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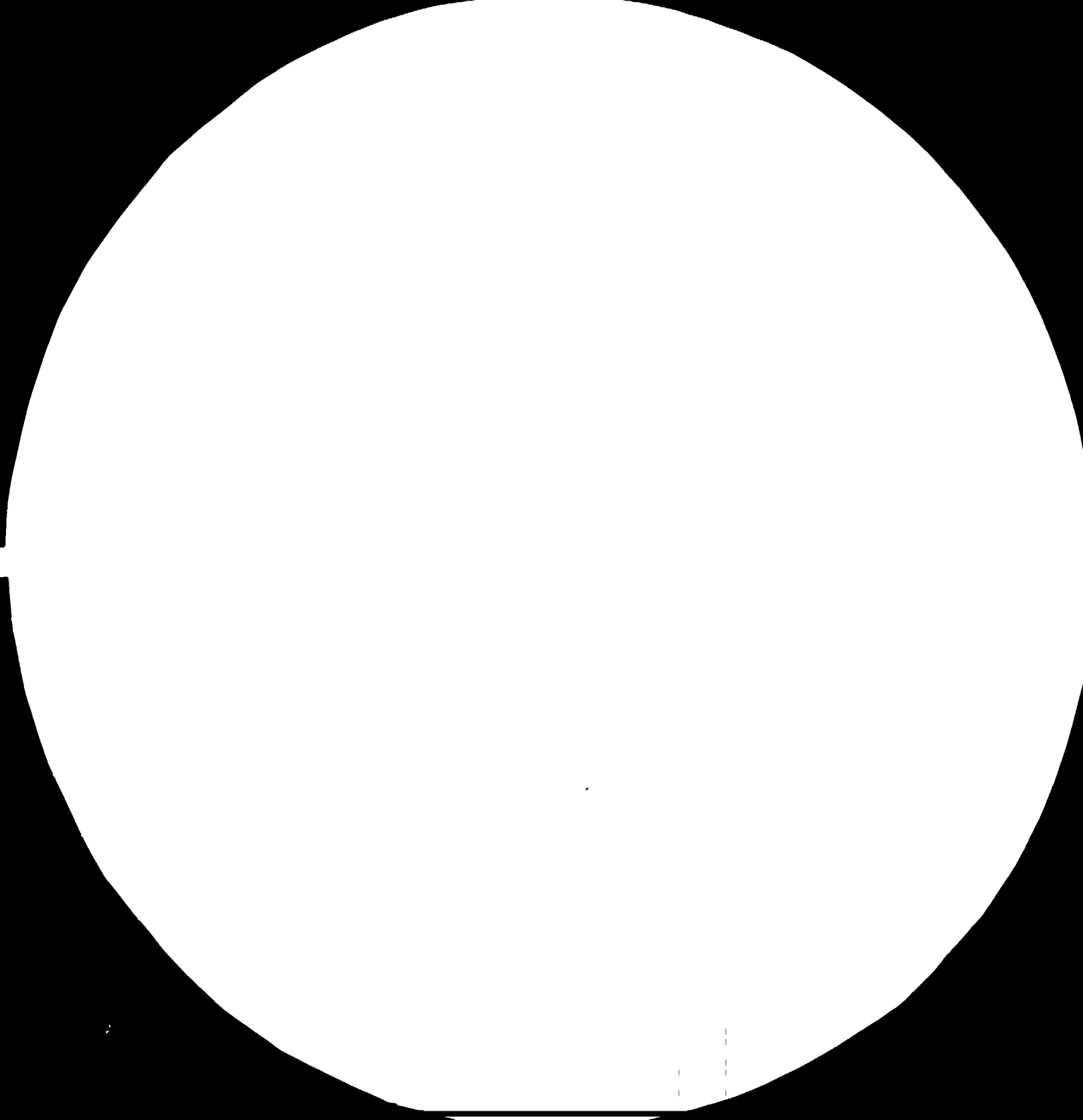

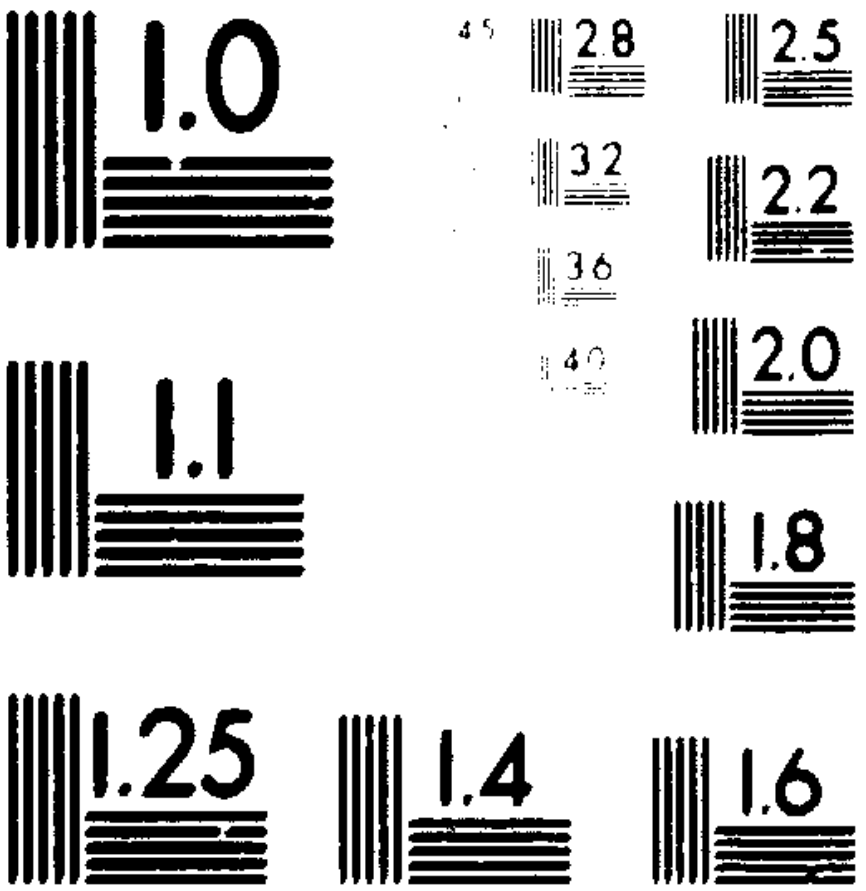


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WOOD AND WOOD PRODUCTS - SHIPPING PROBLEMS

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December 1983

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## Summary and Conclusions


1) A large number of developing countries in Latin America, Africa and Asia with forest resources export mostly the raw material or logs rather than finished products to the importing developed countries, such as Japan, USA and Europe.

ii) The overwhelming preponderance of the export of the raw material or logs from developing countries continue despite the comparative economic advantages developing countries (with forests and comparatively cheap labour) should enjoy vis-a-vis, developed countries.

iii) Some countries, such as Japan, China, Republic of Korea and Portugal import the raw material (logs or sawn wood) from the developing countries to be converted into finished products and export the finished products in competition with the developing countries which supply the raw material.

iv) Shipping problems are a major constraint which has prevented these raw material producing countries from more than doubling their export earnings by exporting the finished products rather than logs.

v) The structure of the trade in the importing countries, vertical integration of companies (particularly in Japan) and inadequate Port facilities also prevent the developing countries from using bulk transport and or exporting the finished products to some foreign markets.

vi) Whereas most developing countries continue to export forestry products mostly in the form of logs, developed countries, such as Japan, Canada, Norway, Sweden, Finland, USSR, and USA export finished products to foreign markets shipped in bulk.

vii) Discriminatory freight rates, protective freight rates, inadequate shipping services, weak shippers bodies and the lack of co-ordination in the producing countries, also hinder the development of industries to export finished products from the developing countries.

viii) The African countries, such as Angola, Swaziland, Cameroon, Gabon, Ghana, Ivory Coast, Nigeria and Zaire export their products mostly in the form of logs and sawn wood to Europe. This trade is characterised by a large number of relatively small exporting and importing organisations. Logs are shipped from several Ports to be discharged in a large number


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of Ports in UK and Europe and the average shipments particularly of sawn wood are small, which does not encourage the use of bulk carriers.

ix) The South East Asian countries, such as Malaysia, Philippines, Indonesia, Thailand, export their products mostly in the form of logs to Japan, China (Taiwan) and the Republic of Korea. Logs are carried mostly in purpose built log carriers to comparatively low rates to be converted into finished products and re-exported to USA and Europe at freight rates which are more favourable than the rates on similar products from the raw material producing countries.

