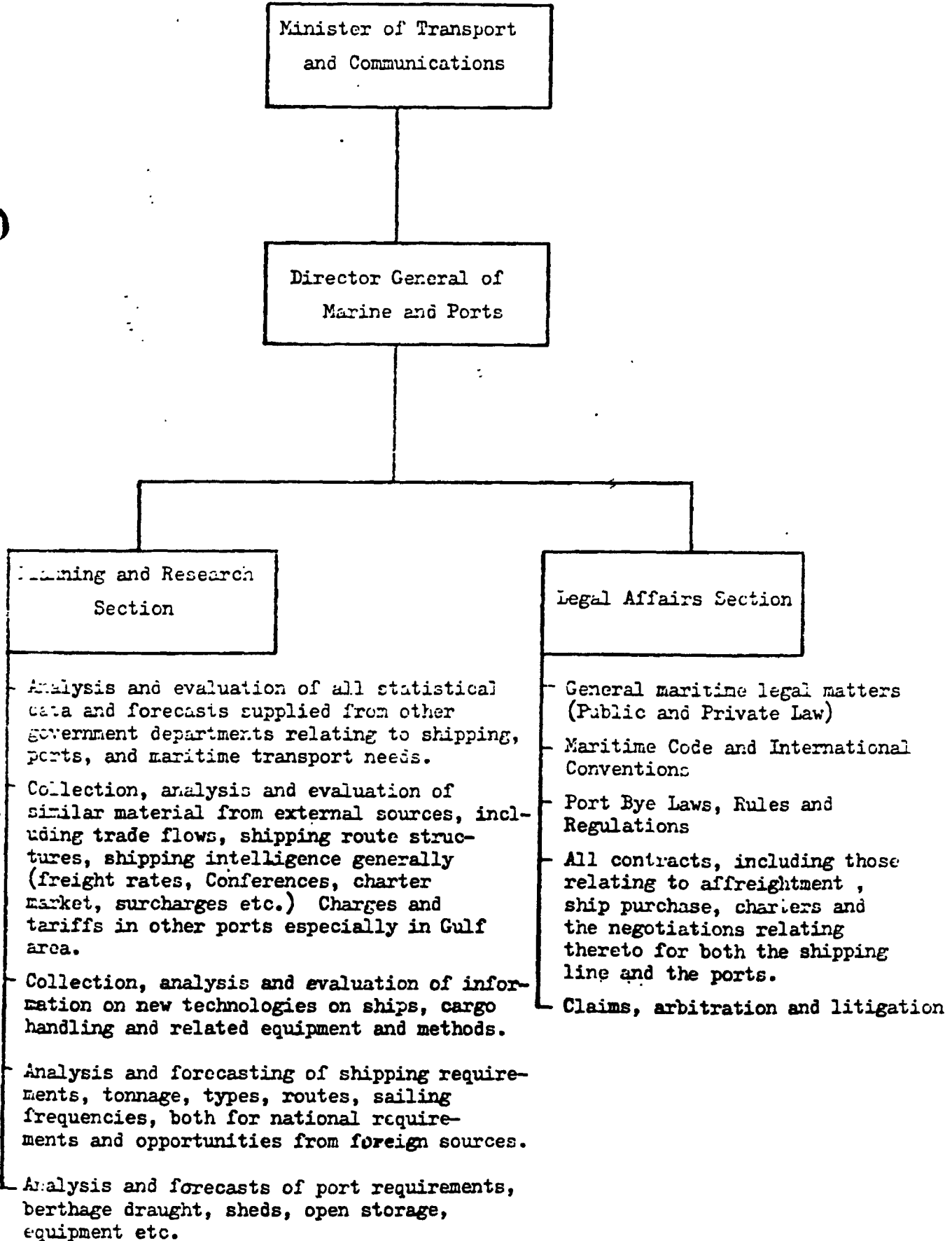


Port Manager
Major port

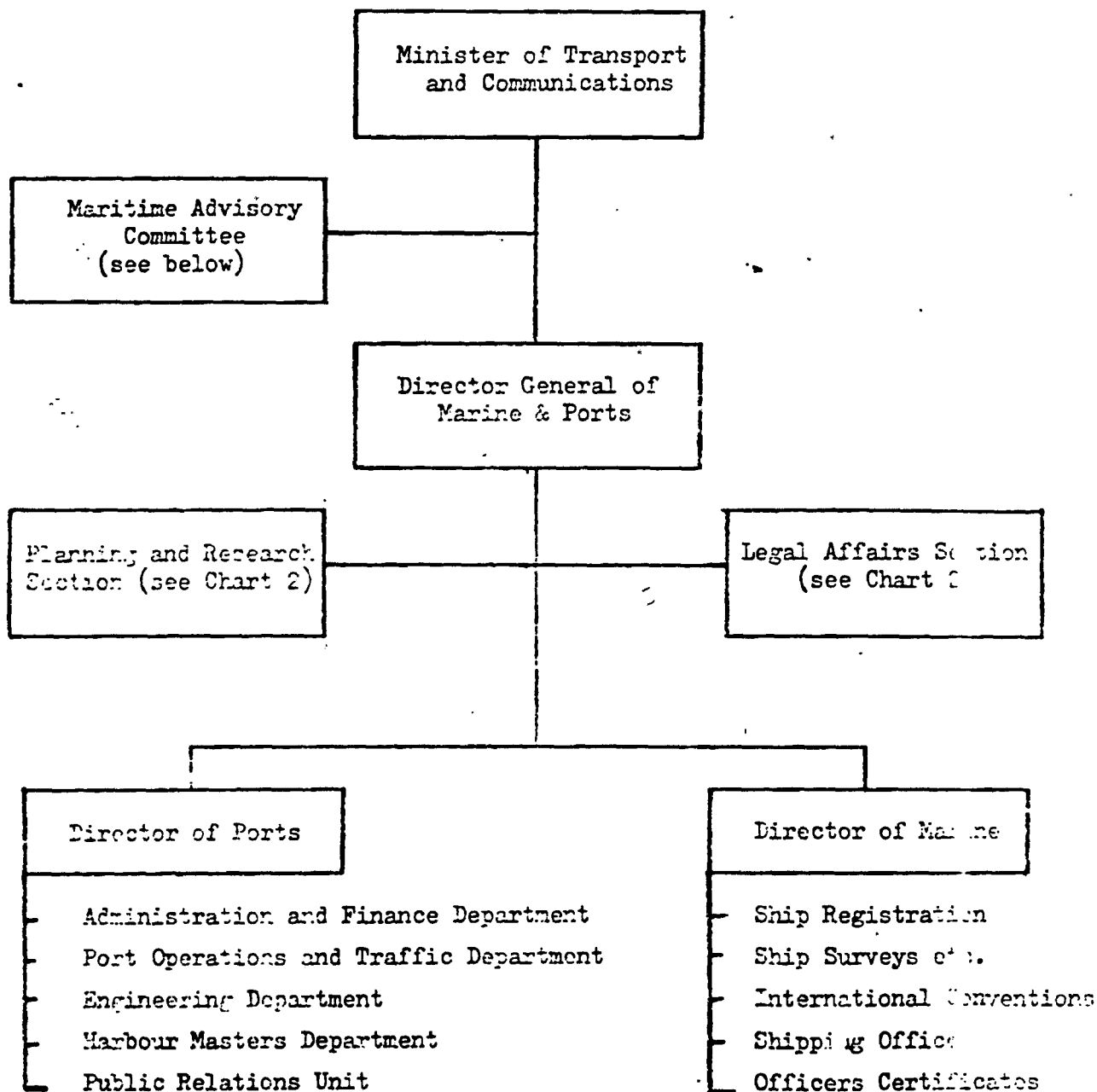
Manager & Co-ordinator
Regional Ports







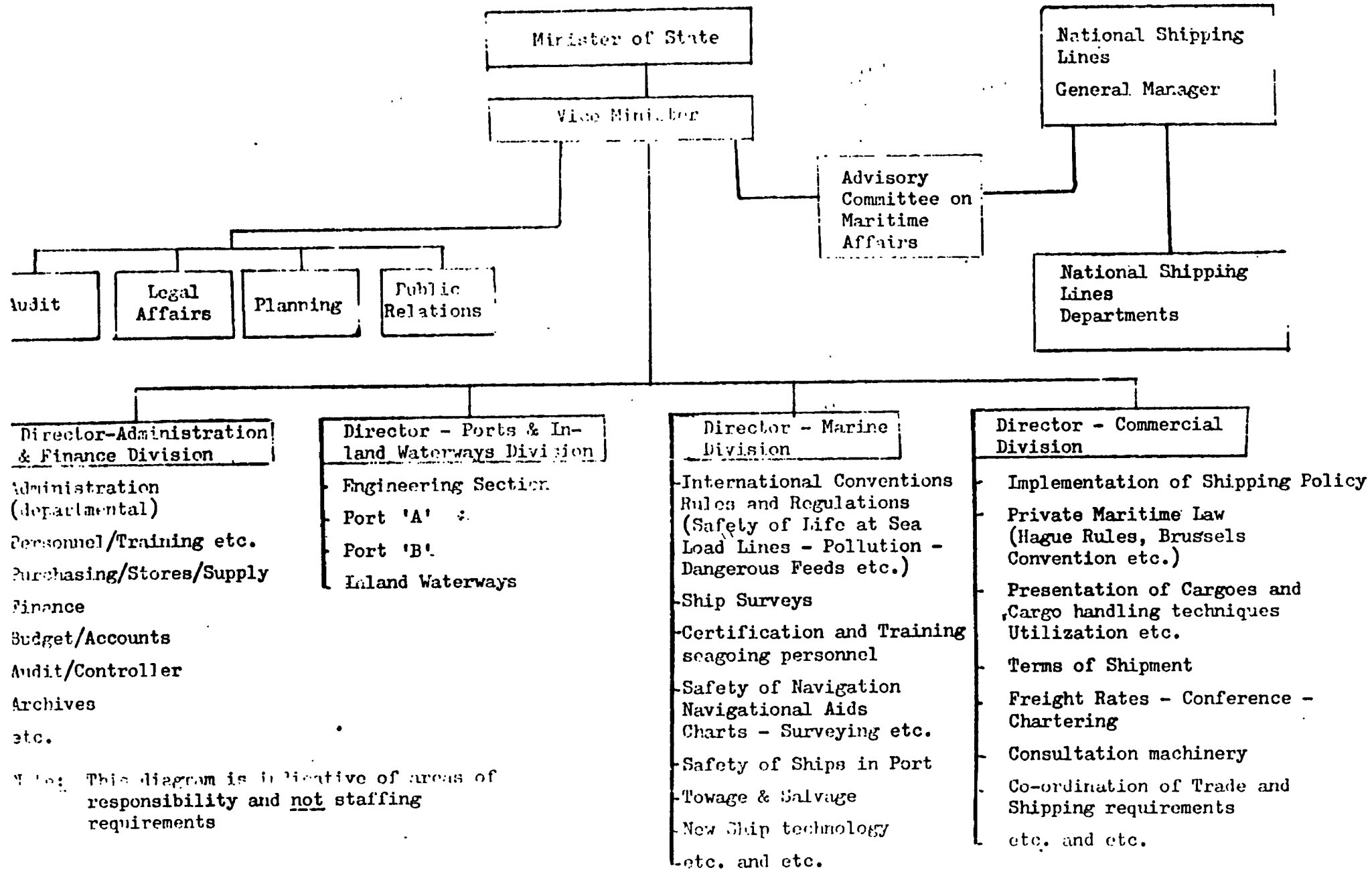
SOME ORGANIZATION CHARTS



Composition of Maritime Advisory Committee

Chairman: H. E. The Minister of Transport and Communications

Members: Director General of Marine and Ports;
 Director of Ports; Director of Marine Department;
 Director of Customs; Representatives of: Petroleum
 Affairs Department, Chamber of Commerce, Ministry of Finance,
 National Shipping Line.



