

A STUDY OF THE UTILISATION OF EAST LONDON HARBOUR
AND ITS RELATIVE IMPORTANCE IN THE SOUTH AFRICAN
IMPORT AND EXPORT TRADE, TO 1975.

THESIS

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Preface.

I should like to acknowledge with sincere gratitude the assistance offered me by the General Manager of Railways and Harbours, Johannesburg, the System Manager of the Cape Eastern System of the South African Railways, East London, and their respective staffs. I was permitted to examine various statistics and records in the offices under their control, and to extract such data as I required. I must also thank all those persons connected with the South African Railways Administration with whom I came into contact during this research for their unstinted help and courteous assistance.

To Professors Hugh H. Smith and F.E. Drennan I must express my sincere thanks for their kindly interest in this thesis and for their stimulating and helpful criticism of the work as it progressed, and for valuable suggestions. Also to Mr. Rex Reynolds of Gonubie for editing this study.

I offer this thesis in the hope that it will be of interest and perhaps assistance to the South African Railways Administration and to those who have at heart the economic and commercial development of the Border Region in general, and East London Harbour in particular.

CHAPTER 1.

I. The object of this study

The object of this study is to consider the utilisation of East London Harbour and its relative importance in the South African import and export trade to 1975.

The principal harbours of the Republic of South Africa are Table Bay (Cape Town), Algoa Bay (Port Elizabeth), Buffalo Harbour (East London) and Durban, and Walvis Bay in South West Africa.

Small harbours suitable only for coastal shipping are Mossel Bay, Simonstown, Lamberts Bay, St. Helena Bay and Port Nolloth in the Republic and Lüderitz in South West Africa. Two harbours, Saldanha Bay and Richards Bay are at present being built.

The ports of the Republic of South Africa and South West Africa are owned by the Government, are constructed, controlled and operated by the South African Railways and Harbours Administration, under the direction of the Minister of Transport, and are managed by the General Manager, whose headquarters are in Johannesburg.

Local control of harbours is exercised by the System Manager through:

- (a) The Port Captain, who controls the movement of shipping into, out of, and within the harbour; pilots, tugs, launches, floating cranes and berthing staff;
- (b) The Port Manager, who controls the wharf, cranes, cargo sheds, cartage plant, special shore appliances such as grain elevators and coaling plants, harbour operational staff etc. In consultation with the Port Captain, he decides where ships are to be berthed.⁽¹⁾

This control and administration facilitates the correlation of rail traffic to and from the ports with the loading and the discharge of ships.

The approximate distances by sea between the major harbours are :
Durban to East London 407 km; East London to Port Elizabeth 211 km,
Port Elizabeth to Cape Town (Table Bay Harbour) 676 km; Cape Town to Walvis Bay 1175 km.

To study the utilisation of the East London Harbour and determine its relative importance in the South African import and export trade, it is necessary to examine the volume and nature of its sea traffic, its berth occupation, its comparison of exports and imports with those of the other four principal harbours and the relationship of these figures to the overall figures for the Republic. This, together with economic tendencies and government policies, should help to present a picture of the possible future of East London harbour.

The terms Buffalo Harbour and East London Harbour are synonymous, and will be used accordingly.

This study follows the thesis of Prof. Hugh H. Smith "The Transport System of the Border" of which Part One was devoted to Buffalo Harbour.

2. The Scope of this research

The purpose of this research is first to examine all details of the East London Harbour, giving a short history of the harbour, its lay-out and the existing facilities at the harbour.

Then the imports and exports will be dealt with in detail i.e. the different kinds of Commodities imported and exported, the quantities of each, their origin and destination, the applicable tariffs or preferential tariffs, and the railway and road connections.

Comparison will be made between the total bulk of cargo handled in the different categories at East London harbour, that of the four other principal harbours, and the total for the Republic of South Africa, to determine the degree in which East London harbour is being utilised.

A study will be made of the economic tendencies in the Border Area, the Transkei and Ciskei (see Figure 1 for the area considered) related to the current government policy of decentralisation, regional development and growth points, to determine to what extent the hinterland of East London harbour will affect it, with a view to formulating a picture of the future.

3. Definitions and Descriptions

As far as possible, certain names, words, phrases or concepts that are used in this study will be defined or described as follows:

Seaport

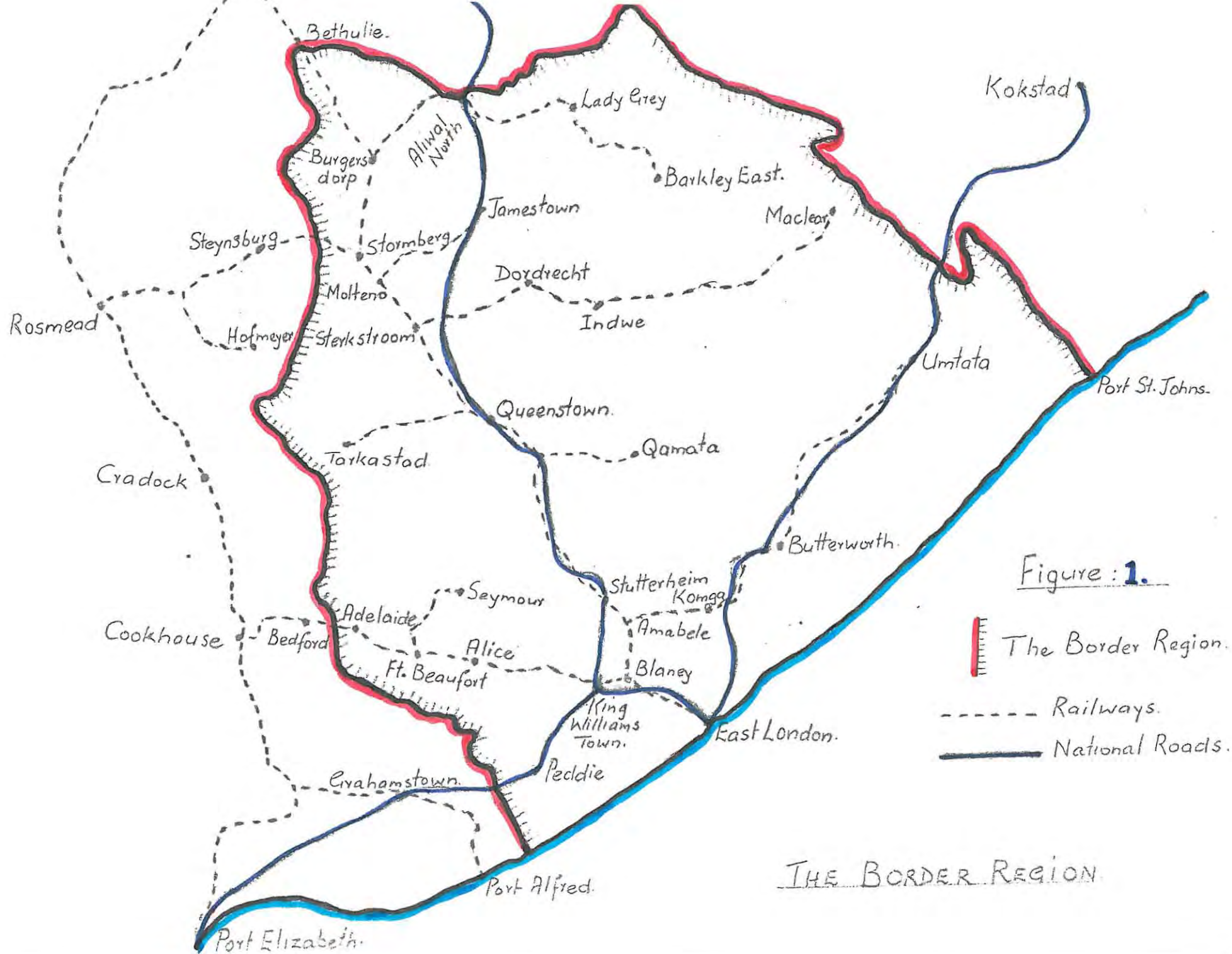
A seaport may be defined in terms of its function as a place where exchanges between land and sea transport regularly take place. It is a functional meeting place not only of many trades but of many professions.⁽²⁾

Sea-Terminal

The modern seaport comprises functions as a sea 'port' or gateway, overseas or inland, and as a sea-terminal, the end of the route and, for the ship, the end of her payload.⁽³⁾

Location of Ports

For many major ports, it is now impossible to determine the reasons for their



original foundation. It is important to remember that the location of ports is due not to the direct influence of any inherent qualities of land and water sites, but to the way in which such sites were assessed by the founders. No port can operate without some formally proclaimed legal status. Such a proclamation in its earliest form will have led to the foundation of the port, and its current legal expression allows the port function to continue.⁽⁴⁾

Port Development

Major port developments take years to complete. The port engineer struggles with difficult physical sites where land and water meet - perhaps beset by high-ranging tides; exposure to wind and swell; or particular hazards like consolidated dune bars, volcanic dykes and coral reefs - to build a port fulfilling the demands for efficient and safe shipping.⁽⁵⁾

Local Sea Transport

Small craft sail regularly along the coast between the port towns. In many areas of the developing world local sea transport remains a vital element in economic and political geography, and helps to generate production by reducing the time and cost barriers in local economies.⁽⁶⁾

Quays and Jetties

Quays are taken as being parallel to the land line and Jetties as 'jutting' out from the land. The jetties are unlikely to retain earth and are therefore most likely to be open piled structures, but can sometimes be solid either as blockwork or large buoyant boxes floated out, sunk and filled.

Quays are more likely to retain earth by mass concrete, blockwork caissons or steel sheet piling, but can often be open piled work over the slope of a bank.⁽⁷⁾

Transportation

Transport is not only carriage of an item from one place to another, but also a synthesis of space and time. The space is that occupied by the routes and nodes of a transport network. The time element is involved in the schedule of movement through the network and the planning of such movement over short, intermediate, and long periods of time ahead, according to James Bird.⁽⁸⁾

Quoting Taafe and Gauthier - The geographer studies transportation as an aspect of the organisation of area. Therefore, the transportation geographer is concerned with (1) the particular linkages and flows that comprise a transportation network; (2) the centres or nodes connected

by these linkages and; (3) the entire system of hinterlands and hierarchical relationships associated with the network.⁽⁹⁾

The Structure of a Transportation Network

The geographer first looks at the linkages and flows between centres, their nature and size. Then he considers the centres or nodes themselves, especially their size, function and accessibility to the rest of the network. Finally he studies the structure of dominance and competition among the nodes within each network of linkages and flows. In short, the geographer examines the transportation network for evidence of the organisation of the area.⁽¹⁰⁾

Transportation Systems

Transport improvements between two points lead to increasing regional specialization by reducing transport costs below price differentials. The differentiated freight-rate structure broadens the area within which specialization takes place and intensifies its impact at the terminals. Agglomeration economies at the large cities serve to accelerate their growth, widen their markets, and increase their dominance of the transportation system. Both functional and uniform regions are, therefore, closely related facets of a broader pattern of spatial organization. A change in one brings about a change in the other through the mechanisms of regional specialization and agglomeration economies.

The historical development of a transportation system may be summarised in four idealised phases : a beginning phase of scattered ports, followed by penetration lines, interconnection and the growth of high priority linkages.⁽¹¹⁾

Hinterlands

Linkages and nodes may be organised into systems in a variety of ways. Hinterlands, or tributary areas of a particular port or retail centre, may be defined by the linkages most clearly associated with that node. These hinterlands may, in turn, be organised into a system of hinterlands, including a number of nodes, each with its set of strongest linkages.

Linkages and nodes are organised into hinterlands, systems of hinterlands, and hierarchies. The hinterland of a node is the area in which that node's field of influence is stronger than the influence of adjoining nodes. Thus a system of hinterlands will reflect the position

and relative importance of the major nodes in a network, with each node extending its influence farther toward weak competitors than toward strong competitors. The hinterlands of the smaller nodes are nested within those of larger nodes in a hierarchical pattern.⁽¹²⁾

Bird gives the following definitions:

Immediate hinterland - port area itself and the port city.

Primary hinterland or umland - includes the above and the area where port and city assume a commanding role in the life of the area.

Secondary hinterland or competitive hinterland - where less than 70% of an area's traffic is forwarded by or received from the port in question.

Advantage hinterland - an area which may fall within the sphere of traffic influence of one port due to the non-linearity of inland tariffs from ports in competition.

Commodity hinterland - based on indicated direction of shipments of particular commodities or groups of commodities.

Hinterland functional overlap - occurs when the hinterland of a large port overruns that of a smaller port for certain cargoes because of the greater range of port functions, perhaps due to the greater number of sailings from a large port.

Hinterland areal overlap - occurs where there is competition between ports of comparable size for cargo of the same type to and from the same area. ⁽¹³⁾

Hinterland is a naturalised German word and began life in English as meaning the "back country."

Forelands

Forelands are the land areas which lie on the seaward side of a port, beyond maritime space, with which the port is connected by ocean carriers. The measurement of a port's foreland, in total and according to cargo commodity mix, is obtained from the destinations and origins of cargo overseas.⁽¹⁴⁾

Harbour Ton

Tonnage wharfage, landing, shipping and transshipping charges are levied on the unit of harbour tonnage specified for each commodity. It is used in respect of commodities where the mass varies with volume : e.g. the volume of 1 kg. of lead and 1 kg. of wool will differ considerably.

Cost and tonnage is based for most commodities on specifications listed by the Administration. Goods not listed are classified according to type. Charges are payable on the harbour ton of 1 000 kg. or 1 cubic metre, whichever yields the higher tonnage, of 1 kilolitre or 1 000 kg. for liquids in portable tanks, whichever yields the higher tonnage, or units of one kilolitre for liquids in bulk.

Measurement Ton

The measurement ton is used in respect of such commodities as machinery, tools etc. in crates, where the volume exceeds the mass of the commodity.

N.B. (Further definitions and descriptions will be given when discussed.)

4. A short chronicle of East London Harbour and its Hinterland.

South Africa has five modern, well-equipped harbours, but no natural harbours. The only riverport is Buffalo Harbour in East London.

Mention of the Buffalo River was first made about 287 years ago, when Simon van der Stel's exploration vessel "De Noorde" brought back to Table Bay the story of her historic voyage to Delagoa Bay, and an entry in her log book referred for the first time to Buffalo River. (15)

Sir George Cory records that the brig Knysna of 180 tons burthen, under the command of Captain John Findlay, anchored in the roadstead off the Buffalo River on November 19, 1836. This little vessel was under charter to the British Commissariat Department and was laden with grain and food supplies for the Imperial troops stationed in Queen Adelaide Province. Captain John Baillie, who was on board the brig during the course of the ship's two months at anchor in the roadstead, climbed what is known today as Signal Hill and, after cutting down a tree for a flagstaff, hoisted the Union Jack.

Captain Findlay, during his vessel's stay off East London, did not at any time venture to take her into the river and the ship's cargo was discharged into small surfboats, which landed on the banks of the river. After discharging her cargo, the Knysna loaded a small cargo of skins and hides which had been obtained from the local tribesmen by barter. This was the beginning of Buffalo Harbour's export trade, and ever since skins and hides, wool and maize have been the main exports from its hinterland.

During the Knysna's stay, the Lieutenant-Governor of the Eastern Province of the Cape of Good Hope, Captain Stockenström, visited the mouth of the Buffalo River and named it Port Rex in honour of the Knysna's owner, Captain John Rex.

Late in 1836, the British Forces were withdrawn and the Province of Queen Adelaide was abandoned, the Keiskamma River being established as the eastern boundary of the Colony. Queen Adelaide Province was left to the missionaries and a few venturesome traders, and there is no record of the mouth of the Buffalo River being used again as a port until 1847.

In 1846, the "War of the Axe" was being waged in the Eastern part of the Colony, and again it was necessary to transport troops and supplies by land from Algoa Bay, which was a tedious and costly procedure. The same Captain Biddulph who had been sent to the mouth of the Buffalo River in 1836 to assist in unloading the Knysna's stores, wrote to the Governor of the Cape of Good Hope, Sir Peregrine Maitland, suggesting that stores and troops might be landed at the Buffalo River Mouth.⁽¹⁶⁾ The Governor made no use of this suggestion, and on April 2, 1847, the General Officer Commanding the Troops on the Frontier, Lieutenant-General Sir George Berkeley, wrote from his headquarters near the mouth of the Buffalo River, to the new Governor, Sir Henry Pottinger, that "the Buffalo Mouth appears to be well qualified for a Commissariat Depot, and with a little help may be made convenient to land stores at any time of tide."

In reply, the Governor said that Lieutenant C. Forsyth, R.N., had already left to examine the mouth of the Buffalo River to ascertain if it would be suitable for the disembarkation of stores and troops. On May 5, 1847, Lieutenant Forsyth reported that having watched the entrance of the river for a month, he considered it practicable for surf boats to discharge vessels without much difficulty. Once the bar was crossed, there were no further problems; the landing was excellent alongside a temporary wharf built by men of the 73rd Regiment, 400 yards ($\pm$ 370 metres) from the Western point and on the Western Bank. The anchorage off the entrance was good, the bottom clear of rocks and the water of moderate depth.⁽¹⁷⁾

Following this report, the Governor ordered surf boats and other equipment to be sent to the mouth of the Buffalo River. In a despatch to Earl Grey, the Secretary of State for Colonies, dated October 14, 1847,

the Governor of the Cape, Sir Henry Pottinger, wrote that the posts at the mouth of the Buffalo River and at King Williams Town had been permanently established, a very considerable amount of trade by sea had already sprung up, and applications from merchants and others for building ground were being received.⁽¹⁸⁾

In the same month, October, a flood in the Buffalo River cleared away the sand banks in the mouth, entirely altering the formation of the channel. The new channel was deep enough to enable a vessel of 80 to 100 tons to enter the river without difficulty, and on December 9, 1847, the African Maid was the first vessel of moderate size to do so.⁽¹⁹⁾

Meanwhile the "War of the Axe" continued and on December 2, 1847, Sir Harry Smith arrived in Cape Town and took up his appointment as "High Commissioner for the settling and adjusting of the affairs of the territories in Southern Africa adjacent to the eastern and north-eastern frontier of the Colony." His first proclamation announced that all treaties and conventions formerly subsisting between the Queen and the Chiefs of the tribes, were wholly abrogated and annulled. This proclamation also defined the northern and eastern boundaries of the Cape of Good Hope. Less than a week later, on December 23, 1847, he proclaimed that the territories lying between the Keiskamma River, up to the Kaka range, to the source of the Klip Plaats River, down its right bank to its junction with the Swart Kei, and down the right bank of this river to the Kei River, thence down the right bank of that river to the sea, should be annexed to the British Crown, but should not be part of the Colony of the Cape of Good Hope - (see Figure 2).

To this newly annexed territory the name British Kaffraria was given. In a General Order, dated December 24, 1847, it was laid down that King Williams Town was to be established on both sides of the Buffalo River, occupying the site of Forts Hill and Harding. The same order directed that Fort Glamorgan, at the mouth of the Buffalo River, and Forts Grey, Cox and Wellington should be constructed⁽²⁰⁾ - (see Figure 2).

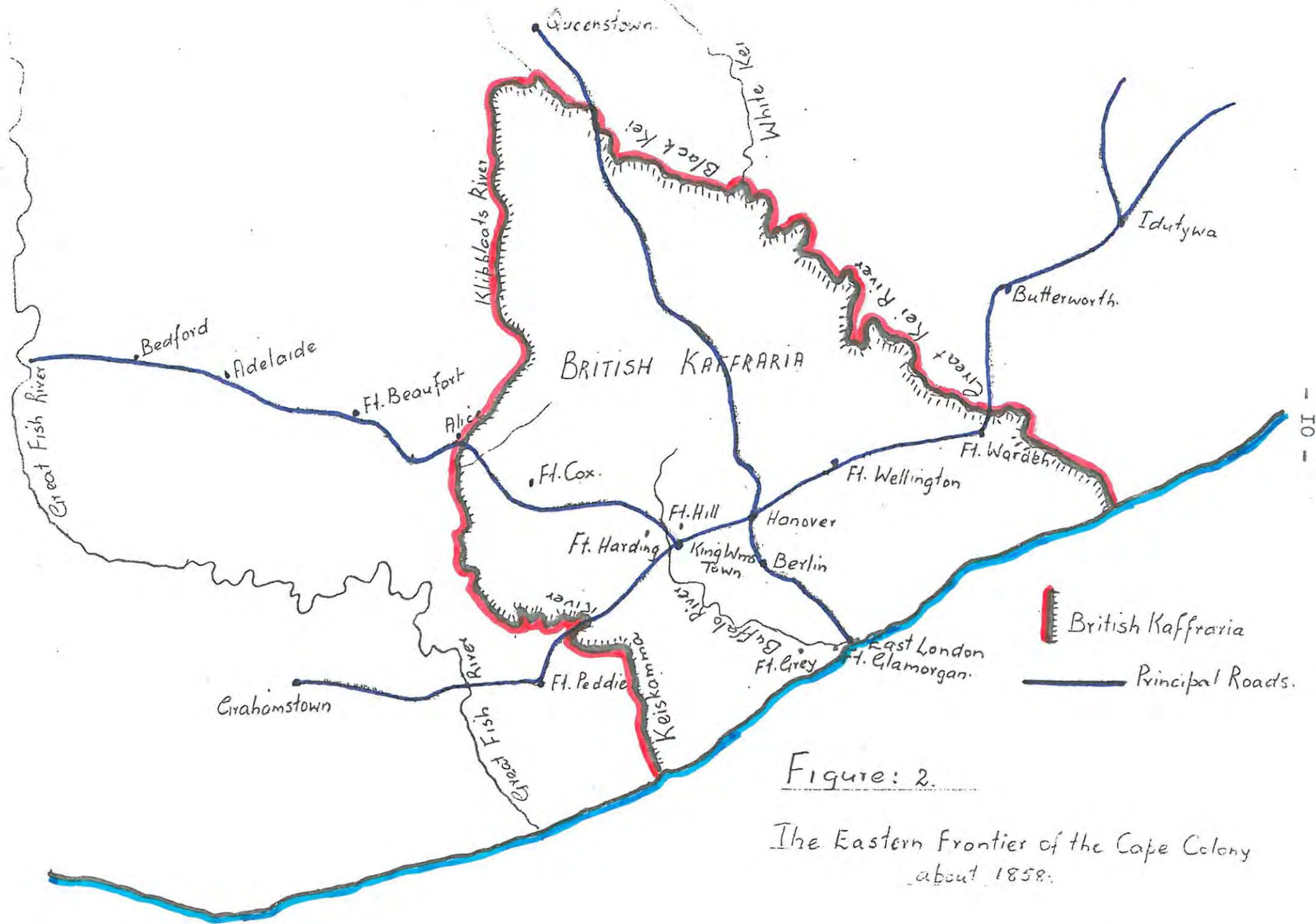


Figure: 2.

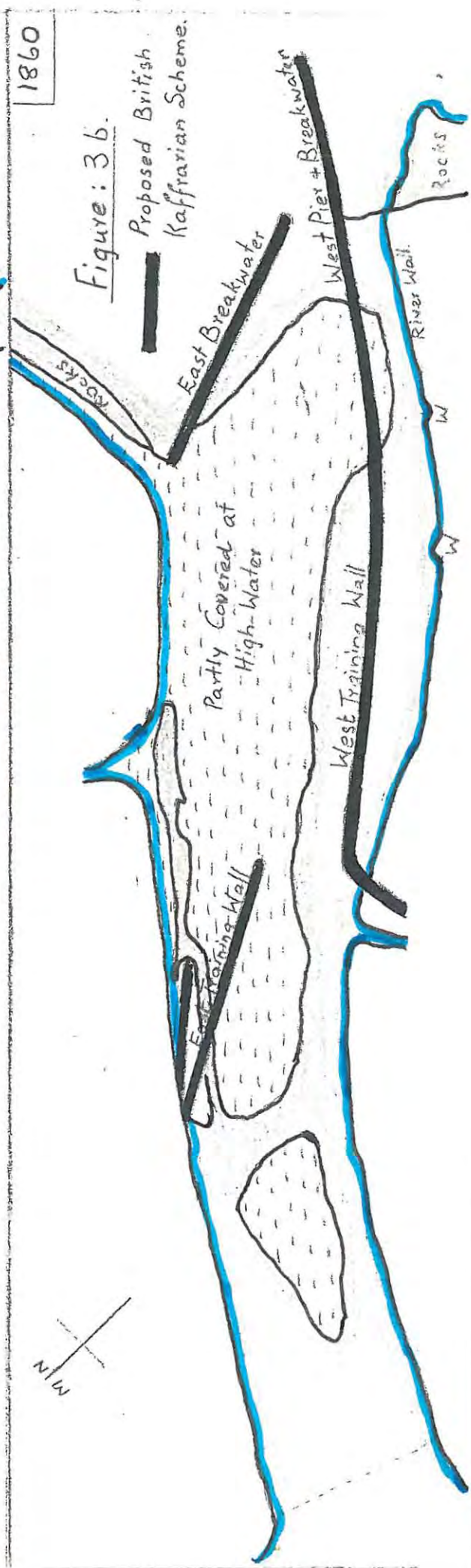
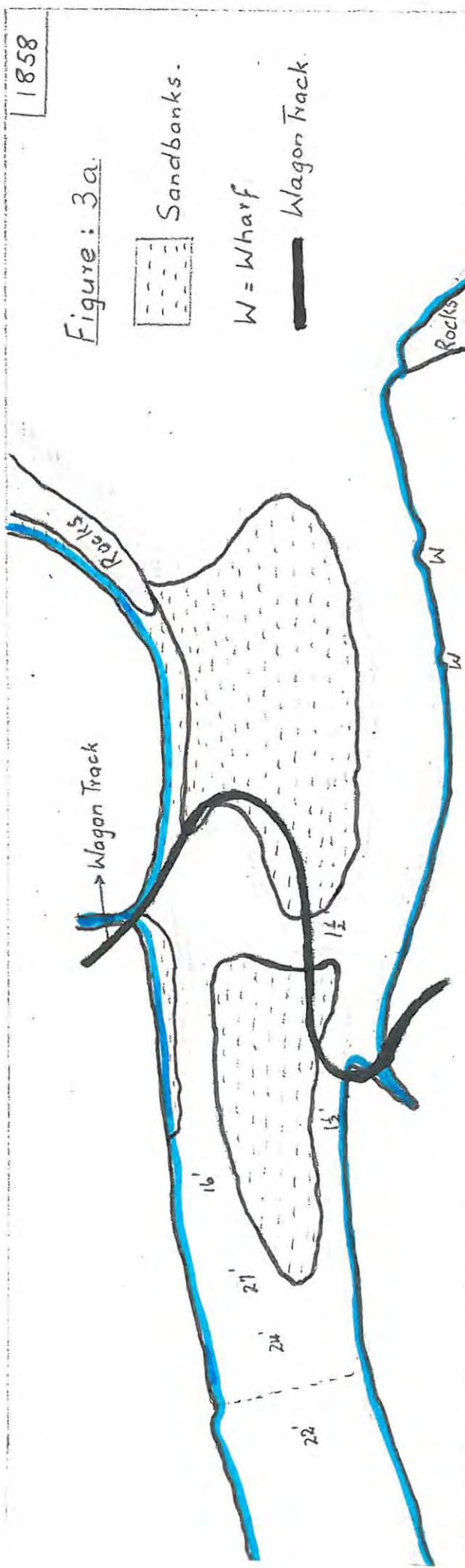
The Eastern Frontier of the Cape Colony
about 1858.

On January 1, 1948, Lieutenant C. Forsyth, R.N., submitted a second report on the state of the Buffalo River Mouth. He reported that the entrance to the river might be much improved, and made available for vessels of greater burthen, if means could be adopted for confining the channel.

On 14th January, the Governor of the Cape of Good Hope proclaimed the mouth of the Buffalo River, together with a "rayon" of two miles ($\pm 3,2$ Km) of land around it, to be a British port.⁽²¹⁾ Although within the territorial limits of British Kaffraria, the port, which was named East London, was annexed to the Cape Colony with the intention of preventing goods being landed duty free at East London and subsequently smuggled into the Colony. In the same proclamation, Sir Harry Smith appointed a Board of Commissioners to suggest improvements at the port. The Board suggested that the warp - a device used to provide a certain protection against the surf boats being capsized or driven out to sea - which had been fixed to the rocky western shore, should be moved to a floating stage securely anchored in the channel. It was further suggested that a wharf was essential for the efficient landing of cargo, as was a slip of 60 feet by 40 feet (18,3 X 12,2 metres) for the repair of boats. In conclusion the Board suggested that there should be fixed rates for handling cargo : eight shillings (80c) per ton for landing cargo and four shillings (40c) per ton for loading.⁽²²⁾

Although East London was used as a commercial port from 1848 onwards, it had only some small and rudimentary jetties near the mouth of the river on the West Bank, and no harbour works of any importance were undertaken until after 1856.

In January, 1856, Mr. Woodford Pilkington was appointed the Civil Engineer of British Kaffraria, and although East London was not part of British Kaffraria, its importance as the only port of the territory made its improvement by the Kaffrarian Government an urgent necessity. Figure 3(a) shows the state of the river mouth in 1858. It was approximately 600 feet ($\pm 182,88$ metres) wide at the mouth and largely choked with sand banks. Along the western side of the river there was a channel so shallow that at one point it was possible to drive an oxwagon from the one bank to the other.



Mr. Pilkington and his successors aimed in their harbour works, firstly, at narrowing the mouth of the river and, secondly, at training the current so that the flow of water at ebb tide would be turned in the same direction as the current flowing along the coast. To complete the scheme, a Breakwater was to be built from the West Bank of the river to prevent the ebb tide from being weakened by meeting the waves breaking along the coast. Figure 3(b) shows the Kaffrarian works in the form in which they were finally approved.

Although later works differed in details from the Kaffrarian plans, this notion of narrowing the entrance and training the current dominated engineering schemes at the Buffalo Harbour for many years and may be called the first phase of harbour development at the port.

The harbour works were impeded by lack of finance and by a shortage of skilled labour. At first they proceeded slowly, but gradually they lost all impetus and work was suspended before any useful results could be produced.

Between September, 1856, and December 31, 1864, £19 546 (± R39 000) was spent on the harbour at East London⁽²³⁾ and the following works were constructed:

- (a) A Training Bank, 650 feet (± 198 metres) long, on the East Bank of the river;
- (b) a Bank, 1500 feet (± 457 metres) long, on the West Bank of the river;
- (c) a Breakwater 700 feet (± 213 metres) long, at the entrance to the river on the East Bank; and
- (d) a Quay Wall and a small landing wharf near the entrance to the river on the western side. - (See Figure 3b).

In 1866, British Kaffraria was annexed to the Cape of Good Hope, and soon after this, the Cape Government appointed Mr. (Later Sir) John Coode, a consulting engineer, to report on the harbours of the Colony. Mr. Coode studied the details of the schemes suggested so far for East London harbour and accepted them in principle, but differed as to the design and direction of the works to be constructed. The scheme put forward by Mr. Coode in 1870 envisaged the construction of:

- (a) a curved South Breakwater, 1 230 feet (± 375 metres) long;

- (b) a Training Wall from the south-western corner of the entrance of the river, to join up with the unfinished Kaffraria Western Bank - this new wall was to run in front of the existing wharves, which would disappear when the area behind them was reclaimed;
- (c) a Revetment Wall along the sea front between the root of the Breakwaters and the seaward end of the West Training Wall;
- (d) a 300 foot ($\pm$ 91 metres) long extension to the Eastern Breakwater, but in a direction quite different from that laid down by the Kaffrarian Engineers; and
- (e) an Eastern Training Wall between the upstream end of the Eastern Breakwater and the unfinished (Kaffrarian) Training Bank.

The pontoon landings were to be removed to a point further up the river. The 1870 Coode scheme also provided for a 400 foot ($\pm$ 122 metres) long wharf, in timber, on the West Bank: it was hoped to obtain a depth of 14 feet ($\pm$ 4,3 metres) at L.W.O.S.T. alongside this wharf. The width of the harbour entrance was to be 250 feet ($\pm$ 76 metres). Mr. Coode's recommendations were accepted by the Colonial Government and Parliamentary approval was given for the raising of £100 000 ($\pm$ R200 000) to finance the scheme.⁽²⁴⁾ Work commenced on this scheme in May, 1872.

At this stage, the Government also decided to provide a steam tug for the Buffalo Harbour as the surf boats, manned by rowers, proved to be uneconomic. The Chief Inspector also reported that with the increasing trade of the Buffalo Harbour, the jetty which had been built was already inadequate. In 1872, a company was formed at East London to carry out the landing and shipping of cargoes, and consequently the Government surf-boat establishment was transferred.

The first steamer to call at East London arrived off the port in June, 1872. This ship was the German coaster "Bismarck". She berthed at one of the wooden jetties on the West Bank.

In 1877, Sir John Coode proposed that the South Breakwater should be extended to a length of 1 500 feet ($\pm$ 457 metres). This recommendation was accepted, as was a proposal that the East Breakwater should be lengthened by about 200 feet ($\pm$ 61 metres). It was also proposed that the West Training Wall should be 200 feet ($\pm$ 61 metres) longer. In 1881, a further extension of the East Breakwater was approved.

Meanwhile, in 1877, following complaints about the lack of wharfage accommodation, a 300 feet ($\pm$ 91 metres) long timber wharf had been constructed on the East Bank, and equipped with two steam cranes. Two new warehouses were also constructed. At the same time the pontoon was moved further upstream. By 1878, the wharf on the East Bank of the river had been extended to a length of 480 feet ($\pm$ 146 metres) and all landing and shipping of goods was transferred to this side of the river.

The East London Landing and Shipping Company, however, complained to the Government about the state of the harbour entrance, pointing out that for about five hours each day due to the shallow water at the entrance to the river it was impossible for a steam tug to operate and rowing boats had to be used, with the result that time was lost and the commercial interests of the Port were suffering to a very serious extent.

While on a visit to the Netherlands, Sir John Coode saw suction dredgers at work, and immediately realised how useful one would be in clearing the mouth of the Buffalo River. Colonel Schermbrucker, then Commissioner of Public Works, was persuaded to obtain one for East London and in 1886 the suction dredger Lucy arrived off the entrance to the river.

The Lucy was a very small dredger with a hopper capacity of only 500 tons. Before she was able to enter the river she had to dredge a channel through the sand. The arrival of the Lucy was the beginning of the second phase in the technical development of South Africa's only river port.

The second suction dredger, Sir Gordon, arrived shortly after the Lucy in 1890, and as a result of the combined efforts of these two dredgers, ocean-going vessels were able to enter Buffalo Harbour for the first time.

The protection afforded to ships increased as the extensions to the breakwater and the dredging progressed. In 1877 the harbour was open to shipping on 245 days. In 1883 this had increased to 265 days and in 1890 to 305.

With a view to improving the entrance still more, it was decided in 1894 to increase the length of the Western Breakwater. The North Pier was modified to provide a wider entrance. This gave the ships entering and leaving the harbour more protection and greater safety.

By 1900 the entrance had been improved to such an extent that the S.S. Montclam, drawing 18 feet 6 inches ($\pm$ 5,6 metres), was able to enter the river on October 13, of that year. This was the deepest draught vessel to enter the river up to this date.

After 1900, the number of ships using the river increased considerably and occasionally there were as many as 30 ships in at one time. Lack of wharfage and the fact that sailing ships had to be brought into the river instead of anchoring in the roadstead, owing to the dangers that existed there, meant that ships had to be double or trebled banked and in some cases quadrupled banked. They were forced to stay in port for months before being discharged.

Before the opening of the bridge across the Buffalo River in 1908, the only way of crossing the river was by pontoon. It had been decided in 1903 to bridge the river, owing to the increasing importance of the West Bank. It was also decided to build a new quay on the West side of the river. While the bridge was being built a concrete quay was under construction and bridge and quay were completed simultaneously. The bridge was opened to traffic on January 4, 1908, and the first vessel to use the quay was berthed on January 8.

This was another milestone in the development of the river, for this quay was fully equipped with electric cranes and with the depth of water 27 feet ($\pm$ 8,2 metres), fairly large vessels were able to lie there in comfort. The river was later deepened and widened, which enabled vessels to be turned up river and to be berthed alongside either East or West Bank quays.

When the work on the West Bank was completed, a start was made on developing the East Bank of the river. In 1913, work began on the construction of concrete quays, but it took many years for East London's representatives in Parliament to convince the Government of the growing importance of Buffalo Harbour and of the necessity for a basin in which the largest ships trading with South Africa could be turned safely and docked.

In 1923, Sir George Buchanan, K.C.I.E., who had been commissioned by the Union Government to report on the harbours of South Africa, recommended the construction of the East Breakwater. Work started in 1923

and was finished in 1927. The removal of the old (Coode) East Breakwater was completed in 1939.⁽²⁵⁾

The removal of the Coode East Breakwater and the completion of the new Buchanan Breakwater improved the entrance to the harbour and greatly facilitated the movement of vessels entering and leaving it. By 1928 it was apparent, however, that improved facilities for turning and berthing vessels were urgently needed, and the final phase in the development of the harbour was the provision of a Turning Basin.

After considerable persuasion, and after irrefutable evidence of the congestion in the port on many occasions had been produced, plans were formulated for the construction of a 1 000 foot ($\pm$ 305 metres) turning basin near the mouth of the river. It was not until 1928 that all the initial difficulties were overcome and on December 3, of that year the first sod was cut on the West Bank of the river. Work progressed satisfactorily and in 1930 a start was made on the East side of the new basin. All the work, including the excavation of soil and rock, was carried out by manual labour, because at that time the country was in the grip of a world-wide depression and the Government was reluctant to spend money on mechanical excavators. As soon as sufficient soil has been excavated, blocks were made and laid and the quay began to take shape.

In 1933 the first cranes were erected on the new wall. There were six in all. They had been diverted from Cape Town as they were found to be unsuitable for certain ships, but they proved invaluable for removing the spoil from the bottom of the turning basin.

January 13, 1935, was memorable for East London, for on that day at 4.40 a.m. a sluice gate was opened and water rushed into the coffer dam which had protected the new turning basin wall for such a long time, and very soon the dam was full.

The cone had been hoisted on Signal Hill signifying that ships could not enter or leave the river, until the turning basin had been officially opened, even though the day was fine. The coaster Mead arrived off the entrance, took no notice whatsoever of the cone, and much to the consternation of the harbour officials, entered the river and berthed successfully at the West Quay.

By June 9, the river had been widened to such an extent that the Grantully Castle was able to turn in the new basin and to be taken to her berth higher up the river. The first ship to use the newly completed quay was H.M.S. Milford. She tied up on November 9, 1935. On January 25 of the following year the first merchant ship, m.v. Stanford, berthed alongside the quay, with 30 000 casks of cement for harbour use.