x) The trade in sawn wood between the Asian countries and the Western Europe is also characterised by a large number of small exporters and many small importers. This has resulted in the export of sawn wood on liner terms (rather than in bulk). Countries such as Portugal, import the sawn wood from the Asian countries, to be converted into finished products and re-export to UK and other European countries, in competition with the raw material producing Asian countries.

xi) In recent years, some developing countries, such as Angola, Cameroon, Gabon Ghana, Ivory Coast, Zaire in Africa and Bangladesh Burma, India, Republic of Korea, Malaysia, Philippines and Singapore in Asia and Argentina, Brazil, Columbia and Peru in Latin America have begun to develop processing industries to export plywood, sawn wood and fibre boats. Some of these countries have also begun to export wood pulp. Please see tables iv to viii. The progress, however, has been very poor, largely due to the shipping problems or the very high freight cost and the structure of the trade or the power of the buyers to determine the location of the industries.

xii) The fact that countries such as Canada, USSR, USA, Japan, Republic of Korea and China (Taiwan) have succeeded in re-organising the structure of the trade to overcome problems, identical to the problems faced by the developing countries suggest, that the developing countries too could overcome their problmes with proper re-structuing of the trade in order to secure the maximum advantages of recent technological

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changes in sea transport; e.g. by changing the system of transport from liner terms to bulk transport, the cost of transport could be reduced by more than half. In the case of sawn wood, the packaging of timber to reduce handling costs combined with shipments in bulk can cut transport costs by over 1/3. The prevailing shipping recession provides the most auspicious time for the developing countries to change the system of transport which should greatly assist the development of processing industries in the raw material producing countries.

xiii) On the other hand, the changes in transportation, technology indicates that the market structure which involves small scale producers and shipments on traditional liner terms will be subject to relatively increasing ocean transport costs in the future. Modern technology is increasing the choice of ocean transport available for exporters of wood and wood products. The selection of the optimum method of transport should enable the developing countries to:

a) increase the export earnings substantially by changing from the export of raw material to the export of the finished products;

b) compete effectively with developed countries which import the raw material to be converted and re-exported as finished products;

c) provide employment opportunities for an increasing number of both semi-skilled and skilled workers.

d) improve the shipping services not only for wood products, but also for other products exported from developing countries.

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Export of wood and wood products -

Shipping problems

INTRODUCTION

The export of wood and wood products is an important industry in several countries, both developed and developing. A large number of developing countries, particularly in Asia, West Africa and Central America have large tropical forests and comparatively cheap labour. The inputs of capital and technology required to develop this industry are also comparatively small. Yet, the industry has not been developed in a large number of developing countries which have the potential, while in others optimum levels of development have not been reached or exports are mostly in the form of raw materials (such as logs or semi processed products, ~~such as~~ like rough plywood). To achieve the full advantages of the resources available and optimum results by timber producing countries, it is necessary to adopt overall timber utilisation policies designed to encourage the type of industry organisation which could take maximum advantage of low cost transport systems. Projects for the development of wood and wood products industry should, therefore, take into account the trends in transport technology and their effects on cost of transport.

2. Of the three regions Africa, Asia and Latin America, only South East Asia and West Africa have developed major timber export industries, whose products are shipped by ocean transport. Major export trade in wood and wood products of West Africa is with Europe, whereas the South East Asian countries export the logs mostly to Japan, Republic of Korea and China (Taiwan) and wood products (such as sawn timber, plywood, veneer, parquet flooring) to Europe and North America.

3. Obviously, there are several reasons or constraints which have prevented the developing countries with natural resources, from establishing and expanding this industry, and thereby increase the employment opportunities and foreign exchange earnings. One important constraint has been the shipping problems.

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4. The shipping problems faced by the exporters of wood and wood products, particularly in developing countries are:

a) the high incidence of freight;
b) protective rates;
c) discriminatory rates;
d) the market structure of the industry which precludes the use of the most economical method of transport;
e) physical constraints in the Ports of loading;
f) inadequate shipping services.

Products and markets

5. Among the important wood and wood products shipped both by developed and developing countries are logs, plywood, veneer, wood pulp, furniture and furniture components, industrial components, parquet flooring, wood charcoal and educational toys. Tropical hardwood exported by West Africa and South Asia are mostly in the form of logs.

6. Some of the major exporters in Africa are Ivory Coast, Ghana, Gabon, Cameroon, Nigeria and the Republic of Congo. In Asia, the major exporters are Philippines, Indonesia, Malaysia, Burma, Thailand Cambodia and Papua New Guine.

7. Some of the major exporters of wood products are Canada, Sweden, Japan, China (Taiwan), Philippines, Malaysia, USSR, GDR, Yugoslavia, Finland, Indonesia, Ghana, Poland, Romania and Czechoslovakia.

8. The principal markets for West African tropical logs are UK, West Germany, France and Italy, while Japan, China (Taiwan) and South Korea are the predominant markets for logs exported by Philippines, Indonesia and Malaysia. The principal markets for Asian wood products are USA, Europe and a few Middle Eastern countries.

9. There are two large coniferous sawn wood, seaborne trades, one from the Baltic Sea area to Western Europe and the other from Western Canada to the US East Coast and Western Europe. The movement is now almost entirely in bulk carrier type of ships.

Importance of transport costs

10. In international trade, substantial effects can be caused by very small differences in costs, both to the shipper and the buyer. Furthermore, in considering marine transport of any product, one question which ~~almost~~ always has to be considered, is the extent to which the location of the economic activities of producing the raw material of semi processed products, is determined by transport costs.

11. The freight element (particularly for comparatively low value cargo, such as wood and wood products) often determine the success or failure of the efforts by the producing countries to develop the processing industries. This is particularly true for products supplied to markets in developed countries, where the industry is geared on a high volume, low margin of profit basis.

12. Even though the f.o.b. price of an exporter may be highly competitive, his efforts to reach the buyer with a semi processed or finished product could be frustrated, if the freight rates make his c.i.f. price unattractive to the buyer, vis-a-vis the locally produced product (from imported raw material) or imports from other countries.

13. The diversification of the wood products exported could assist manufacturers of wood products to enjoy the full economies of scale, as well as the comparatively lower incidence of freight on finished products. This is due to:

a) the comparatively limited demand for each type of product and ability to avoid wastage of wood to a minimum. Thus, an exporter of furniture and furniture components may find that by diversifying into the manufacture of products such as industrial components, table lamp bases, wooden toys, trophy stands, cutting boards and parquet flooring, the wastage of raw material would be almost nil. However, very often ideal diversification cannot be achieved due to the insensitivity of Conferences or Shipping Lines to the needs of the exporters.

Some Conferences, apply a general commodity rate (which is often prohibitive) for all types of wooden products shipped on liner terms or a box rate where container services are provided. Where the freight rate is fixed in respect of the value of the goods

exported, the exports of low value cargo on a liner basis is often discouraged and the export of raw materials, such as logs in bulk carriers is encouraged.

15. If the supply of wood and wood products is relatively inelastic, the supplier is most likely to bear the freight cost. Where relatively inelastic supply is associated with a highly elastic demand, the major part of the freight cost will be borne by the exporter and the f.o.b. price could be below the no transport cost price by almost the full extent of the freight cost. The fall in the volume exported from the quantity which would have been sold if no transport costs were involved, would be determined by the conditions of supply, e.g. if the supply is very inelastic, the fall in quantity associated with the introduction of transport costs would be very small.

16. It is also important to bear in mind, that even if the elasticity of demand for some wood and wood products may be relatively low, the elasticity of demand, facing the individual supplier or a group of suppliers in a particular country may be high unless that country is the sole supplier of a particular type of wood or wood products, for which there is no substitute.

17. In practice there are many factors which affect these elasticities, such as price fixing controls and even protective freight rates; e.g. a country with a local wood and wood product industry may exercise direct or indirect controls to dicourage imports of these products, even if the f.o.b. price and normal transport costs would be highly competitive. The existence of vertically integrated companies or trading houses (with their own importing, shipping and manufacturing industries) facilitate this kind of control.

18. The protective effect of transport costs is a natural consequence of the separation of the sources of supply and demand. Transport costs, however, are only one possible kind of protection.

19. Transport costs exercise a protective effect, favouring domestic over foreign producers and near over more distant producers. In this respect, transport costs are very much akin to tariffs or imported quotas. It shouldbe emphasised, however, that freight costs are only a minot protective barrier as compared with tariffs and other artificial barriers to trade. Nevertheless, they may

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have an important influence on the location of an economic activity and in particular may determine whether the raw material is processed in the country of production or in the importers country.