Annex 3

STATUS OF CONVENTIONS

(As at 28 February 1986)

Convention	Date of Entry Into Force	Contracting Parties	
		Number	Percent of World Tonnage
<u>SAFETY</u>			
SOLAS 74	25 May 1980	94	96
SOLAS PROTOCOL 78	1 May 1981	57	89
LOAD LINE 66	21 July 1968	106	98
COLREG 72	15 July 1977	95	96
STCW 78	28 April 1984	50	72
CSC 72	6 September 1977	43	66
SFV 77	-	14	-
INMARSAT 76	16 July 1979	45	81
SAR 79	22 June 1985	23	39
<u>POLLUTION</u>			
MARPOL 73/78		38	79
Annex I	2 October 1983	"	"
Annex II	[April 1986]	"	"
Annex III	-	24	40
Annex IV	-	23	37
Annex V	-	24	40
CLC 69	19 June 1975	57	-
FUND 71	16 October 1978	34	-
LDC 72	30 August 1975	60	-
<u>OTHERS</u>			
TM 69	18 July 1982	72	92
FAL 65	5 March 1967	54	-

MAJOR CLASSIFICATION SOCIETIES

American Bureau of Shipping

Bureau Veritas

Germanischer Lloyd

Lloyd's Register of Shipping

Nippon Kaiji Kyokai

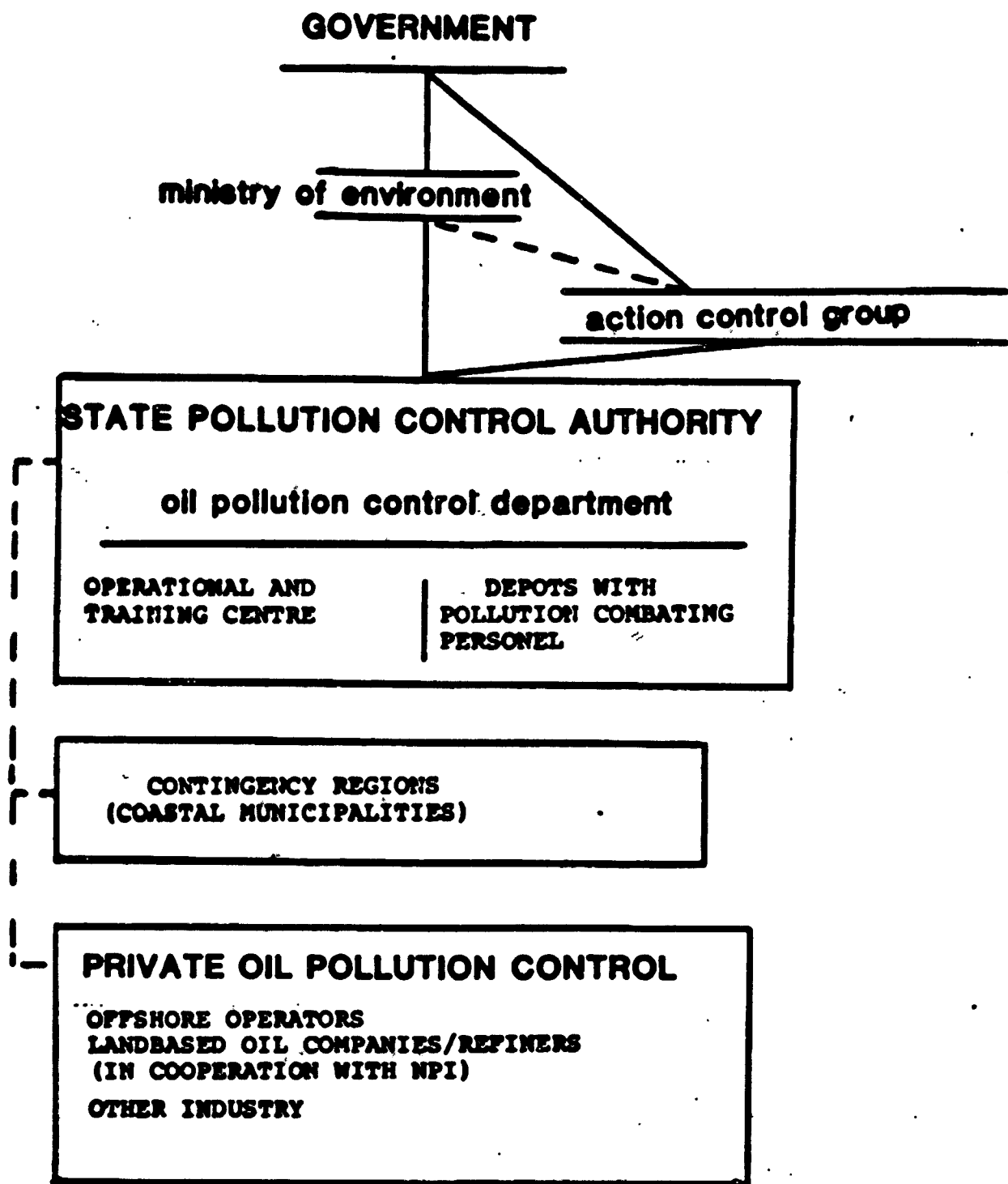
Det Norske Veritas

Polish Register of Shipping

Registro Italiano Navale

USSR Register of Shipping

THE NATIONAL OIL POLLUTION CONTROL



Glossary of shipping terms

Bills of Lading	In shipping, there is no doubt that the Bill of Lading is one of the most important legal and commercial document in international trade. The basic functions of a Bills of Lading : (a) evidence of carriage, (b) evidence of the receipt of goods and (c) document of title. Moreover, it is the evidence of contract as a document signed by ship owner or his representative that goods has been shipped ('Shipped' Bills of Lading) or has been received for shipment ('Received' Bills of Lading). By this it is generally accepted that a ship must deliver <u>what she</u> receives, unless it was relieved by excepted perils. Prior to International Conventions relating to the carriage of goods and the liabilities in cases of loss or damage, the ship owner had several excuses in exempting his liability, However, with the adoption of the Hague rules in Sept., 1921 and its Protocol of 1968, the Hague/Visby Rules succeeded in producing a standardization of the terms of the Bills of Lading and redress the imbalances which had previously existed.