It took time to put the finishing touches to the new wall. Although ships used the new quay, it was not until February 13, 1937, that the first large ship was moored there. This was one of the smaller Union Castle mail ships Edinburgh Castle. Approximately six months later, on August 9, 1937, great excitement was caused in town when the large Italian Liner Duilio, of 23 600 tons, was brought into the river, safely turned and docked in the basin. On November 5, 1937, the Commodore ship of the Union Castle Fleet, Athlone Castle, was berthed at what is now known as K-shed.

Early in 1935, a new bridge across the river had been opened to road traffic, replacing the wooden structure built nearly thirty years before. The new bridge, situated on the upstream side of the old one, is still in use. It is a steel structure with two decks : the lower deck carries the railway line, and the upper a two-lane vehicle road, 22 feet ($\pm$ 6,7 metres) wide.

On April 1, 1936, the Harbour Authorities took over the first 1 000 feet ($\pm$ 305 metres) of the quay in the C.W. Malan Basin, and this was first used commercially on May 25. In 1939, the full length of the quay was brought into commercial use and the breakwater extended to its present length of 3 080 feet ($\pm$ 939 metres). In the same year, the last part of the old (Coode) East Breakwater was removed. The completion of this work had been delayed because it had been necessary to use the dredger for more urgent work connected with the lengthening of the C.W. Malan Quay and the widening and deepening of the channel to 400 feet ($\pm$ 122 metres) and 35 feet ($\pm$ 10,67 metres) below L.W.O.S.T. respectively. The extension of the South Breakwater has enabled the harbour to be kept open in conditions which would formerly have been too dangerous to permit shipping to enter or leave the harbour.

In 1939, the Port Captain requested that two further improvements should be effected to the harbour:

- (a) the removal of the round head of the East Breakwater to facilitate the pilotage of the longer and wider ships visiting the port; and
- (b) the removal of part of the West Training Wall to open up more fully the wave trap between the Wall and the South Breakwater. Both these works were put in hand during the second world war, and their completion effected the expected improvements in the harbour.

For some years prior to the second world war, representations were made to the Railways and Harbours Administration for the construction of a graving dock, which they eventually authorised in 1942. When it was completed, the Princess Elizabeth Graving Dock was opened by H.R.H. Princess Elizabeth on March 3, 1947, during the Royal Visit to East London. The dock, which was built by South Africans and equipped with machinery made and supplied by the United Kingdom, is capable of taking most vessels calling at the harbour. With the opening of the graving dock, Buffalo Harbour was able to offer visiting ships all the facilities they required.

In 1958 a further series of major works was being carried out at East London harbour. They were necessitated largely by the intention of the Union Castle Steamship Co. to build considerably bigger vessels. If the port could not accommodate them it would be by-passed by the larger mail ships. A scheme was suggested by the Railways and Harbours Administration to provide for:

- (a) The widening of the swinging area in the C.W. Malan Basin from a radius of 970 feet (296 metres) to 1 200 feet (366 metres);
- (b) the construction of an oil tanker berth, 850 feet (259 metres) in length, along one side of the new basin being excavated into the West Bank of the river, the berth being separated from the basin by a light-weight boom;
- (c) the construction of two commercial berths, with provision for a third, in the new basin;
- (d) the conversion of the East Pier to a sheer head, and the deepening of the water alongside it to 35 feet (10,67 metres) below L.W.O.S.T. ; and

Figure : 4

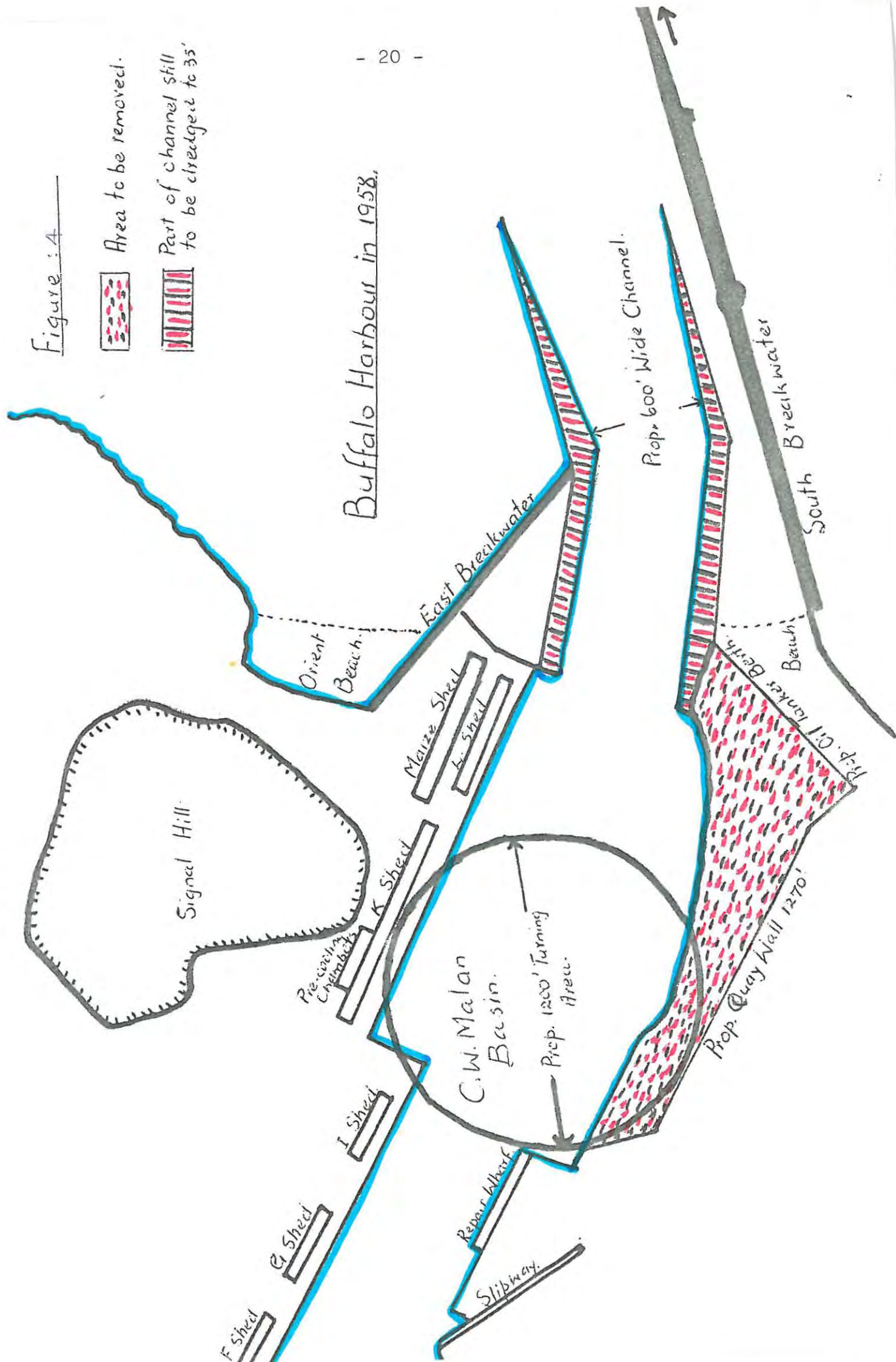
Area to be removed.



Part of channel still to be dredged to 35'



Buffalo Harbour in 1958.



- (e) the widening of the entrance channel to 600 feet ($\pm$ 183 metres), and where necessary deepening it to 35 feet (10,67 metres) below L.W.O.S.T.

These proposed works are shown in figure 4. The East Breakwater was supported by a "toe" of concrete blocks projecting into the channel at the entrance to the river, and tapering down to a point. For nautical reasons it was decided not to shorten this Breakwater, and the only other plan for the widening of the channel was the removal of the supporting blocks. This, however, would have weakened the Breakwater; therefore, before the blocks were removed, holes were drilled through them, forming the round head of the Breakwater, and the rocky sea-bed. Steel rods were then driven through these holes, holding the head in position on the sea-bed and allowing the supporting "toe" to be removed.

During 1958, the General Manager of Railways and Harbours announced that East London was to be developed as a major maize exporting port, but gave no indication of what development might be expected in regard to additional facilities.⁽²⁶⁾

After 1958, no major works, constructions or alterations were undertaken at the harbour itself. The tanker berth, the widening of the turning basin and improvements to the entrance of the harbour were completed during 1964. However, quite a number of facilities were provided e.g. the grain elevator, which was completed in 1966 and modified in 1973, with sixteen additional silos. Other improvements and facilities were: four small precooling chambers in 1962; additional loops at West Bank; portal tracks at F. shed and at West Bank lengthened; two additional 16 - ton capstans at the graving dock in 1970 with Fenders at the entrance to the graving dock in 1971; two additional 15 - ton cranes and three additional 4 - ton cranes; a timber stacking area and parking facilities in 1975.

Authorised works still to be completed are: additional yard facilities at the West Bank; the widening of the entrance channel; additional loops at Gately; extension of the West Quay by 102 metres and the provision of a Container Quay for containerisation. The question of redeveloping the port of East London is receiving urgent attention from Administration at the moment.⁽²⁷⁾

It is interesting to note that most of the craft stationed here were named after personages (or their wives) who did considerable service to East London and the port.

It is recorded in history that the coast on either side of the Buffalo River has claimed scores of sailing vessels and steamships as victims of the gales, high seas and strong currents that abound in this part of the world. To give a record of the ships that have been wrecked and lost, though it might throw a significant sidelight on the value and importance of the East London Harbour, is not really relevant to the scope of this survey.

5. The Lay-out of East London Harbour.



Refer to the Harbour map - Figure 5.

The Buffalo River is not a very big river. It starts only on the other side of King Williams Town, approximately 75 kilometres away.

OOS-LONDENHAW

Kaaie			Elektriese krane		
	Lengte	Diepte tydens l.w.g.s.t.	Getal	Hysvermoë (Ton: 1 000 kg)	Spoorwydte (tussen spoorstaafhartlyne)
OOSWAL					
Viskaai	109,7 m	6,1 m	—		
Kaai no. 2 (aanlêplek C) ..	205,7 m	10,7 m	—		
Kaai no. 3	359,7 m	9,8 m	{ 1 9	10 ton 4 ton	4,1 m
Kaai no. 4 (Hely-Hutchinson)	132,0 m	8,5 m	{ 1 3	5 ton 4 ton	4,1 m
Kaai no. 5	83,8 m	10,7 m	—		
Kaai no. 6	505,9 m	10,7 m	{ 1 14	15 ton 4 ton	4,1 m
Herstelkaai	109,7 m	9,1 m	—		
WESWAL					
Weskaai	457,2 m	8,5 m	{ 1 11	20 ton 4 ton	4,1 m
Skeepsellingkaai	80,2 m	4,6 m	—		
Nuwe aanlêplek vir handelsvaartuie (aanlêplekke S en T)	388,1 m	10,7 m	—		
Aanlêplek vir olietenkskepe	259,1 m	10,7 m	—		

TENKSKIPAANLÊPLEK.—Kan een tenkskip met 'n totale lengte van hoogstens 204,2 m op 'n keer hanteer. Die huidige maksimum toelaatbare diepgang is 9,9 m.

MEGANIESE TOESTELLE.—2 rangeertrekkers.
65 × 3-tonvrkhysswaens.
1 × 7,5-tonvrkhysswa.
1 × 15-tonvrkhysswa.

LOADS- EN OPSLAGRUIMTE.—
Vloerruimte vir skeepsrag in loodse—
Ooswal 7 159,0 m³ (netto).
Weswal 4 907,1 m³ (netto).
TOTAAL 12 066,1 m³ (netto).
Loodsruimte.—
Ooswal (gebaseer op 'n stapelhoogte van 3,43 m) 24 548,4 m³ (netto).
Weswal (gebaseer op 'n stapelhoogte van 3,43 m) 16 826,7 m³ (netto).
TOTAAL 41 375,1 m³ (netto).

BUITEOPSLAG.—
3,52 hektaar buiteopslagerrein vir rugoedere.

VOORVERKOELGERIEWE.—Voorverkoelkamer vir die uitvoer van sitrus- en sagte vrugte op kaai no. 6. Die opslaguimte van die koelkamers is ongeveer 2 643 m³.

INGANGSDIEPTE VAN HAW.—10,67 m tydens l.w.g.s.t.

LOSSERBARG.—Een losserbarg met 'n vermoë van 150 ton.

SLEEPBOTE.—Drie kragtige sleepbote toegerus met bergings- en brandblustoestelle, radar, rigtingsoeker en radiotelegraaf en -telefoon. Twee loodssleepbote toegerus met radiotelefoon en radar.

HERSTELGERIEWE.—
PRINSES ELIZABETHDROOGDOK.—
Afmetings —Totale doklengte 198,5 m
Lengte oor kielblokke 193,1 m
Lengte op bodem 198,5 m
Breedte by muurkap 31,2 m
Breedte by ingangshoogte 27,2 m
Maksimum breedte op drumpelhoogte 22,9 m
Diepte op ingangsdrumpel, h.w.g.s.t. 10,2 m
Diepte op binnedrumpel, h.w.g.s.t. 10,2 m

'n Doklengte van 209,2 m kan verkry word deur die caisson in die noodstop by die ingang te plaas.
Twee elektriese 15-tonkrane en een elektriese 5-tonkraan (4,9-m-spoorwydte) is beskikbaar. Die dok kan binne vier uur leeggemaak word.

SKEEPSHELLING.—
Totale lengte 222,5 m
Lengte van slee 63,4 m
Diepgang op kielblokke, h.w.g.s.t.:
Voorpunt 3,5 m
Agterkant 6,7 m
Dravermoë 3 ton per 300 mm van kiel op blokke

GRAANSUIER.—
Opslagvermoë 75 986 ton.
Skip word deur 4 stortgeute gelaai teen 1 633 ton per uur.
56 ronde en 36 steropslagbakke.

Figure: 5

EAST LONDON HARBOUR

Wharfage			Cranes (Electric)		
	Length	Depth at L.W.O.S.T.	No.	Lifting Capacity (Ton: 1 000 kg)	Gauge of Track (Rail Centres)
EAST BANK					
Fish Wharf.....	109,7 m	6,1 m	—		
No. 2 Quay (C Berth)	205,7 m	10,7 m	—		
No. 3 Quay	359,7 m	9,8 m	{ 1 9	10 tons 4 tons	4,1 m
No. 4 Quay (Hely-Hutchinson)	132,0 m	8,5 m	{ 1 3	5 tons 4 tons	4,1 m
No. 5 Quay	83,8 m	10,7 m	—		
No. 6 Quay	505,9 m	10,7 m	{ 1 14	15 tons 4 tons	4,1 m
Repair Quay	109,7 m	9,1 m	—		
WEST BANK					
West Quay	457,2 m	8,5 m	{ 1 11	20 tons 4 tons	4,1 m
Slipway Wharf.....	80,2 m	4,6 m	—		
New Commercial Berths (S and T Berths)	388,1 m	10,7 m	—		
Oil Tanker Berth.....	259,1 m	10,7 m	—		

TANKER BERTH.—Can accommodate one tanker at a time of a maximum overall length of 204,2 m and a present maximum permissible draught of 9,9 m .

MECHANICAL APPLIANCES.—2 shunting tractors.
65 × 3-ton fork lift trucks.
1 × 7,5-ton fork lift truck.
1 × 15-ton fork lift truck.

SHED AND STORAGE ACCOMMODATION.—

Floor space for cargo in sheds.—	
East Bank	7 159,0 m ² (net).
West Bank	4 907,1 m ² (net).
TOTAL	12 066,1 m ² (net).
Shed capacity.—	
East Bank (based on a stacking height of 3,43 m)	24 548,4 m ³ (net).
West Bank (based on a stacking height of 3,43 m)	16 826,7 m ³ (net).
TOTAL	41 375,1 m ³ (net).

OPEN STORAGE.—

3,52 hectares of open storage ground for rough goods.

PRE-COOLING FACILITIES.—Pre-cooling store for the export of citrus and deciduous fruit at No. 6 Quay. The capacity of the cooling chambers is approximately 2 643 m³ .

DEPTH AT HARBOUR ENTRANCE.—10,67 m at L.W.O.S.T.

HOPPER BARGE.—One hopper barge of 150 tons capacity.

TUGS.—Three powerful tugs equipped with salvage and fire-fighting appliances, radar, direction-finding apparatus, and wireless telegraph and telephone. Two pilot tugs equipped with wireless telephone and radar.

REPAIRING FACILITIES.—

PRINCESS ELIZABETH GRAVING DOCK.—

Dimensions.—Overall docking length	198,5 m
Length on keel blocks	193,1 m
Length on bottom	198,5 m
Width at coping	31,2 m
Width at entrance top	27,2 m
Maximum width at sill level	22,9 m
Depth on entrance sill, H.W.O.S.T.....	10,2 m
Depth on inner sill, H.W.O.S.T.	10,2 m

A docking length of 209,2 m can be obtained by placing the caisson in the emergency stop at the entrance.
Two 15-ton and one 5-ton electric cranes on 4,9 m gauge track are available.
The dock can be emptied in four hours.

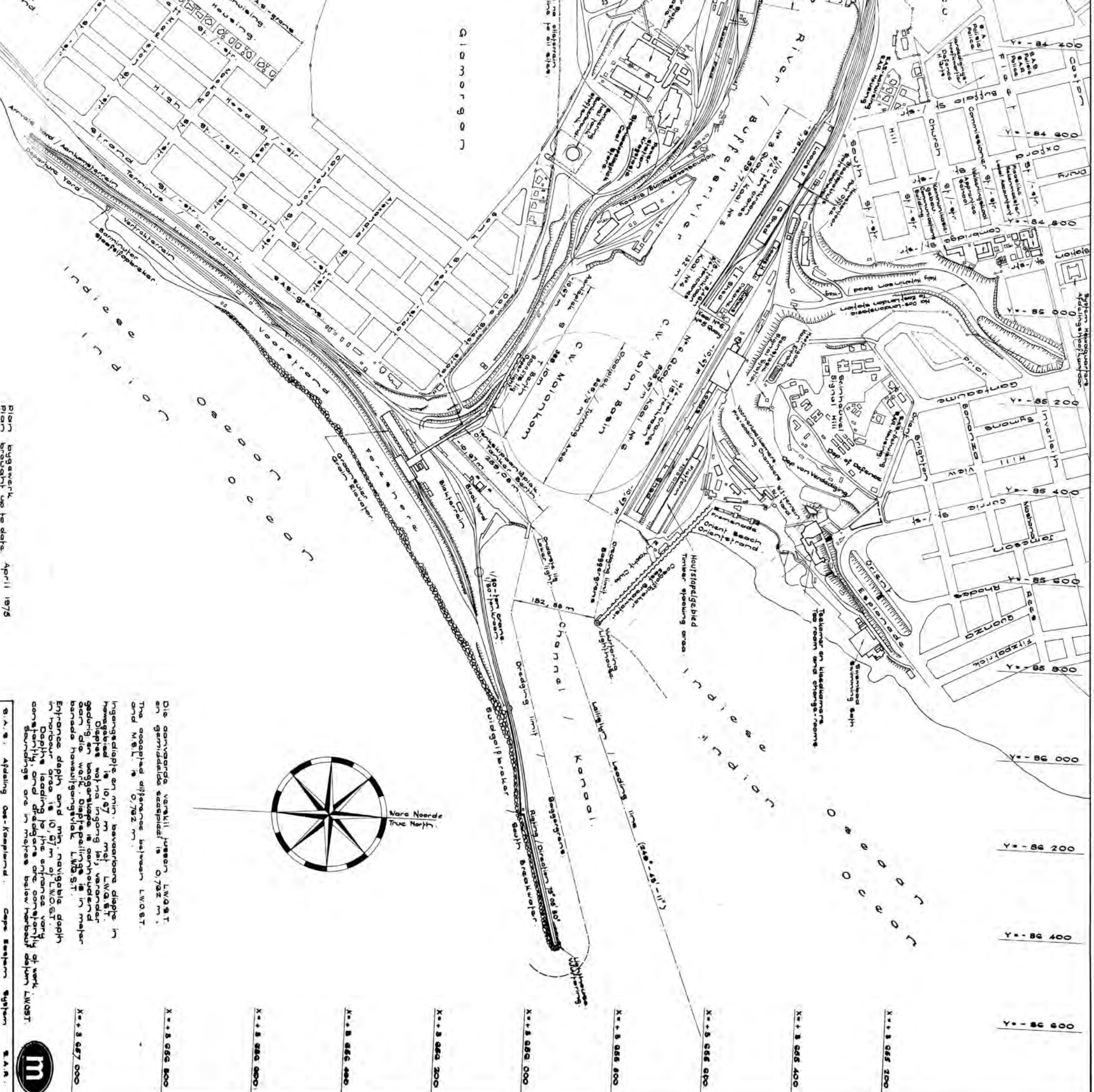
SLIPWAY.—

Extreme length	222,5 m
Length of cradle.....	63,4 m
Draught on keel blocks, H.W.O.S.T.:—	
Forward end	3,5 m
Aft end	6,7 m
Capacity	3 tons per 300 mm of keel on blocks

GRAIN ELEVATOR.—

Storage capacity 75 986 tons.
Ship loading at 1 633 tons per hour through 4 spouts.
56 circular bins and 36 star bins.

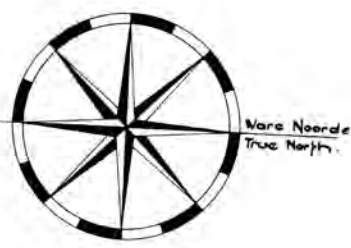
OOSWAL
Viskaai
Kaai no. 2 (aanlêplek
Kaai no. 3
Kaai no. 4 (Hely-Hutchinson)
Kaai no. 5
Kaai no. 6
Herstelkaai
WESWAL
Weskaai
Skeepschellingkaai
Nuwe aanlêplek vir har vaartuie (aanlêplek en T)
Aanlêplek vir olietenks



Plan brought up to date April 1975

System Harbour Engineer
Afdeling Harbours Ingenieur
Dated 24/4/74 Datum

S.A.S. Afbeelding Oos-Koepel Cape Eastern System S.A.S.
OOS - LONDENHAYE
EAST LONDON HARBOUR
Die oosvande verskillende L.W.S.T. en geriddele eesplaat is 0,702 m. The occupied difference between L.W.S.T. and M.S.L. is 0,702 m.
Ingevalle en min. bevoordelede diepte in hangevalle is 10,67 m met L.W.S.T. Diepte en hangevalle is oosvande en die werk. Diepte en hangevalle is in meter bevoordelede hangevalle L.W.S.T.
Entrance depth and min. navigable depth in harbour area is 10,67 m of L.W.S.T. Depth leading to the entrance vary constantly and depths are constantly of work L.W.S.T. Soundings are in metres below harbour datum L.W.S.T.



Because it is so short and has a limited catchment area, the river is not subject to continual or heavy floods. This also results in a minimum amount of sand, deposits and silt being brought down. The Laing Dam and the Bridle Drift Dam built in the river between King Williams Town and East London, controlling the water outlet into the river, help to influence this factor.

The suitability of the Buffalo River for a harbour lies in its wide mouth where it enters the sea, and the fact that it is flanked on both sides by relatively high hills, forming a natural valley, and high banks that are suitable for building quays. The river must be continually dredged but fortunately the river bed lends itself to being dredged to the required depth.

There is enough space on both the East and West Banks for the necessary quays and the river is wide enough to provide ample space for the C.W. Malan Turning Basin.

The river enters the sea in a South-Eastern direction. The West Bank is extended by the South Breakwater in an easterly direction of $75^{\circ}05'30''$ for a distance of approximately 960 metres into the sea. The East Bank is intersected from the Orient beach by the Eastern Breakwater of ± 380 metres, forming the channel to the sea, which has a leading line of $251^{\circ}53'07''$ and is 182,88 metres wide.

The depth at the entrance of the harbour is 10,67 metres at L.W.O.S.T. (Low Water Ordinary Spring Tide). The East London harbour has over 2 000 metres of commercial quayage on the East and West Banks, with low-water depths alongside of 8,2 metres to 10,6 metres.

6. The existing facilities at East London Harbour

The wharfage of East London Harbour is situated on the East and West Banks of the river. (see harbour map Figure 5). On the East Bank we have the Fish Wharf 109,7 metres long with a depth (at L.W.O.S.T.) of 6,1 metres; No. 2 Quay (C. Berth) 205,7 metres long and depth 10,7 metres; No. 3 Quay 359,7 metres long and depth 9,8 metres, equipped with one 10-ton and nine 4-ton electric cranes; No. 4 Quay (Hely-Hutchinson) 132,0 metres long and 8,5 metres depth, equipped

with one 5-ton and three 4-ton electric cranes; No. 5 Quay 83,8 metres long and depth 10,7 metres; No. 6 Quay 505,9 metres long and depth 10,7 metres, equipped with one 15-ton and fourteen 4-ton electric cranes; and the Repair Quay 109,7 metres long and depth 9,1 metres.

On the West Bank side lies the West Quay with a length of 457,3 metres and depth 8,5 metres, equipped with one 20-ton and eleven 4-ton electric cranes; Slipway Wharf which is 80,2 metres long and depth 4,6 metres; New Commercial Berths (S and T Berths) 388,1 metres long and depth 10,7 metres; Oil Tanker Berth 259,1 metres long and depth 10,7 metres, which can accommodate tankers with an overall length of 204,2 metres and a maximum loaded draught of 9.9 metres.

The Princess Elizabeth Graving Dock is an important asset of this port, supplying the necessary facilities for repairs. It has an overall docking length of 198,5 metres with a length on keel blocks of 193,1 metres, and a docking length of 209,2 metres can be obtained by placing the caisson in the emergency stop at the entrance. The width at coping is 31,2 metres and width at entrance top is 27,2 metres. It has a depth on entrance sill and on inner sill, H.W.O.S.T, of 10,2 metres. It is equipped with two 15-ton and one 5-ton electric cranes on 4,9 metre gauge track, and the dock can be emptied in four hours.

In addition, the port is provided with a slipway of 222,5 metres extreme length and capacity of 610 tons which is used principally to accommodate small craft.

The harbour is equipped with thirty-seven 4-ton, one 10-ton, one 15-ton and one 20-ton electric wharf cranes, one mobile crane, one straddle truck and 53 fork-lift trucks, to ensure the prompt clearance of cargo.

The harbour craft at this port include two large and powerful ocean-going tugs, the F. Schermbrucker and E.S. Steytler, equipped with salvage and fire-fighting appliances, direction-finding apparatus and wireless telegraph and telephone. There are three pilot tugs,

the Harry Cheadle, A.C. Craigie and H.T.V. Horner, equipped with wireless telephone; one lighter of 170 tons capacity and four launches.

There is a precooling store for the export of citrus and deciduous fruit at No. 6 Quay with a capacity of 2 724 shipping tons, the shed and storage accommodation of floor space for cargo in the sheds are 7 159,0 m² (net) on the East Bank and 4 907,1 m² (net) on the West Bank, giving a total of 12 066,1 m² (net). The shed capacities based on a stacking height of 3,43 metres are 24 548,4 m³ (net) for the East Bank and 16 826,7 m³ (net) for the West Bank, a total of 41 375,1 m³ (net). Further, there are 3,52 hectares of open storage ground for rough goods.

East London harbour has the biggest grain elevator in the Republic, which is used for the handling and exporting of maize. It has a storage capacity of 75 300 tons and can load ships at the rate of 1 633 tons per hour through four spouts.⁽²⁸⁾ (See Appendices No. 1 and 2).

As more facilities are required from time to time, they come under constant consideration by the Harbour Advisory Board.

7. Harbour Regulations

The area within which the Administration has jurisdiction at the East London Harbour is:

- (a) The area of sea bounded by a line drawn from the coast at Nahoon Point in position 32°59'50" S. 27°57'07½" E. in a 114° direction for 1 852 metres to a position 33°00'13,9" S. 27°58'12,8" E., thence in a 216½° direction to a position 33°03'14,46" S. 27°55'37,18" E. and thence in a 295° direction to the coast in a position 33°02'36" S. 27°53'57" E. (All bearings are true.)
- (b) The whole of the water area within the Buffalo River and its tributaries from the ebb-and-flow to the mouth of that river, including all the water area at or about the entrance to that river.
- (c) The foreshore, between the highest and the lowest water-marks from Hood Point to Nahoon Point.
- (d) The banks of the Buffalo River and its tributaries between the highest and the lowest water-marks, from ebb-and-flow to the mouth of that river, together with the wharves, docks, basins, jetties, piers and harbour works, and all harbour and dock lands

vested in the Government of the Republic of South Africa. (29)

The State President has been pleased in terms of section three of the Railways and Harbours Control and Management (Consolidation) Act, 1957 (Act No. 70 of 1957), to approve of the repeal of the Regulations for the Harbours of the Republic of South Africa and of South West Africa published under Government Notice No. 1064 of 19 August, 1932, as amended, and the substitution therefore of the following new regulations with effect from March 2, 1962. (30) These regulations deal with:

- a. Ships, reports, movements etc., where notification of the expected arrival of ships must be given, the signals the ship must give on entering the harbour and when it can enter the harbour, the Port Captain to board the ship on arrival and the berth assigned to that ship. The master of the ship must then declare his ship's draught and cargo and all guns on board to be unloaded and give notice of any explosives or other dangerous cargo on board.

No ship may be moved from the berth assigned to it without permission and the master shall give at least three hours notice to the port captain at his office, of the time his ship will be ready to leave the harbour. After all dues and charges of the ship have been paid or security to the satisfaction of the Administration has been furnished, and a certificate to that effect has been obtained and presented to the port captain, the port captain then grants the ship the necessary permission to leave the harbour.

- b. The working of ships - these regulations determine the order of working ships, the manifest of the cargo, supervision in loading or discharge of cargo, overtime, receipts for cargo, the use of cranes and other mechanical loading or unloading appliances.
- c. General - these regulations deal with fire on ships, sanitary arrangements in the harbour, the landing or embarking of passengers, repairs to ships and Dry Docks, inspection and fumigation of ships.
- d. Regulations dealing with hulks, fishing boats and small craft.
- e. Regulations for ferries.
- f. Regulations for Pilotage and Pilots.

- g. Regulations for Landing, Shipping and Transshipping of cargo.
 - h. Regulations for the handling of inflammable liquids and explosives.
 - i. The Collision and Distress Signals Regulations - published under Government Notice No. RI448 of 1st October, 1965. (31)
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Chapter 2.

The Concept of Harbours and Harbour Hinterlands.

I. Port Foundation and Port Planning.

a. Port Foundation.

For many major ports it is now impossible to determine the reasons for the original foundation. It is important to remember that the location of ports is due not to the direct influence of any inherent qualities of land and water sites, but to the way in which such sites were assessed by the founders.

No port can operate without some formally proclaimed legal status. Such a proclamation in its earliest form will have led to the foundation of the port and its current legal expression allows the port function to continue. (I)

b. Port Planning.

A seaport is a place where each-way exchanges between land and sea transport regularly take place. Regularity of function cannot usually be achieved in exposed water sites, and today it is axiomatic that a successful commercial seaport is equipped with harbour properties, which may be natural but are usually artificially enhanced.

As South Africa has one of the longest coastlines relative to its total land area, the State has an important role in coastal zone planning. Important aspects to be considered for sound planning include density of development, recreational needs, transport, energy, geology and mining, design, the marine and land environments, and the governmental organisation, powers and financial aspects.

Coastal zone planning on a national scale was initiated in 1966 by what is now known as the Subsidiary Committee for the Coastal Area. The Department of Planning and the Environment is intimately involved in the spatial planning of metropolitan growth points along the coastline, while detailed planning is done by local bodies. (2)

Perhaps one of the hardest tasks facing national port planning is that ports with the greatest potential for development may not be located in those regions of the country which the government desires to help on natural planning grounds in order to spread economic growth more evenly.

The biggest problem faced by port administrators is that of planning for the future, and this subject comprehends planning at different scales in two dimensions.

(i) Port Planning and the time scale.

On the time scale, the topic extends from the day-to-day programme of port activity through intermediate range planning to cope with uneven loads of traffic month-by-month, perhaps due to seasonal factors in the hinterland. This involves the problem of peaking. Then there is the longer range planning of facilities that may take four years or more to come into operation. Finally, the subject extends away into the time distance, perhaps involving forecasting over a period of a quarter of a century.

Transport is not only carriage of an item from one place to another, but also a synthesis of space and time. The space is that occupied by the routes and nodes of a transport network. The time element is involved in the schedule of movement through the network and the planning of such movement over short, intermediate and long periods of time ahead. A port is manifestly a node within a network, and for the sake of exposition the time element in port planning is considered before a survey of the spatial effect at different scales.

Short-term port planning concerns periods of up to only a few days ahead. One of the basic difficulties has resulted from the fact that the sea carrier has always had a larger capacity than the contemporary land carriers, and so matching of cargo quantities between carriers has always been a prime function of ports, storing cargo in transit sheds or container parks for short periods, or in warehouses for longer periods, of say more than ten days. Essentially, short-term planning is an attempt to cope with short-term peaks and troughs, attendant on the arrival and departure of ships.

Peaks and troughs may also occur seasonally because of the periodic harvest of agricultural crops. If the product is not perishable, port stores can even out the flow.

Intermediate planning covers future periods up to one month or a year, to avoid shipping bottlenecks to occur and to organise the labour force to cope with the work-load. A year makes a good division between intermediate and long range planning because many of the figures that require to be projected into the future exist in time series erected on an annual basis.

(ii) Port Planning and the spatial scale.

On the spatial scale, the port planner may be concerned with an individual installation, the future of berthing complex, or the relationships between a port and its approach channel on the one hand and with its hinterland on the other. Pre-occupation with the hinterland is port planning at the regional scale, but the ports of a country need planning on a national scale so that they function together harmoniously in the most economic service of the territorial unit. If there is an economic grouping of states, ports are easily led into the international realm, which is also their natural milieu by reason of the international trade links of a deep-sea port ipso facto.

The spatial spheres of port planning may be conveniently analysed under five headings, with progressive areal increase of the field of action : the lay-out and functioning of a particular berth - the operational approach ; within the perimeter of port and water conservancy area - the port management approach ; the port with its hinterland - the regional approach ; the port as one of a group of ports serving a national territory - the national approach ; and the port as one of a group of ports serving states linked together economically - the international approach. These spheres of action interlock not only with each other but also with the various time scales.

A way of approaching this large subject is to repeat that traffic demand is served by ships which in turn make demands that ports struggle to fulfil, in a way that is

compatible with their responsibilities to land transport and with the nature of the physical sites they have available for development. (3)

(iii) Port entrances, Quays and Jetties.

Very often the key factor to port development is the depth of water in the port approaches. Where ports must maintain or capital dredge their approaches out of their own budgets, their future development is linked to their past success in attracting traffic.

The plan pattern of two almost-embracing moles thrust out into the sea is very common on the coasts of the world. In the days of sailing ships the protected water often became known as a harbour of refuge. On a coast without natural indentations, moles may be necessary to carve a port out of the sea. Sometimes the thickened root of a breakwater provides opportunity for deep-water berths. These have the disadvantage of confined and cul-de-sac landward connections compared with land-backed wharves, although this would not be a disadvantage for an oil terminal; and by definition the whole of the berth must be expensively built into the sea in a relatively exposed site. Whether the protective breakwaters shelter the whole port, just some of the berths, or merely the seaward approaches, they have two main functions : to provide shelter against wind and swell for ships navigating a relatively confined approach channel where currents must be reduced to a velocity below $3\frac{1}{2}$ knots; and to prevent longshore drifting of sand into the approach channel. If seabed movement is dominantly from one direction, the mole on that side will be longer to throw the coastal current off the head of the lee mole.

Quays will be taken as being parallel to the land line and Jetties as jutting out from the land. As such, jetties are unlikely to retain earth and therefore most likely to be open piled structures but they can sometimes be solid either as blockwork or large buoyant boxes floated out, sunk and filled.

Quays are more likely to retain earth by mass concrete, blockwork caissons or steel sheet piling but can often be open piled work over the slope of a bank.

Solid quays provide a cushion of water between themselves and the berthing ship, and they therefore need no expensive fendering and little general maintenance. The drawback of this method is usually one of high capital cost. (4)

All port planning demands foresight. This may be achieved by one plan ab initio. But this is a gamble. 'Open-end' planning hedges the bet. Then future planners, or even future generations, can bend or alter each stage of the plan to suit the exigencies and technology of their day.

2. Harbour Hinterlands and Forelands.

a. Types of Hinterlands and Forelands.

One port's hinterland is another port's foreland, but it is clear that there is ever present the danger of dividing up a country into hinterlands, or the world into trading areas, and then 'proving' that one area is more important than another, not avowing that part of this importance is due to the way the area was divided up. Statistical approach is very difficult as the required data are not always available.

A confusing variety of meanings is ascribed to both hinterland and foreland, which basically and respectively refer to the area served by a port at home and overseas. Here arises the major topic of connectivity, of transport links to the places inland, and the destination ports of the ships. A contrast is apparent : the hinterland is usually thought of as continuous, literally the area behind the port ; whereas the foreland may well be discontinuous, indeed split into several components in five continents if the port has world-wide trading connections.

Hinterland is a naturalised German word and began life in English as meaning the 'back country', the district behind that lying along the coast or along the shore of a river. Later this meaning was extended to the region from which ports received and dispatched passengers and cargo. Urban geographers have also used the expression 'urban hinterland', though in this sense the word seems to be losing ground to 'umland' the German word for 'around land'. Where a port is also a large city, the two terms primary hinterland and umland seem interchangeable.

A.J.Sargent confined the meaning to : an area of which the greater or a substantial part of the trade passes through a single port. This avoids the fiction of a continuous isotropic area served by a port. One port may have a great number of hinterlands dependent on the cargo criteria adopted : imports or exports, bulk or break-bulk cargoes, or even hinterlands of groups of commodities and single commodities.

Hinterlands might also be defined by method of inland transport used e.g. (Refer also to definitions in Chapter I); Immediate hinterland which is considered as the port area itself and the port city; Primary hinterland or umland which includes the port area and the port city and the area where port and city assume a commanding role in the life of the area ; Secondary hinterland or competitive hinterland, which is difficult to distinguish from the previous two, but for working purposes is taken as where less than 70% of an area's traffic is forwarded by or received from the port in question; Advantage hinterland which is the area which may fall within the sphere of traffic influence of one port due to the non-linearity of inland tariffs from ports in competition; Commodity hinterland which is based on indicated direction of shipments of particular commodities or groups of commodities ; Hinterland functional overlap which occurs when the hinterland of a large port overruns that of a smaller port for certain cargoes because of the greater range of port functions, perhaps due to the greater number of sailings from a large port ; Hinterland areal overlap which occurs where there is competition between ports of comparable size for cargo of the same type to and from the same area.

The above implies a flexible approach and acknowledges that hinterlands include a punctiform pattern of origins and destinations of the cargo in question - the texture of the hinterland. Presumably, hinterland boundaries could be drawn around a stated density of points, but even if some universally agreed critical density could be agreed to define hinterlands, the flow volumes of cargo are as significant as areal distributions. There are even further difficulties of principle. While goods statistics are available for most railroads, the ever-increasing road traffic is usually counted, if at all, by means of vehicle transits, although flows of goods would be more meaningful.