20. Freight cost exrercises a protective effect if the freight rate per ton of raw material, is less than the transport cost per ton of the finished product, by a higher proportion than the loss of weight in finishing. Thus, if a ton of wood are required to make a ton of plywood (and the transport cost for the other inputs do not exercise any localizing effect) and if the freight rate per ton of timber is £ X per ton and the freight rate on a ton of plywood is more than £ 2X per ton, other things being equal, it will be more economical to locate a plywood factory in the importers country, than in the exporters country.

21. It is significant that about 7/8 of the total exports of tropical broad leaved logs and timber combined, is in the form of logs, while only ¼ of total coniferous exports of logs and lumber combined is in the form of logs. One of the principal reasons for the predominance of the logs in trophical of hardwood exports is the location of the industries for end users of timber. A very large percentage of tropical logs is used for peeling into plywood veneer, than in the case of coniferous logs and most of the plywood production plants are located outside the hardwood exporting countries. Philippines is perhaps the principal hardwood producing country, which is also a leading exporter of plywood. Although technical advances in paper making have made fast growing tropical hardwood suitable for pulping, tropical hardwood producing countries supply only a very small percentage of world's wood pulp exports. This is all the more unfortunate, since paper and paper board production is an industry which is expanding more rapidly than sawn wood and veneer production.

West Africa/Europe trade in wood and wood products

22. The bulk of the exports of wood from West Africa consist of logs for peeling into plywood, veneer. Although logs should ideally be shipped in bulk carriers, owing to lower costs, the log trade in West Africa relies largely on liner services. This is largely due to the structure of the trade, which requires small parcels to be shipped by several shippers from several Ports to a large number of importers and to be discharged in multiple Ports of call in UK and Europe.

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23. According to an UNCTAD study (TD.B/C4/59) average shipments from these countries range from about 500 tons to 7000 tons per vessel. The same study reveals that the average quantity discharged in UK and European Ports varied from 24 tons to about 3200 tons per vessel pervoyage. Shipments to the Mediterranean region, however, tended to be larger than to UK and Europe, Atlantic Coast. Perhaps this reflects diversity of the cargo traffic or greater concentration in market structures.

24. UK although a major log consuming area receives small parcels as compared with the Continent, perhaps due to a very large number of firms (estimated to be over 200) importing tropical timber.

25. A very small percentage of the vessels appear to carry full loads after loading in Gabon, Congo (Brazeville) and Abidjan. A few specialised log carriers have also been introduced to reduce transport costs. The range of ships used appear to be very wide, e.g. Ivory Coast shipments are made in relatively large vessels(owing to large exports from Abidjan) as compared with Gabon or Congo. Vessels calling at some of the more remote loading areas with low draught of Gabon and Congo are said to be serving smaller Ports in France directly. This could also be an important inducement to use small vessels. Cameroon and Ivory Coast have also begun to use specially built multi-purpose vessels to carry wood and wood products along with containerised cargo.

26. The available data indicates apreponderance of log traffic from West Africa, as part cargoes on liner vessels. Even countries such as Cameroon, Ivory Coast and Ghana which have developed national Shipping Lines, have designed their newly acquired vessels to carry wood and wood products as part cargoes on liner vessels. The influence of the structure of the trade must indeed be powerful, for the shippers to deprive themselves of the lower costs of shipments in bulk carriers or in specialized ships. However, if the freight cost is borne by the exporters, it would be prudent for them to devise ways and means of using bulk carriers and thereby reduce freight costs and increase producing countries net export earnings.

27. Available data also suggest that the existing volume of trade on an area to area basis (e.g. from West Africa to UK and North Continental Ports) would be adequate for a viable bulk carrier service

The existence of central selling organisations and even cargo booking offices in a few countries, should facilitate such an arrangement. Some of these organisations are said to be organising the transport even for wood and wood products. However, a detailed study of cargo flows, origins, destinations, physical and financial constraints in both exporting and importing countries, will be necessary before final recommendations could be made. Fragmentations of the trades in Europe appears to have encouraged steady frequent flow of small quantities of logs, to minimise log inventories (thus saving money on inventories and on land space). However, this has discouraged the development of a specialized, high volume, low unit cost system of carrying logs and wood products, from West Africa to Western Europe - please see table iv.

Wood products from Africa

Sawn wood

28. West Africa's sawn wood are exported to UK and Europe mainly through Ports on the Atlantic and North Sea Coasts. The volumes are, however, modest as compared with exports from Canada, Malaysia, Singapore and Sweden. The world's largest suppliers of soft wood sawn wood timber are Canada, Scandinavia and USSR. Among the developing countries, the principal suppliers of tropical sawn wood are, South East Asia and West African countries, such as Ivory Coast, Nigeria, Cameroon and Ghana. Please see table v. Exports of plywood and veneer fromWest Africa have also been very modest, as compared with other developing countries in Asia. Shipments are made on liner terms and in small parcels to satisfy the requirements of the buyers. However, very often, sawn wodd, plywood and veneer are shipped together on the same voyage. If the cargo is shipped in break bulk, different handling arrangements may not make cargo consolidation conducive to cost reduction, e.g. if a vessel carries logs, sawn wood and plywood to Europe or UK, the vessel will have to be shifted from berth to berth where these cargoes and general cargo will be discharged owing to the existence of specialized berths. Shifting of vessels in Ports is expensive, besides increasing the time vessel has to remain in a Port. However, if the cargo is containerised this problem could be overcome.

29. There appears to be greater concentration of both in shipments and receiving range of wood products than in the shipment of logs. Shipments are made mainly from a narrow range of Ports in Ivory Coast Ghana and Nigeria. In UK, the bulk of the cargo is discharged in one

or two Ports. However, owing to the modest volume of annual shipments the use of bulk carriers may not be feasible, unless marketing organisations are changed to accommodate such shipments.

Port Facilities

30. In most Ports (with the exception of Ports with quayside loading facilities logs are rafted alongside the ship and loaded with ships' gear. In protected harbours and anchorages, ships can load from both sides. Rate of loading is faster in single deck bulk carrier vessels with wide hatches, than in tweendeckers. Daily loading rates appear to range from about 160 to 1000 tons per shift depending on the ships' gear and number of gangs that could work as well as the availability of logs. The purpose built log carriers, however, load more than 2000 tons per working day.

31. Owing to the very high Port costs of shifting vessels and ships time consumed in the process of shifting Lines endeavour to discharge all cargo consigned to a Port at a single berth within the Port. However, vessels carrying wood and wood products from West Africa together with other general cargo have to be shifted since in most UK and European Ports, wood and wood products are handled at special timber berths. The rate of discharging appear to vary rather widely from about 600 to 2000 tons per day.

Conclusions on West African Trade

32. Given the comparatively low c.i.f. price of wood and wood products, the high incidence of freight (freight rate as a percentage of the c.i.f. price) which in most cases have to be borne by the shipper and the direction of the trade (from a fairly narrow range in West Africa to UK and Europe) a possibility appears to exist for the rationalisation of shipments to reduce transport costs. Such a possibility seems to exist particularly in the log trade where Port to Port volume are sufficient to justify the consolidation of bulk transport.

33. Even though the structure of the trade in a few countries (such as UK) is fragmented and encourages shipments on liner terms, it may be prudent for the shippers to:

a) induce the large buyers (e.g in Italy and France) to purchase lots of over 10,000 CBM and reduce the number of discharging points to about 2;

b) establish supply points inWestern Europe (as Canadian shippers have done) to which shipments could be made in bulk for distribution to consumers.

34. If the proposal at (a) could be implemented, it could exert a very healthy influence on importers in other European countries, who may find it difficult to compete, unless they too take advantage of lower freight costs based on bulk shipments.

35. To implement the proposal at (b) it may require the joint efforts of shippers, Governments of the producing countries and the importers and direct users of the importing countries. The assistance of EEC may perhaps be sought since such a venture could promote the trade between West Africa and EEC countries.

South East Asia

36. As in West Africa, the bulk of the South East Asian tropical timber exports is in the form of logs. Principal exporters are Malaysia, Philippines, Indonesia, Burma and Thailand. Main importers are Japan, China (Taiwan) and Republic of Korea - situated in the same region.