Contract of affreightment	An agreement providing sea transport in terms of tonnage for bulk cargoes in a specified time and area.
Freight	Charges levied by shipping lines for the transport of commodities.
Time charter	Charter arranged for a fixed period. Payment usually per d.w.t. per month, excludes voyage cost.
L.P.G.	Liquified petroleum gas
Tramp ships	Tramp ships are those which do not have to run on regular route as liner ships (unless employed in liner trades), but operate as and when required to suit specific cargoes.

- Port Agent** A port agent is often referred to as the ship's agent, has been defined as an 'agent' who has been appointed to represent the ship. His duties range from customs formalities and requirements to dealing with the crew from arranging the discharge and loading of a vessel to dealing with collision and many other matters.
- Charter's Broker** A broker who represents the shipowner and function opposite to the ship broker since his main interest is to obtain the lowest possible freight rate and the best condition for his principals.
- Chartering Broker** The charter's broker who has specially been appointed by large importers/exporters to arrange the required space for their shipment. All enquiries for tonnage is placed in the hands of this chartering agent to the exclusion of any other broker.
- FOB** FOB means "free on board". The goods are placed on board a ship by the seller at a port of shipment named in the sales contract. The risk of loss or damage to the goods is transferred from the seller to the buyer when the goods pass the ship's rail.
- CIF** CIF means 'cost insurance and freight'. This term is basically the same as C&F but the addition that the seller has to procure marine insurance against the risk of loss or damage to the goods during the carriage. The seller contracts with the insurer and pays the insurance premium.
- Voyage Cost** The vessel cost comprising bunkers, port charges and canal charges etc.