As to imports there is the problem of how to treat goods that undergo physical change. For example, grain for food may be milled on the dockside with the result that flour distribution might be a better hinterland determinant. For exports, the place of manufacture is required rather than the intermediate depot, such as a wholesaler's warehouse or railroad station of consignment. Often the origins and destinations available to the port student are not the first origins and ultimate destinations.

Forelands are defined as the land areas which lie on the seaward side of a port, beyond maritime space, and with which the port is connected by ocean carriers. While maritime space has been organised by ocean carriers, they have done so as servants of the land areas with which ports are connected. In economic terms, ports and their associated hinterlands and forelands are the pace-makers for ocean carrier developments - an interesting reversal of the relationship between ports and ships when technical developments are in question. (5)

F.W.Morgan described the concept of hinterlands of ports, as a simple parcelling out of the country behind them, with areas of overlap where ports compete, and with certain peculiar courses where a mountain range or a frontier affects the flow of trade, is hardly adequate. A port generally has a different hinterland for each commodity that enters into its trade, and so has an enormous number of hinterlands. Sometimes it is true that the limits or limiting zones of these commodity hinterlands co-incide, so that there is some justification for the idea of a linear boundary. The nature of the structure and the areal extent of hinterlands are subject to variations arising from three main factors : the nature of commodities, the mechanism of sea transport and the influence of political policies. As a result of the interplay of these factors, hinterlands show variations not merely in extent, but also in complexity. (6)

Three types of hinterlands may be distinguished :

- (i) Primitive hinterlands;
- (ii) Raw material hinterlands; and
- (iii) Liner port hinterlands.

Primitive hinterlands lie behind ports on islands or behind ports along coasts, where there is no cheap and easy

lateral communicationⁿ with the hinterland of the next port along the coast. Then all goods entering the trade of each isolated community pass through each port and the hinterland of each port is the entire local inhabited area.

Raw material hinterlands are determined to a considerable extent by the relationship between the cost of land transport and the cost of sea transport, which is the cheapest of all forms of large scale transport. The lower the value of a commodity in relation to its bulk, the more advantageous it is to carry it as far as possible by sea before transferring it to a land carrier. Similarly with exports, land transport will be reduced to a minimum.

Liner ports' hinterlands are the most complicated in structure, for within them move semi-manufactured products and manufactured capital and consumer goods.

b. Hinterland Penetration.

The simplest penetration of a hinterland is by a link at right-angles to the coast. Gradually, the routes will increase in number if the hinterland develops, radiating fan-wise from the port, and the ultimate in this direction will be routes parallel to the coast from a successful port encroaching on the hinterland of port sites on either side, perhaps by road and rail links along the coastlands, or by coastwise shipping services. The modern counterpart of this development is the route by which containers are brought from a groupage depot actually in the urban area of an overrun port city by road or unit trains or coastwise feeder service.

The evolution of the spatial pattern of ports of developing countries may be described in four phases. The first phase represents a series of tiny ports along a coast each with its own hinterland, served by a route transverse to the coast, and serviced by the occasional ship. In the second phase, certain routes of interior communication appear to serve growing interior centres with certain ports at the expense of their neighbours. In the third phase, port concentration is accentuated because certain ports develop for the faster growing inland centres, and the important routes between these ports and their hinterlands may develop nodal centres, each with their own embryonic umlands. There are also the

beginnings of hinterland interconnection. The fourth phase, is where one or two ports overcome all rivals, either to be or to coexist as the major ports of the coast. Finally the hinterland may see the emergence of high priority through routes, such as improved waterways, motorways and unit train routes. (7)

c. Seaport infrastructure.

The installations of a port can be divided into two broad categories. First, there are port infrastructures designed to steepen the junction between land and water and to join that junction with landward communication, the whole being protected from the instability of the ground and the range of the tide if necessary. Secondly, port superstructures are concerned with aiding movements of cargoes to and from ships across that prime junction between water and land.

Installation superstructures are sited in the back-up area of each berth. The total of the back-up areas is the upland of the port, the cargo-handling and cargo-manoeuving area back from the quays up to the port perimeter, which may be a customs fence or simply the boundary between port and non-port land uses.

On the demand side, ports are sources of raw materials for industry ; on the supply side the primary processing industries located in ports are sources for the secondary processing and manufacturing industries ; in other words, seaport industries have backward and / or forward linkages. Other reasons for the location of industries in seaport areas are that large amounts of low value raw materials per unit of weight are uneconomic to transport long distances overland. The optimum size of primary processing plants has become increasingly larger demanding large flat sites for basically one-storey plants.

A port development is often held to act as growth pole by stimulating industrial development in the local region.

Industrial complexes comprising specialised deep-water terminals serving adjacent industries can be analysed from another bifocal angle. All such installations consist of infrastructure works - reclamation, dredging, quays, back-up area consolidation, and main services to sites ; and also of

superstructure works - the unloading and loading appliances, the factory itself, and all its ancillary plant. This division is vital because infrastructure works are usually the responsibility of the public sector such as a port authority, while individual private firms are often responsible for the factories and their terminals. Occasionally, public corporations assume this latter role, especially in the case of public utilities like generating stations and gas works. But it is obvious that infrastructure must precede superstructure, then a time-lag is involved. The two classes of development are undertaken by two different classes of executant investors. (8)

d. Interrelationship between harbour and hinterland development.

Before reviewing what is most useful for port geography, it might be prudent first to consider the general conditions under which cargo flows are generated, and the major contrasts in the type and quantity of flow. Cargo moves from its origin to a port, moves across the sea, and moves from another port to its destination. These movements form three 'sets', and these sets join or even overlap at ports. Thus there is a port-to-port set, traversed by the ship. Usually, shipowners have never concerned themselves with the transport organisation of the hinterland, though if they become operators of a through service then they have to do so, because this section is concerned with the 'set' or group of movements on land.

It is found that the heaviest weight of cargo flows is associated with raw material- or power-orientated industry, and the relative cargo generation is dependent on the relative distance of the industry's location from the port. If the port is the largest manufacturing centre and market in its hinterland, then the generation of flows of market-orientated industrial goods will decline with distance away from the port. The labour- and agglomeration economy-orientated industries will also generate flows that decrease in the same manner, but since these industries are likely to produce goods of the highest value per unit of weight, the total weight of the flows is relatively very much lighter than the products of market-orientated industry.

If by contrast, we assume there is a large inland manufacturing centre exporting goods via a port, then this

centre will send manufactured goods rather than raw materials, and the relative weight of manufactured goods issuing from its market-orientated industries may well be heavy because its factories will have taken advantage of the economies of scale. The products of the labour and agglomeration economy-orientated industries, though probably just as valuable, will be much lighter because of much higher value per unit of weight. The only imports to such a centre which do not compete with the centre's own industries will be the products of raw material- and power-orientated industries but these cargoes are not likely to flow in massive quantities, because in that circumstance the industries using them would be more economically located at the port.

Finally, if export cargo generated from an inland exploited raw material source is considered we find that the weights of flow are likely to be relatively heavy, except where some inland processing centre in the middle or far hinterland transforms the raw material so that it loses some of its bulk. This may happen even with short hauls, but then such beneficiation is likely to be undertaken at the port itself.

In the measurement of a port's hinterland we find that the concept of cargo generation may be given as : that cargo destined for a particular port decreases as the distance between the port and location of generation increases ; and that for a given location larger ports attract a proportionally greater share of cargo generated than smaller ports at any given distance.

Two methods also suggested for traffic forecasting are : expanding on existing origin-destination table to give future movements, with stated assumptions about growth rates ; and a prediction equation for traffic as a function of relevant growth parameters.

The impression that as a port's trade develops its hinterland must become larger in area by piracy of other ports' hinterlands, is not necessarily the case. If the population of an area increases, if the economy of an area demands more maritime exchanges, or if a new market or a newly-exploited resource increases overseas trade, then the port will expand without any concomitant increase in hinterland area.

Under one or more of the foregoing conditions, the port's trade could actually increase with hinterland shrinkage. Hinterland shrinkage might well occur for a port that abandoned break-bulk cargo for bulk cargo imports to waterfront industries. As far as break-bulk cargo is concerned, it appears that the rise of unit cargo will tend to concentrate on fewer ports with larger hinterlands. Any vertical integration of transport between sea and land carriers on through routes will tend towards aggrandisement of hinterlands of ports employed, as shipowners obtain the cargo further back on the through route and take it closer to its ultimate destination.

Inland reception depots have three main functions : they enable the through route to start and end further back in the hinterland, perhaps carried from the port by unit train for dispersal by road transport; they are customs clearance areas ; and they act as a consolidation centre both to make up unit train loads and for groupage traffic of less than container loads.

The measurement of a port's foreland, in total and according to cargo commodity mix, and comparison with forelands of other ports, like the work on hinterlands, depends heavily on data availability - this time the destinations and origins of cargo overseas.

This information is readily available at the level of nation states; indeed it forms basic items in the national balance of payments. But it is often very difficult to obtain the same information broken down by port of entry and departure. This is frustrating, because the information is collected for customs purposes ; even if the trade is coast-wise, or intra-state, the figures are known for port revenue purposes.

A comparison of port trade is constantly needed for port planning purposes. But there is an inherent data blockage. The assembly of the information has usually involved an enormous amount of special book-keeping and collation of statistics, whereas the value of the work has been in the sphere of port and regional planning rather than in the realm of national accountancy. Only when port and regional planning are held to be vitally important activities will such

material be readily available ; and computerised bookkeeping should make the availability much easier than it has been in the past. (9)

Railway hinterlands have been fought over by conscious means much more than waterway hinterlands ; through the weapon of railway rates a policy can be pursued much more consistently and usually more effectively than on waterways. The railway is more flexible ; it has many more lines to its network over which the traffic is spread ; it is thus able frequently to carry port traffics at special rates and is, therefore, a powerful and widespread influence upon port hinterlands. (10)

3. Development and utilisation of a Harbour.

There are two concepts of cargo-handling in seaports. There are those cargoes that move 'through' a seaport considered as a gateway; and there are those that are delivered at deep-water specialised terminals for immediate storage and, most often, for first processing in the port area. The modern seaport, therefore, has within it functions which cause it to act as a sea 'port' or gateway, overseas or inland, and functions which cause it to act as a sea terminal.

The criteria for assessing comparative sizes of ports are :

- (a) Berthing accommodation for ships and capacity for cargo handling - the main disadvantage is that it may not be fully used by vessels trading regularly;
- (b) Depth of port approaches and depth of accommodation for ships - ports which can accommodate the largest ships are not necessarily the largest ports;
- (c) Weight of cargoes landed and shipped - raw material and fuel-handling ports over-'weighted' ;
- (d) Value of cargoes landed and shipped - fluctuates with rise and fall of prices ;
- (e) Net registered tonnage of shipping entering - vessels may arrive with partly-loaded cargoes or in ballast. (11)

Ideal port approaches are of course deep and sheltered, but these ideal characteristics are found infrequently in the natural approaches to major commercial ports. The reasons

are not difficult to seek. Deep water offshore implies a steeply plunging land surface which might be expected to rise steeply out of the water. Shelter implies the windbreaks of country with high altitude. Combine these two implications and it can be seen that the deepest and most sheltered water appear in fiords which are always surrounded by high mountains out of which they have been gouged by glaciers on their way to the sea. But fiorded mountains do not support the dense urban populations which large commercial ports exist to serve.

The most obvious impact of shipping developments upon ports has been the increasing size of vessels. New types of ships with different methods of cargo-handling can also have profound repercussions not only on port lay-outs but also upon the ability of a port to retain or advance its relative position in a national league table. The increasing size of vessels notably the bulk carrier, has been a feature of shipping developments since the Second World War, and ports have struggled to be able to berth these ever-larger ships.

As ships grow larger, their flexibility of operation may well decrease as fewer ports can handle giants, and the largest bulk carriers have even overrun the draught available in seas covering the continental shelves. For a large ship to maintain the same schedule as a smaller ship, the cargo-handling rate must increase, and cargo must be collected from a wider area, encouraging port concentration.

In door-to-door deep-sea transport, the ocean freight charges are the largest single item and explain why the ocean carriers have been the innovators of through systems. While ocean freight includes sea transport, ship's time, loading and discharging costs, and port expenses paid by the carrier, it does not include port charges which are a relatively minor item of the total cost. Thus ports cannot compete with each other by adjusting their charges, but rather by adjusting their efficiency which means in effect adjusting to the ships which present themselves for loading and discharge.

A long-established method of avoiding the difficulty of the smallness of unit was the roll-on method, first for trains in train ferries and then for road vehicles and trailers in converted tank-landing ships and later in specially designed

vessels with bow or stern loading. For train ferries a perfect match is needed for loading and unloading, but for other vessels connection between shore and ship is generally by means of three ramps : the shore ramp from the quay to the bridge ramp, a suspended roadway, usually hinged at the shore end and supported near the outer end. This is the main link and it may have a telescopic or hinged outer extension before connecting with the ship ramp, which is the door at the bow or stern of the vessel.

In roll-on traffic, railway carriages, trucks (with their drivers) and trailers are the unit loads. Speed of cargo - handling is faster by roll-on method than by any other, and is obviously the universally preferred method for tourist-accompanied cars. Roll-on traffic has the additional advantage of ease of assembly of cargo from many destinations - it assembles and disperses itself. But since speed of cargo-handling is the only advantage over pallets and containers roll-on is used where cargo-handling forms high proportions of total line-haul and terminal costs, i.e. on the shorter ferry routes.

A significant change came over cargo-handling when unit loads were placed on pallets and when containers came into general use. These two devices permitted the mechanisation of cargo-handling on a large scale using flow-line methods first developed in manufacturing industry. Very often these two systems are combined when palletised loads are put into containers. A container seems such a simple device that the question arises as to why it took so long to make an impact on transport generally and on sea transport in particular. Container trade, however, necessitates the development of container berths and the container ship - specially designed for it.

Finally, shipping operators have been getting bigger and more powerful by combining one with the other, so that the scope of the planning of even one 'shipowner' may transcend not only that of individual ports but even groups of ports on whom they make demands. The managements of these shipping consortia and the managements of the world's bulk fleets are those whose decisions are the foundation upon which port planners have to build. (12)

4. Buffalo Harbour and its Hinterland.

The Republic of South Africa is a rail-dominated transport universe, since long-distance carriage of goods by road is curtailed by government decree, and also undertaken by the railways themselves. N.M.Shaffer, 1965, in his study of the competitive position of Durban and other South African ports could thus avoid the usual difficulty of obtaining comprehensive data for road transport. He compared actual hinterlands based on rail origin and destination data with theoretical derived hinterlands based on three criteria :

- (1) hinterlands based on rail mileage from ports;
- (2) hinterlands based on break-even points of rail tariffs to competing ports ;
- (3) hinterlands based on a version of a gravity model, using the tonnages of imports received by ports and allowed to decline with the square of the rail distance.

Refer to Figure 5 (a) :

Top : hinterland divides based on actual despatches and receipts to and from indicated ports by railroad stations.

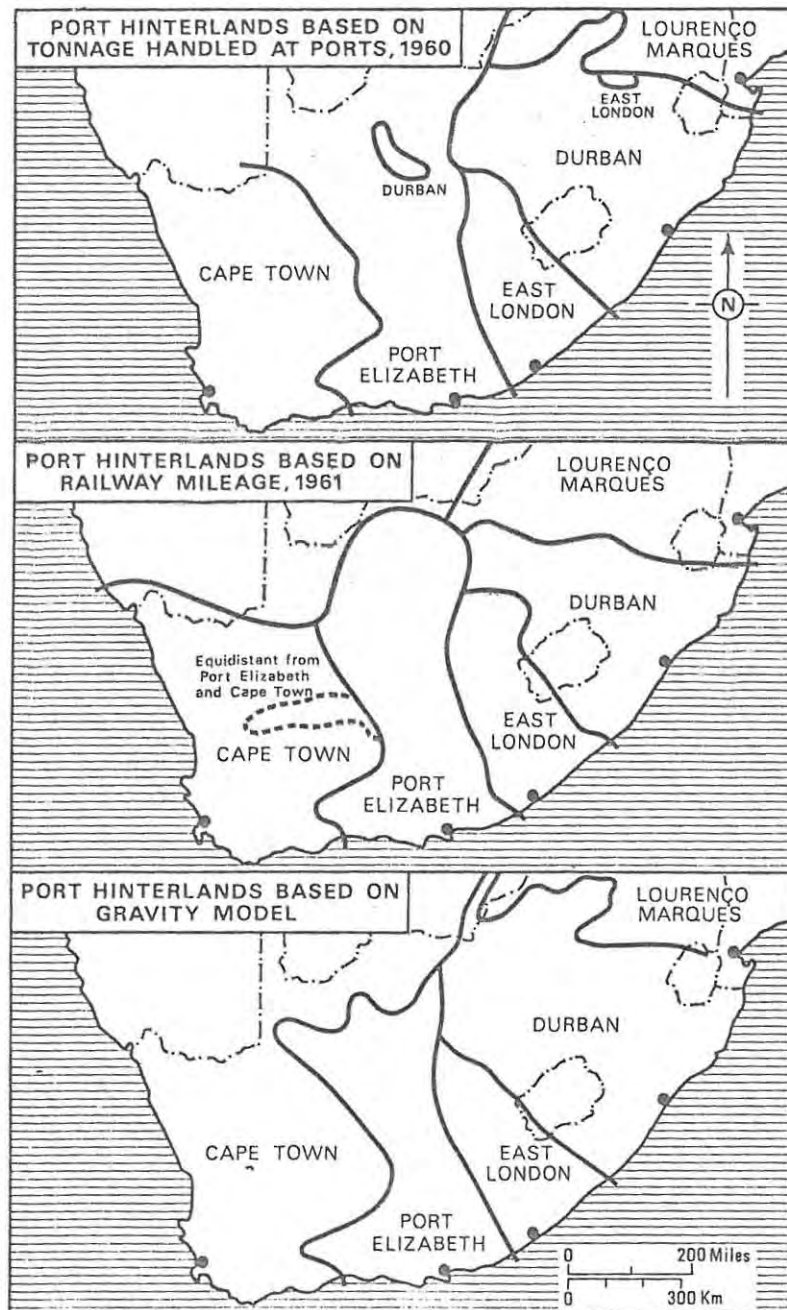
Middle : divides drawn at equidistant points along the shortest rail routes from indicated ports.

Bottom : divides based on a gravity model comprising the actual import tonnages handled at ports and the square of the distance along relevant railroads.

Figure 5 (a) shows a remarkable correspondence between the actual and gravity model boundaries in the cases of Port Elizabeth and East London, whereas Durban's hinterland has been extended at the expense of Lourenco Marques (Maputo). Note how Durban's hinterland is expanding away from the coast. N.M.Shaffer concludes that another of Durban's chief advantages is that it has a very vigorous primary hinterland, and this causes the port to be successful in general hinterland expansion.

South African hinterland patterns will change with the entry into service of new bulk berths, and the provision of the first container berths at Durban, Cape Town and Port Elizabeth.

Figure 5 (a).



East London is designated as a feeder port only for containers, and will, therefore, be served by a coastal service, where containers destined for East London will be off-loaded from the container ships at Cape Town and transported by coasters to East London, and containers exported from East London will be taken by coasters to Durban to be loaded onto the container ships for overseas. This will directly affect the hinterland of East London Harbour to a very large extent.

Another factor to be considered is that the Administration is in the process of building two new harbours at Saldanha Bay and Richards Bay. When completed, the iron-ore from Sishen, which is at present being exported through Port Elizabeth, will now be exported through Saldanha Bay, and most of the coal from the Transvaal coalfields which is now exported through Durban, will then be exported through Richards Bay, altering to a large degree the pattern of hinterlands of South African ports.

More particularly to East London : the construction of the Eastern main line from East London to Aliwal North, in the period 1874 to 1885, undoubtedly increased East London's hinterland. Its isolation from the Midland line northwards from Port Elizabeth did much to preserve the Border Region as a hinterland for East London, but also prevented East London penetrating into the hinterland of Port Elizabeth.

The gap between Maclear and the Umtata branch lines on the one hand, and the Natal lines on the other, secures to East London much of the trade of the Maclear area and the Transkeian Territories.

Hinterlands of ports may also be administratively manipulated by a State-owned railway undertaking. In South Africa, for instance, certain ports are selected by the Railway Administration to handle certain traffic; for example, iron and manganese ore are exported through Port Elizabeth and maize through East London, while recently with the closure of the Angolan ports, copper exports from Zambia and Zaire, have been for convenience temporarily diverted to East London, because East London's harbour is at present under-utilised and can handle it effectively.

In South Africa, the principal hinterland of semi-manufactured products and manufactured capital and consumer goods is the

Southern Transvaal, and there is considerable competition for the sea-borne commercial traffic of this area. In view of competition from the ports, special railway rates have been applied to this traffic for Cape Town, Port Elizabeth, East London, Durban and Lourenco Marques (Maputo) with the competitive area of the Transvaal.

Another factor to be borne in mind is the possibility, that with the coming independence of the Transkei, they may develop their own harbour in the near future. If this happens East London will lose the greatest part of its existing immediate hinterland, as nearly all the Transkei's imports and exports pass through East London Harbour.

The hinterland of East London harbour will be considered further in detail when the origin and destination of import and export commodities are discussed.

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- (I) James Bird : Seaports and Seaport Terminals : Pages 24 & 25.
 - (2) Oceanography in S.A. by the Publishing Division C.S.I.R. - Brochure B 52 : November, 1977. Page 67.
 - (3) James Bird : Seaports:Page I94.
 - (4) ibid : Page 44.
 - (5) ibid : Pages I24 - I26.
 - (6) F.W.Morgan : Ports and Harbours, published by Hutchinson's University Library, London 1952 : Page III.
 - (7) James Bird : Seaports:Page I29.
 - (8) ibid : Page 85.
 - (9) ibid : Pages I26 - I40.
 - (IO) F.W.Morgan : Ports and Harbours. Page I25.
 - (II) James Bird : Seaports:Page I6.
 - (I2) ibid : Page I97.

Chapter 3.

← Heading of chapter?

I. Sea Traffic at East London Harbour.

In the years immediately following its proclamation as a commercial port in January, 1848, East London occupied a very insignificant position among the ports of South Africa. Before 1848 small vessels, for example the Knysna in 1836 and the Frederick Huth in 1847, visited the port. These isolated visits were necessary to supply equipment and stores to the troops on the Frontier, and although a certain amount of bartering was done with the natives, their commercial significance was negligible.

Vessels arriving at the port came from Cape Town and returned there, being only coastwise traffic. From 1852 direct importation gave rise to overseas traffic, which thereafter increased steadily.

The sea traffic at East London harbour is given in Table I, and is compiled from the monthly reports and statistics obtained from the Port Captain's office at the harbour, where a record is kept of all ships calling at the port each day. Vessels are classified as ocean-going ships, coasters, trawlers and whalers.

Different Shipping Lines operate through East London. From 1956 to 1975, the number of ships calling showed a steady increase from 1 024 vessels in 1956 to the highest number of 1 428 in 1962. From 1962 to 1971 the traffic remained more or less constant but for a sharp drop in 1967, due to the export of maize being stopped by the Government : only 26 334 tons of maize were exported. After 1971 there was a marked downward trend in the number of vessels to only 1 040 in 1975. (See Figure 6). However, the total cargo shipped, the total cargo landed and the total cargo shipped coastwise all recorded increased tonnages, showing that both the ocean-going ships and the coasters calling in the latter years, though less in number, were larger and carried bigger cargoes.

2. The Total Trade of East London Port.

(For statistical and analytical purposes the monetary and

TABLE 1

VESSELS WORKED AT EAST LONDON HARBOUR
(OCEAN-GOING, COASTERS, TRAWLERS, WHALERS)

YEAR ENDING 31ST MARCH

Year	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	Total
1955	76	88	91	74	84	85	90	89	88				
1956	89	84	86	83	83	93	88	95	81	83	93	83	1024
1957	82	92	83	92	83	85	95	95	90	105	71	90	1048
1958	99	106	103	106	120	94	106	112	99	91	94	108	1090
1959	114	117	121	113	111	110	121	100	117	108	108	113	1274
1960	104	125	119	115	110	120	109	115	129	118	113	119	1374
1961	126	116	122	123	121	107	123	122	118	123	106	119	1394
1962	110	121	113	124	117	126	117	121	112	118	105	127	1428
1963	109	128	115	112	128	107	125	122	105	106	107	114	1388
1964	114	125	112	130	119	117	118	116	124	116	112	116	1395
1965	119	119	123	107	106	119	124	118	102	112	107	123	1417
1966	115	123	97	94	105	101	113	102	100	109	123	130	1399
1967	104	118	107	108	113	114	116	120	117	100	94	115	1259
1968	121	130	115	116	124	106	134	115	113	121	130	121	1389
1969	101	122	119	122	114	121	121	113	109	108	97	109	1388
1970										108	114	124	1388
1971													1384
1972													1260
1973													1179
1974													1048
1975													1040

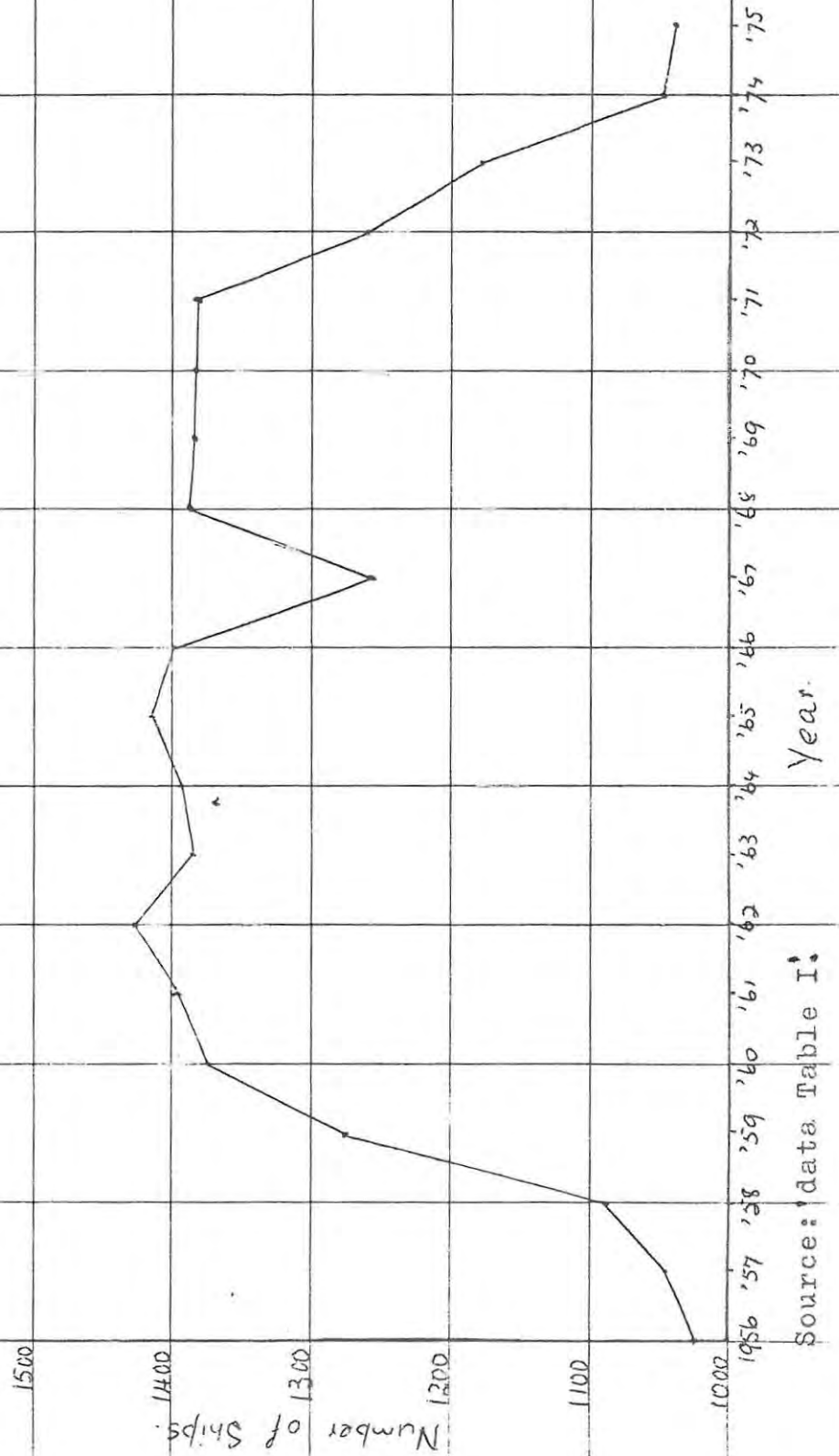
See Appendix No.s 16 - 20

Source: From Records of the S.A.R. & H. Administration - East London Harbour.



Sea Traffic - East London Harbour.

Figure 6



Source: 'data Table I'

weight units will be used that were applicable at the time.
£1 = R2 and 2,2 lbs = 1 kg.)

Although a certain amount of bartering was done with the Natives following the arrival of the first ship, the Knysna, the commercial significance of imports and exports was negligible for the period 1836 - 1847, and no records are available.

During the eight years from the beginning of 1848 to the end of 1855, goods to the value of £10 368 were imported through the port, an average of £1 296 per annum, but the actual figures each year fluctuated widely above and below this average.

During the same period, goods to the value of £2 209 were exported, but of this sum, only £1 141 represented Colonial produce such as wool, hides, horns and salted meat. The average annual value of goods exported was thus only £277 per year, but again the actual figures each year fluctuated widely about the average. No definite commodity pattern is discernible in either the imports or the exports through the port during these years, except that agricultural products were mainly exported and manufactured goods imported.

From a report by the Collector of Customs, nearly the whole of the import and export trade of East London up to 1852 was carried on coastwise from Cape Town, because the mercantile houses at East London were merely offshoots from Cape Town houses. From 1852 direct importation commenced and increased steadily with the establishment of Bonding warehouses. Much of the trade to British Kaffraria, however, was overland from Port Elizabeth, where the Port Elizabeth firms paid duty at their own port and sent all goods intended for British Kaffraria overland to avoid payment of dues at East London. (1)

The Collector of Customs at Port Elizabeth quoted the value of overland traffic from the Cape Colony to British Kaffraria in 1883 as follows :

British and foreign manufactures and other goods foreign to the Colony	£52 300
Produce and manufactures of the Colony	<u>£15 000</u>
Total	£67 300 (2)

TABLE 2

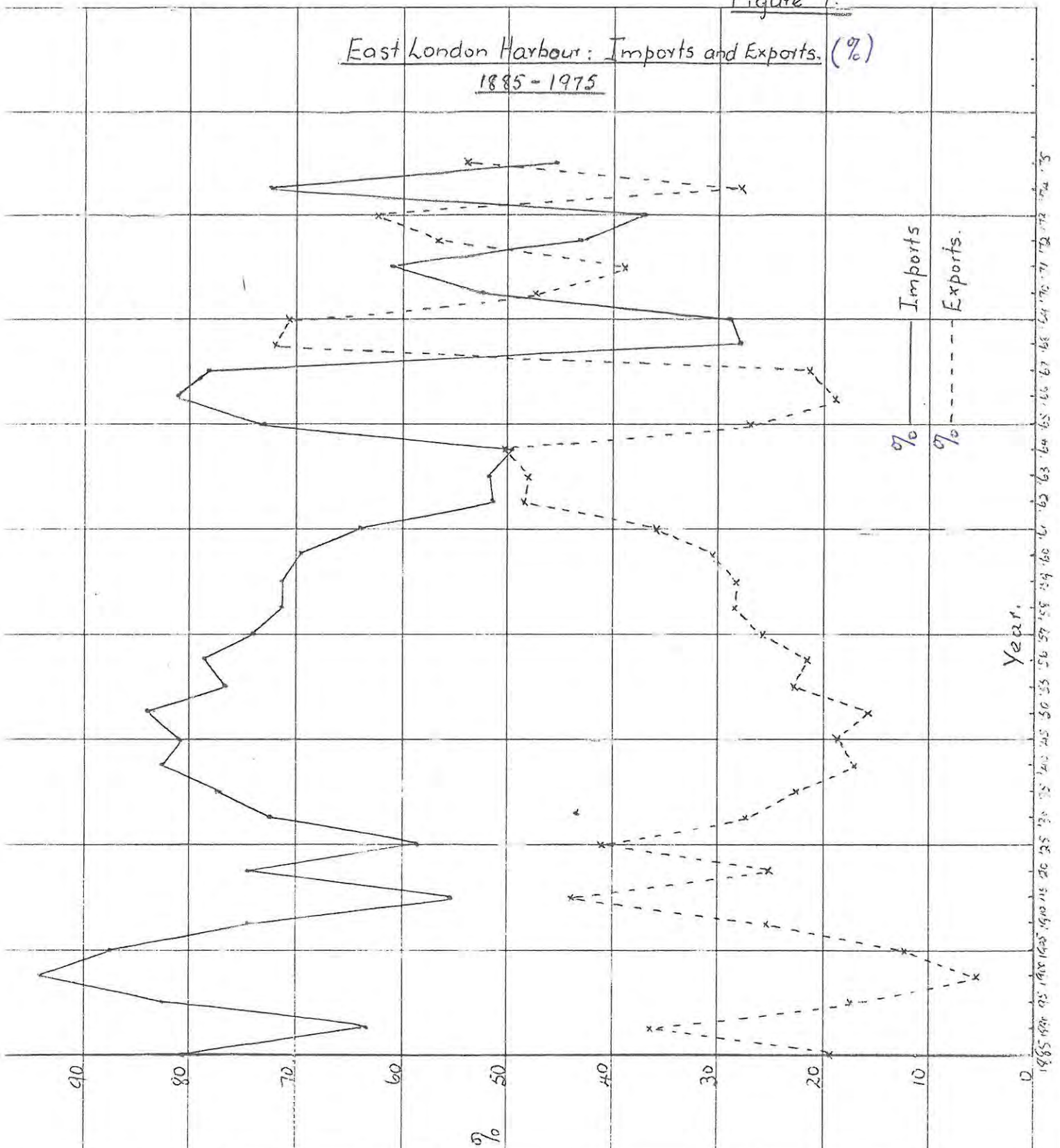
IMPORTS AND EXPORTS EXPRESSED AS A PERCENTAGE OF THE TOTAL
QUANTITY OF GOODS HANDLED AT EAST LONDON HARBOUR IN CERTAIN
SELECTED YEARS BETWEEN 1885 - 1975

Year	% Imports	% Exports	Year	% Imports	% Exports
1885	80,6	19,4	1969	29,1	70,9
1890	63,5	36,5	1970	52,6	47,4
1895	82,5	17,5	1971	61,0	39,0
1900	94,2	5,8	1972	43,2	56,8
1905	87,5	12,5	1973	37,2	62,8
1910	74,5	25,5	1974	72,1	27,9
1915	55,9	44,1	1975	45,7	54,3
1920	74,6	25,4			
1925	58,8	41,2			
1930	72,4	27,6			
1935	77,2	22,8			
1940	82,6	17,4			
1945	81,0	19,0			
1950	84,0	16,0			
1955	76,8	23,2			
1956	78,1	21,9			
1957	73,9	26,1			
1958	71,3	28,7			
1959	71,3	28,7			
1960	69,6	30,4			
1961	63,9	36,1			
1962	51,4	48,6			
1963	51,8	48,2			
1964	49,9	50,1			
1965	73,0	27,0			
1966	81,1	18,9			
1967	78,5	21,5			
1968	28,1	71,9			

Source: From Records of the S.A.R. & H. Administration - East London Harbour.

Figure 7.

East London Harbour: Imports and Exports. (%)
1885-1975



Source : 'data in Table 2'.

For the period 1856 - 1859, it has not been possible to obtain any statistics relating to the trade through East London harbour. In 1859 East London was handed over to British Kaffraria and in 1866 British Kaffraria was annexed to the Cape of Good Hope.

From 1860 onwards, it has been possible to compile statistics relating to the commercial development of the port of East London. The imports and exports, however, were given in value, and this as a basis of comparison is not an ideal measurement of the development of a port, for value may fluctuate without there being corresponding changes in activity. Before 1885, however, there are no figures apart from value which can be used to assess the commercial development of East London harbour. From 1885 onwards, the imports and exports are given in tons. In regard to the quantitative figures, it must be noted that the tons are not avoirdupois, but either harbour tons or measurement tons, the latter being used before 1910. (For harbour tons and measurement tons - see Chapter I.)

The imports and exports through East London harbour are shown in Table 2 and the fluctuations are illustrated on Figure 7. The table shows the predominant place occupied by imports in the total trade through East London port, up to 1967. From 1968 to 1975, imports and exports changed the lead each consecutive year, which is due to and correlates with the fluctuating export of maize during this period.

3. Imports. (See Appendix No. 3)

In the eleven years from 1860 to 1870, the total value of goods imported through East London harbour amounted to only £844 534 (R1 689 068), an average of £76 776 (R153 552) per annum. In 1865, the value of goods imported through East London represented only 3,1% of the total imports of the other harbours, and in 1870 it was 1,9%. Before 1871, East London was of little importance compared with Cape Town, Port Elizabeth and Durban. During this period, very little had been done to improve the mouth of the Buffalo River and no railway line existed to open up the hinterland of the port, which mainly accounts for the small percentage of imports through East London harbour.

Two mineral discoveries in the interior of South Africa had a profound influence on the economy of the country and on the commercial development of its railways and ports. The Kimberley diamond fields did not materially benefit East London, but the discovery of gold on the Witwatersrand in 1886 had a profound effect on it. With the construction of the railway line from Burgersdorp to Springfontein, East London was placed in a position to challenge Durban for a share of the trade to the goldfields. (3)

After 1885, imports through East London rose steadily for the period up to 1899 (refer to Figure 8), then in 1900 imports suddenly more than doubled, reaching a record figure of 696 073 measurement tons in 1903. This was largely the result of the Anglo Boer War (1899-1902), where supplies and material for the British forces operating in the Northern, Eastern Cape and the Orange Free State passed through East London.

From 1904, there followed a period of marked decline in imports, and from time to time, international wars and depressions adversely affected the quantity of goods imported. This is reflected in the low imports in 1918, 1932 and 1944. After 1945, the quantity of imports through East London harbour increased steadily, reflecting the increase economic and commercial activity not only of the Border Region, but of South Africa as a whole.

By 1955, the quantity of goods imported through East London had reached a figure of 897 141 harbour tons, followed with other high import points in 1958 and 1966, when imports reached a figure of 1 111 623 harbour tons.

There was a considerable drop of imports in 1968 which continued in 1969 and 1970, following years of drought in South Africa. In 1971 imports suddenly more than doubled, remained steady for some time and then increased to a record figure of 1 591 799 tons in 1975. (It must be noted that imports are given in Measurement Tons from 1885 - 1909, and then in Harbour Tons from 1910 - 1975).

a. Kinds of Imports.