37. In Japan, which is the biggest importer of South East Asian logs, saw milling and wood processing industries are concentrated within the Tokyo/Yokohama/Kobe Shimizu and Nagoya area - all on the East Coast of Honshu island. Logs are imported from North America and USSR, in addition to those from South East Asia.

38. The logs are discharged in Japan, using ships' gear directly into the water alongside the ship. From the ships side, logs are made into rafts for floating to Municipal log ponds for storage until sold to mills. Saw mills and plywood peelers maintain only a few days inventories at the mill sites, since they could buy the logs from the trading companies at frequent intervals.

39. The bulk of Japan's tropical log imports are from Philippines and Malaysia. The geographically compact supply and receiving areas, relatively homogeneous log materials and the market structure favour the development of large scale operations and bulk shipments. The large

trading organisations in Japan not only make long term procurement contracts, but also build or charter specially designed vessels to minimise shipping costs. These purpose built ships are being used to carry logs, timber, pulp and paper and wood chips.

40. The log carriers used have a capcity of around 5000 dwt. (or 190,000 cu. ft. Hoppus) and their modern gear enables the loading of around 1500 to 2000 tons per day in a three-shift working day of 13 hours or upto 4000 tons on a 24 hour basis. The rapid loading and discharging operations leads to a good utilization of ships, and therefore low transport costs. The Charter Parties are often based on the loading rates of old conventional vessels, thus inducing the exporters to give a good despatch to the vessels and earn despatch money.

Sawn wood

41. The principal exporters of sawn wood in South East Asia are Malaysia, Singapore, Philippines, Thailand and Burma. Main markets in Western Europe are UK, Belgium, France, Netherlands and Italy. Australia, South Africa, Pakistan also imports small quantities of sawn timber particularly from Malaysia and Singapore. See Table V.

42. The markets for sawn wood are scattered, which together with the size of the saw mills and technology used, have had a real effect on transport costs. A large number of small factories together with the existence of a large number of small importers/consumers in Western Europe, have resulted in shipments of small quantities on liner terms. With the exception of railway sleepers, few consignments to Western Europe from Malaysia and Singapore exceed 200 tons. Shipments to USA, and Australia, however, are said to be larger than to Western Europe.

43. The uncertainity in the supply chain (log producers supply to a large number of small millers and the latter supply to a large number of small shippers, who in turn export to a large number of individual importers) appears to have resulted in the problem of over booking of space by shippers. This undesirable practice is resorted to by the shippers to assure themselves of adequate space and to avoid

their cargo being shut out, resulting in financial losses small shippers could not afford. The overbooking of space often results in the shippers cancelling some of the space when the vessels arrive for loading. Shipping Lines who also cannot afford to sail with empty space have learnt from experience, that advance booking for space for wood and wood products barely materialises fully and, therefore, they too over book cargo. Obviously, if all the cargo materialises, the Shipping Lines will be compelled to shut out some cargo-inevitably the low freighted cargo. On the other hand, if a large number of shippers fail to utilise the space, ships will have to sail with empty space.

44. Such a system would be expensive for all concerned in the long run. Shipping Lines, particularly will be induced to adjust their freight rates and make sufficient allowances for the losses that they may incur due to cancellation of space. Similarly, the shippers/importers run the risk of delayed shipments which could result in heavy losses. This problem may not be very acute during a shipping recession when the available shipping space exceed the demand and freight rates tend to be comparatively low. However, during normal times, shippers may find that they have to bear the increased freight costs, resulting from the existing structure of the industry.

45. It is, therefore, in the interest of all parties concerned (importers, exporters and Conferences) to devise a satisfactory method of estimating wood and wood products shipments in advance (say six weeks) which would enable the optimum use of space both by Lines and shippers. Such a rationalisation could have a healthy impact on freight rates.

47. Sawn timber shipped in break bulk (and not in containers) at comparatively low freight rates are also regarded as marginal cargo by most Lines and hence shippers find it difficult to book on a prompt shipment basis. Given the increase in the exports of manufactured products from South East Asian countries and rapid containerisation in this region, exporters of low freighted cargo may find it increasingly difficult to ship their cargo, unless the f.o.b. value is increased by further processing and/or handling methods are improved to save costs for Shipping Lines. Another possibility could be the use of specialised ships, which in turn would involve an increase in the scale of operations, to permit rapid handling of a few, but large volume of cargo for each export order.

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47. Consolidation of timber marketing organisations as in Sweden and the use of standard size packages, could also assist considerably to reduce transport costs.

48. Both Malaysia and Singapore have been trying to increase their exports of wood products, such as flooring, moulding shapes, parquet floorings and furniture components. These products, owing to their higher value, susceptibility to damage and packaging lend themselves easily to be containerised.

49. LASH vessels with their barges, too could be adopted to carry wood and wood products from Malaysia, Singapore and Philippines, particularly to USA. Barges from 400 to 1000 tons carried on fast sailing LASH vessels between major Ports may provide the economic advantages of lower costs of bulk transportation, without having to increase drastically the scale of current shipments. If one or two organisations would handle all of Malaysia's and Singapore's processed wood products for the North American market, consolidation of cargo into barges or FCL shipments could become highly feasible.

Plywood .

50 The plywood industry in Japan, South Taiwan, Philippines and Malaysia have been developed to serve both the local and foreign markets. The main market appears to be USA. The trade is mostly between the supply factories and distributing organisations in the importing countries. Consequently , average shipments of individual shippers tend to be small and are more suited for shipments on liner basis than in bulk. Most factories also use their individual brand names which does not encourage cargo consolidation.

51. Plywood is shipped either by 1000 sq. ft. or by measurement tons of 40 cu.ft or CBM. In either case, rates are adjusted for the thickness of the plywood as well. Whereas the plywood factories in Japan , Taiwan and South Korea are located in close proximity to Ports, factories in Philippines are located for the most part at provincial locations, served by outports with low draughts. Hence, minimum inducements are required for liner vessels to call at these outports. Although this has succeeded in average shipments being larger in Philippines than in Japan or Taiwan, owing to the cargo mix, Lines could secure in Japan or Taiwan, freight rates on plywood from Japan or Taiwan to USA tend to be more attractive than from Philippines. The higher productivity in Japanese and Taiwanese Ports and severe

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competition among a large number of Lines to secure cargo from Japan and Taiwan to USA, also assist the shippers in these countries to obtain very attractive rates, e.g. the freight rate from Taiwan to USA on furniture components is around US$ 65 whereas the rate from Sri Lanka to USA is around US$ 135. Although the f.o.b. price of the Sri Lankan and other South East Asian wood products are highly competitive with those of Japan or Taiwan, the higher freight rates make the products uncompetitive with those of Japanese and Taiwanese products in the US market (Please see Table I).

52. Shippers in Philippines also appear to have experienced difficulties in securing the required shipping space, even though the freight rates are comparatively high. This is due to the reluctance of the liner operators to call at several outer Ports, where the despatch is slow and loading costs are high for comparatively unattractive cargo. It is believed that shippers and Shipping Lines understand the problem, but have no policies to alleviate the condition which could become worse when the current shipping recession ends.

53. Unitization (pallets containers or barges) and feeder services from the outer Ports to the main Ports may perhaps be a solution. Under such a system, the plywood should ideally be stuffed into containers in the factories or into the barges at the outer Ports to be shipped by feeder vessels (or towed in the case of barges) to the main Ports, where the containers or the barges could be loaded into the mother vessels. Plywood could become an attractive cargo for the Lines in a good cargo mix with other types of cargo, if all cargo is loaded in one or two main Ports.

54. Shipments on a semi-bulk basis using chartered or non-Conference vessels may be considered, if at least 2000 tons could be aggregated. However, the savings on transport cost will have to be weighed against the cost of carrying inventories by some factories to aggregate an economic ship load. A centralised exporting agency and a large distributing organisation at the importing end, could be the ideal arrangement to co-ordinate the cargo aggregation scheduling of shipping space and distribution in the importing countries. Exporters of rubber from the Far East and importers in USA, organised

such an arrangement very successfully a few years ago. The tea trade in UK too have arranged centralised warehousing of all tea imported into UK, which has saved carg o handling, transport and warehouse costs. SCA of Sweden has also sucessfully organised such an arrangement for wood products.

Freight Rates

55. The incidence of freight (or the share of freight cost in the c.i.f. price) tends to decrease with the increasing degree of processed raw materials e.g. the freight cost on raw materials like copra and rubber are comparatively high, as compared with the rates on finished products like margarine and tyres. However, the export of highly processed or finished products (like parquet flooring or furniture components) becomes economically viable, only if the industries in the producing countries are efficient enough to become competitive in world markets after meeting transport costs, import duties, etc. Malaysia, Philippines, China (Taiwan) and South Korea have proved that the wood processing for export could be viable despite long distances to the markets.