An analysis of the different commodities imported through East London harbour from 1885 to 1955 is only possible on a basis of value, as the different quantities are not given separately for each commodity, but only the total imports and exports.

The total quantity of goods imported and exported through East London harbour for the period 1885 - 1975 is given in Appendix No. 3.

For the period 1885 - 1955, see Table 3, value has been used as a basis of comparison and then expressed in percentages. The commodities imported are collated in groups dominating the imports, and sample years are taken as shown in Table 3.

The three commodity groups are :

- (a) Clothing and Textiles;
- (b) Foodstuffs and Grain; and
- (c) Metals, Metal Manufactures and Machinery.

In the five selected years, these three groups accounted for approximately 70% of the total value of goods imported. In 1885 and 1890 the most important group was Textiles, but in 1895 a very considerable increase in the value of Metals, Metal Manufactures and Machinery imported, brought this group into first place, reflecting the expansion of the goldmining industry in Transvaal. In 1900, during the Anglo Boer War the imports of Machinery decreased, while Foodstuffs and Grain increased to 28,7% and Clothing and Textiles to 29,1%. By 1904, however, Metals, Metal Manufactures and Machinery had regained first place.

Imports of Oils, Waxes, Varnishes and Motor Spirit from 1915 were sufficient to warrant another group being added to the three commodity groups originally mentioned. These four commodity groups accounted for 77 - 84% of the total value of imports through East London harbour for the years between 1915 to 1955. There has been a very marked decline in the percentage of the Foodstuffs and Grain group, because manufactured or processed foodstuffs were no longer imported in such great quantity, being produced in South Africa itself.

The Metals, Metal Manufactures and Machinery group - which includes motor vehicles - has dominated imports through East London harbour since 1915. The change in the relative position of the commodity groups is what would be expected in view of the increasing development of secondary industry in South Africa. (4)

Since 1956 the harbour administration has followed a classification of commodities according to Table 4, where statistics are given in harbour tons, which provide a more

TABLE 3

PRINCIPAL COMMODITIES IMPORTED THROUGH EAST LONDON HARBOUR IN CERTAIN SELECTED YEARS 1885 - 1955
(PERCENTAGES)

Year	Metals, Metal Manufactures, Machinery and Motor Vehicles (1915 onwards)	Foodstuffs and Grain	Clothing Textiles and Yarns & Fibres (1915 onwards)	Oils, Waxes, Paint, Varnishes and Motor Spirit	Other Commodity Groups
1885	9,4	19,8	41,8	-	29,0
1890	13,7	11,6	48,5	-	26,2
1895	34,5	8,7	24,9	-	31,9
1900	14,2	28,7	29,1	-	28,0
1904	25,9	22,9	19,0	-	32,2
1915	26,9	19,8	25,2	5,4	22,7
1920	29,3	13,2	30,0	7,3	20,2
1925	39,5	11,2	24,3	6,6	18,4
1930	41,7	6,2	19,7	14,3	18,1
1935	54,0	4,5	16,7	8,7	16,0
1939	50,0	4,4	14,8	14,8	16,0
1946	36,1	13,2	23,2	7,7	19,8
1947	45,5	3,9	25,0	6,6	19,0
1948	50,0	6,5	20,4	7,0	16,1
1949	48,7	6,6	19,2	8,2	17,3
1950	43,6	9,7	17,4	11,8	17,5

TABLE 3 (CONTINUED)

PRINCIPAL COMMODITIES IMPORTED THROUGH EAST LONDON HARBOUR IN CERTAIN SELECTED YEARS 1885 - 1955
(PERCENTAGES)

Year	Metals, Metal Manufactures, Machinery and Motor Vehicles (1915 onwards)	Foodstuffs and Grain	Clothing Textiles and Yarns & Fibres (1915 onwards)	Oils, Waxes, Paint, Varnishes and Motor Spirit	Other Commodity Groups
1951	45,8	3,3	23,0	8,2	19,8
1952	51,6	6,2	10,3	8,8	23,1
1953	49,0	9,3	14,4	9,0	18,3
1954	46,9	5,9	17,1	9,2	20,9
1955	48,1	7,6	14,6	8,7	21,0

Source : From Records of the S.A.R. & H. Administration - East London Harbour.

TABLE 4

IMPORTS. (HARBOUR TONS) 1956 - 1970

EAST LONDON HARBOUR

Year	General Cargo	Timber	Railw. & Govt. Material	Coal	Grain	Sugar	Fuel (Oil)	Sulphur	Total
1956	455310	67508	55808	7618	79248	-	254667	-	920159
1957	380232	70992	172630	17962	32367	4080	319968	-	998231
1958	388821	78332	176997	33564	-	46156	284013	-	1007883
1959	377534	67532	91896	48317	20976	44715	300855	-	951825
1960	319592	57798	18262	95880	22422	50768	253132	-	817854
1961	349239	70414	10595	-	23157	51236	310309	-	814950
1962	288141	32516	10100	-	9905	53619	272021	-	666302
1963	316191	30776	6349	30717	5113	51574	342111	-	782831
1964	360995	25914	7534	4856	27444	54660	284045	-	765448
1965	425585	30405	19335	-	15064	57421	362097	-	909907
1966	620851	36204	18905	-	5403	61793	363813	4654	1111623
1967	419920	24424	10678	-	73201	58138	475335	119	1061815
1968	430604	22517	12438	20714	33032	49895	85766	40	655006
1969	464877	18719	9100	99294	-	40505	-	31	632526
1970	518609	23015	6987	-	-	24273	-	377	573261
TOTAL	6116501	65706	627614	358922	347332	648833	3908132	5221	12669621
%	48,3	5,2	4,9	2,8	2,8	5,1	30,9	-	100

Source : From Records of the S.A.R. & H. Administration - East London Harbour.

straightforward basis of comparison.

Imports are now classified into eight commodity groups. Sulphur as a group is negligible : it was added to these groups in 1966 when 4 654 tons were imported, but after this date only small quantities came in.

During the period 1956 - 1970, commodities classified as General Cargo dominated imports with an average of 48,3% of the total, with Fuel second averaging 30,9%. Timber, a regular import, showed a decline to about one-third of its original volume at the beginning of the period and accounted for only 5,2% of total imports. Sugar, also a regular import, dropped considerably in volume during 1969 and 1970 and averaged 5,6%. The imports of Coal 2,8% and Grain 2,8% - which comes mainly by rail - fluctuated widely with no imports at all for some years during this period. Railway and Government Material remained a regular import with an average of 4,9%, but also declined considerably towards the end of the period.

Total imports during the period under review reached peaks during the years 1958, 1966 and 1967, the last being highest with an import figure of I III 623 tons. The lowest imports were in 1962, 1968, 1969 and 1970 with the minimum in 1970 of 57 326 tons. During the period under review, the two groups General Cargo and Fuel (Oil) dominated imports.

With a view to reaching uniformity for all the harbours, and for statistical purposes, import commodities were reclassified by the Administration in 1970. It was therefore necessary to compile a separate Table No.5 for imports over the years 1971 to 1975.

According to the S.A.Yearbook, the following items are included under General Cargo :

Food, Beverages and Tobacco.

Crude Materials (Inedible).

Mineral Fuel.

Animal and Vegetable Oils and Fats.

Chemicals.

Manufactured Goods.

Machinery and Transport Equipment.

Miscellaneous Manufactured Articles. (5)

TABLE 5.

IMPORTS. 1971 - 1975

TOTAL CARGO LANDED AT EAST LONDON HARBOUR

(FINANCIAL YEAR ENDED 31ST MARCH)

		1971	1972	1973	1974	1975
Arrivals: Ocean-going		1 116	1 038	959	829	834
Coasters		234	193	188	202	176
Trawlers & Whalers		34	29	32	17	30
TOTAL		1 384	1 260	1 179	1 048	1 040
Passengers: Disembarked		2 850	2 237	2 269	1 729	1 859
Livestock: Landed		-	-	-	-	-
Cargo Landed:	%					
General Cargo	94,8	1 253 439	1 257 928	1 162 778	1 306 899	1 520 198
Fertilizers	-	-	-	-	426	-
Sulphur	-	23	-	-	-	-
Grain	0,4	28 521	-	-	-	-
Timber	2,7	37 483	32 110	26 311	35 465	55 698
Coal	-	-	-	-	38	-
Rice	-	-	-	-	-	-
Steel	1,3	-	45 953	4 923	17 623	16 263
Cement	-	-	1 175	19	-	-
Railway Material	0,8	8 629	25 441	16 721	-	-
TOTAL	100	1 328 104	1 362 607	1 210 752	1 360 451	1 591 799

Source : From Records of the S.A.R. & H. Administration - East London Harbour.

TABLE 6.

PASSENGER TRAFFIC - SOUTH AFRICAN AIRWAYS
(TOTAL FOR ALL S.A. AIRPORTS)

Year	Internal	% Decrease or Increase	Trunk	% Decrease or Increase
1969 - 70	1 112 617	+19,78%	144 776	+24,70%
1970 - 71	1 286 521	+15,63%	185 535	+28,15%
1971 - 72	1 350 530	+ 4,98%	209 124	+12,71%
1972 - 73	1 522 745	+12,75%	260 072	+24,36%
1973 - 74	1 918 184	+25,97%	314 153	+20,79%
1974 - 75	2 201 443	+14,76%	376 939	+19,98%

Source : From Records of the S.A.A. - Ben Schoeman Airport,
East London.

Although passengers are not considered as an import commodity, the numbers of those who disembarked at East London harbour during the five years from 1971 to 1975 are given for each year. In comparison with the other harbours, Cape Town, Port Elizabeth and Durban, the number of passengers disembarked at East London is very low. Overseas visitors prefer to use the terminal ports of Cape Town and Durban, fitting better into their planned tours of the country, while passengers who disembark at East London are mainly local or Border residents. The numbers disembarked show very little fluctuation over the first three years, but decreased during the last two years to about a thousand less in 1975 than in 1971. This is also affected by the increase of numbers in air travel (See Table 6), where passenger traffic approximately doubled from 1970 to 1975 : people are getting more conscious of the advantages in cost and time of travelling by air, and lack of passages at convenient times as passenger ships are gradually withdrawn.

For a period of five years from 1971 to 1975, no Livestock or Rice was imported through East London harbour, and the imports of Fertilizers, Sulphur, Grain, Coal and Cement in very small quantities were negligible. Steel was imported from 1972 to 1975, but also in small quantities : Railway Material was given separately for 1971 to 1973 and thereafter classified as General Cargo.

The other regular import over the five years was Timber, which remained fairly constant, except for a big increase from 35 465 tons in 1974 to 55 698 tons in 1975. The main import group at East London harbour was therefore General Cargo , comprising 94,8% of total imports. This group showed a gradual increase from 1 253 439 tons in 1971 to 1 520 198 tons in 1975.

The total imports remained more or less constant over the years 1971, 1972 and 1974, with a small decrease in 1973 and then a considerable increase in 1975, which showed a record figure of 1 591 799 tons, as indicated on Figure 8.

Origin and Destination of Imports.

The origin of our imports is given as Europe, America, Asia, Oceania, Africa and Other Unspecified Countries. (6).

Imports - East London Harbour. Figure: 8

1885 - 1909 : Measurement Tons
1910 - 1975 : Harbour Tons.

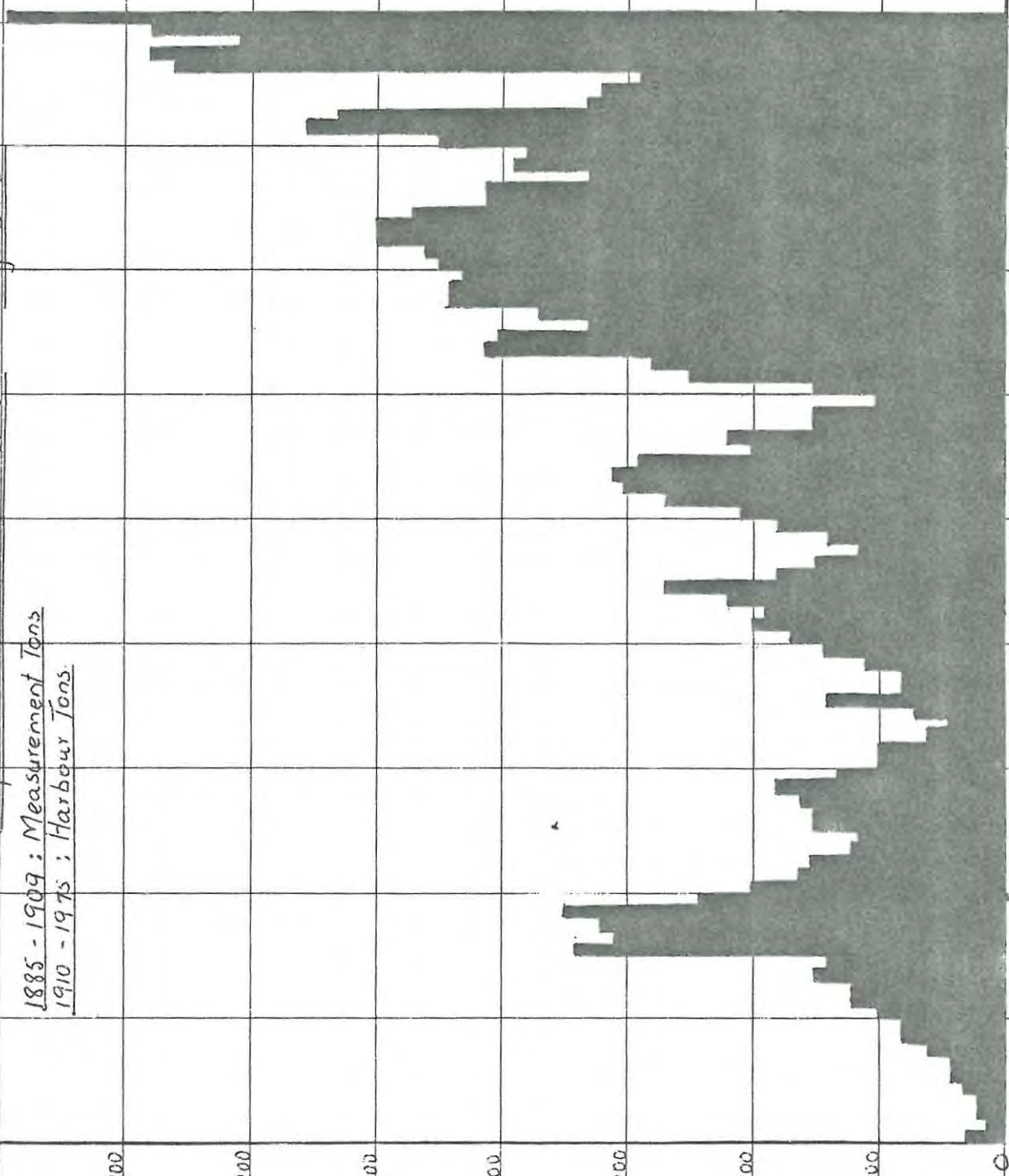
Imports (Tons)

1 600 000
1 400 000
1 200 000
1 000 000
800 000
600 000
400 000
200 000
0

1885 1895 1905 1915 1925 1935 1945 1955 1965 1975

Source: data in Tables 3-5.

Years.



A detailed list of sources from which the different commodities were imported was not available, but it was possible to determine that the main sources of supply of industrial and manufactured articles are the industrial countries of Western Europe (the United Kingdom, West Germany and France), the United States of America and Japan.

The United Kingdom was the major supplier for a long time, but its relative position has declined significantly in recent years in favour of Japan and the Common Market Countries. (7)

The destinations of imports through East London harbour are mainly the Border Region, the Eastern and North-Eastern Cape areas, the Ciskei and Transkei, and a large percentage is destined for the inland markets in Transvaal and the Orange Free State.

The destination of sea-borne commercial traffic is of such importance that it will be discussed in more detail. Since 1910, Buffalo Harbour and East London have been regarded as one station by the South African Railways Administration, and there are no figures available from which to determine the distribution of imported goods after that date. Before 1910, such figures as are available are incomplete. (8)

Special attention, however, must be given to the importance of Southern Transvaal as a destination for sea-borne commercial imports through the South African Ports. In 1907, a report was prepared by Mr. J. Connacher on the distribution of this traffic, and in it he gave a resumé of the historical background of traffic to the Transvaal. (9)

He wrote that before the extension of the railway systems of the two coast Colonies into the interior of the country, the principal trade route to the Transvaal and the northern districts of the Orange Free State lay through Natal, through which the greater portion of the imports for that part of the interior were transported by ox-wagon. For the southern part of the Orange Free State, the route lay through the Cape Colony, from the eastern ports of which the imports were similarly transported.

Between 1880 and 1890, the relative position of these two Colonies in respect of this trade was gradually altered by successive extensions of their respective railway systems. In November, 1885, the Cape lines from Cape Town and Port Elizabeth reached Kimberley, on the western, and Colesberg on the southern boundary of the Orange Free State. Its line to Aliwal North gave the Cape Colony a second position on the southern Orange Free State border for traffic passing through East London. A month later the Natal line, which until then had terminated at Howick, was extended to Estcourt. In June, 1886, it was further extended to Ladysmith, in September, 1889 to Glencoe and in May, 1890, to Newcastle.

These extensions, by shortening the distances of the ox-wagon traffic, greatly improved means of communication with the interior. In December 1890 the Cape Government Railways, in an agreement with the Orange Free State, extended their system to Bloemfontein, and in May, 1892, to the Vaal River. Four months later, the Nederlands-Zuid Afrikaansche Spoorweg Maatschappij, with financial assistance from the Cape Government, opened a connecting line from the Vaal River as far as Johannesburg, and on December 31, 1892, completed the line to Pretoria.

Six months previously the Cape Government had also opened a line from Burgersdorp to Springfontein, so that on the completion of the N.Z.A.S.M. line to Pretoria, unbroken rail communication was for the first time established between all the Cape Ports and the Orange Free State and the most important districts of the Transvaal. The immediate effect of this was to divert to the Cape routes a large portion of the traffic which had previously passed through Natal. In the meantime, the Government of Natal had in April, 1891, extended its line from Newcastle to Charlestown on the Transvaal border, and in November opened a line from Ladysmith to Van Reenen, extended to Harrismith in July, 1892, bringing its system to the border of Transvaal and within the Orange Free State.

The next great change in the trade routes from the coast occurred in November, 1894, with the opening of the Delagoa Bay Line. Previously, to reclaim part of the traffic it had lost,

the Natal Government had entered into an agreement with the South African Republic of Transvaal for the construction of a line from Charlestown to Johannesburg. This was opened in December, 1895. It was in connection with the opening of these two lines that the controversy with regard to rates for sea-borne traffic began.

On completion of the Cape lines to the Vaal River in May, 1892, the Administration put into operation to the rail head at Viljoens Drift, on the Vaal River, differential rates from Port Elizabeth and East London. East London had an advantage over Port Elizabeth of fifteen shillings (RI,50) per ton, but later in that year, when the line through to Johannesburg was opened rates were adopted which reduced East London's advantage over Port Elizabeth on traffic to the Transvaal, to eight shillings and four pence (about 84 cents) per ton for normal and intermediate, and to six shillings and eight pence (about 67 cents) per ton for rough class goods. In June, 1894, the N.Z.A.S.M. informed the Cape Government of their intention to put into operation, on the opening of the Lourenco Marques line, rates which would give that port an advantage over East London of thirteen shillings and four pence (about RI,33) per ton for normal and fifteen shillings (RI,50) per ton for rough and intermediate goods. They also informed the Natal Administration that the rates to be put into operation from Durban to Johannesburg via Charlestown would be the same as from East London. (10)

In the years before the outbreak of the Anglo-Boer War in 1899, several Railway Conferences were held between the four Railway Systems to introduce uniformity into rates and regulations. Each tried to obtain the largest share of the valuable through traffic to the Transvaal. This struggle continued after the war until 1910, when the four Colonies united into the Union of South Africa, thus stopping this competition between the ports of two independent Colonies.

With rare exceptions, Cape Town's share of the sea-borne commercial traffic to the Transvaal has been negligible, while Durban's share has always been considerably greater than that of Port Elizabeth or East London, and Lourenco Marques had a greater share than any Union Port.

By 1910, East London's share of the sea-borne commercial traffic to the Transvaal had fallen to 4,1% and for many years up to 1945 was considerably less. By 1948, however, the figure had increased to 9,0%, rose to a maximum of 12,1% in 1952 and then again showed a downward trend to 10,8% in 1955. From 1948 to 1955, East London's traffic was always above the figure for Port Elizabeth, putting East London second only to Durban in respect of traffic to the Transvaal. During the unrest in Mozambique when Delagoa Bay could not handle the imports and Durban was congested, a large share of the imports was diverted to East London, giving it during this time a fairly high rate of sea-borne traffic to Transvaal.

However, with congestion also experienced at East London, the Lines imposed a surcharge of 100% on freight and cargo to East London in 1974 which naturally had a detrimental effect, and resulted in a virtual boycott from March 15, 1975. The importers again diverted their imports to other harbours, with a consequent considerable loss of trade to East London. The position at the end of 1975 was back to normal with no surcharge.

It is noteworthy that Imports from East London harbour reach Johannesburg almost as quickly as those from Durban, and more quickly than from Port Elizabeth. The main reason for this is not the distances of the ports from the competitive area, nor the standard of construction of the respective main lines, but the speedy handling of goods at East London harbour.

4. Exports.

In 1875 the value of exports through East London harbour for the first time assumed significant proportions, but even then represented only 2,9% of South Africa's exports. (II)

The value of exports is not an entirely reliable guide to the development of a port, especially when, as in the case of East London, the principal commodities are agricultural raw materials, the prices of which are subject to considerable fluctuation. No quantitative figures are available before 1885. By 1884 there was a marked increase in the value of exports passing through East London harbour. From 1885 the exports are

Exports - East London Harbour Figure: 9

1885 - 1909 : Measurement Tons

1910 - 1975 : Harbour Tons

2 400 000

2 000 000

1 600 000

1 200 000

800 000

400 000

0

Exports (Tons)

1885

1895

1905

1915

1925

1935

1945

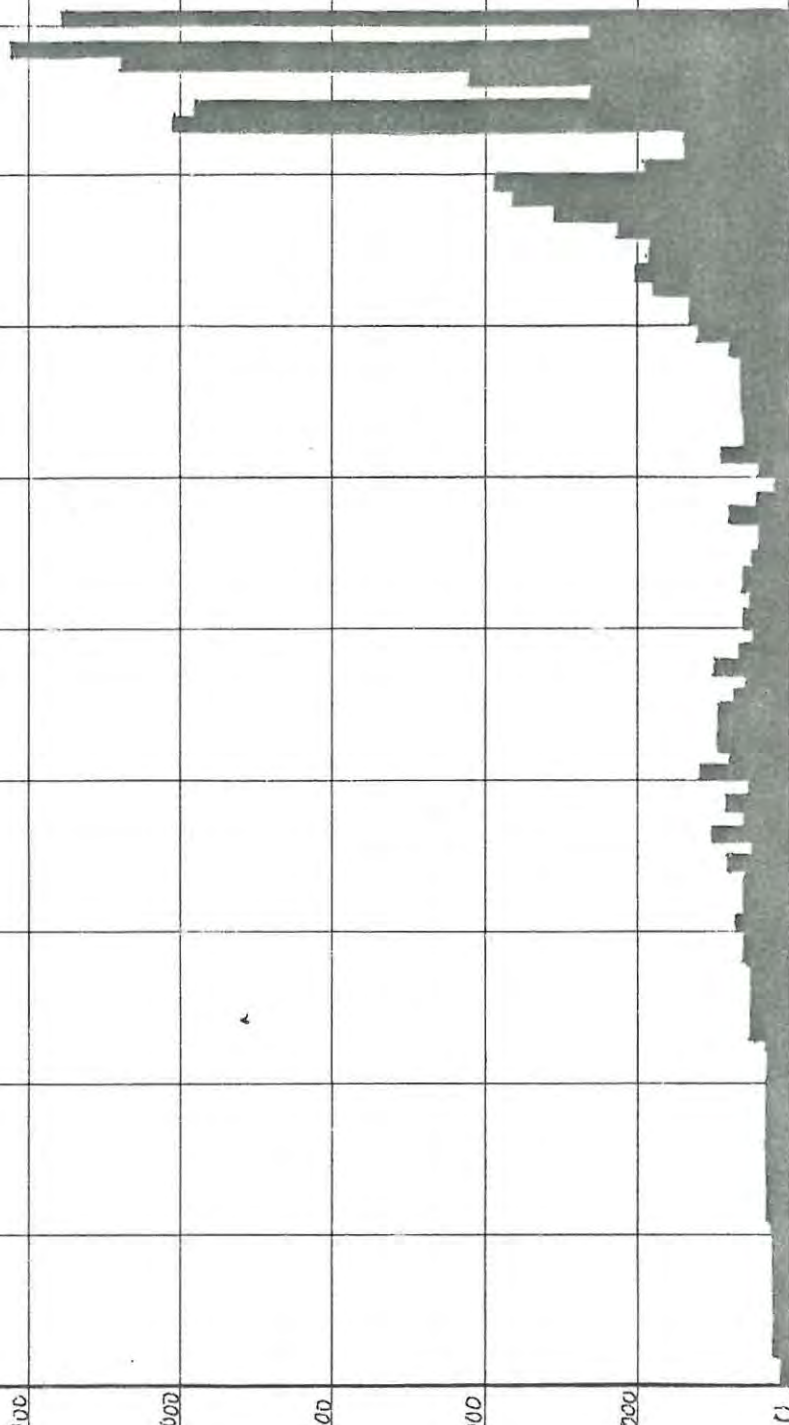
1955

1965

1975

Years

Source: data in Appendices 4-6.



given in Measurement Tons and from 1910 onwards in Harbour Tons. (See Appendices Nos. 4-6 for total trade of East London Harbour and Principal Commodities exported through it for the different periods.)

Exports gradually increased from 14 364 tons in 1885 to exceed the hundred-thousand ton mark for the first time in 1909 with 104 957 tons. (Refer Appendix No.3 and Figure 9). A steady rise reached a peak in 1925 of 239 407 tons, followed by a fluctuating decline up to 1953. In 1954 the two hundred-thousand ton mark was reached with 242 876 tons, followed by a sharp increase to 790 645 tons in 1964. Exports were low again from 1965 to 1967 but rise to pass the one-million ton mark in 1968 with 1 622 845 tons.

From 1969 exports fluctuated sharply from very high to very low points, being still very high in 1969, very low in 1970 and 1971, very high in 1972 and 1973, very low in 1974 and again high in 1975, reaching its peak of 2 045 240 tons in 1973. This correlates exactly with the fluctuating exports of maize which is East London's main export commodity.

a. Commodities Exported.

The quantities of the principal commodities exported through East London harbour for the years 1860 - 1975 are shown in Appendices Nos. 4, 5, and 6.

During the first period up to 1955, East London's prosperity was based to very considerable extent upon the wool exported through its harbour. Appendix No. 2 shows the predominance of this commodity among exports. Although the quantity of wool has at times been exceeded by the quantities of other commodities, like Maize and Maize Products, wool has been the one commodity that was exported regularly through Buffalo Harbour.

Until the end of the first world war, the export trade of East London harbour was founded on Wool, Hides and Skins and Angora Hair. After that the commodities exported showed a wider variety. Towards the end of this period, up to 1955, commodities such as Maize and Maize Products, Citrus Fruit and Groundnut Oil have been added to the three traditional exports, and in some cases have exceeded the older commodities in quantity.

During the next period, 1956 to 1970, the Administration used another classification of exports. Wool is given in bales; different products are grouped together under one heading of Produce; Maize and Maize Meal are given separately; all the

other export commodities are grouped together under one heading as General Cargo. (See Appendix No. 5).

Wool still remained a regular export, and in the analysis was classified as Produce. The commodity dominating the exports during this period was Maize and Maize Meal, accounting for 58% of the total exports, with Produce second at 36,1%. General Cargo accounted for about 5%; from 1967 a new export commodity - Ores and Minerals - was added to this group, representing about 10% of total exports for the years 1967 to 1970.

For the third period under review, 1971 - 1975, the Administration classified all exports according to Table 7 which, being uniform for all the South African ports, facilitates comparison of the ports and analysis of statistical data. (12)

The exports through East London harbour for this period were compiled from monthly reports supplied by the Port Manager's Office to the Harbour Advisory Board.

Although passengers are not an export commodity, the numbers that embarked from East London harbour each year are included in the statistics. It will be noted that comparing Appendix 6 with Table 7 - the General List of Export Items - the following commodities are not exported from East London harbour at all : Fertilizers, Wattle Bark Extract, Fish Products, Sugar, Dried Fruit, Bunker Coal and Cargo Coal. A very small quantity of Deciduous Fruit and Livestock was exported only in 1971.

Appendix 6 and Figure 10 show that the numbers of passengers embarked at East London were fairly high in 1971 and 1972, then there was a decline which remained relatively constant for the three years from 1973 to 1975. (13)

In comparing the number of passengers embarked at East London we note that the numbers are low in comparison with the other harbours, because ^{like incoming passengers} East London harbour is mainly used by local people and those resident in the Border area. The tendency of overseas tourists is to embark at one or other of the two terminal ports Cape Town and Durban after a tour of South Africa. The Mail Ships, for the period under consideration, called twice a week at East London, arriving early in the morning and departing the same afternoon, once on their voyage northwards to Durban

TABLE 7

CLASSIFICATION OF EXPORTS - IN HARBOUR TONS. 1971 - 1975

Passengers Embarked.

Livestock Shipped.

Cargo Shipped: General Cargo (Including Oil).

Fertilizers.

Maize and Maize Products.

Grain Other than Maize.

Other Produce.

Wool.

Skins and Hides.

Wattle Bark.

Wattle Bark Extract.

Fish Products.

Sugar: In Bulk.

In Containers.

Fruit: Citrus.

Deciduous.

Dried.

Other.

Bunker Coal.

Cargo Coal: Coastwise.

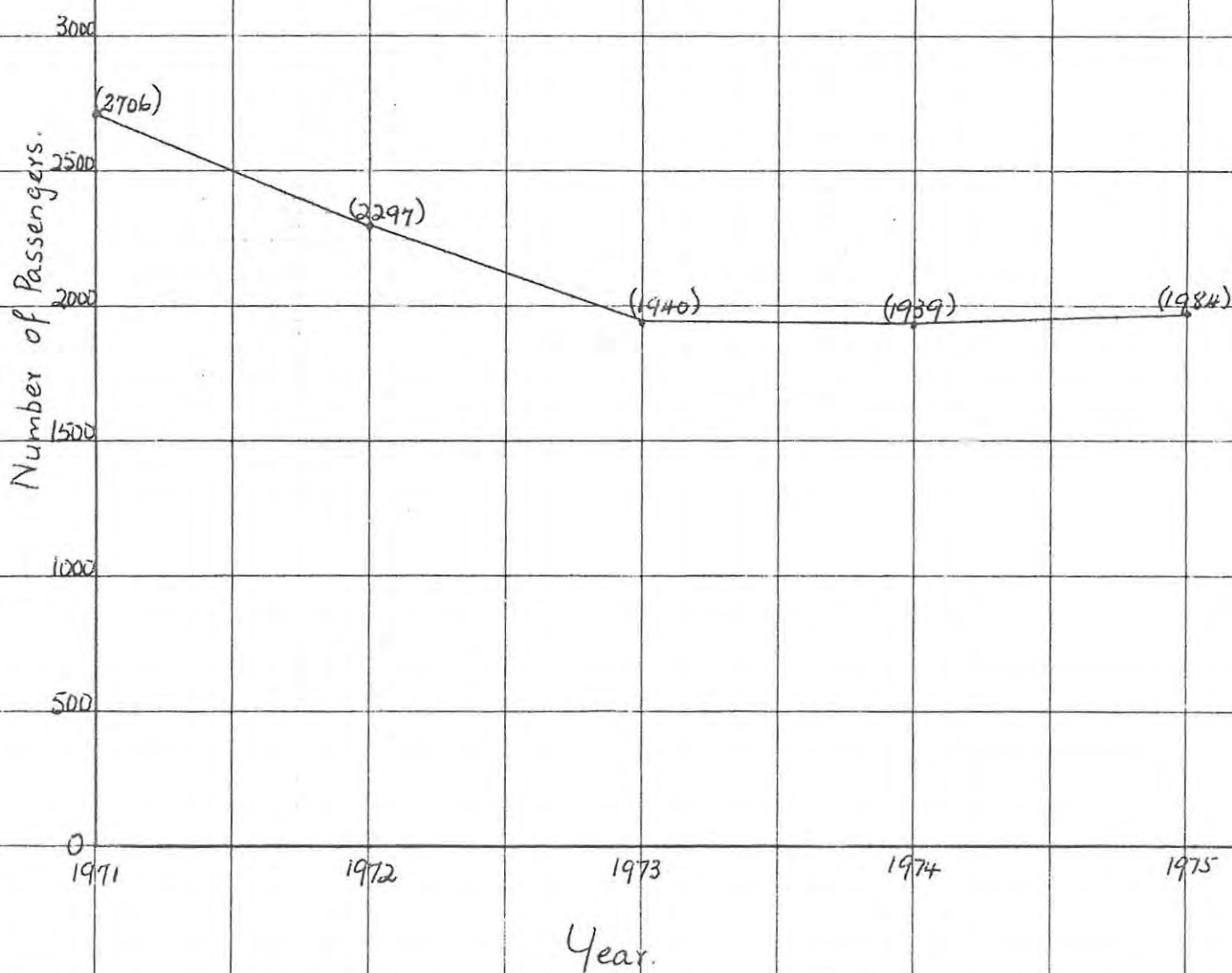
Foreign.

Bunker Oil.

Ores and Minerals.

Figure 10

Passengers Embarked at East London Harbour.



Source: 'data in Appendix 6'.

and again on their voyage back to Cape Town.

The different export commodities will now be discussed, in the order given in Table 7.

(i) General Cargo.

General Cargo cannot be compared quantitatively for the periods 1956 - 1970 and 1971 - 1975, as commodities included in this group differ for the two periods : consider the abnormal high increase of 32 814 tons in 1970 to 117 789 tons in 1971. General Cargo (including Oil) shows very little fluctuation for the two periods under review, with peak exports in 1973 and 1974. (See Figure II).

General Cargo consists mainly of merchandise exports in the form of Animal and Vegetable Products, Prepared Foodstuffs, Beverages, Spirits, Tobacco and Mineral Products. Also the products of Chemical and Allied Industries, Leather Products, Paper and Papermaking Materials, Textiles and Textile Articles, Precious Stones and Metals, Base Metals and articles thereof, Machinery and Mechanical Appliances and Equipment.

As these commodities are mostly manufactured articles coming from factories, only a small percentage is exported through East London, so the export of General Cargo is very low in comparison with the other harbours, because most of the factories are situated in the main industrial areas of Southern Transvaal, Durban and Pinetown and the Western Cape. (The comparison with other harbours will be dealt with in a later chapter.)

(ii) Maize and Maize Products.

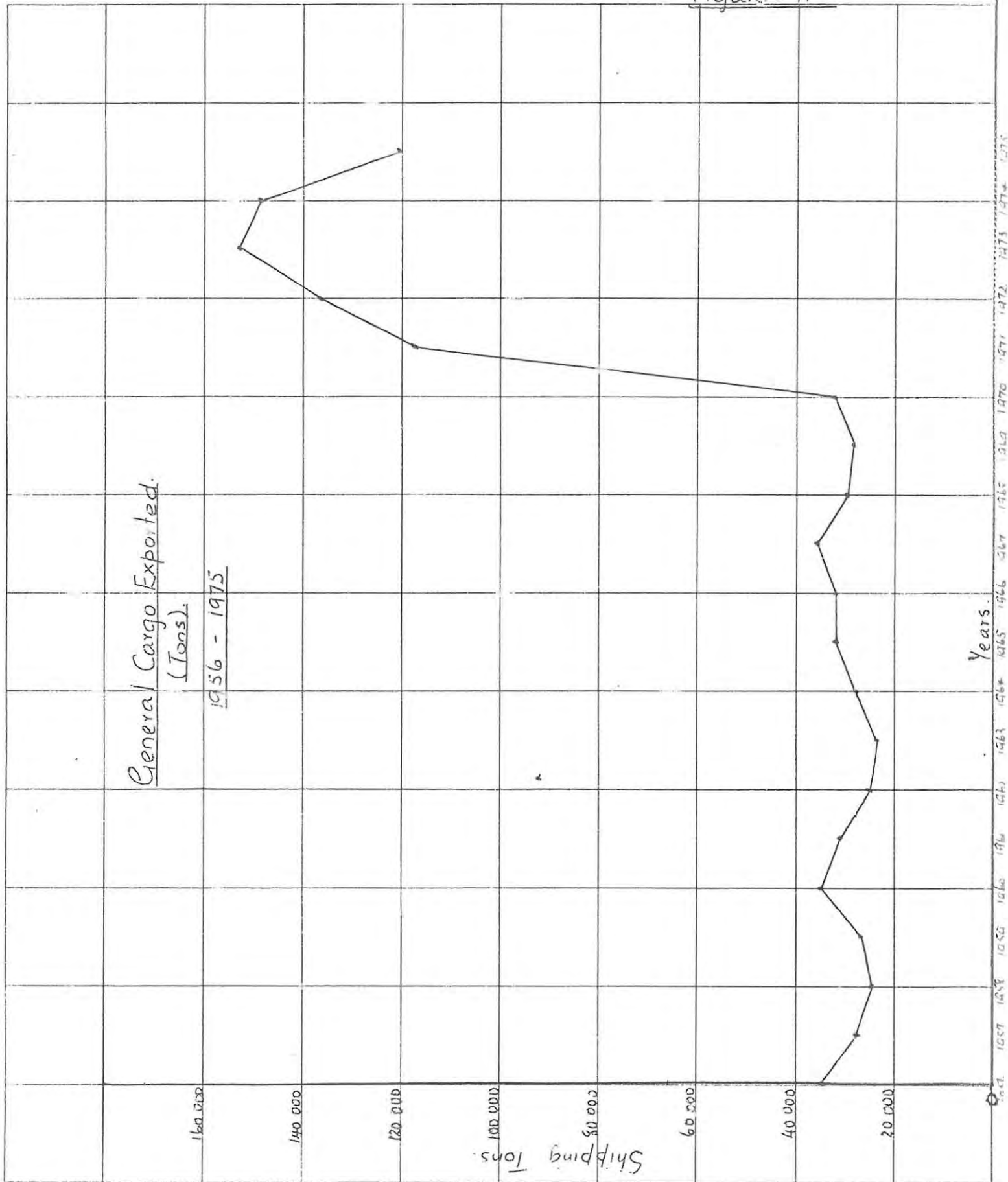
Maize and Maize Products are among the most interesting of the commodities exported through East London harbour. Referring to Appendix No. 4 one notices that between 1886 and 1891 Maize was exported regularly through the port, the highest tonnage being in 1887, when 1 622 tons were exported: the lowest was 177 tons in 1889. After 1891, exports of Maize virtually ceased until 1912, when 1 677 tons were exported,

Figure: 11

General Cargo Exported.