56. An UNCTAD study (TD/B/C.4/59) made more than a decade ago revealed, that freight rate increases on West African timber exported to Bremen, have somewhat fluctuated along with c.i.f. prices during the period 1955 to 1968. The freight rate index (1957 = 100 rose while the c.i.f.prices declined from 102 in 1955 to 96 in 1968. from 95 to 180 during the 1955-1968 period/.) The incidence of freight (freight rate as a percentage of the c.i.f. price at Bremen). on macore and kambala logs between 1955 and 1968 have also fluctuated between 19.9% in 1959 to 31.5% in 1966 for macore and 20.7% to 34% for kambala.

57. It is not surprising that there has not been any long term noticeable trend in the relationship between freight rates and ci.f. prices. Freight rates have in fact increased during some years while the c.i.f. prices moved downwards. Liner operators rarely adjust their rates to be in tune with the fluctuation in c.i.f. prices, unless the commodity concerned from the bulk of the cargo carried and shippers have sufficient bargaining power with the Conferences and the capability to attract non-Conference lines to carry the cargo.

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58. In South East Asia, a different trend has been observed during the same period. While the demand for timber from Japan has been extremely strong (1957-1968), freight rates and log charter rates have declined. It is very likely that the structure of the industry in Japan and quick response by the shipowners in improving/expanding the shipping services to meet the increased demand where responsible for this development. In index numbers, the freight rates have fallen from 100 in 1957 to 83 in 1967, while log prices have risen from 100 to 189.

59. This experience of the log trade in South East Asia has proved that a rising demand and an increase in the f.o.b. and c.i.f. prices need not necessarily lead to higher freight rates. However, an escalation of freight rates could be prevented in such situations, particularly if large scale production and marketing organisations exist together with Lines which are prepared to respond with increased shipping space. While Conferences too endeavour to increase the shipping space in such situations, even by chartering additional vessels, it is unusual for Conference to reduce freight rates at the same time, particularly if f.o.b. prices also increase due to an increasing demand. The Japanese experience perhaps highlight the influence of the structure of the industry on transport costs, as well as the positive contribution Shipping Lines could make to expand an industry by reducing transport costs.

60. Freight rates on sawn wood from Malaysia and Singapore to Western Europe have been increased by the Far Eastern Freight Conference with every general increase in rates. These increases, however, have been modest largely due to competition from non-Conference vessels in recent years. When sawn wood is shipped in bundles, the Conference rates have also been liberal. No standard size is stipulated, but one end of the bundle has to be fair. The bundles are normally of a maximum height of 18", maximum width 26" and maximum length 25'9" for timber over 1". The tariff also provides an incentive to reduce the differences in the length of the pieces in each bundle, by computing volume and charging freight on the basis of the longest length in the bundle.

61. The rates to North America too have remained at moderate levels due to the prevailing shipping recession with more ships chasing after

too little cargo. An increasing number of Lines provide container services from South East Asia to the major markets. These Lines have also begun to introduce box rates for wood products.

62. As mentioned earlier, plywood industry in Japan, China (Taiwan) and Republic of Korea import logs from Malaysia, Philippines, Indonesia etc. and export the plywood to USA in competition with the raw material supplying countries, such as Philippines, Malaysia and Indonesia. An efficient low cost system of shipping the logs in bulk and lower freight rates on the finished products from China (Taiwan), Republic of Korea and Japan to USA than the freight rates from Philippines, Malaysia or Indonesia to USA have assisted this development. According to the plywood manufacturers association of Philippines, freight rates from Japan, China and Republic of Korea to USA have been 17 to 48% lower than from Philippines to the US market.

63. Freight rates from Philippines to USA have remained significnatly higher than from Japan, China or Republic of Korea, particularly the Atlantic Coast, even though the distances from the two different areas are not significantly different. The main reasons for this are:

(a) more remunerative cargo is available for Lines from Japan, China and the Republic of Korea;

(b) better loading rates and the existence of a large number of Lines serving Japan, Korea and China (Taiwan) leading to severe competition, than from Philippines to USA.

64. The significant fact is that an efficient and low cost transport arrangement has enabled these countries, Japan, China and the Republic of Korea to import the raw material (logs) and then compete with the log exporting countries for the finished product in the same market.

65. Sri Lanka has been increasing the exports of wooden products during the last decade. The value of the annual exports, however, are very modest and are in the region of US$ 30 million. Products exported are parquet flooring, furniture and industrial components, wooden educational toys, broomsticks etc.

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66. While several Conferences and individual shipping lines assisted Sri Lanka shippers with promotional rates to penetrate markets in USA, Australia, Europe and Middle East, in competition with traditional suppliers, Progress, however, has been slow, largely due to freight costs. Manufacturers (who ship their own products) claim that the f.o.b. prices are highly competitive (owing to availability of local raw materials and comparatively cheap labour) but the freight rates from Sri Lanka to the main markets make the c.i.f. prices uncompetitive with products from Taiwan, and Republic of Korea. The current difference in the freight rates to USA from Sri Lanka and China (Taiwan) is in the region of US$ 70 per CBM in favour of China. Parquet flooring is exported from Sri Lanka mainly to UK. However, recently Spain and Portugal which import sawn wood from Malaysia for conversion into parquet flooring, have begun to compete effectively with Sri Lanka by offering more competitive prices to UK buyers. The box rates from Sri Lanka to UK are around US$ 1500 per 20 ft. box plus surcharges. Freight rates from Sri Lanka to Singapore for parquet flooring is around $ 850 all inclusive. Almost all wood products are exported in containers from Sri Lanka. Although some Conferences have introduced box rates, a major problem the shippers are facing is the inability to make the optimum use of the space owing to broken stowages. While some buyers prefer to obtain furniture in knocked down condition or as components, others prefer to have them assembled and shipped to save labour costs at the other end. Table III shows a freight rate from Sri Lanka on wood products to several markets such as USA, UK, Australia, Singapore, Hongkong and Japan.

Softwood trades

67. The two major sea routes on which softwood is carried are:

a) from the Baltic Coast to Western Europe;

b) from the Pacific Coast of USA and Canada to Western Europe.

In recent years, two other trades have also developed mostly in logs one from the USSR (Eastern Siberia) to Japan and the other from Pacific Coast of North America to Japan.

68. The Canadian, Scandinavian and USSR shipments are larger and more homegeneous, than the shipments of tropical hardwood from West Africa or South East Asia.

69. The lumber industry in British Columbia is composed of a small number of lage firms with large saw milling facilities located in the coastal areas. The bulk of the products are shipped to USA, Atlantic Coast and the balance to UK and Europe. Sawn timber is shipped in packages with one length and one size to a package. The standard height and width facilitate easy storage and maximum utilisation of space, besides leaving a flat deck upon which fork lift trucks could work.

70. Purpose built and general purpose bulk carriers are used - each vessel carrying from about 7000 to 10,000 standards (or 20,000 to 30,000 tons). Loading Ports are restricted to three or less and the discharging ports are also not more than three of four Ports. The marketing structure (with large marketing organisations in both producing and consuming countries) is geared to make such large shipments practical and viable. Shipments by marks in small lots to individual orders too has been eliminated by some importers, who import in bulk and make up the individual orders at the discharging points. Loading rates of 45 to 60 tons of packaged timber can be achieved by modern bulk carriers per hour. A six hatch vessel with 3 cranes could discharge 600 to 700 tons per hour. Such loading and discharging rates which are cost saving for the shippers are reflected in freight savings for shippers and importers.

Baltic Sea/Western Europe sawn wood trade

71. The Baltic Sea to Western Europe trade being a short sea trade, uses small ships to carry the sawn wood. In 1967, Svenska Cellulosa Aktiebolaget (SCA) the largestforestry firm in Sweden, changed the shipping arrangements from one of multiple loading and discharging Ports, to a system of limited origins and destinations. The principal products exported by this Firm are newsprint, pulp and lumber which are shipped mostly to Western Europe. Whereas earlier, products were loaded at nearly 25 ports and discharged at nearly 150 different European destinations, SCA reduced the loading points to three in Sweden and three discharging Ports in Europe, Hamburg Rotterdam and London. Buyers and actual users are served by trucks from these points. Timber is packed into bundles containing approximately one standard. Wood pulp and paper are carried in the holds and timber on deck.

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72. The ability of SCA to co-ordinate all activities from the assembling of the products to distribution at the destinations, has undoubtedly assisted SCA to arrange a very efficient system of transport. The economies in the transport costs achieved by the integrated systems organised by the Canadian and Scandinavian exporters, highlight the possible lines on which the West African and South East Asian trades could be organised to reduce cost and improve the shipping services. While it may not be possible to arrange a system as compact as in Canada or Sweden, a modified system may be possible to achieve similar results. e.g. the exporters and importers associations, with the blessings and assistance of their governments (particularly in developing countries) may be able to co-ordinate some of the activities to reduce transport cost. This would involve production concentration or a rational aggregation of cargo to feed large vessels without interruptions, standardized packaging, use of bulk carriers, containers or barges and a distribution system from one or two ports in the main markets.

73. Special studies will be required to design an optimum system for each region or trade. It should be possible to develop different models, having regard to characteristics peculiar to a particular trade, physical characteristics of the ports and infrastructure facilities, loading and discharging rates and cost, prevailing charter rates and liner rates etc. The experience gained by the Scandinavian and Canadian trades could be very helpful for the preparation of such models.

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TABLE I

COMPARATIVE FREIGHT RATES TO USA-(WEST & EAST COASTS)
FROM JAPAN,CHINA (TAIWAN) AND SRI LANKA IN US $

| ITEM | USA W.COAST | | | USA - EAST COAST | | |
|---|---|---|---|---|---|---|
| | JAPAN | CHINA (TAIWAN) | SRI LANKA | JAPAN | CHINA (TAIWAN) | SRI LANKA |
| Wood Products | 100 W/M | 57 M. | 112-142 * | 113 W/M | 70.M (40) | 124.75-133. |
| Plywood | 80 W/M | 9.35MSF | 128.50 W<br>113.50 M | 96 W/M | 10.5 MSF(3MN) | |
| Parquet Flooring | 80 W/M | 50 M. | 110 W/M | 96 W/M | 67 M | 113.50 M. |
| Wood Chips | 85 W/M | 50 M. | - | 100 W/M | 62 | |
| Paper Pulp | 78 W/M | - | - | 88 W/M | - | - |
| Sawn Timber-Loose | 85 W/M | - | - | 100 W/M | - | - |
| Sawn Timber-BDL | 74 W/M | 95 M. | - | 83 W/M | 124 M. | - |
| BAF | 9% | - | 19.50 | 9 | | 27.50 |
| CAF | 9% | - | - | 9% | | |

* Furniture - $ 112
Educational toys - 142
Brooms - 131.50

TABLE II

COMPARATIVE FREIGHT RATES TO EUROPE ON WOOD PRODUCTS ( IN US $)

| ITEM | TO EUROPE FROM | | |
|---|---|---|---|
| | JAPAN | CHINA ( TAIWAN ) | SRI LANKA |
| Wood Products | 105.50 Cbm | 55 W/M | 57.90 - 7350 |
| Plywood | 109.20 Cbm | 55 W/M | 64.10 Cbm. |
| Parquet Flooring | 105.50 Cbm | 55 W/M | 75 Cbm |
| Wood Chips | 87.10 Cbm | 55 W/M | - |
| Paper Pulp | 83.90 Cbm | - | - |
| Sawn Timber | 109.20 Cbm | 55 W/M | |
| Furniture Components | 57.90 Cbm | | |
| Broom handles | 71.50 Cbm | | |
| Curios | 73.50 Cbm | | |
| Toys | 64.10 Cbm | | |

TABLE III

FREIGHT RATES ON WOOD PRODUCTS FROM SRI LANKA
(IN US DOLLARS)

| ITEM | EUROPE | UK | AUSTRALIA | SINGAPORE | HONGKONG | CHINA TAIWAN | REP.OF KOREA | JAPAN | US E.COAST | US W.COAST |
|---|---|---|---|---|---|---|---|---|---|---|
| arquet Flooring | 64.55 W<br>57.90 M | 68.90 W<br>61.75 M | 75.00 M | 25.75 W<br>23.10 M | 30.00 W<br>26.90 M | 26.90 M | 40.35 M | 41.20 M<br>36.90 M | 133 M | 110 W/M |
| urniture Components<br>ox rate | 57.90 M | 61.75 M | 87.80<br>2400/TEU | | | | | | 131.75M | 112 W<br>99 M |
| ooden Toys | 64.10 | 68.30 | | 29.00 M | 34.45 M | 34.45 M | 46.65 M | 46.65 M | 131.75M | 142 W<br>125 M. |
| ooden Bowls | 88.00 | 93.90 | | | | | | | | |

TABLE IV

VOLUME OF EXPORTS OF SAW LOGS AND VENEER LOGS 1000 CUM

| | 1970 | 1975 | 1981 |
|---|---|---|---|
| World | 63,037 | 60,264 | 56,328 |
| Africa | 6,751 | 5,162 | 5,279 |
| Angola | 152 | 126 | 126 |
| Cameroon | 511 | 472 | 665 |
| Central Africa Rep | 86 | 83 | 137 |
| Congo | 552 | 128 | 205 |
| Equ.Guinea | 380 | 18 | 16 |
| Gabon | 1,634 | 1,100 | 1,095 |
| Ghana | 472 | 440 | 50 |
| Ivory Coast | 2,511 | 2,419 | 2,343 |
| Liberia | 144 | 220 | 475 |
| Canada | 1,267 | 405 | 947 |
| Honduras | 12 | 16 | 25 |
| Brazil | 84 | 5 | 6 |
| Colombia | 78 | 7 | - |
| Paraguay | 166 | 20 | 4 |
| Asia | 29,221 | 28,781 | 24,349 |
| Burma | 58 | 66 | 7 |
| China | 42 | 81 | 55 |
| India | 22 | 36 | 30 |
| Indonesia | 7,834 | 12,884 | 6,509 |
| Malaysia | 11,353 | 10,793 | 15,859 |
| Philippines | 9,606 | 4,596 | 1,437 |
| Papua N.Guinea | 193 | 372 | 749 |

Source - FAO. Year Book of Forest Products Statistics 1970-1981

TABLE V

VOLUME OF EXPORTS OF SAWNWOOD
1000 CUM

| | 1970 | 1975 | 1981 |
|---|---|---|---|
| World | 49,348 | 43,250 | 60,789 |
| Africa | 107 | 108 | 189 |
| Kenya | 28 | 12 | 3 |
| Swaziland | 62 | 84 | 89 |
| Canada | 17,337 | 15,305 | 27,293 |
| Honduras | 295 | 439 | 265 |
| Mexico | 30 | 27 | 1 |
| Nicaraguwa | 90 | 88 | 5 |
| USA | 2,720 | 3,248 | 4,477 |
| Brazil | 927 | 307 | 148 |
| Chile | 172 | 237 | 847 |
| Asia | 167 | 279 | 499 |
| Korea Rep. | - | 130 | 281 |
| Malayasia | 6 | 60 | 83 |

Source- F.A.O. Year Book of Forest Products Statistics 1970-1981.

TABLE VI

VOLUME OF EXPORTS OF PLYWOOD
1000 CUM

| | 1970 | 1975 | 1981 |
|---|---|---|---|
| World | 33,174 | 39,310 | 37,922 |
| Africa | 306 | 380 | 454 |
| Algeria | 23 | 23 | 23 |
| Angola | 7 | 27 | 27 |
| Cameroon | 7 | 10 | 10 |
| Gabon | 71 | 63 | 39 |
| Ghana | 33 | 40 | 40 |
| Ivory Coast | 20 | 39 | 70 |
| Nigeria | 23 | 64 | 86 |
| Zaire | 20 | 9 | 9 |
| Canada | 1,851 | 2,051 | 2,086 |
| USA | 14,078 | 14,579 | 14,800 |
| Argentina | 48 | 61 | 53 |
| Brazil | 342 | 660 | 826 |
| Colombia | 52 | 50 | 40 |
| Peru | 33 | 49 | 41 |
| | | | |
| Asia | 10,063 | 10,304 | 13,611 |
| B'desh | 19 | 13 | 28 |
| Burma | 10 | 12 | 119 |
| China | 794 | 1,023 | 1,313 |
| India | 128 | 127 | 180 |
| Japan | 6,922 | 6,168 | 7,096 |
| Korea Rep | 847 | 1,436 | 1,601 |
| Malaysia | 197 | 404 | 490 |
| Philippines | 653 | 423 | 457 |
| S'Pore | 215 | 334 | 482 |
| Sri Lanka | 11 | 23 | 12 |
| Thailand | 47 | 51 | 106 |

Source- F.A.O.Year Book of Forest Products Statistics
1970 - 1981.