(Tons).

1956 - 1975



Source: 'data in Appendices 5 & 6'.

followed in 1914 by 1 749 tons. In 1915, approximately 6 000 tons were exported and in 1916 this was doubled to 11 679 tons. After the exportation of Maize and Maize Products was resumed in 1912, one notes a series of peaks and depressions. The extent of these fluctuations can be gauged from Appendices 4, 5, 6 and the following data :

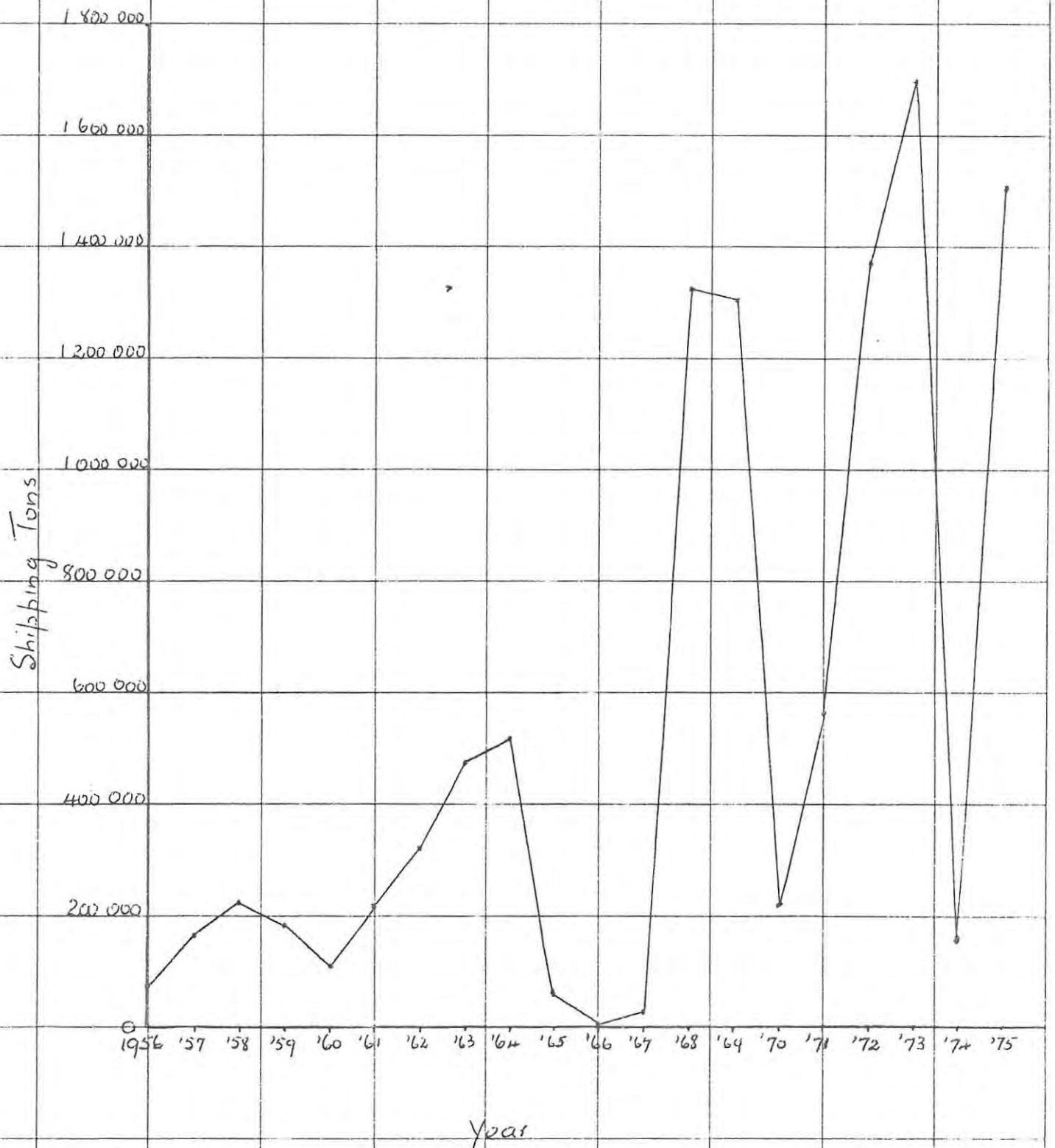
<u>Year.</u>	<u>High (Tons).</u>	<u>Low (Tons).</u>
1918	51 340	
1920		13 185
1921	65 146	
1922		727
1923	77 496	
1924		1 943
1925	94 615	
1927		23 260
1929	33 213	
1931		III
Exports ceased from 1935 to 1952.		
1964	515 104	
1966		Nil.
1968	1 324 386	
1970		216 396
1973	1 694 944	
1974		154 986
1975	1 511 025	

After 1929, the quantity of Maize and Maize Products exported through East London declined, the average quantity exported in the succeeding five years being only 250 tons per annum. After 1935 its export ceased entirely and was not resumed until 1953, when approximately 17 000 tons were exported. In the following year the quantity exported increased to 65 687 tons, and in 1955 80 261 tons were exported. (14)

The resumption of the exports of Maize and its Products through East London was the result of deliberate administrative policy on the part of the South African Railway Administration, for the General Manager of Railways and Harbours, speaking at

Figure 12

Maize and Maize Products Exported (Tons)



Source: 'data in Appendices 5 & 6'.

East London in January, 1958, announced that East London harbour was to be developed as a major maize exporting port. (15)

As a result of this policy, the biggest grain elevator in the Republic, with a storage capacity of 75 300 tons, is located at Buffalo Harbour. The next in size with an elevator of 38 100 tons capacity is at Durban, and Cape Town's has a capacity of 27 000 tons.

The elevator of East London can load grain into ships at the rate of 1 633 tons an hour, through four spouts. To dump the maize into the storage silos, the railway trucks - each laden with about 39 000 kg. of maize - are positioned on a hydraulic platform and secured with thick cables. The truck is then hoisted and turned bodily to an angle of about 60°, allowing the maize to pour into the storage bins. Each truckload is cleared from the bins before the next load is dumped. The elevator is capable of handling 150 trucks a day, averaging about seven minutes a truck. A new type of truck, which can be emptied from a horizontal position, obviating the necessity for the hoist, has been introduced recently and is gradually replacing the older models.

A system of conveyer belts is used to take the maize through a cleaning process, and on into the storage silos. The same system takes the maize from the silo along a ramp to the quay-side, where operators perched about three floors above the ship can control loading operations.

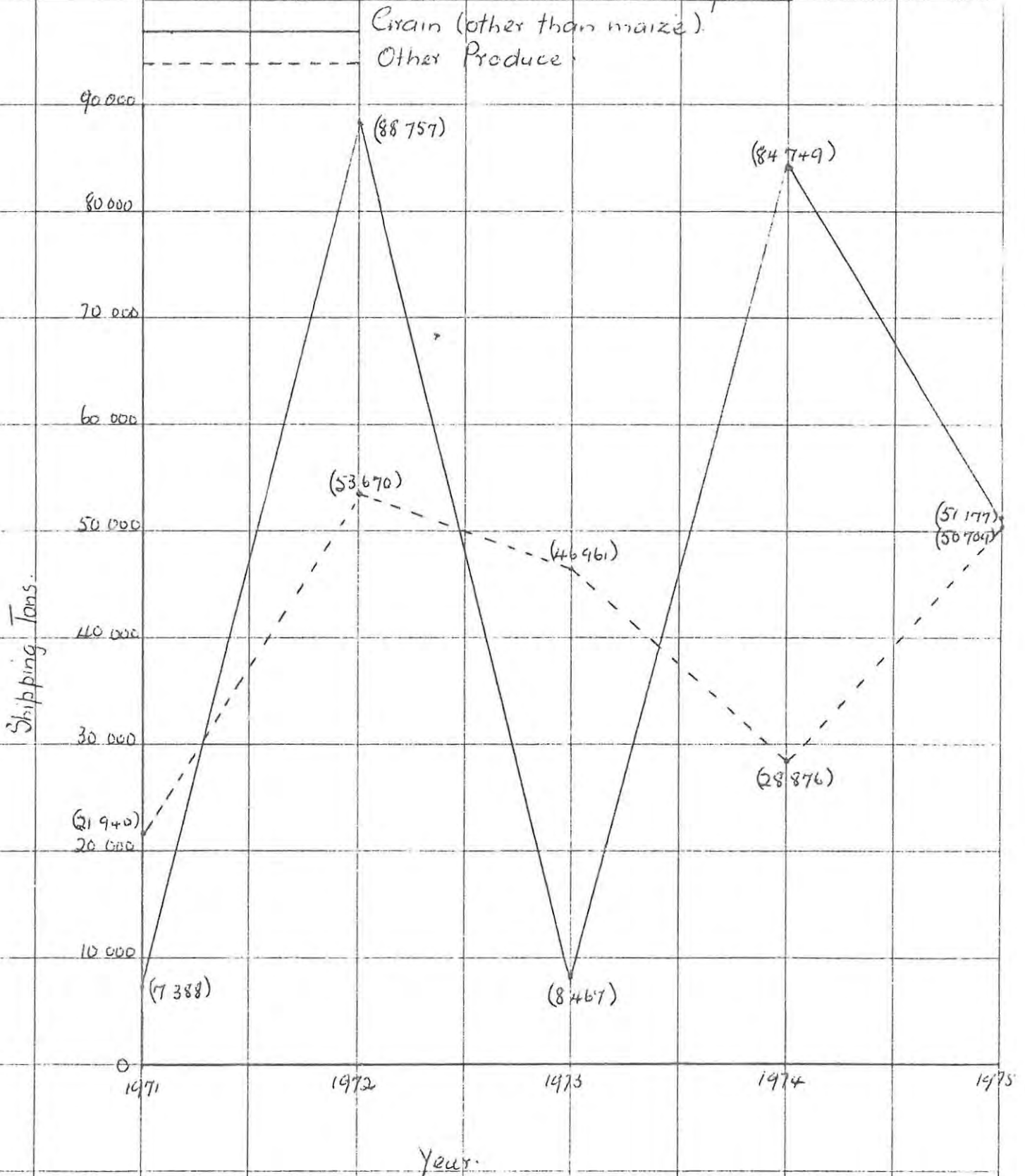
Most of the maize exported through East London comes from the Orange Free State and Southern Transvaal (Maize Triangle), and is transported to East London by rail.

The maize exports vary according to the seasons experienced in the maize-growing areas, as only the surplus of maize is exported. During the years 1965, 1966, 1967, 1970 and 1971, following dry seasons, only small quantities of maize were exported. After good rainy seasons 1 370 141 tons were exported in 1972 and 1 694 944 tons in 1973. The 1973/74 season was a dry one with a consequent drop of exports to 154 986 tons in 1974. Good rains in 1974/75 again increased exports to 1 511 025 tons in 1975. (See Figure I2).

Hence Maize and Maize Products had very fluctuating exports over the years from 1965 to 1975. Although large

Figure: 13

Grain (other than maize) and Other Produce Exported.



Source; 'data in Appendix 6'.

quantities of Maize were exported through East London in various years, its erratic production robs it of some of its importance as the main export commodity of East London harbour.

(iii) Grain (Other than Maize) and Other Produce.

These commodities consist mostly of Wheat, Kaffir Corn, Sunflower-seed, Cotton-seed, Potatoes, Groundnuts, Vegetables, Eggs, Butter, Frozen Mutton and Beef, Tobacco, Canned Pineapples and Pineapple Juice.

Although these commodities were not exported in large quantities, East London harbour has, after Durban and Cape Town, the third highest exports in this section, receiving its supplies from the Border Region, the Eastern Cape, the Transkei and the Ciskei. These products from the Transvaal and Natal are exported mainly through Durban, and the Southern, Western and Northern Cape are exporting through Cape Town. (See Figure I3).

As these commodities depend on growing conditions, fluctuating exports over the different years correlate with favourable and unfavourable seasons experienced in the country.

(iv) Wool.

Wool exported through East London showed a steady, continued increase in quantity from 151 tons in 1860 to 64 072 tons in 1923. During this period, East London steadily overtook the other South African ports : Cape Town was overtaken in 1881, Durban in 1894, and Port Elizabeth in 1903, leaving East London as the premier wool port of South Africa, a position which it retained until 1933. (See Table 8). Since that time it has been in second place to Port Elizabeth.

During the second world war, owing to the disorganisation of world shipping, the export of wool from South Africa was erratic and considerable stocks accumulated at the ports. In 1946, much of the stock which had accumulated was exported and this accounts for the abnormal export figure for that year. (16)

Wool exports remained more or less constant up to 1956 when they showed a considerable increase. This increase continued steadily, reaching its peak in 1966 with 96 927 tons, remained

TABLE 8

COMPARISON OF THE QUANTITIES OF WOOL EXPORTED THROUGH
THE FOUR MAJOR S.A. PORTS FOR THE PERIOD 1865 - 1975.

Year	Cape Town	Port Elizabeth	East London	Durban	Year	Cape Town	Port Elizabeth	East London	Durban
	Tons	Tons	Tons	Tons		Tons	Tons	Tons	Tons
1865	1 639	14 403	298	785	1893	4 302	17 242	11 111	12 034
1866	2 094	14 489	765	835	1894	3 073	12 534	11 162	8 897
1867	2 068	14 067	885	987	1895	4 064	16 325	11 899	9 725
1868	1 869	13 655	1 042	1 359	1896	3 644	18 859	13 505	12 769
1869	2 055	14 380	336	1 675	1897	2 515	15 667	11 358	10 078
1870	1 250	15 976	383	1 806	1898	3 382	18 847	14 032	12 146
1871	2 572	18 919	671	2 882	1899	3 688	16 543	13 866	10 218
1872	2 519	19 698	1 030	2 827	1900	1 631	5 426	6 319	1 276
1873	2 693	15 505	504	3 155	1901	3 006	13 607	15 376	x
1874	2 837	16 720	670	3 944	1902	3 597	18 864	16 516	x
1875	2 760	15 402	963	4 055	1903	3 352	13 060	15 705	x
1876	2 217	12 771	1 296	4 275	1904	2 588	13 142	15 818	x
1877	2 073	13 033	1 595	5 006	1905	No figures available.			x
1878	2 429	11 280	1 790	6 039	1906	2 903	14 809	16 869	8 935
1879	2 472	14 427	2 561	6 015	1907	3 317	16 571	17 928	10 132
1880	2 965	15 238	2 627	7 642	1908	3 244	16 098	19 551	14 976
1881	2 677	15 177	3 162	6 289	1909	3 303	21 013	25 231	12 059
1882	2 741	13 640	4 059	7 028	1910	No figures available.			
1883	2 219	11 878	4 493	7 913	1911	No figures available.			
1884	2 224	10 791	5 223	8 665	1912	4 232	22 991	29 486	23 358
1885	2 136	9 077	5 596	8 953	1913	4 266	24 581	32 440	26 592
1886	2 850	12 620	7 876	10 865	1914	3 275	16 645	26 456	19 688
1887	2 285	10 968	8 745	11 122	1915	3 977	22 651	32 055	25 386
1888	3 592	17 444	11 695	14 491	1916	4 519	17 934	27 937	16 955
1889	3 111	17 702	12 803	14 745	1917	3 462	17 718	21 317	15 767
1890	2 668	16 680	13 054	x	1918	5 180	15 229	20 520	16 888
1891	3 429	20 732	13 188	13 654	1919	6 212	30 033	38 785	21 513
1892	3 311	19 526	11 759	11 538	1920	3 260	17 495	22 183	16 432

TABLE 8 (CONTINUED)

COMPARISON OF THE QUANTITIES OF WOOL EXPORTED THROUGH
THE FOUR MAJOR S.A. PORTS FOR THE PERIOD 1865 - 1975.

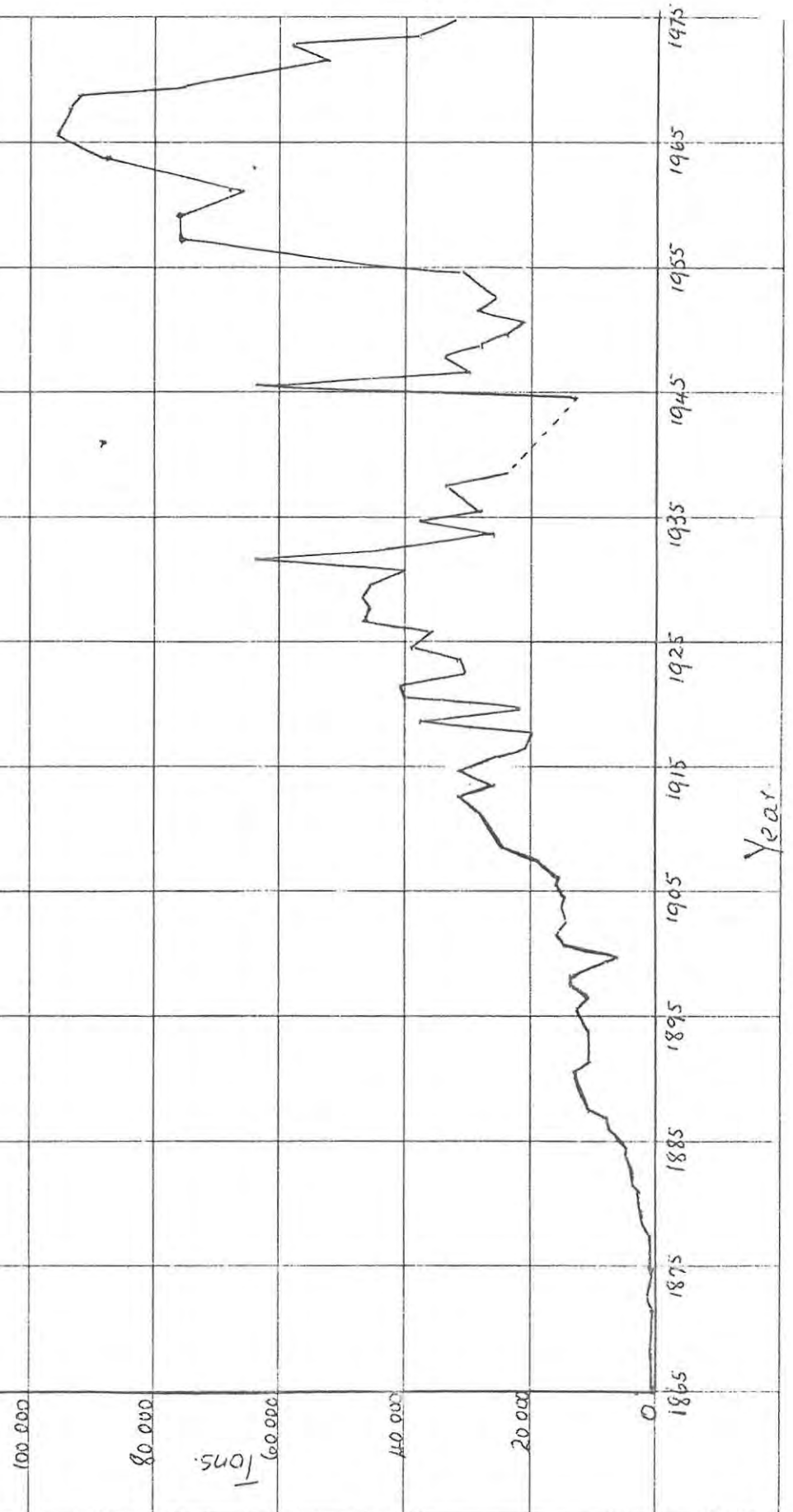
Year	Cape Town	Port Elizabeth	East London	Durban	Year	Cape Town	Port Elizabeth	East London	Durban
	Tons	Tons	Tons	Tons		Tons	Tons	Tons	Tons
1921	6 890	36 346	40 978	30 109	1949	11 135	41 494	28 372	19 577
1922	6 911	28 906	41 500	26 853	1950	12 834	41 831	24 238	20 015
1923	5 473	27 042	30 802	18 299	1951	13 891	39 592	21 528	17 945
1924	5 115	24 021	32 101	25 568	1952	14 582	49 391	29 652	23 912
1925	5 884	33 376	39 210	25 562	1953	16 068	46 281	26 874	24 241
1926	5 789	35 502	36 319	27 665	1954	17 549	47 967	28 710	25 052
1927	6 596	43 446	47 329	32 275	1955	21 504	50 584	31 918	26 067
1928	6 005	41 658	46 095	32 440	1956	48 142	124 989	76 063	61 096
1929	6 918	46 981	47 904	41 177	1957	48 964	123 413	77 216	60 377
1930	9 870	45 429	46 425	35 021	1958	49 955	115 007	66 843	54 359
1931	8 773	37 429	40 235	31 241	1959	43 491	100 649	64 006	60 126
1932	12 592	61 044	64 072	47 875	1960	56 113	142 184	85 332	70 766
1933	9 946	42 124	43 584	40 104	1961	44 072	110 017	72 127	63 455
1934	8 007	28 480	26 972	31 280	1962	53 054	133 385	94 183	82 614
1935	12 475	45 989	38 012	33 248	1963	49 238	121 800	78 681	74 076
1936	10 958	41 320	28 164	26 033	1964	56 995	133 790	87 872	92 290
1937	11 266	43 772	31 236	32 071	1965	61 109	138 127	92 215	101 320
1938	12 393	42 881	34 722	31 789	1966	57 238	133 928	96 927	90 787
1939	9 677	37 006	24 069	22 845	1967	54 051	129 473	95 139	84 103
1940	No figures available				1968	57 224	120 283	94 768	89 705
1941					1969	57 054	122 506	92 214	94 195
1942					1970	40 430	104 462	75 822	84 391
1943					1971	35 796	96 691	64 325	68 514
1944					1972	24 543	81 309	52 304	53 246
1945	11 333	41 748	13 458	10 496	1973	24 150	106 066	58 399	55 649
1946	27 087	81 063	64 275	60 929	1974	15 819	87 317	38 562	47 256
1947	15 173	41 644	30 329	25 031	1975	9 763	65 265	33 968	46 230
1948	12 463	42 481	34 649	21 077					

Source: From Records of the S.A.R. & H. Administration - East London Harbour.

Figure: 14

Wool Exports 1865-1975.

East London Harbour.



Source: 'data in Table 8'.

on a high level until 1969 and gradually started to decline from 1970 to 33 968 tons in 1975. All the harbours showed this trend from 1970.

The reason for this decline is given as a decrease in the national wool production of South Africa as a result of the Government's Stock Reduction Scheme, under which farmers were encouraged to reduce their stock of sheep, receiving a subsidy when they qualified as running a certain maximum number of sheep per hectare according to the classification of their grazing. Some farmers started cross-breeding for mutton purposes, foregoing wool production in favour of the meat-market, and others started with the Angora goat and the breeding of the "Boerbok". More wool is now being used for our own home markets and factories. The Wool Board regulates exports and marketing of wool according to demand and prices, sometimes withdrawing large stocks from the market to stabilize the wool price, so causing fluctuations in the export of wool.

The marketing of wool is centralised in the Wool Board, which is using the Pooling Scheme to market the wool. Under this scheme all the wool producers deliver their wool to the Wool Board, which acquires ownership before the wool is sold. The wool clip is then graded by the Wool Board and prepared for marketing. The farmers are paid an initial payment immediately, according to the grade of their wool, everyone receiving the same for the same grade of wool. At an appropriate later date the wool is marketed by the Wool Board, and when the whole clip is sold, the balance is paid out to the farmers by way of a final payment, under which they receive equivalent payments for the different grades. In this way the fluctuating prices on the market, whereby one farmer can receive a higher price for his wool than another, are eliminated.

In 1964 East London was again overtaken by Durban and since 1969 East London has moved down to third place in wool exports, leaving Port Elizabeth as the premier wool port of South Africa and Durban in second place. According to the Wool Board, the reason is that before the pooling system came into force, each farmer's wool was sold individually. The Wool Sales at Port Elizabeth and Durban, on the average, usually obtained

higher prices than at East London, with the result that many farmers were inclined to market their wool at Port Elizabeth and Durban, rather than in East London.

(v) Hides and Skins.

Although they were exported from 1865 onwards, it was not until 1878 that hides and skins assumed significant proportions. In the thirteen years preceeding 1878, Hides and Skins exported averaged only 69 tons per annum. Exports rose steadily to a peak figure of 6 000 tons in 1898, followed by a period of fluctuation until 1926. From 1927 onwards, the exports of Hides and Skins have shown a continuous downward trend. Since 1945, the highest figure recorded has been 2 544 tons, but even this is far below the lowest figure recorded in the years before the second world war. (I7)

This downward trend continued up to the present and East London has fallen into last place among the major South African ports as far as the export of this commodity is concerned, and was even overtaken by Walvis Bay. In 1974 and 1975 the exports of Hides and Skins were only 302 and 390 tons respectively. (See Appendix No. 6.).

An analysis of the rail traffic received at East London shows that the Border Region is the principal source of Hides and Skins exported through East London harbour. Small quantities were previously received from the North-Eastern Cape; the Orange Free State and Transvaal, but lately the Border Region has become the only source, the other areas mentioned sending their hides and skins to Port Elizabeth.

(vi) Wattle Bark.

Wattle Bark is exported only through East London and Durban, the nearest harbours to the wattle plantations, which are found mainly in the North-Eastern Coastal Region and the Eastern Transvaal. Natal is however producing more, as their area is stretching inland to the mountainous country of the Drakensberge.

The handling of Wattle Bark for export purposes proved to be clumsy, taking up valuable space, so recently it has been found more economical to switch over to the export of Wattle Bark Extract, rather than the bark itself. With the factory in Natal, the extract is so far only exported through Durban.

The quantity of Wattle Bark itself that was exported through East London over the five years 1971 to 1975 remained fairly constant up to 1974, but there was a considerable decrease in 1975 for no reason so far apparent. (See Appendix No. 6.)

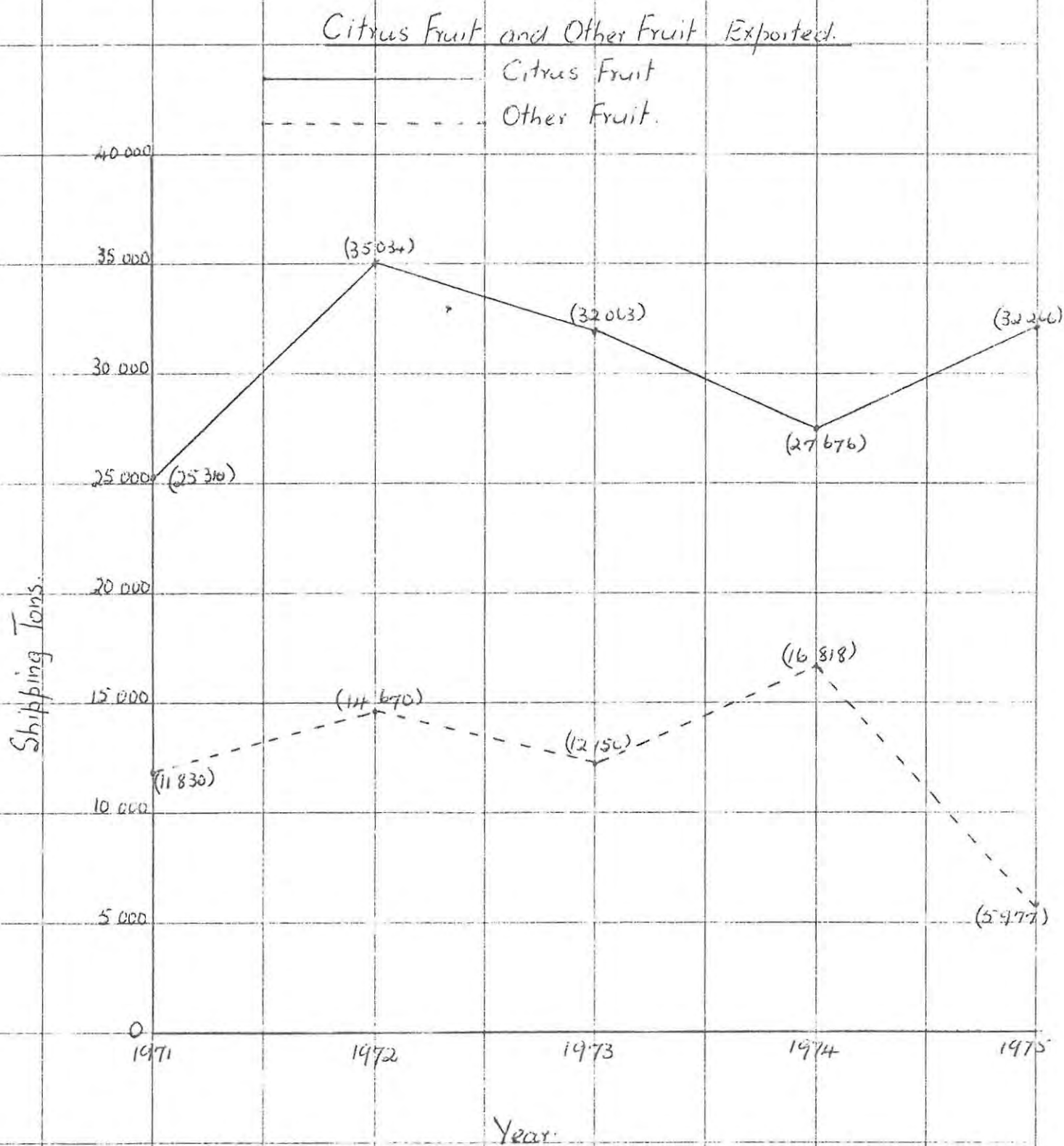
(vii) Citrus Fruit.

Although exported since 1921, Citrus Fruit was not a significant export through East London harbour until 1924. In the years following, this commodity has become of considerable importance in the export trade of the port. For the period before 1956, figures are not available, because only the quantity of export fruit received at East London was recorded, no indication being given as to how much was citrus and how much other types of fruit. In 1956, 20 742 tons of Citrus Fruit were exported through East London, and of this tonnage 10 741 tons came from the Transvaal. (18)

In comparison with the other major ports of South Africa, only a small percentage of Citrus Fruit is exported through East London, because the main areas where citrus is grown are the Eastern Cape, Sondag's River Valley, which is nearer to Port Elizabeth; the Southern and Western Cape which is nearer to Cape Town; Natal and the Transvaal Lowveld-area which exports through Durban.

With a modern pre-cooling plant at K-shed, which is capable of holding 3 000 tons of citrus (nearly 50 000 cases), East London provides facilities for the export of citrus fruit. The fruit is first cooled to a certain temperature in the chambers and then loaded into ships. The fruit exported through East London comes mainly from the Border Region - Alice, Fort Beaufort, Adelaide, Seymour and the Kat River area. According to an

Figure : 14 (a)



Source: 'data in Appendix 6'.

analysis of railway traffic received at East London, small quantities of citrus are also regularly received from the Transvaal every year.

The exports of Citrus Fruit over the years from 1971 to 1975 remained fairly constant, as indicated on the accompanying graph. (See Figure I4).

(viii) Other Fruit.

According to statistics, East London is the biggest exporter of fruit classified as Other Fruit. The Border Region is not suitable for the growing of Deciduous Fruit, but the climate suits very well the growing of subtropical fruit like pineapples, which is the major product of this area, grown in the coastal belt from the Kei River to Port Alfred. Pineapples are classified by the harbours as Other Fruit for statistical purposes.

Since the middle 20 s, exports of Other Fruit were recorded in boxes. Due to the heterogeneous nature of the commodity, it has not been possible to deduce a factor by which these boxes could be converted for comparison to more recent figures which are given in tons. The figures published by the Department of Customs and Excise do not indicate the nature of the fruit exported.

The Railways and Harbours Administration, however, recorded the quantity of pineapples exported through East London in Harbour Tons. (A Harbour Ton of pineapples - fresh or frozen - is calculated on the measurement basis of 40 cubic feet). Between 1934 and 1940 1 931 harbour tons of fresh pineapples were exported. (No figures before 1934). During the second world war and for some years afterwards, no fresh pineapples were exported, but in 1952 exportation was resumed.

The following figures were obtained for the exports of pineapples from 1952 to 1956. (19).

<u>Year.</u>	<u>Harbour Tons.</u>
1952	712
1953	1 933
1954	2 987
1955	3 576
1956	6 345

After 1956, Other Fruit was classified and included for export purposes under the item Produce. During 1952 the exportation of tinned and frozen pineapples through East London harbour commenced. Most of the pineapples are sent to factories where they are processed into tinned pineapple rings, pineapple juice and pineapple jam, exported and usually classified as General Cargo.

Large numbers of fresh pineapples are exported yearly, which accounts mainly for the high figure of Other Fruit exported through East London harbour. (See Figure I4). This item shows a fairly constant export, except for a considerable decrease in 1975.

(ix) Bunker Oil.

Bunker Oil as an export commodity is only for ships arriving at port and refuelling. As the sea traffic at East London harbour is almost the lowest of all the South African ports in respect of arrivals of ocean-going ships, coasters, trawlers and whalers, the export of Bunker Oil is also the lowest.

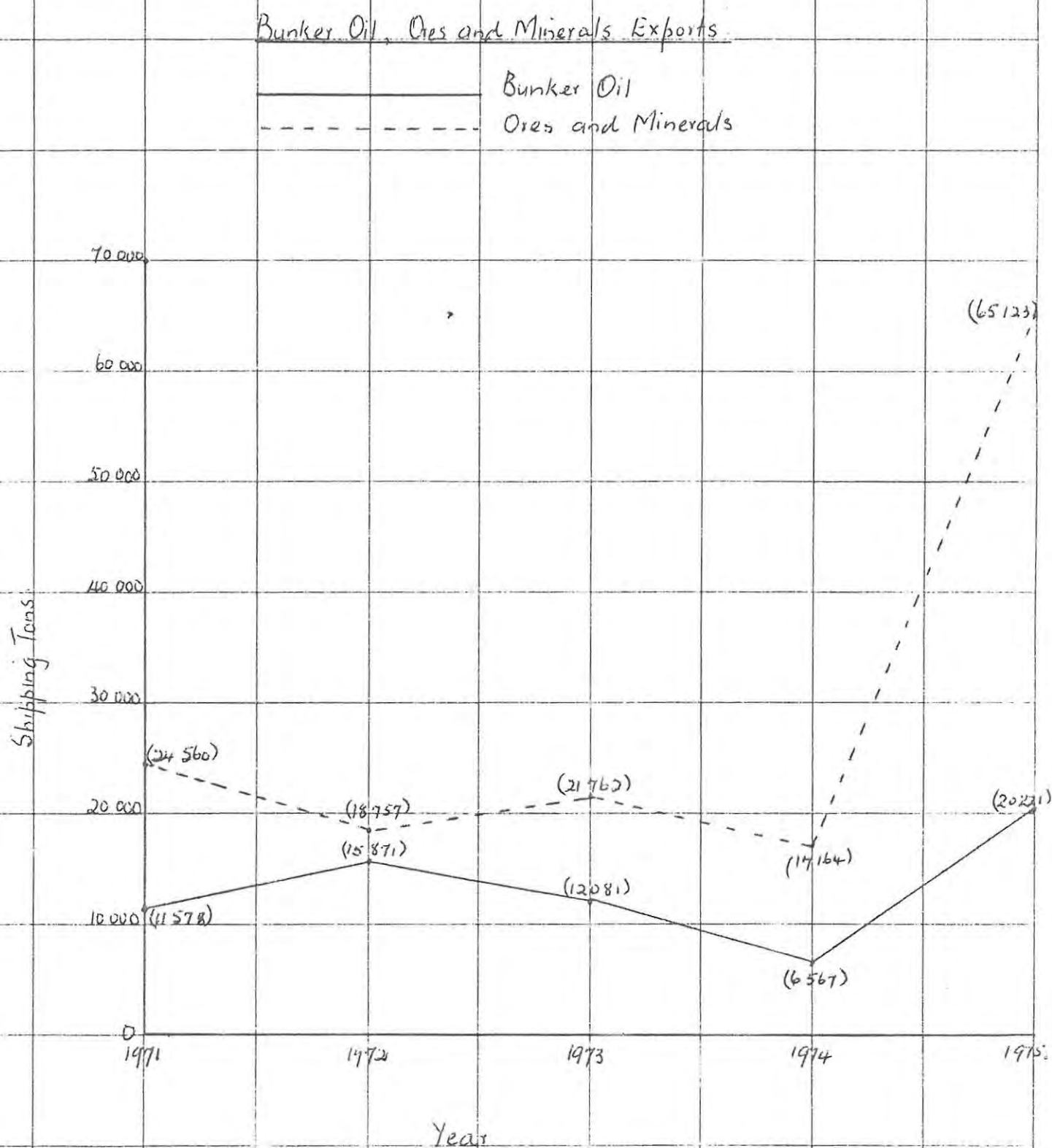
Taking into consideration the position of East London between the terminal ports, and the relatively short distance of East London from Port Elizabeth and Durban, there will naturally not be a big demand for Bunker Oil. The export figures remained fairly constant except for a big decrease in 1974, as indicated on Figure I5.

(x) Ores and Minerals.

In comparison with the other harbours, only a small percentage of our ores and minerals are exported through East London, due to the geographical distribution of our export ores and minerals in areas mostly far from East London.

The ores and minerals exported through East London consist mainly of Asbestos from Rhodesia, Phalaborwa and Draghoender(North-West Cape), Illemenite ore and Leucoxene or mineral sand from Pofadder in North-West Cape.

Figure : 15



Source : 'data in Appendix 6'.

The exports remained fairly constant over the period under review (see Figure I5) except for I975 when there was a very big increase because Angolan ports were closed as a result of its internal war and most of Zaire's copper ore exports were diverted and exported through East London, on the recommendation of the S.A.R.&H., as the port was under-utilised.

b. Total Cargo Exported.

Exports through East London harbour are predominantly agricultural raw materials or agricultural products which have undergone a certain amount of processing.

From I885 to I908 exports were very low and insignificant (see Figure 9 and Appendix No. 3). From I909 to I953 there was a small increase but no wide fluctuations of exports, with a peak in I925 of 239 407 tons and a low in I944 of 33 705 tons. From I954 there was a steady and continued increase to 790 645 tons in I964. The last ten years from I965 to I975 showed remarkably wide fluctuations. Exports increased to more than five times those of the previous year between I967 and I968, followed by a peak of 2 045 240 tons in I973, fell to 527 061 tons in I974 and rose again to I 891 648 tons in I975.

These fluctuations in total exports are due to the fact that the main export commodity of East London harbour is Maize and Maize Products. In I97I only about one-third of the normal tonnage of maize was exported and in I974 about one-tenth of the normal tonnage, due to poor maize harvests in those years. This is immediately reflected in the total export, because Maize and Maize Products comprise about 80% of East London's total exports.

The other export commodities as a whole did not show much fluctuation, except in a few cases which were mentioned when the individual export items were discussed.

c. Destination of Exports.

South Africa has always been highly dependent on the markets of a relatively small number of countries. In I972, for example, 82% of our merchandise exports went to the

United Kingdom, West Germany, Belgium, The Netherlands, France, Italy, The United States of America, African Countries and Japan.

The concentration of South Africa's merchandise exports is evident from the fact that 80 - 90% of exports of each item goes to these trading partners, although exports to the United Kingdom cover a wider range than those to other countries.⁽²⁰⁾

The main groups of exports (see Appendix No. 7) according to the value in money are :

Gold.

Manufactured Goods.

Raw Materials (Inedible).

Food and Livestock.

Diamonds (Uncut and Cut).

Machinery and Transport Equipment.

Chemicals.

Beverages and Tobacco.

Animal and Vegetable Oils and Fats.

Miscellaneous Manufactured Articles.

General.

The destination of these main groups of exports (see Appendix No. 8) calculated in R.Million and based on 1972 statistics are in order of importance :

United Kingdom.

United States of America.

West Germany.

Japan.

Other Asian Countries.

African States.

Switzerland.

Sweden.

Canada.

Unspecified Countries.

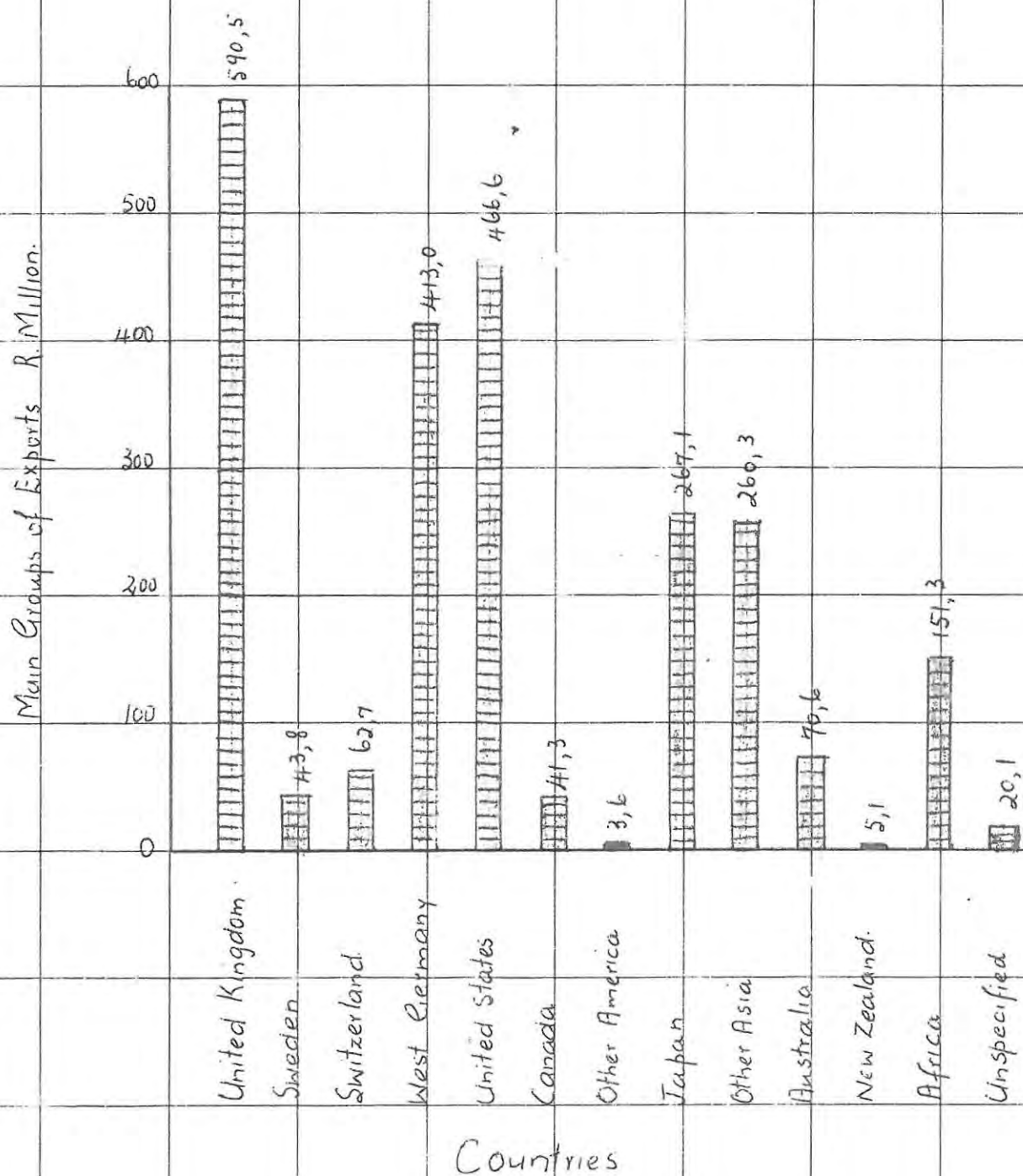
New Zealand.

Other American Countries.

These exports are shown in Figure I6. Merchandise exports also include Belgium, The Netherlands, France and Italy. ⁽²¹⁾

Figure: 16

South African Exports 1972.



Source: 'data in Appendix 8'.

The main export item, Maize and Maize products, goes mostly to Japan, with smaller quantities to England, West Germany, Italy, Belgium and Mauritius. The other important export items such as General Cargo, Wool and Fruit are exported in order of priority mainly to the United Kingdom, the United States of America, Japan and West Germany. The bulk of East London harbour's exports go Eastward, towards Japan and other Asian Countries.

d. Summary.

The import trade through East London harbour from 1860 has, with only a few exceptions, far outweighed the export trade for a very long period. After more than a century, only in 1964 did exports take the lead for the first time, but lost it again to imports from 1965 to 1967. From 1968 to 1975 imports and exports fluctuated widely, changing the leading rôle alternately about every second year : 1968 and 1969 exports; 1970 and 1971 imports; 1972 and 1973 exports; 1974 imports and 1975 exports.

It was not possible to obtain quantitative figures of the commodities imported, but using value as a guide, up to 1904 the following three commodity groups were the most important:

- (i) Clothing and Textiles;
- (ii) Foodstuffs and Grain;
- (iii) Metals, Metal Manufactures and Machinery.

At various times each of these groups held first place. Since 1915, these three groups have been joined by a fourth : Oils, Waxes, Paints, Varnishes and Motor Spirit. These four groups accounted for three-quarters or more of the total annual value of goods imported through East London. Since 1925, the Metals, Metal Manufactures and Machinery group has accounted for a greater percentage of the total value of imports than any other group, but from 1956 the commodities classified as General Cargo, which includes oil, dominated imports completely, being nearly 95% of total imports from 1971 to 1975.

Exports started slowly at a very low figure, but after a period of comparative stability, increased slowly to reach

154 564 harbour tons in 1915. A period of fluctuation followed, reaching 198 587 harbour tons in 1932. This was followed by a steady decrease which was not arrested until after 1944. Since 1945, there has been a steady increase in the quantity of goods exported through East London. The figure for 1955 was 270 981 harbour tons, which represented an increase of 118,8% over 1938. Exports continued increasing steadily and in 1964 exceeded imports for the first time; in 1968 they passed the one-million ton mark and in 1973 the two-million ton figure.

Up to the end of the first world war in 1918, exports through East London consisted predominantly of Wool, Hides and Skins, and Angora Hair. Other commodities were exported from time to time, but their export was erratic. From 1919, a greater variety has been introduced into the commodities exported through the harbour, the most important of the new products being Maize and Maize Products and Citrus and Other Fruit. Although Maize and Maize Products has dominated exports since then, at times reaching 80% of total exports, it has always been an irregular export.

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- (I) Hugh H. Smith: The Transport System of the Border, Volume I. Pages 42 and 43.
 - (2) *ibid* : Page 43.
 - (3) *ibid* : Pages 46 and 47.
 - (4) *ibid* : Page 50.
 - (5) State of S.A. Yearbook 1971 : Page 196.
 - (6) *ibid* : Page 197.
 - (7) State of S.A. Yearbook 1974 : Page 564.
 - (8) Smith : *op cit* : Page 52.
 - (9) Report by Mr. J. Connacher upon : The Distribution of Oversea Traffic between the S.A.R. and upon certain matters relating thereto : published, without reference in Pretoria in 1908.
 - (10) Smith : *op cit* : Pages 52 - 54.
 - (11) *ibid* : Page 59.
 - (12) Classification obtained from the Port Manager's Office at East London Harbour.

- (I3) Passenger Statistics were only taken for five years 1971-1975.
- (I4) Smith : op cit : Pages 63 and 64.
- (I5) East London Daily Dispatch : January 6, 1958.
- (I6) Smith : op cit : Page 62.
- (I7) ibid : Page 63.
- (I8) ibid : Page 66.
- (I9) Unpublished Reports of the Port Goods Superintendant,
S.A.R. , East London.
- (20) State of S.A. Yearbook 1974 : Page 565.
- (21) ibid : Page 595.

Chapter 4.

Coastwise Trade of East London Harbour.

- (a) Coastwise Trade.
- (b) Cargo Shipped Coastwise (Exports).
- (c) Cargo Landed Coastwise (Imports).
- (d) Summary.

(a) Coastwise Trade.

Apart from overseas imports and exports, a considerable traffic of imports, exports and transshipments exists between the harbours themselves. This cargo shipped between harbours is usually given as General Cargo (see Chapter 3) and is mostly transported by coasters.

To explain why preference is given by importers to coastwise sea transport instead of rail transport overland, comparison was made for a typical commodity to be transferred from Cape Town to East London and also from East London to Durban by sea or by land.

One bale of South African manufactured Textiles, weighing 1 000 kg was taken as an example, and distance, time taken and cost compared. The distance from Cape Town to East London is 887 km by sea and 1 412 km by rail. Time taken by sea is 2 - 3 days and by rail 7 - 10 days. The cost (freight) by sea is R15,30 and by rail (Tariff I) R127,25. From East London to Durban the distance by sea is 407 km and by rail 1 399 km. (nearest route via Bloemfontein). The time taken by sea is 1 - 2 days and by rail 7 - 10 days. The cost by sea (freight) is R14,35 and by rail (Tariff I) R124,85.

Comparative Table.

(1 Bale of Textiles of 1 000 kg.)

From Cape Town to East London:			
	Distance (km)	Time (Days)	Cost
By Sea	887	2-3	R15,30
By Rail	1 412	7-10	R127,25

From East London to Durban :

	Distance (km)	Time (Days)	Cost
By Sea	407	1 - 2	RI4,35
By Rail	1 399	7 - 10	RI24,85

There is no freight surcharge on coastal shipping, and even with the shipping agent's fees and stevedoring, it is far cheaper to use coastal shipping, which has advantages over rail transport in cost, time and distance.

(b) Cargo Shipped Coastwise (Exports).

The total cargo shipped coastwise from East London harbour is given in Table 9 and in Figure I7. The cargo shipped to each of the four major ports, Durban, Port Elizabeth, Cape Town and Walvis Bay is listed, and the total figure to the smaller harbours - i.e. Mossel Bay, Port Nolloth, Luderitz, Lamberts Bay, Saldanha Bay and St. Helena Bay - is combined under the heading Other Ports.

The total exports shipped coastwise from East London harbour for the period 1956 to 1964 ⁽¹⁾ showed considerable fluctuation, with a peak in 1959 of 35 216 tons and low figures in 1957 and 1962 of 23 673 tons and 22 362 tons respectively. From 1964 to 1970 there followed a period of stable exports fluctuating very little above or below the average, but after 1970 there followed a period of considerable continued increase in exports, reaching a peak in 1974 of 50 130 tons, but decreasing considerably the following year, 1975, to 32 047 tons. (See Figure I7).

The destinations of coastwise exports to the four major ports from East London harbour are also given in Table 9 and separately in Figure I8. Table 9 shows that the bulk of East London's coastwise exports go to Durban, which has shown the highest figures from 1956 onwards, with the exception of Cape Town in 1972 and 1973, when mineral ores diverted to East London for export were transhipped to Cape Town. These exports to Durban show quite a wide fluctuation above and below the average,

TABLE 9

CARGO (HARBOUR TONS) SHIPPED COASTWISE FROM EAST LONDON
(GENERAL CARGO)

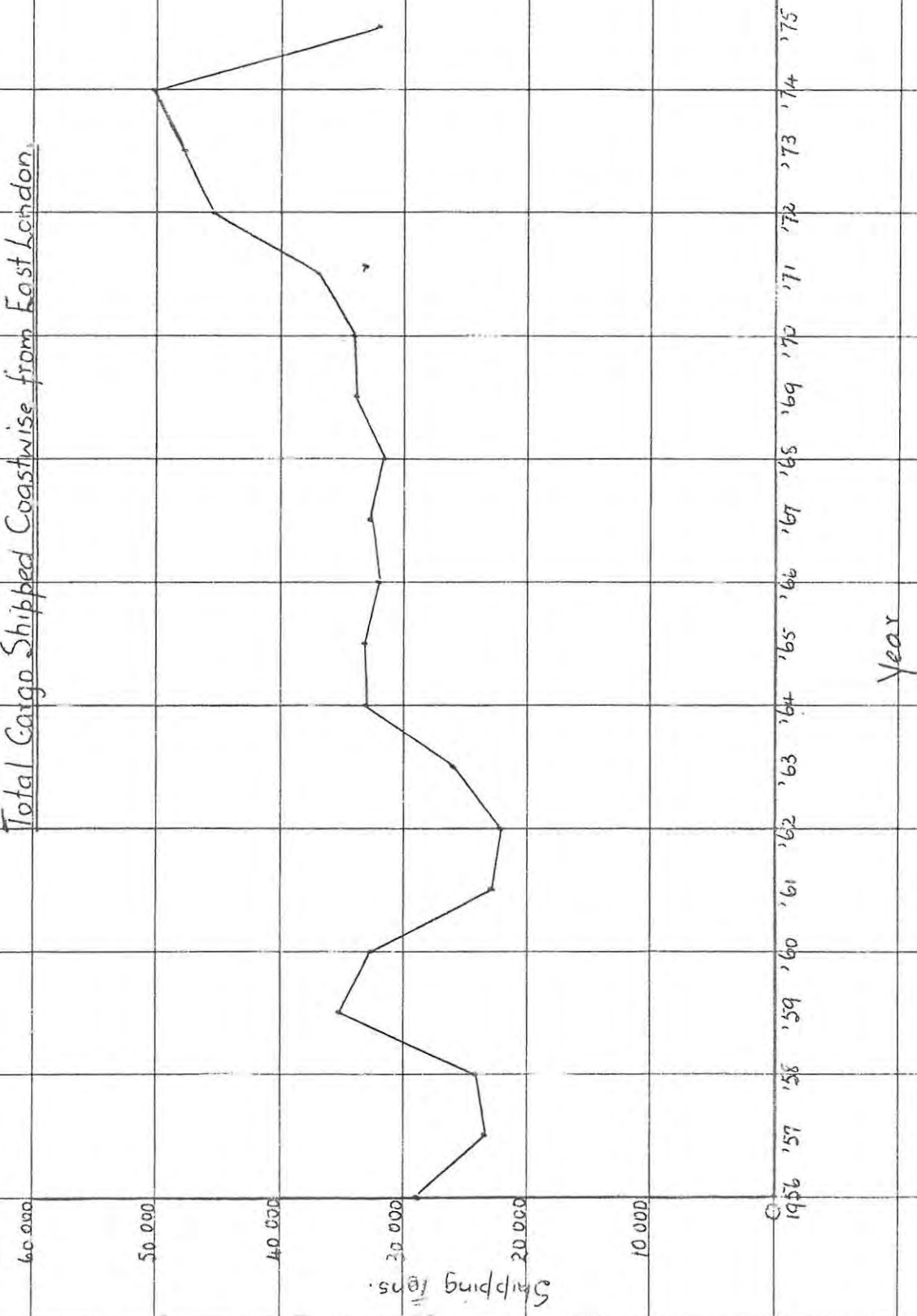
From East London to	Durban	Port Elizabeth	Cape Town	Walvis Bay	Other Ports	Total
1956	14 412	1 346	12 556	556	98	28 968
1957	14 737	1 021	7 054	677	184	23 673
1958	14 678	1 484	7 429	632	105	24 328
1959	21 686	2 423	10 059	942	106	35 216
1960	20 245	1 922	9 868	831	109	32 975
1961	12 989	1 455	7 633	888	33	22 998
1962	10 272	1 859	9 138	725	368	22 362
1963	13 585	2 981	8 585	887	151	26 189
1964	15 582	6 116	10 413	1 018	68	33 197
1965	13 254	5 804	13 181	1 162	36	33 437
1966	13 225	5 056	12 367	1 290	63	32 001
1967	12 911	5 077	13 589	1 304	56	32 937
1968	13 240	3 726	12 756	1 903	26	31 651
1969	16 890	4 887	10 364	1 823	25	33 989
1970	15 111	5 098	13 035	603	284	34 131
1971	15 790	5 534	15 241	449	-	37 014
1972	17 871	2 339	25 153	299	-	45 662
1973	21 608	1 278	24 681	357	-	47 924
1974	26 900	3 028	19 409	793	-	50 130
1975	19 945	831	11 178	93	-	32 047

Note: Other Ports are: Mossel Bay, Port Nolloth, Ludertiz,
Lamberts Bay, Saldanha Bay, and St. Helena Bay.

Source: From Records of the S.A.R. & H. Administration -
East London Harbour.

Figure: 17

Exports.
Total Cargo Shipped Coastwise from East London.

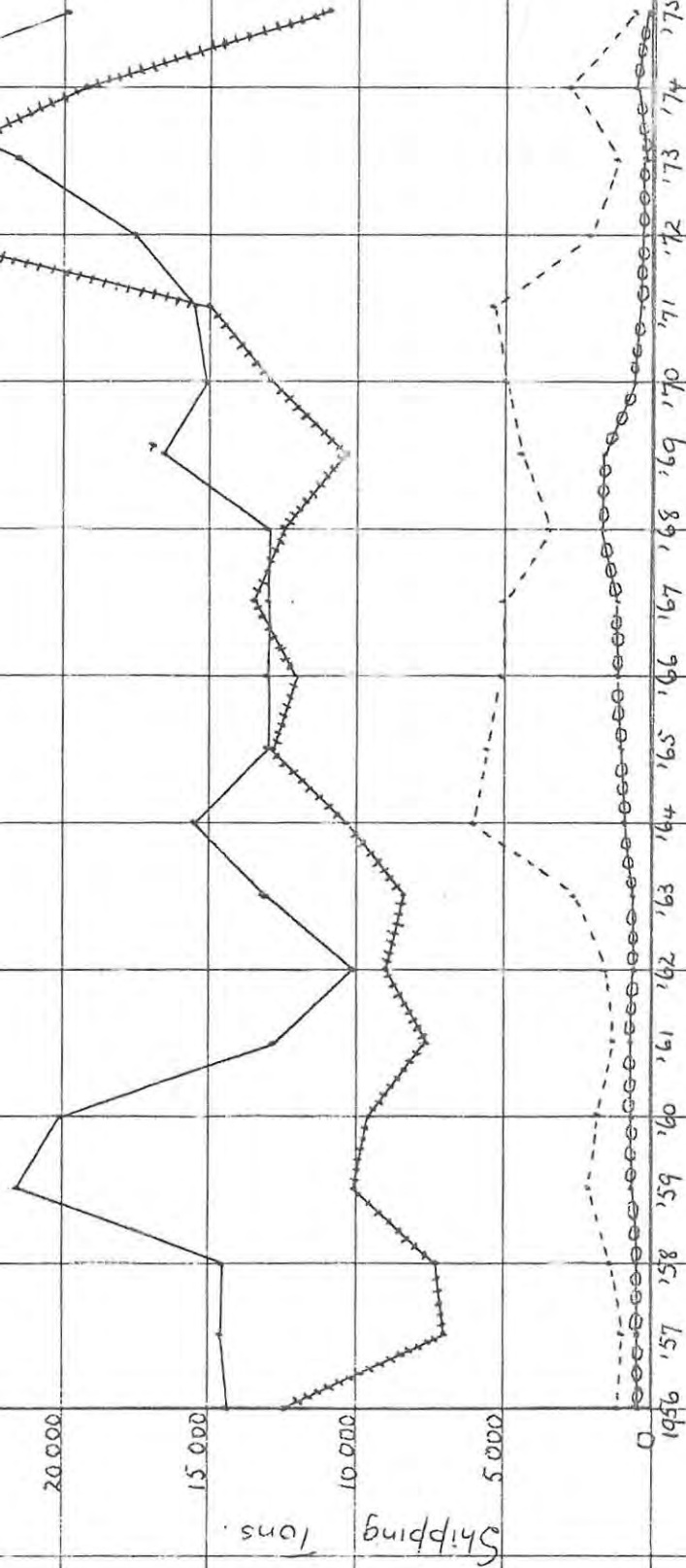


Source: 'data in Table 9'.

Figure 18

Exports.
Cargo Shipped Coastwise from East London to:

Durban
 Port Elizabeth
 Cape Town
 Natalis Bay



Year

Source: 'data in Table 9'.

with a peak in 1959 of 21 686 tons, another peak in 1974 of 26 900 tons and the lowest in 1962 with 10 272 tons.

In second position is Cape Town. Although exports to Cape Town decreased at the beginning of the period to the lowest figure of 7 054 tons in 1957, it has shown a steady increase since then, being more or less level with Durban from 1965 to 1968, taking the lead in 1972 and 1973 with its peak in 1972 of 25 153 tons, but declining sharply after that to 11 178 tons in 1975.

Coastwise exports to Port Elizabeth are comparatively low, starting with only 1 346 tons in 1956, then showing a gradual incline to a peak in 1964 of 6 116 tons, remaining more or less constant on this figure up to 1971, then declining again to only 831 tons in 1975.

The export traffic coastwise to Walvis Bay is insignificant, with the highest figure in 1968 of only 1 903 tons. (See Figure 18).

(c) Imports Coastwise (Cargo Landed).

The total cargo shipped coastwise to East London harbour is given in Table 10 and Figure 19. Only the cargo shipped from the four major ports, Durban, Port Elizabeth, Cape Town and Walvis Bay is listed; the figures from the smaller harbours (mentioned under exports) are combined under the heading Other Ports.

The total imports shipped coastwise to East London harbour from 1956 showed a steady increase with little fluctuation over the years 1972 to 1975. It started at the lowest figure of 112 754 tons in 1956, reaching its peak in 1974 with 229 649 tons, more than double the figure at the beginning of the period. (See Figure 19).

The origins of imports coastwise from the four major ports to East London harbour are given, in Table 10, and then separately in Figure 20. These show that the main coastal trade and imports to East London come from Durban, with about 75 - 80% of the total cargo received. This traffic started in 1956 with 84 372 tons and reached its peak in 1974 with 176 648 tons.

TABLE 10

CARGO (HARBOUR TONS) SHIPPED COASTWISE TO EAST LONDON
(GENERAL CARGO)

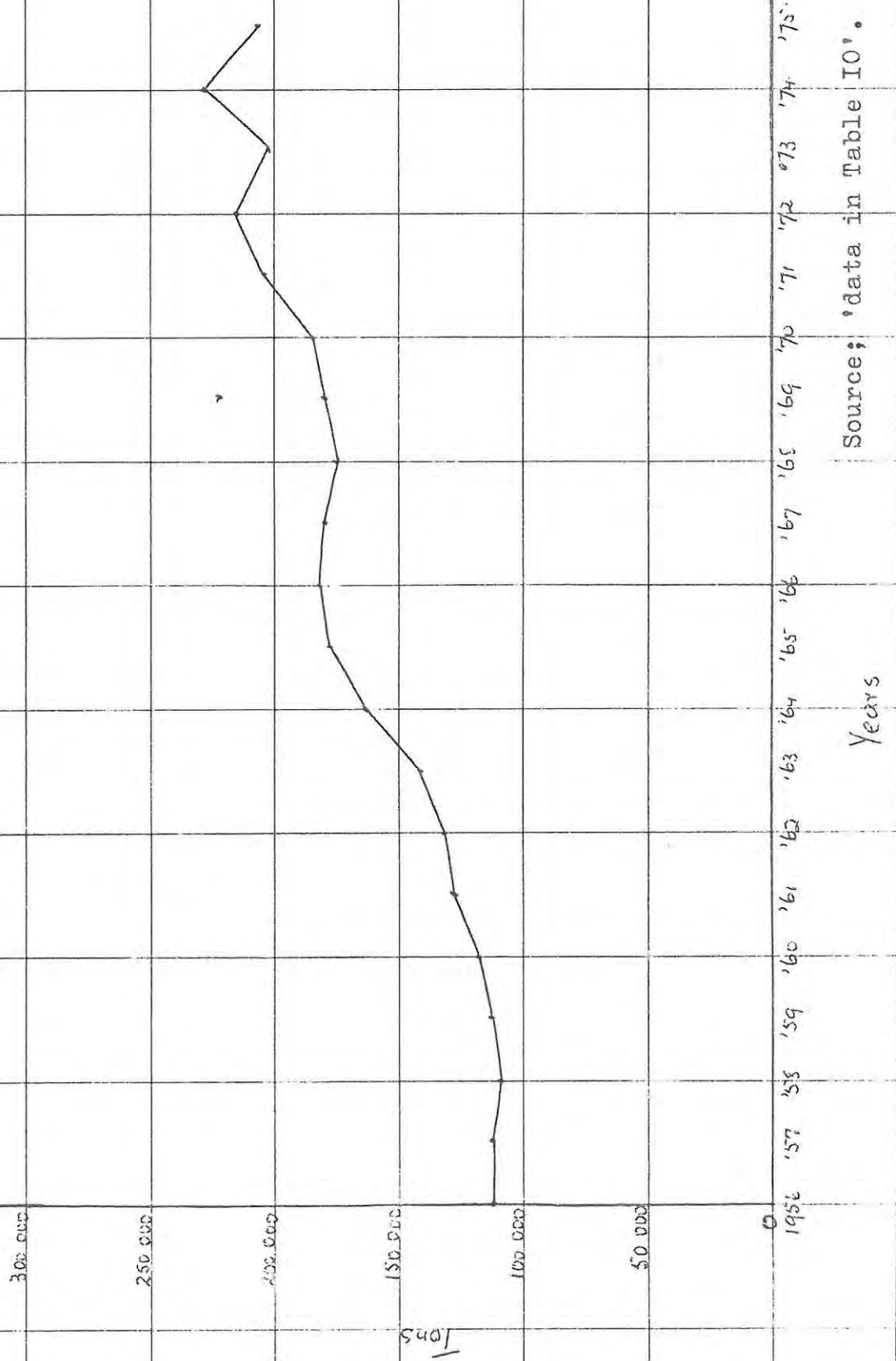
To East London from	Durban	Port Elizabeth	Cape Town	Walvis Bay	Other Ports	Total
1956	84 372	3 816	24 063	281	267	112 754
1957	90 883	4 106	18 067	193	43	113 292
1958	90 863	2 627	16 549	92	279	110 410
1959	89 352	4 657	17 664	335	2 236	114 244
1960	91 935	4 921	20 013	447	151	117 467
1961	103 592	7 738	19 016	299	193	130 838
1962	105 677	8 084	17 653	458	139	132 011
1963	108 870	9 776	21 613	526	1 340	142 125
1964	119 229	12 526	30 858	1 860	333	164 806
1965	127 069	14 712	33 286	3 364	310	178 741
1966	129 371	14 129	34 545	3 616	339	182 000
1967	130 595	14 114	33 463	3 238	310	181 720
1968	125 957	15 187	32 137	4 036	286	177 603
1969	126 907	15 553	34 412	3 488	1 042	181 402
1970	131 172	15 088	35 766	2 912	1 012	185 950
1971	141 022	16 373	43 877	3 246	-	204 518
1972	159 809	8 872	42 415	3 745	801	215 642
1973	159 240	5 666	34 274	4 053	595	203 828
1974	176 648	6 788	38 833	7 113	267	229 649
1975	164 159	1 097	34 104	7 935	317	207 612

Note: Other Ports are: Mossel Bay, Port Nolloth, Luderitz,
 Lamberts Bay, Saldanha Bay and St. Helena Bay.

Source: From Records of the S.A.R. & H. Administration -
 East London Harbour.

Figure 19

Imports:
Total Cargo Shipped Coastwise to East London.



Source: data in Table IO.

Imports.

Cargo Shipped Coastwise to East London from:

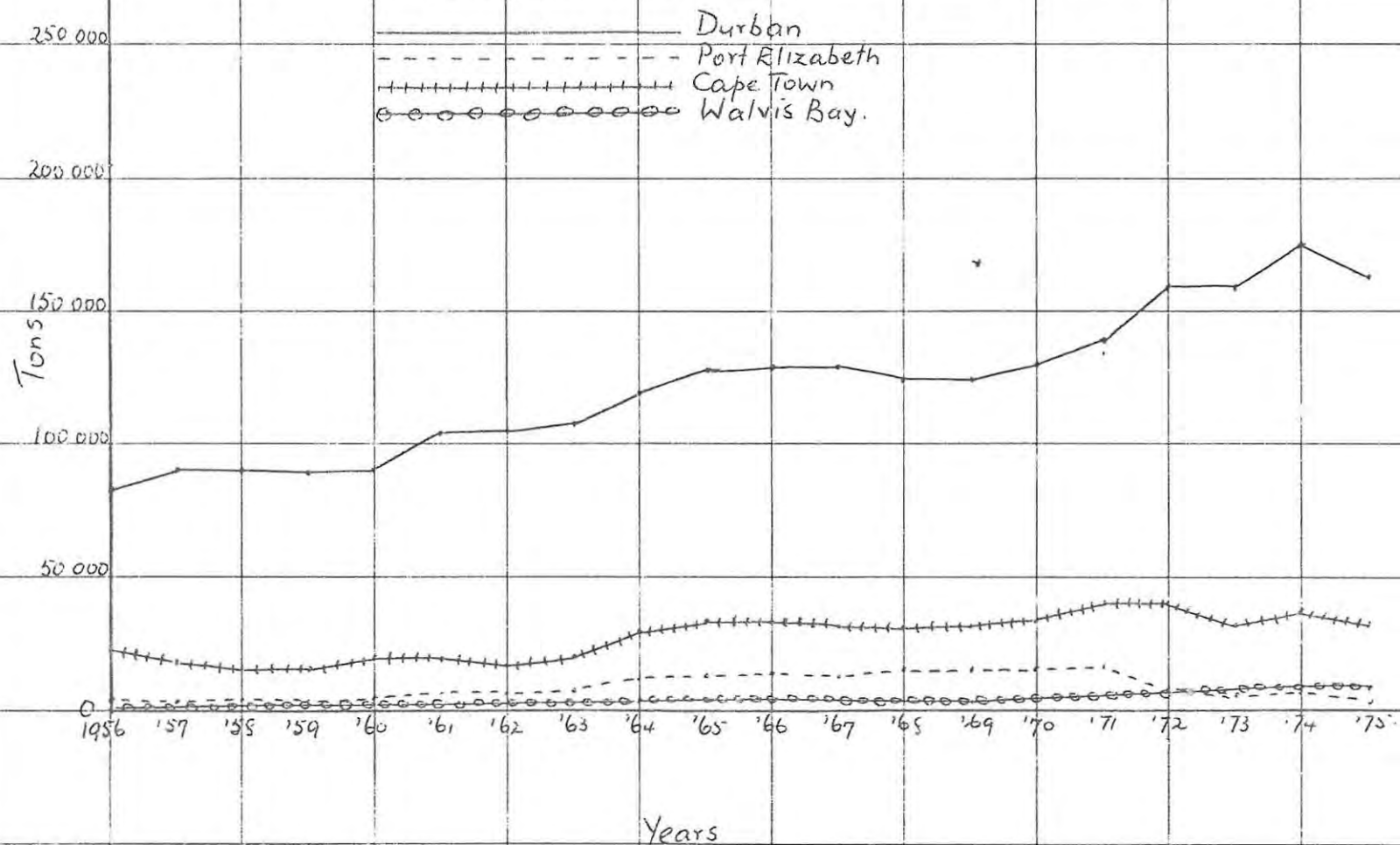


Figure 20

Source: 'data in Table IO'.

Imports from Durban show a steady increase throughout the period under review except for a small decline from 1974 to 1975.

Second is Cape Town, with considerably less than Durban, being the origin of only about 15 - 20% of total imports. The trade coastwise from Cape Town shows very little fluctuation, with only a small increase over the whole of the period; the lowest was in 1958 with 16 549 tons and the highest in 1971 with 43 877 tons.

Imports from Port Elizabeth are very low, showing little fluctuation over the period under review, the highest imports being 16 373 tons in 1971.

Although imports from Walvis Bay are negligible (see Figure 20) they showed a tendency to increase over the last two years, 1974 and 1975, with the highest figure of 7 935 tons in 1975. (See Table 10).

(d) Summary.

Considering the total coastwise trade to and from East London harbour, one notes that imports are approximately five times as great as exports. (See Tables 9 and 10). East London is, therefore, mainly an importing harbour in the coastal trade. This may be attributed to the fact that East London and its hinterland is not a highly industrialized area, producing mostly agricultural products and importing manufactured goods.

Exports coastwise comprise mainly Pineapples and Pineapple Products, Animal Products, Timber (Stutterheim and Transkei areas), Vehicles (Mercedes-Benz cars, the assembly plant being in East London) and empty Containers. Imports coastwise comprise Prepared Foodstuffs, Beverages, Mineral Products, Chemical and Rubber Products, Textile and Footwear Products, Machinery and Electrical Equipment, Paper and Timber, Vehicles and Spares etc.

It is noticeable, when comparing trade to and from the different harbours, that coastwise trade is very heavy between East London and Durban and between East London and Cape Town, because the bulk of East London's cargo is landed and shipped

from or to these two ports - e.g. Food, Beverages (liquor), Base Metals, Chemical Products, Footwear from Cape Town, and Sugar, Textiles, Machinery and Electrical Equipment, Paper and Timber, Vehicles and Spares from Durban.

With containerization on the way this tendency will continue, as East London is designated only as a feeder port for containers. Containers consigned to East London from overseas are landed at Cape Town and transported coastwise to East London while containers exported from East London are shipped coastwise to Durban, as well as empty containers returned.

(I) No reliable figures on coastal shipping, for comparative purposes were available before 1956.

Chapter 5.

Comparison of East London's imports and exports with total imports and exports of South Africa and also with those of the other major South African Harbours.

1. East London's imports and exports compared with total imports and exports.
2. Comparison of East London Harbour with other S.A. Harbours.
 - a. Overseas Trade.
 - b. Coastwise Trade.
 - c. Comparison of Commodities.
 - d. Comparison of Harbour Facilities.
3. Conclusion.

In January, 1848, East London was proclaimed a commercial port. During the years immediately following this proclamation, East London occupied a very insignificant position among the ports of South Africa. Nearly the whole of its import and export trade was carried on coastwise to and from Cape Town, for the mercantile houses at East London's port were merely offshoots of the Cape Town houses.

- I. East London's imports and exports compared with total imports and exports.
 - a. Imports.

In 1865, the value of goods imported through East London represented only 3,1% of the total value of goods imported through Cape Town, Port Elizabeth, East London and Durban, and by 1870 this figure had fallen to 1,9%. It is apparent, therefore, that before 1871 East London, compared with the other three major South African ports, was of little importance. The reason was that little had been done to improve the mouth of the Buffalo River, and no railway line had yet been constructed to help open up the hinterland of the port.

By 1875, East London's share of imports into South Africa had risen to 8,3%; for the years 1880, 1885 and 1890 it averaged

12,5% ; and in 1895 reached its highest figure to date of 18,8%. In the years between 1900 and 1915, East London's share of South Africa's imports remained fairly stable, varying between 11,0% and 14,5%, the average being 12,9%.

Before the outbreak of the Second World War, East London's share of South Africa's imports was also fairly stable, varying between 9,9% (1925) and 7,8% (1935), the average being 8,3%. In 1945, the percentage was as low as 5,1%, but this was an exceptional year in which the repercussions of the war were still being felt. After the war, the figure increased once more to 9,4% in 1950 and 9,8% in 1955. (1)

From 1950 to 1960 followed a period where imports remained constant, with 9,5% in 1960, but after 1960 the imports through East London showed a steady decline to 7,0% in 1965, 6,3% in 1970 and 4,7% in 1975. This downward trend in East London's imports was largely accounted for by the differential sea freights imposed by the overseas shipping lines. There are two rates, of which Cape Town and Port Elizabeth enjoy the lower one, and freight through East London and Durban pays the higher one. This puts East London at a disadvantage in two respects. Imports to the hinterland of the Eastern Cape will tend to go through Port Elizabeth with its lower sea freight rate : imports for the Witwatersrand and the Southern Transvaal will naturally go to Durban, for the same sea freight as to East London, but with the advantage of a far shorter rail route to their final destination. (See Table II). Another reason was the congestion surcharge imposed by the Lines on East London during 1974, which had a detrimental effect on its imports. (See Figure 2I and Appendix No. 9).

(b) Exports.