TABLE VII

VOLUME OF EXPORTS OF FIBRE BOARD 1000 CUM

| | 1970 | 1975 | 1981 |
|---|---|---|---|
| World | 14,224 | 15,875 | 15,440 |
| Africa | 134 | 167 | 81 |
| Ethiopia | 4 | 8 | 8 |
| S.Africa | 130 | 155 | 69 |
| N.America | 6,840 | 7,027 | 5,679 |
| Canada | 934 | 764 | 740 |
| USA | 5,821 | 6,236 | 4,900 |
| Mexico | 21 | 14 | 26 |
| S.America | 331 | 592 | 983 |
| Agentina | 24 | 51 | 67 |
| Brazil | 269 | 504 | 843 |
| Chile | 20 | 14 | 44 |
| Colombia | 11 | 15 | 17 |
| Uruguay | 4 | 3 | 1 |
| Venezuela | 2 | 6 | 16 |
| Asia | 1,076 | 995 | 1,290 |
| B'desh | - | 4 | 4 |
| China | 188 | 261 | 491 |
| India | 30 | 25 | 32 |
| Indonesia | 1 | 1 | 1 |
| Iran | 17 | 25 | 22 |
| Israel | 16 | 13 | 10 |
| Japan | 707 | 497 | 545 |
| Rep.Korea | 7 | 16 | 7 |
| Pakistan | 3 | 8 | 9 |
| Philippines | 53 | 62 | 69 |
| Thailand | 15 | 39 | 30 |
| Turkey | 38 | 45 | 70 |
| Europe | 4,217 | 4,236 | 4,158 |
| Poland | 476 | 699 | 544 |
| Sweden | 991 | 775 | 493 |

Source- F.A.O. Year Book of Forest Products Statistics 1970 - 1981.

TABLE VIII

VOLUME OF EXPORTS OF WOOD PULP
1000 MT.

VOLUME $ 1000.

| Country | 1970 | 1975 | 1981 | 1970 | 1975 | 1981 |
|---|---|---|---|---|---|---|
| Africa - Total | 451 | 707 | 912 | 53598 | | |
| Angola | 34 | 33 | 33 | 3877 | | |
| Morocco | 41 | 31 | 69 | 6000 | | |
| S.Africa | 278 | 553 | 653 | 30337 | | |
| Swaziland | 98 | 90 | 157 | 13384 | | |
| Canada | 5063 | 4986 | 6752 | 753034 | | |
| USA | 2808 | 2391 | 3322 | 463952 | | |
| Brazil | 40 | 153 | 915 | 5689 | | |
| Chile | 105 | 174 | 411 | 16404 | | |
| Peru | | | | | | |
| Asia | 27 | 183 | 140 | 4319 | | |
| China | 16 | 30 | 33 | 2464 | | |
| Japan | 11 | 151 | 105 | 1830 | | |
| Philippines | - | - | - | - | | |
| S'Pore | - | - | - | - | | |
| Europe | 7882 | 5668 | 6732 | 1130725 | | |
| Finland | 2057 | 944 | 1685 | 290042 | | |
| Norway | 981 | 597 | 560 | 104942 | | |
| Portugal | 340 | 265 | 455 | 47436 | | |
| Sweden | 3762 | 3239 | 2886 | 567679 | | |

Source - U.N.Year Book of Forest Products Statistics - 1970-1981.

# MAIN DEVELOPMENTS IN THE INSTITUTIONAL STRUCTURE OF INTERNATIONAL SHIPPING INDUSTRY AND THEIR IMPACT ON TRADE WITH THE DEVELOPING COUNTRIES.

## MAIN DEVELOPMENTS IN RECENT YEARS

1. Changes on an unprecedental scale in almost all aspects of international shipping witnessed during the last three decades, had a far reaching impact on the shipping services to and from the developing countries and their foreign trade. Technological progress and changes revolutionised the methods of packing, shipping and even documentation, while an expansion in international trade, assisted by liberal credit facilities offered by banks and shipyards led to a boom in construction of new ships.

2. Conventions such as the Convention on the Code of Conduct for Liner Conferences, Hamburg Convention and the Convention on Multi Model Transport changed the International legal structure within which shipping industry has to operate. Assisted by several factors, developing countries increased their share in world shipping tonnage, while the socialist countries quadrupled their shipping tonnage between 1965 and 1982. Irrational investment on shipping resulted in a serious disequilibrium between supply and demand, at a time when International trade declined, resulting in perhaps the world's worst shipping recession. These developments had both favourable and an unfavourable impact on the developing countries.

## TECHNOLOGICAL CHANGES

1. Technological changes such as introduction of LASH, Roll-on Roll-off and container vessels, revolutionised not only methods of packing, cargo handling, sea transport and the scale of investment on shipping, but also the shipping routes. Unlike the conventional vessels which called at numerous Ports to load and discharge cargo, the container vessels (which have grown in size from about 500 TEUs to over 2,800 TEUs per vessel) call only at very few main Ports on the major sea routes. For the most part, these services are provided by Consortia formed by major shipping lines, within or outside the Conferences. The Ports to be visited are selected on the basis of their location, volume of cargo which could be containerised and Port facilities to handle large container vessels, which remain in the Ports for a few hours or a few days only, for loading and discharging operations.

2. Inevitably, conventional shipping services to several developing countries provided by developed country shipping Lines (which formed powerful consortia to operate the expensive new breed of vessels) were disrupted. Such developing countries who were affected by the withdrawal of shipping services provided by shipping Lines of developed countries, therefore had either to arrange feeder services to tranship their cargo through a main Port (for eg Thailand, Bangladesh, Burma via Singapore) or to improve Port and other facilities to attract the new type of vessels. In some regions, several developing countries particularly those which export low value cargo such as jute, wood and wood products were compelled to:

(a) be at the mercy of those few conventional lines which continued to serve them;

(b) aggregate their cargoes and ship on non-conference vessels or bulk carriers chartered either by the shippers or the buyers or

(c) develop their own national line where feasible and practicable.

3. The positive or favourable impact of the technological changes on the developing countries should also be borne in mind, particularly since several developing countries including those exporting wood and wood products do not appear to have exploited fully the opportunities provided by technological progress in shipping. Whereas palletisation and containerisation have induced buyers of wood products to standardise their requirements and methods of packing, the introduction of LASH vessels have enabled manufacturers of wood products (such as plywood) in some countries to reduce their freight cost. The other benefits are, reduced damage to cargo, quicker transit time and ability for shippers to negotiate their Bills of Lading after handing over stuffed containers or LASH barges to the Shipping Agents.

4. The use of LASH barges by manufacturers of wood products whose factories are located near navigable rivers or in Islands not frequented by vessels of main line operators, could solve a major problem several developing countries have been facing in the past; namely the reluctance of conventional lines to call at their Ports or to levy Port additionals, when they choose to call at minor Ports.

(contd.....3/-)

5. The development of feeder services (connecting Ports which are no longer served by major container consortia, with major Ports) is yet another important development in recent times. Thus, Ports such as Hong Kong, Singapore, Colombo, Dubai, etc., are connected with an increasing number of feeder services from other countries in the region. Shippers of wood products in countries which are not served by major lines, should therefor examine the feasibility of inducing their National Lines to arrange feeder services, preferably connecting several Ports in a region with one major transhipment Port.

6. Another major development during the last three decades was the rapid expansion in the world shipping fleet. Thus, world shipping tonnage increased from 217.9 million GRT in 1970 to 419 GRT in 1982 or from 326 million DWT in 1970 to 693.5 million DWT in 1982. Several factors such as technological changes, expansion in international trade, liberal credit facilities provided by banks and shipbuilding yards, heavy subsidies given to shipbuilding yards by Governments, assisted this expansion. While this expansion in the world shipping fleet had a favourable impact on the shippers in developing countries, (by way of reduced freight rates consequent to supply of shipping tonnage, exceeding the world demand) in the long run the severe disequilibrium in supply and demand for shipping tonnage caused problems both for the shippers and national shipping lines of developing countries.

7. A large number of shipping lines which invested heavily on new buildings were forced to lay up their vessels or to declare bankruptcy. On the other hand, an increasing number of non conference lines desparately chasing after the declining volume of cargo due to the recession in international trade, began to compete very severely with the regular liner operators. Such competition had an adverse impact on the national lines of developing countries, as well as on conferences whose Member lines provided dependable and regular services to several developing countries. In several areas, shippers who were attracted by low freight rates offered by the so called 'outsiders' often lost their cargo (due to maritime frauds) or were left at the mercy of such outsiders after the regular operators were eliminated by rate-wars.

(contd.....4/-)

EXPANSION OF DEVELOPING COUNTRIES' FLEET

8. The share of the developing countries fleets increased from 6.3% in 1970 to 13.6% in 1982, or from 20.5 million dwt. to 94.5 million dwt. However, the ownership remained concentrated with 12 developing countries owning about 76% of the developing countries' fleet. Of this Asian countries owned 65%, Latin American countries 21% and African countries 7%. Although the developing countries were able to achieve the target of 10% set by the Second Development Decade Strategy, even the few developing countries which have developed National Lines continue to depend heavily on shipping lines of developed countries. The world fleet continues to be owned predominantly by developed countries. These countries acquired this tonnage assisted partly by industrialisation, coupled with the needs of their colonies and partly by opportunities provided by the expansion of world trade. Thus, even countries such as Norway, Sweden, Denmark and Greece with limited natural resources were able to build fleets far in excess of the needs of their foreign trade. These fleets contribute substantially to their foreign exchange earnings, besides promoting their exports. It has also to be emphasised that the Governments of several developed countries provided financial assistance to their national fleets for reasons of national economic and political security. Even today, it is estimated that over US$ 2 billion are spent by 6 major maritime powers to assist their national fleets.

9. The main factors which led to the development of national fleets by developing countries during the last three decades are:

(a) disruption of shipping services provided by foreign lines.

(b) balance of payments problems which placed a premium on the saving and earning of foreign exchange.

(c) attainment of independence by colonial territories and consequent emergence of national consciousness.

(d) conscious efforts being made by countries to diversify their economies; and

(e) the need to rely on national lines to promote their trade, particularly for the manufacturedproducts or to secure new markets.

10. Whereas Conferences (which for the most part consisted of only foreign lines of developed countries) in the past often discriminated against the exports of manufactured products by developing countries, while favouring the exports in the opposite direction, the national Lines of developing

countries promoted the exports of manufactured products from their countries, in numerous ways. The national lines having gained membership of the Conferences, also succeeded in exerting a healthy influence on the Conferences, particularly on the rate-making policy. Besides assisting their industries with promotional rates to secure foreign markets, the national lines of several developing countries assisted their shippers by not discrminating against low freighted cargo and by developing shipping services to secure non-traditional markets. The trade among developing countries has been greatly assisted by their national lines in recent years.

11. The efforts of the developing countries to develop and expand their fleet either individually, or as joint services with other developing countries in the region, should therefore be strengthened, particularly in view of the increasing difficulties faced by the shipping lines of developed countries to contain their costs of operation, costs which have to be ultimately borne by shippers and buyers. The spectre of more and more shipping lines of developed countries withdrawing their services from several countries consequent to their rationalisation policies, also continues to haunt the international shipping scene. The Governments and shippers bodies of developing countries should, therefore, watch carefully such developments and be ready with contingency plans to replace their services where necessary.

12. Another significant development during the last three decades was the rapid expansion of the fleets of the socialist countries. During the period 1965-1982 their fleet expanded from 10.9 million GRT to 41.3 million GRT in 1982 representing 9.9% of world tonnage. The expansion of the fleets of developing countries and socialist countries had a very healthy influence on the Conferences. Increasing an often severe competition from these lines compelled Conferences to be more sympathetic to the needs of the shippers of developing countries, by holding consultations, providing promotional rates and improving the quality of the shipping services.

13. The adoption of the Convention on the Code of Conduct for Liner Conferences in 1974, also exerted a healthy influence on the Conferences even before the Convention came into force in October, 1983. This Convention could be used very effectively by the shippers of developing countries to ensure that both the Conferences and non-Conference Lines provide adequate shipping services at reasonable cost, in consultation with shippers bodies. The Convention should also facilitate the national

lines of developing countries in obtaining membership of the Conferences and to participating in the carriage of cargo generated by their foreign trade. In fact, several developing countries enacted legislation incorporating cargo sharing provision of the Code to ensure that their national Lines obtained an equitable share of the cargo.

BILATERAL SHIPPING AGREEMENTS

14. A large number of developing countries in Africa, Latin America and Asia have entered into Bilateral Shipping Agreements with both developing and socialist countries with the objective of arranging adequate shipping services to promote their trade. Such agreements provide for the cargo moving between two countries to be shared by their National Lines on an agreed basis. Besides this, the frequency of services, types of vessels used and freight rate determinations, are done by the National Lines of the countries entering into bilateral Shipping Agreements, in a manner which will promote the two way trade. Shipping services provided under such Agreements are for the most part devoid of the abuses and problems created by Conferences or third flag shipping lines, which are often not fully responsive to the needs of their clients, namely the shippers.

15. The imbalance in the cargo flow or even a comparatively low volume of cargo moving between two countries need not act as a constraint in the use of this device. Where such problems exist, it should be possible for a group of developing countries in a region to organise their shipping Lines to form a joint service with the National Lines of their trading partners. Even Shipping Lines of developed countries as far a part as Denmark and Japan, have recently formed joint ventures to operate forest product carriers from North America to Europe.

DRY BULK CARGO

16. International sea borne trade in the major bulk commodities including logs and wood products, is characterised by a high degree of concentration. Over 81% of the total tonnage is exported by less than 15 countries and 10 major importing countries absorb 82% of the tonnage imported. The world's bulk carrier fleet is predominantly owned by the developed or the importing countries. Although developing countries own 13% of the world shipping tonnage, their share in the bulk carrier tonnage is insignificant, since most developing countries have developed shipping lines to provide liner services. This is partly, if not mainly due to the control exercised by TNCs, over the carriage of the cargo from the developing countries to developed countries.

The vertically intergrated Corporations purchase their products (including logs) on f.o.b. terms to ensure that the carriage could be channelled to their own shipping lines. This control not only militates against the development of National Shipping Lines by developing countries (which could assist shippers to seek new markets) but also discourages the processing of the raw materials in the producing countries. Major bulk commodities present an attractive field for vertically intergrated operations by TNCs. In most cases the TNCs have ensured the transportation of the raw material from the exporting country to the importing country in an intrafirm~~ation~~. The options left for the exporting country are reduced vertically to two. Either export the raw material on f.o.b. terms or face the risk of losing valuable foreign exchange by attempting to change the shipping terms from f.o.b. to c.i.f. or to export finished products rather than the raw material. It has to be emphasised that it is not only developing countries which are facing these serious problems from the TNCs. Even developed countries such as Australia are facing the same problem. Even though nature has been generous to developing countries by endowing them with natural resources such as forests, TNCs which control the chain of transport processing, marketing and distribution have succeeded in depriving several developing countries the fruits of their national resources.

17. Ocean transport is not only an important link in the chain of co-ordination, but it is also a profit making activity. Thus in the transport of logs from South East Asia to Japan or from West Africa to Europe, the dedication of special bulk carriers to specific routes over long periods guarantees profitability with a captive market. Any effort by a developing country exporting the raw material such as logs is often frustrated by vertically intergrated Corporations which resort to the techniques of 'transfer pricing' in respect of freight costs. By using this technique shipping lines controlled by TNCs quote unrealistic and uneconomic freight rates to the buyers or the shippers, in order that the national lines of the developing countries could not compete. Where the Governments or the shippers of developing countries have attempted to break this monopoly by insisting that a reasonable share of the cargo should be carried by the vessels of developing countries, TNCs have threatened to divert their purchases to other sources.

18. The TNCs need not necessarily own its fleet to exercise control over its cargo movement or even to use transfer pricing mechanisms. Control is often exercised through long term charters and arrangements with other closely related parties.

19. The structure of the international shipping industry, its legal framework (Code of Conduct for Liner Conferences, the Hamburg rates and the Convention on Multimodal Transport) aspirations of the developing countries to secure an equitable share of the world industry and the prevailing shipping recession have combined to provide a mixed basket of benefits and problems, particularly to shippers in developing countries. If the problems are treated as a challenge to human ingenuity, developing countries may well succeed in converting at least some of the problems to their advantage. Obviously there is no standard receipe to achieve this, except that constraints faced by one developing country in solving their shipping problems should induce joint efforts with other countries of the region, rather than accept defeat at the hands of TNCs in the face of rapidly changing international shipping scene.

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