In 1875 the value of exports through East London harbour assumed significant proportions for the first time, but even then this represented only 2,9% of South Africa's exports. By 1884, there was a marked increase in the value of exports passing through East London harbour. In 1885 its share of the total exports of South Africa rose to 16,2% and in

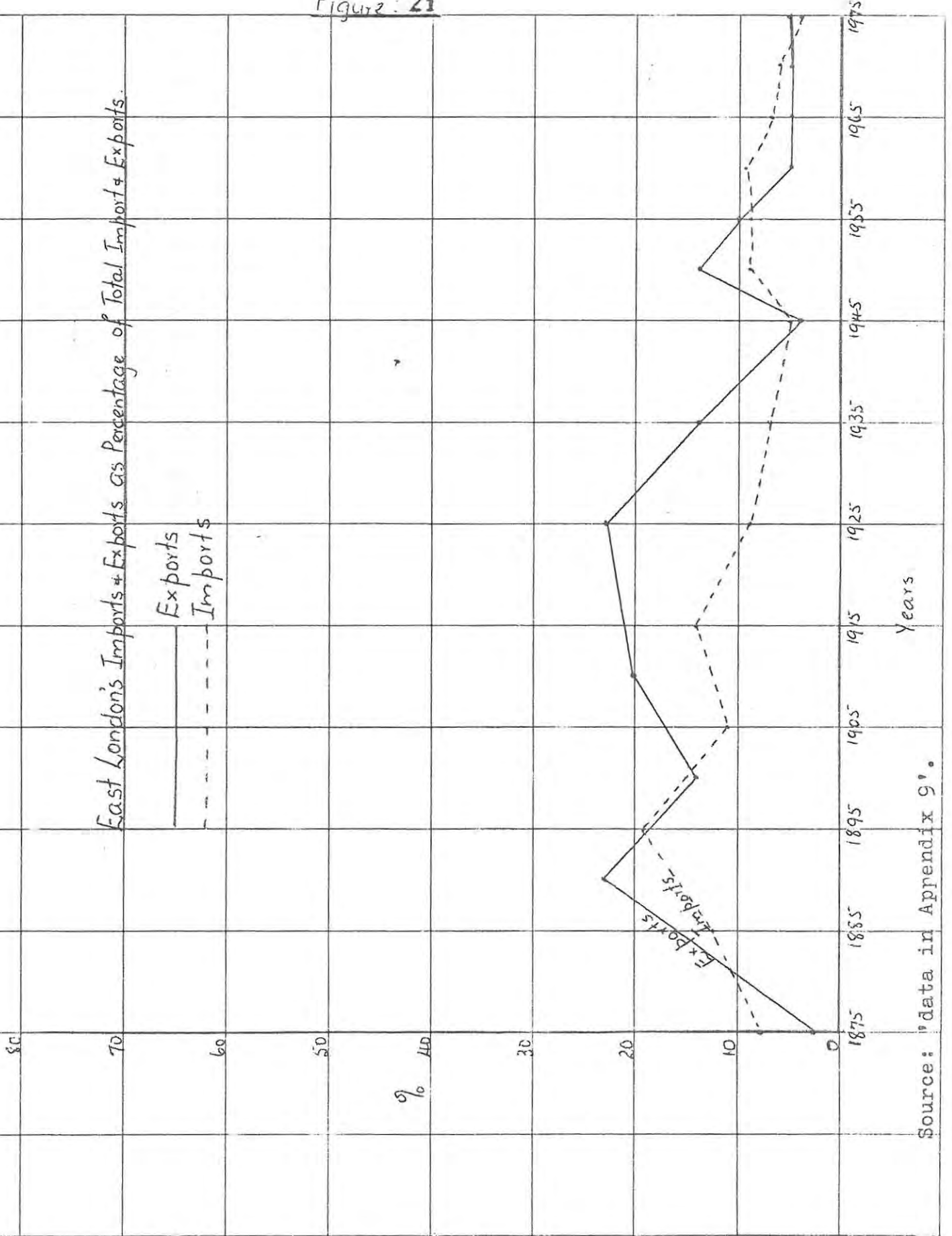
Table II.

Freight Rates from the United Kingdom / Continent
to South African Ports. (Class IO).

United Kingdom/Continent to :

	<u>Per Cub. Metre.</u>	<u>Per I 000 Kgs.</u>
	(whichever the greater) //	
East London/Durban	\$100,49	\$III,74
Cape Town/Port Elizabeth	\$ 99,92	\$III,I7
Difference	\$,57	\$,57

Figure 21



Source: "data in Appendix 9".

rise to a peak in 1890 of 23,1%. After 1890 there followed a period of decline and exports had fallen to 14,4% in 1900, due to East London's dependence on the exports of agricultural raw materials and wool, which were seriously affected by the Anglo-Boer War.

From 1904 to 1925, East London enjoyed a fairly stable share of South Africa's exports, varying between 20,9% to 23,7%, the average being 21,8%. Between 1930 and 1939 there was a steady decline in the share of South Africa's exports passing through East London, and this continued during the Second World War. The figure in 1945 was only 4,5%, reflecting the unsettling effect of the war on international trade. By 1950, however, the percentage had risen to 14,3% - approximately the same as in 1935, when it was 14,5%. (2) After 1950 there was again a steady decline in the port's share of exports, which fell to 10,3% in 1955 and to 5,2% in 1960. From 1960 onwards the percentage of exports remained almost unchanged being again 5,2% in 1965, 5,2% in 1970 and 5,9% in 1975. (See Figure 21).

2. Comparison with other harbours.

a. Overseas Trade.

(i) Imports.

The total overseas traffic, cargo landed and cargo shipped, for all major harbours - Durban, East London, Port Elizabeth, Cape Town and Walvis Bay - is given in Appendix No. 9. Figures for the smaller harbours are not listed, but are included in the totals. From this Appendix, Table I2 is prepared, comparing the cargo handled at each port (to the nearest 1 000 tons). The percentage is worked out for each port at intervals of five years, and illustrated in Figure 22.

From 1910 to 1945, East London's share of imports into South Africa decreased by one-third. In the same period, Cape Town and Port Elizabeth each maintained almost the same share of the country's imports. Durban's share increased by approximately one-sixth, making it the most important South African port of entry. (3)

TABLE 12

SHIPPING - OVERSEAS

COMPARISON OF HARBOURS

CARGO HANDLED - TO NEAREST 1 000 TONS

(INTERVALS OF 5 YEARS)

Overseas	Cape Town		Port Elizabeth		East London		Durban		Walvis Bay		Total 5 Ports	
	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped
1956	3 009	2 296	1 492	602	920	258	4 280	3 679	No Figures		9 701	6 836
1957	3 047	2 293	1 499	590	999	354	4 244	3 618			9 790	6 855
1958	3 170	2 112	1 830	584	1 004	441	4 571	3 684			10 575	6 822
1959	2 900	1 824	1 777	572	949	385	4 269	3 744			9 896	6 525
1960	2 801	1 864	1 644	874	818	358	4 234	4 027			9 497	7 103
Total	14 927	10 389	8 242	3 232	4 690	1 796	21 598	18 752	-	-	49 459	34 141
Combined Total	25 316		11 474		6 486		40 350				83 600	
%	30,2	30,4	16,6	9,5	9,5	5,2	43,7	54,9				
Average %	30,3		13,1		7,3		49,3					
1961	2 699	1 840	1 553	1 047	815	477	4 454	4 836	No Figures		9 521	8 200
1962	2 390	2 154	1 290	1 116	692	565	4 584	5 888			8 956	9 724
1963	2 546	2 229	1 867	1 528	783	729	6 816	5 946			12 012	10 432
1964	2 931	2 641	2 006	2 147	765	791	7 219	7 913			12 923	13 491
1965	3 012	2 024	2 241	2 400	1 147	278	9 334	7 674		448	736	16 384
Total	13 578	10 888	8 957	8 238	4 202	2 850	32 407	32 257	(448)	(736)	59 796	55 025
Combined Total	24 466		17 195		7 052		64 664		(1 184)		114 821	
%	22,7	19,8	14,9	14,9	7,0	5,2	53,9	58,6	-	-		
Average %	21,3		14,9		6,6		56,3					

TABLE 12 (CONTINUED)

SHIPPING - OVERSEAS

COMPARISON OF HARBOURS

CARGO HANDLED - TO NEAREST 1 000 TONS

(INTERVALS OF 5 YEARS)

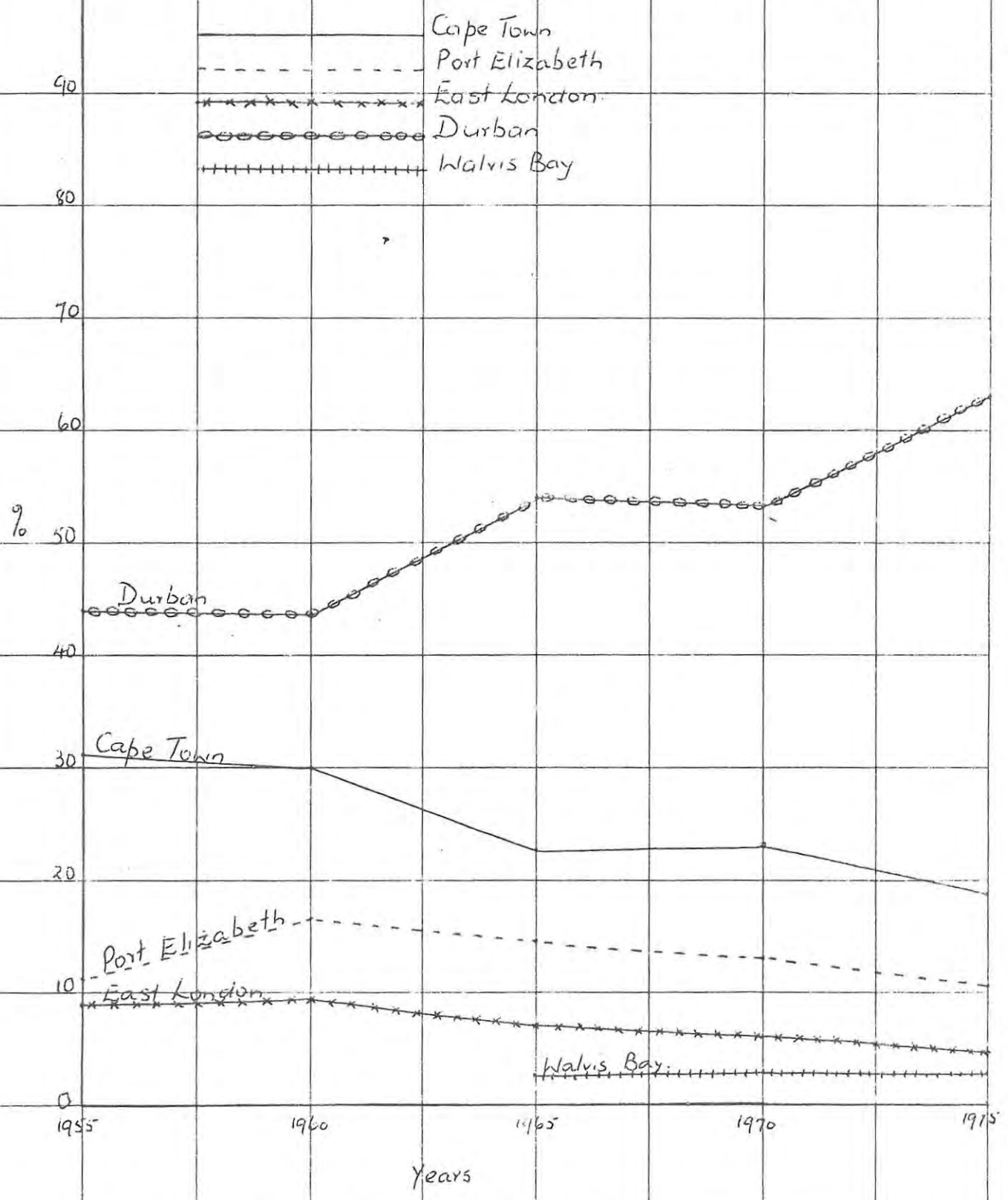
Overseas:	Cape Town		Port Elizabeth		East London		Durban		Walvis Bay		Total 5 Ports	
	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped
1966	3 715	2 273	2 128	2 942	1 066	265	9 432	8 117	514	719	17 071	14 368
1967	4 169	2 060	2 247	2 948	1 087	288	9 921	6 550	527	770	18 212	12 674
1968	2 014	3 453	1 332	3 626	571	1 628	3 536	8 902	261	762	7 527	19 434
1969	1 856	3 458	1 350	3 641	634	1 582	3 027	8 744	211	811	7 143	18 286
1970	3 853	2 848	2 031	4 160	919	547	10 047	9 895	539	701	17 569	18 180
Total	15 607	14 092	9 088	17 317	4 277	4 310	35 963	42 208	2 052	3 763	67 522	82 942
Combined Total	29 699		26 405		8 587		78 171		5 815		150 464	
%	23,1	16,9	13,4	20,9	6,3	5,2	53,2	50,9	3,0	4,6		
Average %	20,1		17,2		5,8		52,1		3,8			
1971	5 480	3 242	2 864	4 685	1 328	849	16 939	10 722	766	610	27 377	20 108
1972	5 322	3 620	2 891	5 084	1 363	1 791	17 804	11 296	722	507	28 102	22 298
1973	4 718	4 066	2 754	5 579	1 211	2 045	16 963	12 907	727	508	26 373	25 105
1974	5 829	3 382	3 067	6 770	1 360	527	19 891	12 538	766	638	30 913	23 855
1975	6 395	4 088	3 320	7 106	1 592	1 892	20 712	13 731	748	796	32 767	27 513
Total	27 744	18 398	14 896	29 224	6 854	7 104	92 309	61 194	3 729	3 059	145 532	118 979
Combined Total	46 142		44 120		13 958		153 503		6 788		264 511	
%	19,1	15,5	10,2	24,6	4,7	5,9	63,4	51,4	2,6	2,6		
Average %	17,4		16,7		5,3		58,0		2,6			

Source: From Records of the S.A.R. & H. Administration
- East London Harbour.

Figure 22.

Overseas

Comparative Percentage Imports of Harbours to Total Imports



Source: 'data in Table I2'.

From 1945, Durban maintained its position as the leading port for South African imports, and from 1955 steadily increased its lead to more than double the figure for Cape Town, the next highest port. (See Figure 22). With a 43% share of imports at the end of the first five year period in 1960, 53,9% in 1965, 53,2% in 1970 and 63,4% in 1975, Durban completely dominated the import trade of South Africa.

In second position is Cape Town but, unlike Durban, Cape Town showed a gradual decline in its imports, starting with 30,2% average after the first period in 1960, 22,7% in 1965, a small increase to 23,1% in 1970, and then a decrease to 19,1% in 1975 - less than one-third of Durban's imports.

Next is Port Elizabeth, starting in 1955 with 11%, reaching its highest peak in 1960 with 16,6% followed by a continued decline to 10,2% in 1975. East London recorded 9% in 1955 and its peak of 9,5% also in 1960, declining gradually to 4,7% in 1975. Figures for Walvis Bay before 1965 are not available, but from this date to 1975 its share of imports remained constant at a negligible figure of about 3%. (See Figure 22).

(ii) Exports.

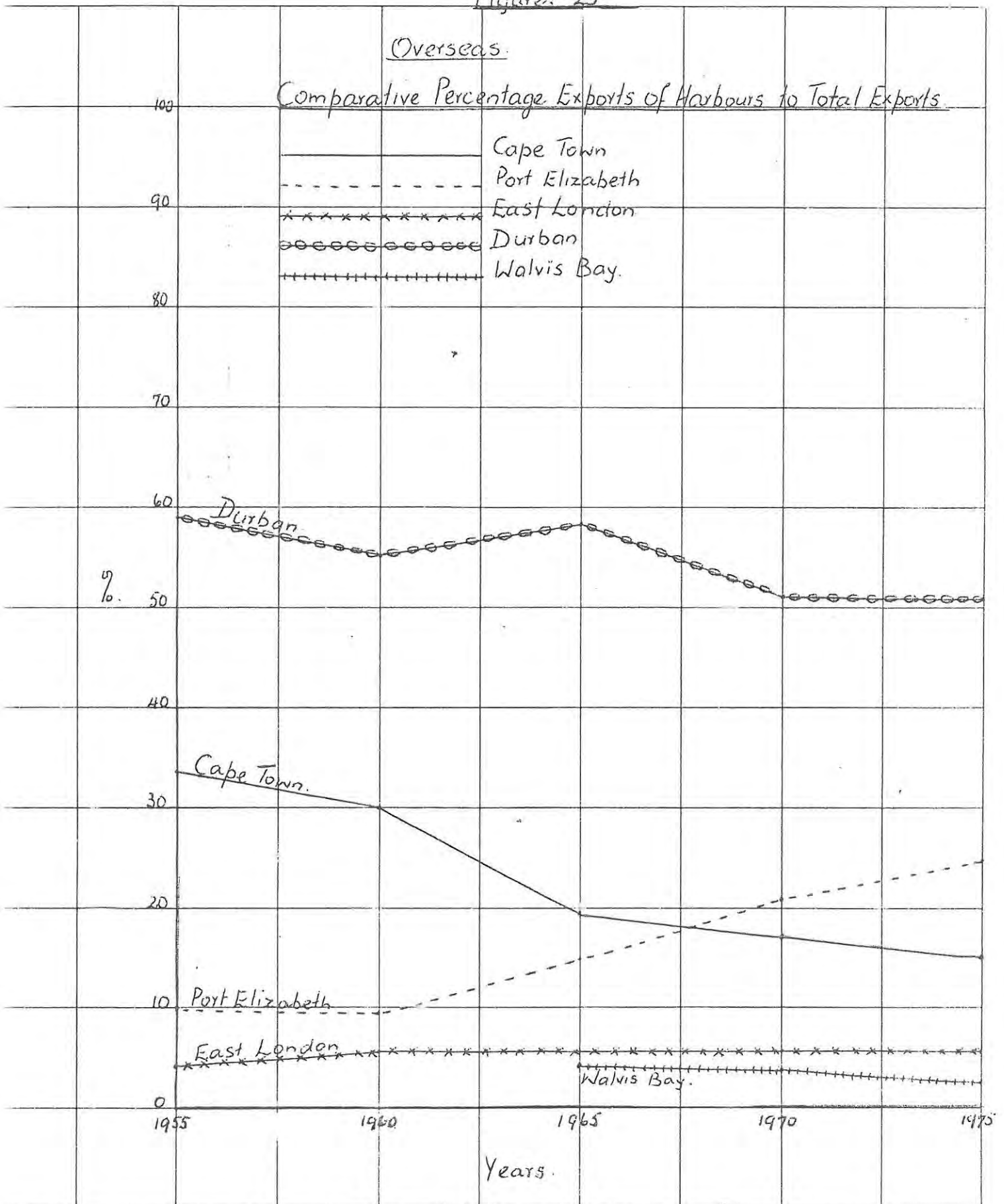
(See Table I2 and Figure 23).

After 1910 East London's share of South Africa's exports gradually declined by about 50%, being only 4% of total exports in 1955. In the same period Cape Town's share increased by 100% to 33,5%; Port Elizabeth's share declined by 25% to 10%; and Durban's share remained almost unchanged at 59% in 1955. (4)

Durban, the most important export harbour of South Africa, showed a small decrease from 1955 to 1975, its share being 59% in 1955, 54,9% in 1960, 58,6% in 1965, 50,9% in 1970 and 51,4% in 1975. However, Durban's share of South Africa's exports was in 1975 still more than twice that of the next highest, Port Elizabeth with 24,6%.

Cape Town's exports showed a continued decline from 33,5% in 1955 to only 15,5% in 1975. On the other hand Port Elizabeth showed a continued increase from 9,5% in 1960 to 24,6% in 1975, overtaking Cape Town in 1965 (See Table I2)

Figure: 23



Source: 'data in Table I2'.

for second place in the export trade. The reason for this is mainly that ores and minerals previously exported through Cape Town have been diverted and are now exported through Port Elizabeth.

East London's and Walvis Bay's share of South African exports are small and comparatively unimportant. Both have more or less constant export figures - East London between 5,9% and 5,2%, and Walvis Bay between 4,6% and 2,6% for the period under review.

(iii) Total Trade.

When considering the total overseas trade of South Africa, Durban is by far the most important harbour, handling more than 50% of the total trade, and in 1975 had a 58% share of the total overseas imports and exports.

Cape Town's share of the total trade, while still in second place, has fallen off steadily to only 17,4% in 1975, while Port Elizabeth's total trade showed a gradual increase to 16,7%, coming nearly level with Cape Town, in 1975.

East London's share of South Africa's total overseas trade remained fairly low at 7,3% to 5,3%, and Walvis Bay averaged about 3%. (See Figure 24).

b. Coastwise Trade.

Coastwise trade will be considered for the major ports, Cape Town, Port Elizabeth, East London, Durban and Walvis Bay. Figures for the smaller ports, Mossel Bay, Port Nolloth, Luderitz, Lamberts Bay, Saldanha Bay and St. Helena Bay will not be given, but will be included in the totals. The cargo handled in the coastwise trade is not specified and is usually classified only as General Cargo. Table I3 is compiled from Appendices Nos. IO to I5.

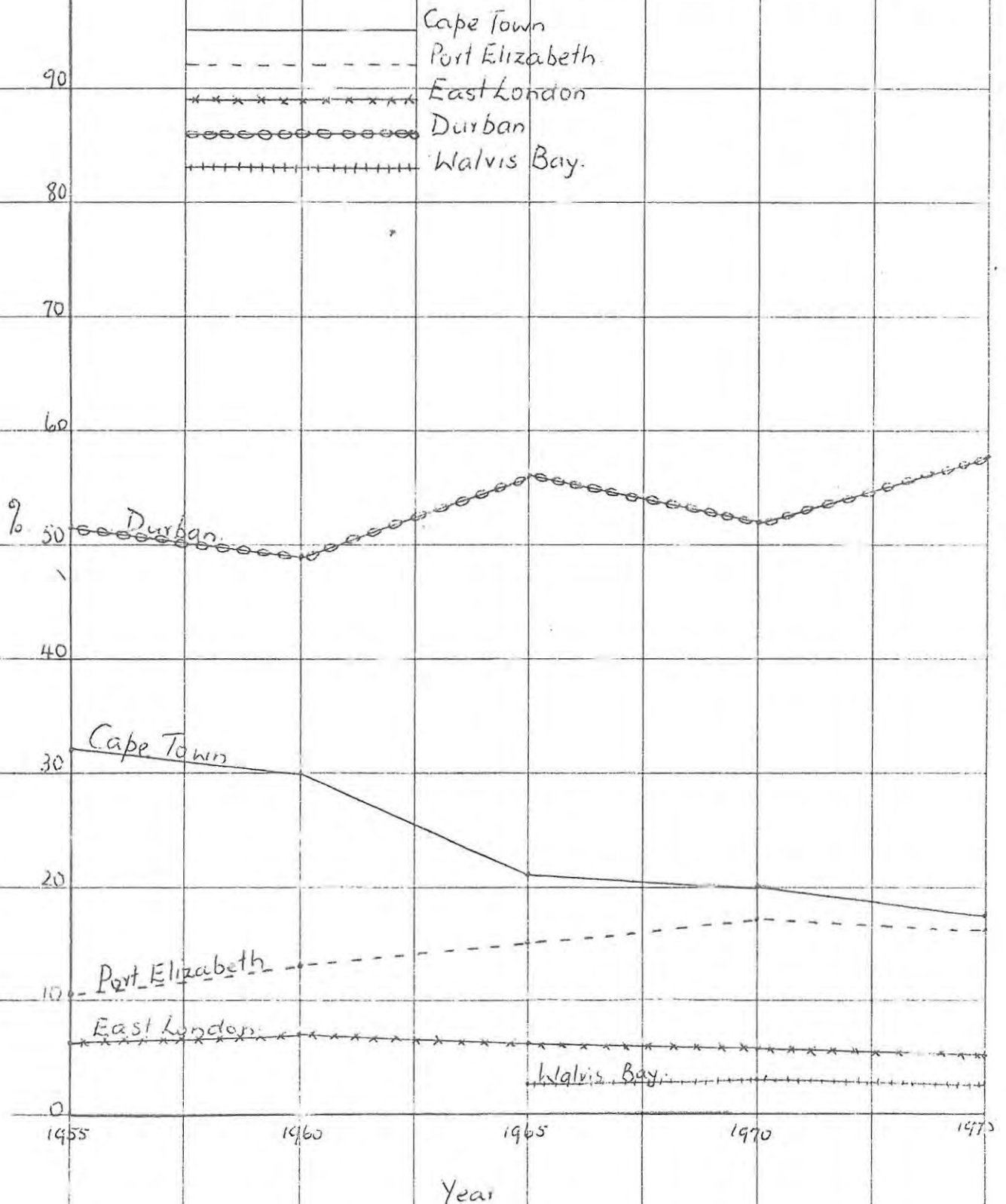
(i) Imports or Cargo Landed.

The coastwise traffic, cargo landed and cargo shipped, between the ports, is analysed in Table I3 for the period

Figure 24

Overseas.

Comparative Percentage Total Trade of Ports.



Source: 'data in Table I2'.

TABLE 13

SHIPPING - COASTWISE

COMPARISON OF HARBOURS

CARGO HANDLED - TO NEAREST 1 000 TONS

(INTERVALS OF 5 YEARS)

Coastwise	Cape Town		Port Elizabeth		East London		Durban		Walvis Bay		Total 5 Ports	
	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped
1956	314	248	159	67	113	28	127	465	62	56	775	864
1957	339	243	167	69	113	24	134	520	77	49	830	905
1958	335	234	172	76	110	24	125	528	75	40	817	902
1959	349	228	173	81	114	35	131	547	95	50	862	941
1960	362	247	188	88	117	33	147	574	95	51	909	993
Total	1 699	1 200	859	381	567	144	664	2 625	404	246	4 193	4 605
Combined Total	2 899		1 240		711		3 289		650		8 798	
%	40,5	26,1	20,5	8,3	13,5	3,1	15,8	57,0	9,6	5,3		
Average %	32,9		14,0		8,0		37,4		7,4			
1961	394	257	180	99	130	23	157	617	97	53	958	1 049
1962	390	250	196	112	132	22	171	636	89	50	978	1 070
1963	456	239	220	121	142	26	187	722	87	63	1 092	1 171
1964	487	321	251	133	165	33	228	781	109	75	1 240	1 343
1965	509	327	263	119	179	33	218	825	126	89	1 295	1 393
Total	2 236	1 394	1 110	584	748	137	961	3 581	508	330	5 563	6 026
Combined Total	3 630		1 694		885		4 542		838		11 589	
%	40,2	23,1	19,9	9,7	13,4	2,3	17,3	59,4	9,1	5,5		
Average %	31,3		14,6		7,6		39,2		7,2			

TABLE 13 (CONTINUED)

SHIPPING - COASTWISE

COMPARISON OF HARBOURS

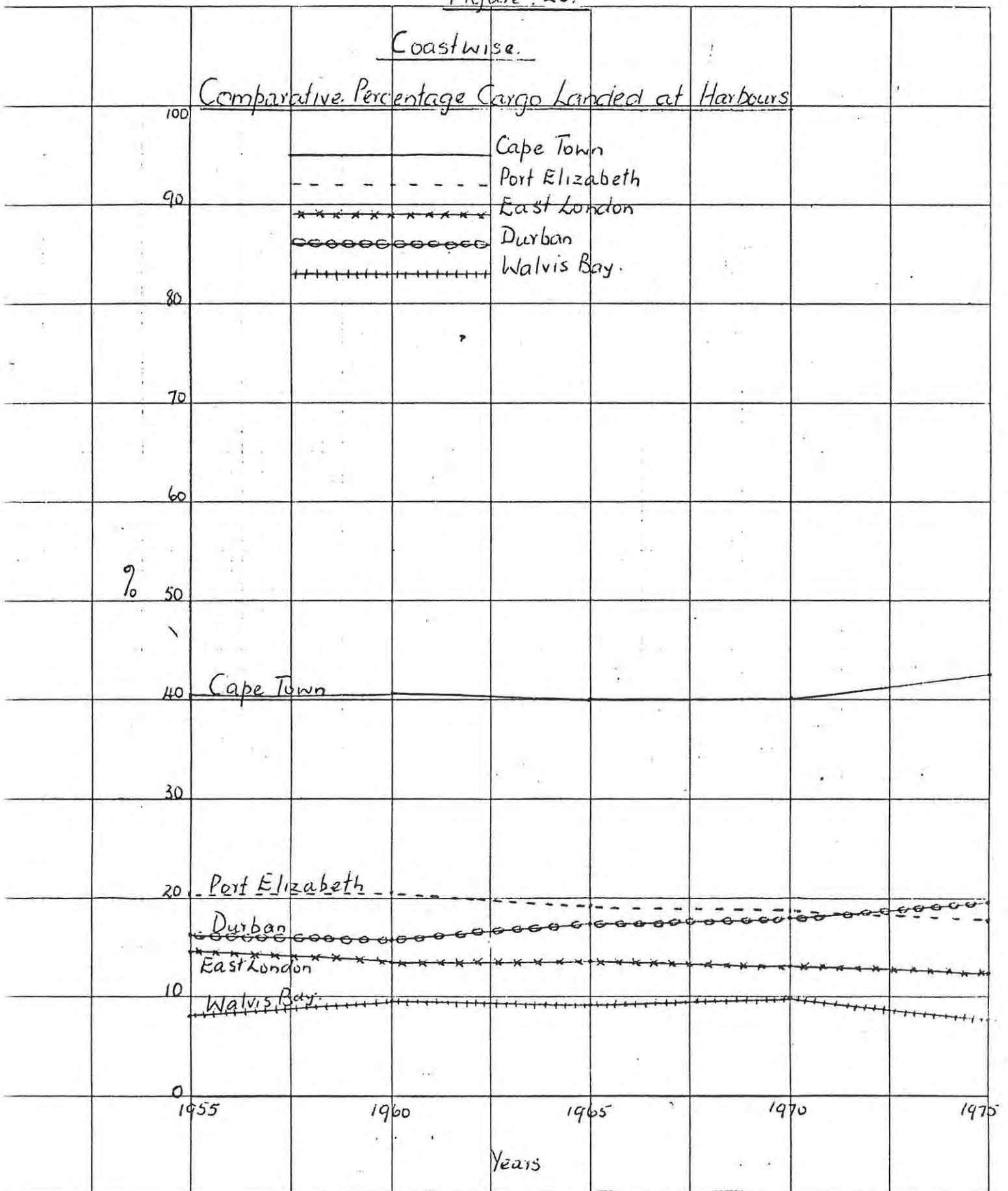
CARGO HANDLED - TO NEAREST 1 000 TONS

(INTERVALS OF 5 YEARS)

	Cape Town		Port Elizabeth		East London		Durban		Walvis Bay		Total 5 Ports	
	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped	Landed	Shipped
Coastwise												
1966	545	321	253	130	182	32	217	850	134	102	1 331	1 435
1967	559	324	260	131	182	33	222	873	141	107	1 364	1 468
1968	530	309	256	137	178	32	239	859	139	108	1 342	1 445
1969	552	335	261	136	181	34	265	882	150	125	1 409	1 512
1970	582	329	270	144	186	34	281	925	119	119	1 438	1 551
Total	2 768	1 618	1 300	678	909	165	1 224	4 389	683	561	6 884	7 411
Combined Total	4 386		1 978		1 074		5 613		1 244		14 295	
%	40,2	21,8	18,9	9,1	13,2	2,2	17,8	59,2	9,9	7,5		
Average %	30,6		13,8		7,5		39,2		8,7			
1971	576	356	275	162	205	37	311	926	123	116	1 490	1 597
1972	637	378	286	152	216	46	331	1 011	127	95	1 597	1 682
1973	746	336	302	145	204	48	298	1 139	114	96	1 664	1 764
1974	813	442	334	149	230	50	388	1 250	144	138	1 909	2 029
1975	875	459	345	130	208	32	380	1 323	145	148	1 953	2 092
Total	3 647	1 971	1 542	738	1 063	213	1 708	5 649	653	593	8 613	9 164
Combined Total	5 618		2 280		1 276		7 357		1 246		17 777	
%	42,4	21,5	17,9	8,1	12,3	2,3	19,8	61,6	7,6	6,5		
Average %	31,6		12,8		7,2		41,4		7,0			

Source: From Records of the S.A.R. & H. Administration
- East London Harbour.

Figure: 25.



Source: 'data in Table I3'.

1956 to 1975 (figures before 1956 being unreliable) and average percentages are given at intervals of five years.

Comparing coastwise traffic or cargo landed with over-sea imports, quite a different picture is presented. Whereas Durban is the most important harbour for overseas imports, Cape Town is the most important harbour for cargo landed coastwise. (See Figure 25). Cape Town is handling a constant share of about 40% of total cargo landed coastwise, being about double that of the port in second place; it showed a small increase towards the end of the period to 42,4% in 1975.

Port Elizabeth was in second position for quite a long time, but showed a gradual decline towards the end of the period to 17,9% of total cargo landed in 1975. In 1972 it was overtaken by Durban and dropped back into third position. Durban started in third place, overtook Port Elizabeth in 1972 (See Figure 25) and maintained second position with a gradual increase to 19,8% in 1975, still less than half that of Cape Town. East London is enjoying a bigger share of coastwise cargo landed than of overseas imports. The former remained more or less constant over the period with a slight decrease towards the end to 12,3% in 1975. Walvis Bay's share increased slightly from 1955 to 1960, remained fairly constant up to 1970, and declined again to 7,6% in 1975.

(ii) Exports or Cargo Shipped.

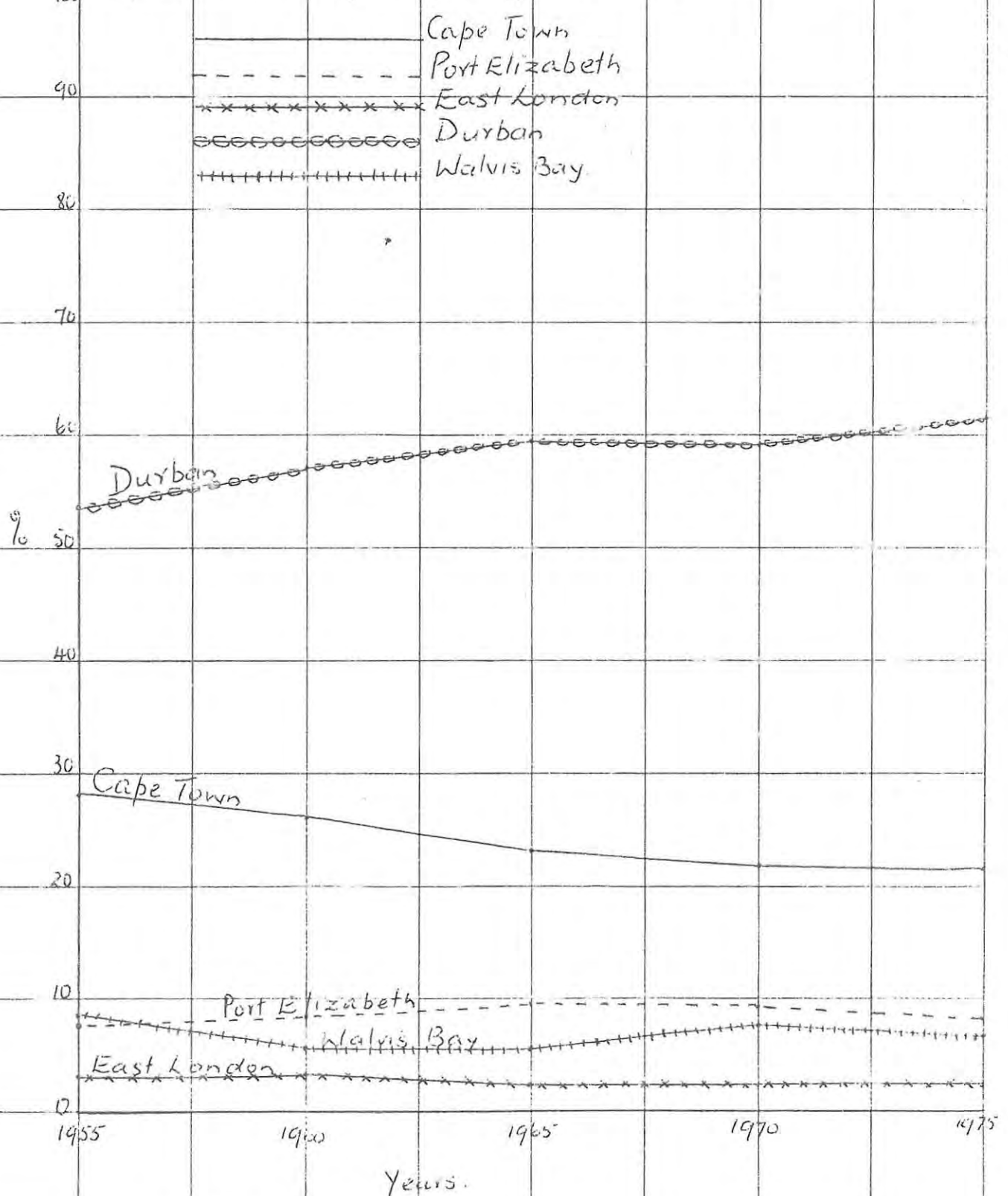
Cargo shipped coastwise follows much the same pattern as overseas exports. Durban is again the highest by far, with nearly three times the traffic of Cape Town, which is second. (See Figure 26).

Durban's cargo shipped showed a gradual increase over the period to 61,6% of the total in 1975, while Cape Town showed a gradual decline to 21,5% in 1975. Port Elizabeth is again in third position, with its share of the total cargo shipped remaining more or less constant, being 8,1% in 1975. Walvis Bay's share of cargo shipped coastwise was constant over the period and stood at 6,5% in 1975, leaving East London, with a steady figure standing at 2,3% in 1975, in last place.

Figure 21

Coastwise

Comparative Percentage Cargo Shipped at Harbours



Source: 'data in Table I3'.

(iii) Total Cargo Landed and Shipped Coastwise.

Considering the total cargo, according to Table I3 and Figure 27, Durban had the highest percentage of 41,4% in 1975. It had the highest share in cargo shipped, but was in third position with regard to cargo landed, moving to second position towards the end of the period. The volume of cargo shipped was so high however, that on average it maintained its position as the most important harbour in respect of coastwise traffic.

Cape Town being first in cargo landed and second in cargo shipped is in second position overall for total average traffic. This however, closes the gap with Durban's share of the traffic, being only about 10% less than Durban's 41,4% in 1975.

Port Elizabeth stayed in third position with a regular share of 12,8% in 1975 of the total coastwise traffic. East London and Walvis Bay shared the last position with the lowest share in the total coastwise traffic of 7,2% and 7,0% respectively in 1975.

c. Comparison of Commodities Imported and Exported.

(i) Imports. (See Appendices Nos. I6 to 20).

Commodities imported, according to the classification by the Administration, show that Durban, our most important import harbour with a percentage of 63,4% of total cargo landed, mainly handled General Cargo (manufactured articles), which includes oil, petrol and their products. The item General Cargo comprises about 90 to 95% of Durban's total imports. The other notable commodities imported are steel, timber, fertilizers and sulphur.

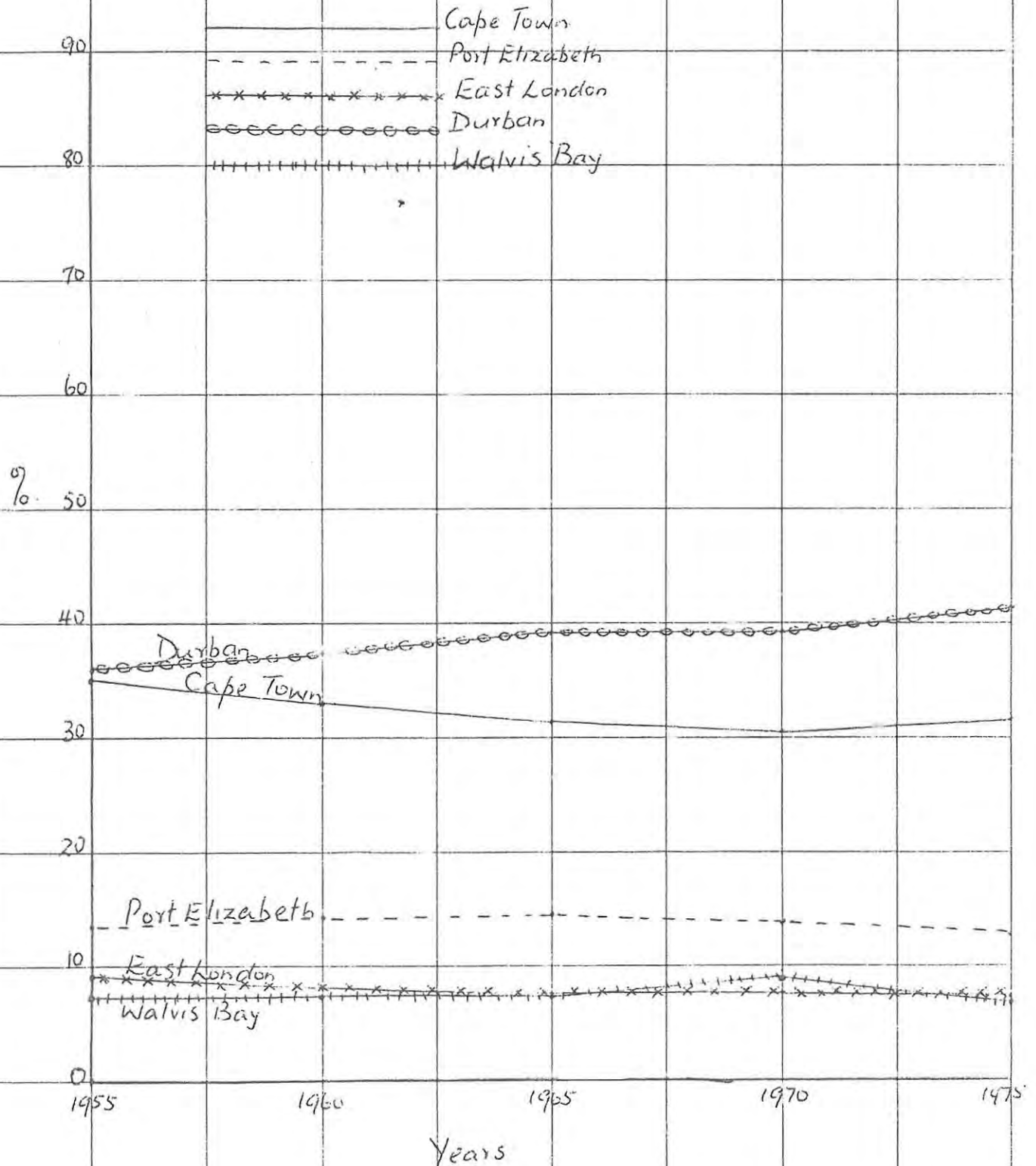
Next is Cape Town with 19,1% of total imports. General Cargo, including oil, is again the main import item, representing about 90% of the total. Other imports are mainly coal, timber and steel.

Port Elizabeth, with 10,2% of total imports, follows the same pattern with 90% of General Cargo, and coal, timber and steel the other important imports.

Figure: 27.

Coastwise

Comparative Percentage of Total Cargo Shipped and Landed
at Harbours



Source: 'data in Table I3'.

Imports through East London harbour are only 4,7% of the total. This also comprises about 90% General Cargo including oil; the other commodities are mainly timber, steel and railway material. Smaller import items were sulphur in 1971, cement in 1972 and 1973, and fertilizers and coal in 1974. In 1975 Railway Material was re-classified as Other Bulk Commodities.

Walvis Bay has the lowest imports of 2,6%, mainly General Cargo, with timber, steel and cement the other import commodities.

(ii) Exports. (See Appendices Nos. 21 to 25).

Durban has again the highest percentage of total exports at 51,4%. Of this total, General Cargo is again the main export item, from 35 to 40% of the total. The other export items, in order of importance, are Bunker Oil, Cargo Coal (foreign), Ores and Minerals, Sugar, Maize and Maize Products, Other Produce, Citrus Fruit, Other Grain, Wattle Bark and Wattle Bark Extract, Wool and Fertilizers.

Next is Port Elizabeth with 24,6%. The main export item, putting Port Elizabeth in second position in 1975, is Ores and Minerals, being the iron-ore from Sishen exported through Port Elizabeth and comprising about 88% of its total exports. The other exports in order of importance are General Cargo, Citrus and Deciduous Fruit, Wool, Bunker Oil, Skins and Hides, Other Produce, Maize and Maize Products.

Then follows Cape Town with 15,5%. The main export commodity is Bunker Oil, comprising about 30% of its total exports, followed by General Cargo, Citrus and Deciduous Fruit, Maize and Maize Products, Other Produce, Ores and Minerals, Fish Products, Bunker Coal, Wool, Skins and Hides and Fertilizers.

East London's exports are only 5,9% of the total. East London is known as the maize harbour of the Republic and Maize and Maize Products are accordingly the main export items, comprising about 70% of total exports. The other export items in order of importance are General Cargo, Other Grain and Produce, Wool, Citrus and Other Fruit (pineapples), Ores and Minerals, Bunker Oil, Skins and Hides and Wattle Bark.

Last is Walvis Bay with 2,6% of total exports. The chief

export item is Fish Products constituting 38% of total exports, followed closely by Ores and Minerals with 34%. Other export items are General Cargo, Bunker Oil, Other Produce, Skins and Hides and Wool.

d. Comparison of Harbour Facilities.

(See Table I4).

Comparing the number of vessels calling at different ports, Durban has the highest sea traffic with 32 603 vessels, slightly higher than Cape Town with 32 471. Port Elizabeth is next with 10 831 vessels, Walvis Bay with 5 962 and East London with 5 911 vessels.

More than five times the number of ships that called at East London called at Durban and Cape Town, and nearly twice as many at Port Elizabeth. Walvis Bay has 51 more than East London for the period under consideration. This confirms that East London has the lowest sea traffic of the major ports of the Republic of South Africa.

Considering the number of passengers embarked and disembarked at the five ports, except for Walvis Bay, East London also has the lowest passenger traffic of the ports - approximately one-twentieth of Durban, one-eleventh of Cape Town and one-third of Port Elizabeth. Durban seems to be the most popular passenger port, because it is nearer to Johannesburg and the Reef, the Northern and Eastern Transvaal, and en route to the Kruger National Park and Rhodesia which, according to the Tourist Bureau, seem to be the popular visiting areas for overseas tourists. (See Figure 28).

Except for Walvis Bay, East London has the shortest length of commercial quayage available i.e. 2 000 metres, in comparison to 12 000 metres at Durban, 5 850 metres at Cape Town and 2 700 metres at Port Elizabeth.

Pre-cooling facilities at East London are also less than those of the other harbours. East London has a pre-cooling store capacity of 2 724 shipping tons, compared to 6 385 at Durban, 10 300 at Port Elizabeth and 29 100 at Cape Town. This seems however to be adequate, as East London is far from the producing areas, and not ideally situated for the export

TABLE 14

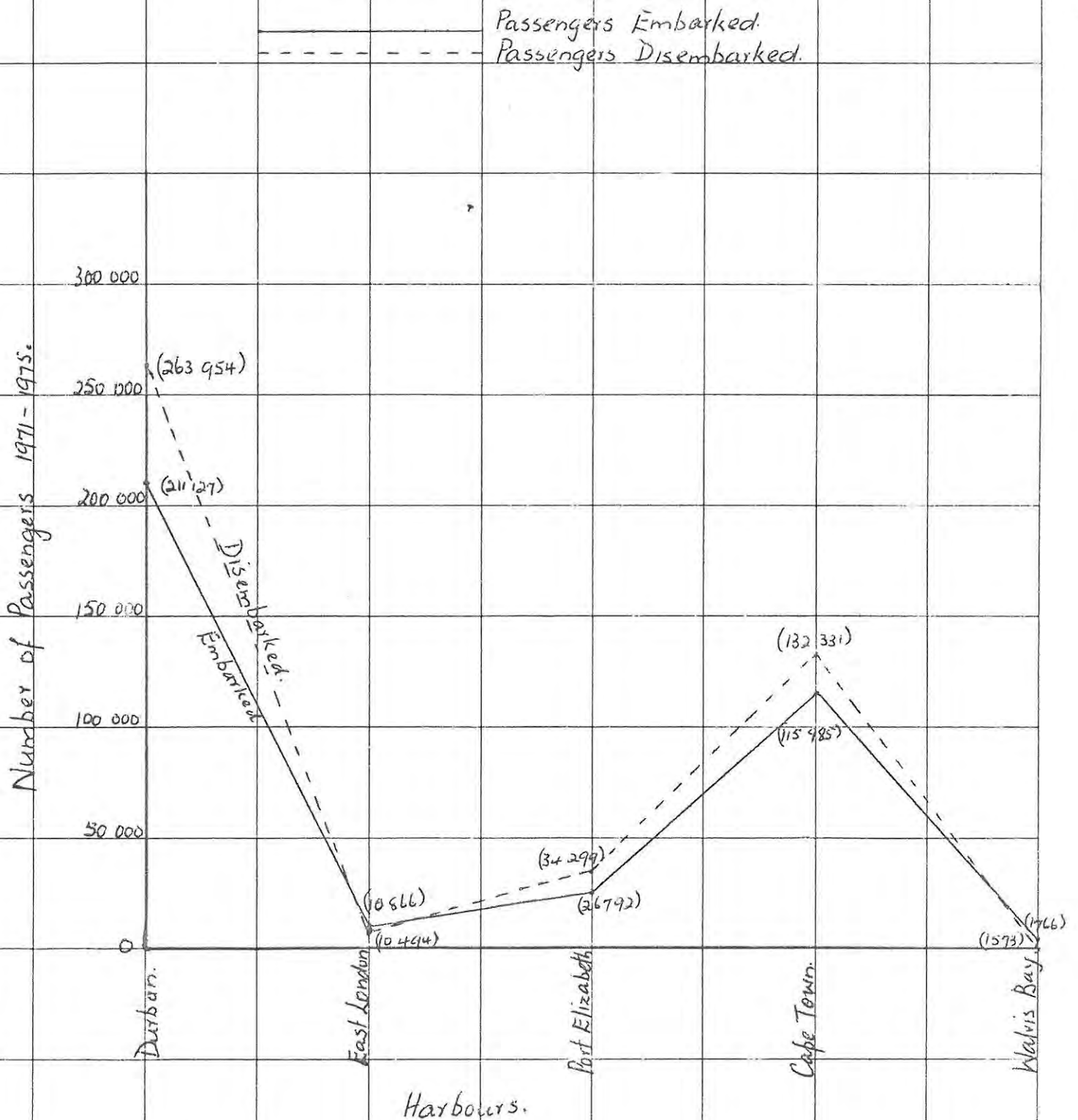
COMPARISON OF HARBOURS

	Durban	East London	Port Elizabeth	Cape Town	Walvis Bay
Number of Vessels Called 1971-1975	32 603	5 911	10 831	32 471	5 962
Number of Passengers Embarked 1971-1975	211 127	10 866	26 792	115 985	1 766
Number of Passengers Disembarked 1971-1975	263 954	10 494	34 299	132 331	1 573
Length of Commercial Quayage (Metres)	12 000	2 000	2 700	5 850	1 402
Pre-cooling Store Capacity in Shipping Tons	6 385	2 724	10 300	29 100	-
Grain Elevator: Capacity Tons	38 100	75 000	-	27 220	-
Graving Dock	Prince Edward Dock 352 me= tres	Princess Elizabeth Dock 193,1 me= tres	-	Sturrock Dock 360 me= tres	-
Harbour Craft	8 Tugs 4 Pilot- boats	2 Tugs 2 Pilot- boats	3 Tugs 2 Pilot-boats	5 Tugs 3 Pilot- boats	2 Tugs 2 Pilot- boats

Source: From Records of the S.A.R. & H. Administration -
East London Harbour.

Figure: 28.

Total Number of Passengers: Embarked and Disembarked.
(1971-1975.)



Source: 'data in Table I4'.

of Citrus Fruit and Other Fruit, which need pre-cooling. The leading port in this category is Cape Town whence most of the Citrus and Deciduous fruit is exported.

Another facility at East London harbour is the Princess Elizabeth Graving Dock. Although smaller than the Sturrock Dock of Cape Town and the Prince Edward Dock of Durban, it has an advantage over Port Elizabeth and Walvis Bay, where there are no Graving Docks.

East London is known as the maize port of South Africa. It has a definite advantage over the other ports with a grain elevator of 75 000 tons capacity compared to one of 38 100 tons at Durban, one of 27 220 tons at Cape Town and none at all in Port Elizabeth or Walvis Bay. This advantage for East London is derived from the fact that it was declared the main export harbour for maize by the South African Railways and Harbours Administration, and also from being the nearest harbour to the maize producing areas of the Ciskei, Transkei, Border and North-Eastern Cape, while preferential railway rates enable the maize from the Maize Triangle of the Orange Free State and the Transvaal to be exported more cheaply through East London.

The harbour craft for East London, comprising two Tugs and two Pilot-boats, are the same as those for Walvis Bay and less than those for the other harbours, but seems to be adequate to handle the harbour traffic.

3. Conclusion.

When comparing East London's port with the other major ports of South Africa, it is necessary to consider not only the physical exports and imports, but also other factors influencing such a comparison.

First, the geographical situation of East London must be taken into account. It lies between the two major terminal ports, Cape Town and Durban, and near Port Elizabeth. It is a midway port, approximately 400 km. from Durban and about 300 km. from Port Elizabeth. Its situation, therefore, creates a position of competition for trade, and comes into sharp competition with Port Elizabeth. Both these two midway ports, however, are at a disadvantage to Cape Town and Durban in their

location with regard to the industrialised areas of the Republic i.e. the Western Province, the Southern Transvaal and the Pinetown - Durban area.

The tendency of ships and Shipping Lines is to restrict the number of their ports of call, and to ship or land their cargo at one port, rather than at several ports. Ocean going vessels prefer a harbour supplying them with cargo in and out: they do not want to arrive empty to ship cargo or to land cargo and then return empty. A harbour must therefore be able to receive bulk imports and have a ready supply of exports.

Another factor influencing comparison of harbours is their distance from the main industrial areas and markets where transport costs and the time factor, for exports and imports, play an important rôle, necessitating preferential tariffs and railway rebates to offset advantages of one port over another.

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- (1) Hugh H. Smith : The Transport System of the Border,
Volume I. Pages 46 - 48.
- (2) *ibid* : Page 60.
- (3) *ibid* : Page 48.
- (4) *ibid* : Page 60.

Chapter 6.

The influence of Containerization, Transport Systems and Tariffs on East London Harbour.

I. Containerization.

- a. Introduction.
- b. Terminals in South Africa.
- c. Container and Palletised Traffic of the S.A.R.&H.
- d. Tariff Structures.

2. Transport Systems.

- a. Railway Connections.
- b. Road Transport Services.

3. Tariffs, Rebates and Concessions.

- a. Preferential Rail Port Rates.
- b. Faster goods traffic to Kaserne.
- c. Harbour Dues.
- d. Railage Rebates.

I. Containerization.

a. Introduction.

Containerization is a comparatively new concept which is in process of revolutionising import and export trade. It is a system of packing, handling and transporting goods in large standard containers.

The concept of containerization is based on the advantages to be gained from a through transport system. Containerization was first developed in the U.S.A. but has spread worldwide and is now generally accepted in the developed countries of the world that a standardised method of cargo transportation can offer definite economic gains.

In order to "introduce" the Southern Africa Europe container service one has to go back to 1969 when the South African Government and the South and South East African shipping conference started an exhaustive series of investigation concerning the containerization of the trade between Southern Africa and Europe.

Following these investigations a joint decision was announced in March 1974 by the Government and the Conference, that a fully cellular container service would be introduced

during the latter part of 1977.

Within the Conference ten member lines formed a steering committee which they named the "Executive Planning Board (EPB)", to control the whole operation. These lines were :

1. South African Marine Corporation Ltd.
2. Ellerman Harrison Container Line.
3. Overseas Containers Ltd.
4. Lloyd Triestino Line S.P.A.N.
5. British and Commonwealth Shipping Group.
6. Compagnie Generale Maritime.
7. Compagnie Maritime des Chargeurs Reunis.
8. Koninklijke Nedlloyd.
9. Deutsche Afrika-Linien G.M.B.H.
- 10 N.S.U. Scheepvaart.

During 1975 the E.P.B. decided to create a central organisation to achieve two main objectives :

- a. The completion of the planning stage of the operation.
- b. The formation of the nucleus of a permanent body designed to co-ordinate the whole service once the ships started to come onto the berth.

Early in 1976 the E.P.B. decided to adopt the name "Southern Africa Europe Container Service" (SAECS) for the service as a whole. For administrative purposes a limited company of the same name was formed. Thus now the SAECS provides the administrative organisation through which the E.P.B. policy is co-ordinated.

A strong argument in favour of containerization was the fact that Europe was to a greater extent becoming unable to handle the conventional ships economically, and hence South Africa could no longer stand aside because it would not, both abroad and in South Africa, be possible to operate conventional ships at reasonable cost in the future. At our own harbours delays were causing serious dislocation of efficient shipping services, with heavy losses to shipowners and inconvenience to shippers. The whole Western World has been taken over by a labour crisis as well as an energy crisis i.e. multiple handling of cargo has become too costly. The rise in cost of ships and equipment has moved the shipowners into the giant era to achieve volume saving. This is exemplified

by the fact that each large cellular vessel will replace approximately five conventional ships.

South African trade too, is particularly well suited to containerized cargo. It has been estimated that 85% of South African imports and 60% of exports are potentially containerable.

Another factor which makes containerization necessary at present, is the fact that large container vessels will do one complete round voyage in only 49,4 days (of which 62% of the time is spent at sea). This compares favourably with conventional round voyages of 104 days, provided the ship does not get held up by things like congestion or labour shortages (Here, on average, 3,8% of the time is spent at sea).

Because the major expense occurs while ships lie idle, one can see the definite advantage of the containerized vessels. Investigations have also shown that conventional shipping of, for example, an individual package from Birmingham to the Witwatersrand would be handled at 30 - 54 points, whereas with containerization it would on the same trip be handled only 4 - 12 times. This, of course, cuts down enormously on dangers of pilferage and damage, which leads on to less risk and hence less insurance costs and more savings.

The main advantages of containerization are :

- (a) It invariably reduces and sometimes eliminates altogether the need for packing in expensive crates, cases, boxes and cartons. Where cases or cartons are still required, these can be of lighter and cheaper construction than if they had to stand up to extensive handling en route.
- (b) A consignment weighing up to 40 tons may be packed, handled and stored as a single unit, eliminating a tremendous amount of checking, packing, handling and storage space. In loading alone by conventional methods, cartons or articles are handled at least four times - from floor to trailer or railway truck, from trailer to floor, floor to hook, and hook to hold. This saving in time and labour is multiplied at every stage - trailer, railway, sea freight, railway and trailer - from consignor to consignee.
- (c) With containerization, about ten times as much tonnage can be moved in the same time and with the same amount of labour, resulting in increased activity at ports equipped to handle

containers. This economy in time and labour is effected at every stage of the journey from consignor to consignee.

(d) The introduction of fast and roomy ships specifically designed to carry containers has increased the amount of cargo that can safely be carried, the time taken on passages and the time taken for turn-round in ports, to the extent that one container ship can replace at least five conventional cargo ships of similar tonnage depending on the distance covered.

(e) Containers greatly reduce opportunities for pilferage or losses of cargo from other causes.

The obvious short-term drawback of containerization is the high capital cost of containers (of which each ship requires about three sets), of cranes and other mechanised equipment and facilities required at ports and elsewhere for handling them, and the capital cost of similar equipment at road and rail transport centres. But it is already obvious that in the long term, this capital expenditure will be recouped in a comparatively short time.

The two major types of container ships are :

(a) The cellular ship, the holds of which consist of cells in which up to nine containers can be stacked on top of each other without being secured - (see Figure 29, of a Cellular Container Ship) ; and

(b) the Ro-Ro type (Roll-on, Roll-off) fitted with a ramp on which containers can be driven onto and off the ship on trailers or other mechanical equipment.

b. Terminals in South Africa.

In the harbours, container ships are dealt with at container terminals or special quays, provided with sophisticated handling gear and large open stacking areas, so that cargo can be discharged and shipped within a short time. A container terminal is therefore a berth or a wharf proclaimed by the customs for the discharge or shipment of containers.

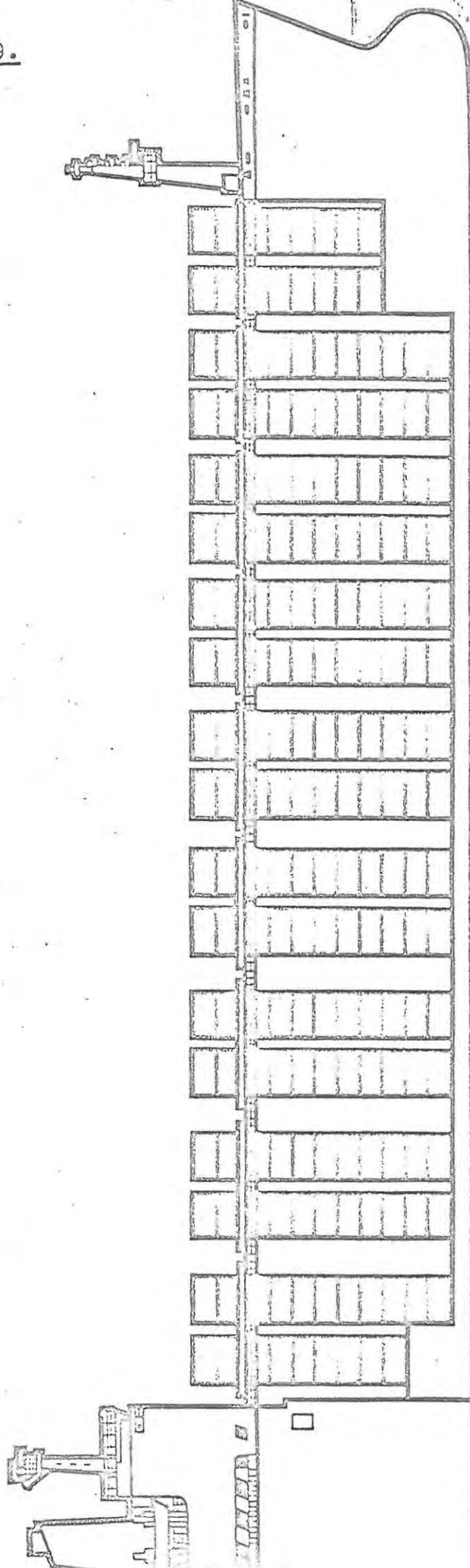
In line with the South African Government ports policy, common user container berths, managed and operated by port authorities, are being constructed. Separate berths to cater for the coastwise container traffic are being built, as far as possible, adjacent to the deep-sea berths, to facilitate

Figure 29.

CONTAINERISATION

A new era for Shippers - Europe/Southern Africa

(Issued by the Europe/South and South-East Africa Conference Lines)



BEHOVERING

10/11/68

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the transshipments of containers. The berths will be equipped to serve cellular container vessels on the lift-on lift-off principle. Non containerized cargo will not be handled over these berths, the existing conventional berths will continue to be used for that purpose. Roll-on Roll-off berths will be provided as the trade demands.

It was decided to make available an area of land in the port terminal for the establishment of a container depot (CFS) to be run by private enterprise. The Port Authority will not embark on the stuffing and stripping of containers and will not cater for the storage of containers awaiting re-distribution.

The terminal complex will therefore, consist of the container berths served by container cranes, large back-up stacking areas for transit storage, a rail terminal, equipment maintenance facilities, an administrative building and possibly a container depot.

The S.A.R. & H., as terminal and rail and road transport operator, will provide these services to the container operator who will be responsible for the through-transport of the cargo on a door to door basis.

The container terminals will be as follows :

1. Durban which will have a total quayage of about 2 140 metres and with a water depth of 12,8 metres (at low water).
2. Cape Town - four deep-sea berths have been planned here with depths of 14 metres (at low water).
3. Port Elizabeth - similar to Durban.
4. Inland Rail Terminal - where the traffic volumes justify it, special rail terminals will be built in industrial complexes, exclusively for transshipment of containers from rail to road vehicles.

Such a terminal will be built at 'City Deep', Johannesburg, to cater for the Witwatersrand area and will be served by scheduled unit trains running a shuttle service from Durban. It is expected that by the end of 1978 five such trains will run daily between Durban and Johannesburg.

The 'City Deep' rail terminal will have a 650 metre crane area equipped with three rail-mounted transfer cranes. Parking space for 1 200 trailers is being provided where the load trailers can be marshalled in order of delivery zones and

where collected containers can be assembled in train loads before onrailing.

While 'City Deep' will also serve as the base for the S.A.R. & H. containers used on domestic services, a stacking area under rail-mounted cranes is planned. The layout makes provision for staff amenities, an administrative building, equipment maintenance and container repair facilities. A privately operated container depot (C F S) will be established adjacent to the rail terminal.

Basically then, a container terminal for cellular ships comprises the following four elements :

- (a) The container quay, equipped with two high-speed 40-ton container cranes for loading and off-loading containers ;
- (b) The stacking yard, where all import containers are received and all export containers are collected and sorted ready for shipment. The yard, about 8 ha in extent, is subdivided into blocks, with rows and numbered positions in each row so that the spot where a container is placed can be accurately recorded.
- (c) The rail terminal for the forwarding of containers by rail to inland destinations.
- (d) The container depot where containers can be packed or unpacked. This applies particularly to containers containing more than one consignment. The various consignments are sorted here for dispatch to their respective destinations.

Arising out of an agreement concluded between the S.A. Government, the Perishable Products Export Control Board and the South and South-East Conference Lines, it was officially announced during the latter half of March, 1974, that containerization will be introduced on the South African trade routes by the middle of 1977. It is also the Conference Lines' intention to introduce the following routes :

- (a) Ten fully cellular container vessels of 2 450 T.E.U. (Twenty Equivalent Units) capacity, serving the trade between South Africa and the United Kingdom and the North-West Continent. A sailing every five days in each direction will be provided. The first of these ships should be in service by the third quarter of 1977. Northern Europe's major ports, probably within the Le Havre / Hamburg range, and in the United Kingdom one or two ports, will be linked with Cape Town, Port Elizabeth and

Durban in the Republic of South Africa and Maputo in Mozambique.

(b) Four fully cellular container vessels of I 322 T.E.U. capacity will serve the Mediterranean / South Africa trade. Ports to be served in the Mediterranean are Barcelona, Marseilles, Genoa and Trieste. The first vessel was scheduled to be available towards the end of 1976. Sailings in both directions will be provided every eleven days to and from Cape Town, Port Elizabeth, Durban and Maputo.

(c) Because of port and cargo handling limitations, East London and Walvis Bay will not be directly served by the container vessels. They will however be catered for by a Conference back-up service to and from Europe and the Mediterranean, and if necessary by a container feeder service which will be explained later.

Non-containerisable cargo - e.g. bulk cargo like maize, coal etc. - about 30%, will still be conveyed by general cargo vessels.

The estimated flow of traffic for 1978 indicates that 160 000 containers, including fruit exports, will have to be dealt with at Cape Town, 150 000 at Port Elizabeth and 255 000 at Durban. Quays that can readily be adapted for the handling of containers are under construction at Cape Town, Port Elizabeth and Durban, and it is planned to provide the necessary container-handling facilities at these harbours.

Owing to the small volume of traffic involved at East London and Walvis Bay, the Shipping Lines will not find it remunerative to have their larger container ships call there, and coaster feeder services will be provided. Although specific quays will be arranged for the handling of containers, these quays will not, as in the case of those for ocean-going ships, be equipped with sophisticated container cranes, and the capital outlay will therefore be much less. Present indications are that Mossel Bay and Lüderitz will not handle containers.

The feeder service will convey transshipment containers to and from East London, Walvis Bay and Beira. Containers for Walvis Bay and Southbound containers for East London are to be handled at Cape Town. Northbound containers from East London

are to be transhipped at Durban.

A balanced flow was assumed for each port in respect of each trade route. The total container flow attributable to each route at any port is therefore double the flow of the dominant direction, and subsequently consists of full as well as empty containers. It is therefore possible for a port to import empties on one route and export empties on another, depending on the dominant direction of each route.

East London containers for oversea trade are being imported through Cape Town and exported through Durban, and this results in an imbalance between total imports and total exports (including empties) at both Cape Town and Durban. It is assumed that empties ex East London in respect of the U.S.A. traffic are available for utilisation at Durban on the same route, East London / U.S.A. traffic being southbound dominant, and Durban / U.S.A. traffic being northbound dominant. The same principle applies to other routes.

A container depot will now be established in the harbour area only at Durban. At Cape Town and Port Elizabeth private enterprise has decided not to take up the option of the land offered in the ports, but to establish the depots outside the ports at these centres.

Four inland container terminals are planned to handle the expected flow of inland and deepsea containers. These terminals will be located at City Deep near Johannesburg, Bayhead near Durban, Bellville near Cape Town and at Port Elizabeth.

In the long run, containerisation should check the fast-rising cost spiral and provide the additional economic advantages of reduced transit times, labour requirements and pilferage, and savings in packaging and warehousing, apart from the immediate and obvious advantages of reduced handling costs. (I)

Container transport and freight terms used are :

FCL - means full container load.

ICL - means less than container load.

FCL / FCL : (Shipper)-(Terminal):::(Terminal)-(Receiver)

The shipper packs his cargo at his own premises and seals the container, which is then transported by road and / or rail to the sea terminal for shipment to the consignee's door (subject of course to customs requirements). The consignee receives his container without

any interference or delays.

FCL / LCL : (Shipper)-(Terminal)::::(Terminal)-(Depot)-(Receiver).

If a shipper wishes to send a consignment to various consignees at the same time, he can still benefit from the FCL concept on his side by packing the cargo into a container at his own premises. At the receiving end the container is unpacked at the container depot and the goods are made available for collection or for despatch to the various consignees involved.

LCL / LCL : (Shipper)-(Depot)-(Terminal)::::(Terminal)-(Depot)-(Receiver).

If a shipper is unable to fill a whole container, and still wants to benefit from containerisation, he delivers his consignment to the nearest container depot or enlists the services of his agent to do it for him. At the depot the consignment is consolidated with other compatible cargo into a container by the depot operators. The container is then shipped and delivered to a depot where it is unpacked, and the individual consignments are made available for collection or delivery.

LCL / FCL : (Shippers)-(Depot)-(Terminal)::::(Terminal)-(Receiver).

If an importer is to receive goods from various overseas suppliers, he can arrange for them to despatch their consignments to a particular depot. There the goods are consolidated into a container which is shipped and delivered to the importer's door.

Although East London is designated as a feeder port only, it is adapting itself as fast as possible to handle containers. Difficulties are being experienced, however, in the handling of big containers of 20 or more tons, as there is only one 20-ton crane available at the West Quay. This is a limiting factor in the handling of containers, because the harbour is to a large extent dependent on ship's gear to handle big containers at the other quays.

As this is a new way of handling cargo, statistics and figures at East London Harbour are only available from 1974. Referring to Table I5, it is noticeable that only a very small percentage of containers is shipped overseas; the majority of containers are shipped coastwise. Being only a feeder port for this kind of traffic, East London is dependent on coastwise transport for containers.

TABLE 15

CONTAINERS AT EAST LONDON HARBOUR

		Landed		Shipped	
		1975	1974	1975	1974
Jan.	Overseas	103	No data	73	No data
	Coastwise	248		245	
Feb.	Overseas	10	46	33	33
	Coastwise	310	191	352	202
Mrch.	Overseas	12	24	-	20
	Coastwise	337	213	268	216
April	Overseas	11	5	12	9
	Coastwise	261	159	346	114
May	Overseas	21	53	8	6
	Coastwise	329	173	316	131
June	Overseas	34	4	19	24
	Coastwise	298	149	266	178
July	Overseas	55	39	31	8
	Coastwise	322	214	291	265
Aug.	Overseas	70	73	21	31
	Coastwise	307	240	366	253
Sept.	Overseas	59	31	43	57
	Coastwise	254	278	344	188
Oct.	Overseas	84	80	34	21
	Coastwise	408	255	319	279
Nov.	Overseas	42	73	21	26
	Coastwise	412	256	511	286
Dec.	Overseas	49	34	82	13
	Coastwise	228	316	165	208

Source: From Records of the S.A.R. & H. Administration -
East London Harbour.

The containers shipped and landed, to and from overseas ports, during 1974 and 1975 remained more or less constant, but coastwise containers, shipped and landed, increased from 1974 to 1975. It is believed that container traffic will increase considerably in the future as a result of the advantages of containerization.

c. Container and Palletised Traffic of the S.A.R. & H.

The ports in South Africa are controlled, managed and operated by the S.A.R. & H., who finance and establish all the port facilities, such as harbour works, navigational aids, wharves, cargo sheds and handling of equipment, and provide cargo handling and transport services, tug services and pilotage, but no stevedoring services on board ships. The latter is provided by private licenced companies.

The S.A.R. & H. is a public service organisation, providing a national transport service and operates the railways, harbours, airways, road transport and pipelines. The general manager, assisted by two deputy general managers and eight assistant managers, controls and manages the entire organisation and is answerable through the Minister of Transport to Parliament.

The S.A.R. & H. also take on an important incentive function for foreign trade. When utilising containers in South Africa, the S.A.R. & H. offers the following incentive to importers and exporters :

1. A 5% rebate on harbour landing and shipping charges.
2. A 5% rebate against railage rate for import and export traffic in containers, provided the commodity falls within the S.A.R. & H. Tariff Headings I - IO inclusive.
3. For internal domestic movement of loaded privately owned containers, a 10% rebate against railage rate is granted.

Other requirements of the S.A.R. & H. are :

1. That containers achieve a minimum payload per unit for calculation of railage, which are as follows :
 - 20 foot ISO containers 4 000 kg
 - 40 foot ISO container 8 000 kg
2. Empty ISO containers railed from one point to another within the Republic incur S.A.R. tariff No. 6.
Empty containers being returned to the original port of entry are charged at S.A.R. tariff 8, provided the following

clauses are included in the body of the consignment note :
"This is to certify that the container was received full by rail at the station from which the empty is being despatched and that it is being returned by the original consignee to the sender of the container when full at the original forwarding station. We further certify that the empty container is being returned for despatch by rail on the same trailer upon which the container was received full, under cover of the delivery note, dated truck no./trolley number." If the above clauses are not included then railage will be charged at rate 6.

3. The S.A.R. provide a local compulsory road delivery service for empty / loaded ISO containers which are charged on a radius basis.

At present this service is only available in Cape Town, Durban and Johannesburg. For a loaded 20 ft. container being delivered within a 10 - 20 km radius of 'City Deep' will be charged a flat rate of R30,00 and for an empty container R10,00.

When containers are delivered by road, the S.A.R. allow 4 hours free standing of their trailers to enable the receiver to remove his goods from the container. After this period the trailer will incur demurrage for the receiver's account. At present, demurrage is running at a rate of R2,80 per trailer per hour or part thereof.

Containers received into private sidings on rail trucks are allowed 12 working hours before demurrage is charged at a rate of R15,60 per truck per day.

Demurrage charges on containers cleared for delivery by rail are payable up to and including the day of clearance. However where containers are not cleared within the 3-day period allowed for all formalities to be completed, storage charges are payable from the day following the day on which the ship commenced discharging containers e.g. ship arrives and commences discharging on the 7th of January.

Three day period 8 to 10th January.

Clearing effected before or on 8, 9 or 10th January - no storage.

Clearing effected after the 10th of January - will have to pay storage from the 8th of January.

Demurrage charges on containers for local delivery are payable up to and including the day they are uplifted from

the departmental stacking park. If cleared within the 3-day period allowed, storage charges commence on the day following the expiry of the 3 days. Where containers are cleared after the expiry of the three day period, storage charges are payable from the day following the day on which the vessel commenced discharging containers.

The following demurrage charges are currently payable :

3 metre (10') container	- R6,00 / day.
6 metre (20') container	- R12,00 / day.
over 6 metre container	- R24,00 / day.

A container is defined by the S.A.R. as :

- (a) of permanent character and accordingly strong enough to be used repeatedly ;
- (b) specially designed to facilitate the carriage of goods by one or more modes of transport without intermediate re-handling of the goods themselves ;
- (c) fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another ;
- (d) so designed as to be easy to fill and empty.

Note : The term "container" includes neither vehicle nor conventional packing.

A Pallet is a portable platform, with or without superstructure, for the assembly of a quantity of goods to form a unit load, for handling and stacking by mechanical appliances. (2)

The types of containers that are used are the General Purpose Non-Collapsible container, the Collapsible container, the Steel Mesh container and Portable tanks.

Goods which are despatched as a single consignment in privately-owned approved containers are charged on the nett weight of the contents only, subject to a minimum weight of 4 000 kg per short truck. On such consignments rail rebates of 25% are applicable on tariffs I to 5 and 33 $\frac{1}{3}$ % on tariffs 6 to 10. In addition a rebate of 5% is allowed on the railway charges if the containers are packed or unpacked in South Africa. A reduction of 10% in the rates applicable is allowed on high-rated traffic, contained in the consignment, should the container be both loaded/packed and unloaded/unpacked by sender/consignee in South Africa and South West Africa. (3)

d. Tariff Structures.

The question that is now being asked with the change over to containerization is " Will the tariff structures be higher ?" or "Will it cost me more ?" This question cannot be answered directly, because with a container service tariff the rate structure is no longer confined to just the sea leg of the complete transport chain but, by option, can relate to any of the individual elements between place of manufacture to place of final acceptance.

The Conference Lines have recently introduced completely new tariffs to replace the existing ones which have not changed radically in their style and format for at least fifty years.

These new tariffs are designed to be fully comprehensive in that they will cover the carriage of cargo in break-bulk form and / or containers in both conventional and container services with a rating structure which can span any combination of charges between door to door and port to port.

The new tariffs will provide rates and charges for five clearly defined elements namely :

1. Inland between place of acceptance and ship terminal gate.
2. Terminal cross quay and handling charges at port of shipment.
3. Sea voyage.
4. Terminal cross quay and handling charges at port of discharge.
5. Inland between terminal gate and place of delivery.

2. Transport Systems.

a. Railway Connections.

Any harbour is to a large extent dependent on the feeding systems of railway connections to and from the interior

or its hinterland. Time and distance for exports to reach ports and imports to reach the country's main markets, are both vital.

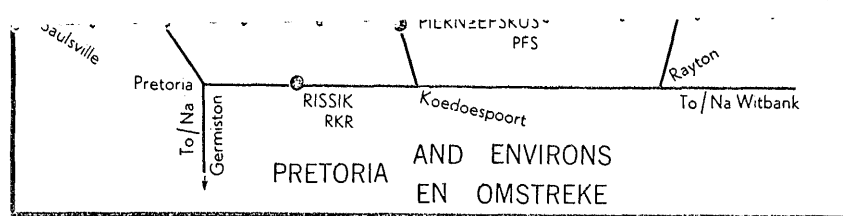
In January, 1874, the construction of the railway line between East London and Berlin commenced. It was to be 28 miles (about 45 km) long and surveys of the country between King Williams Town and Queenstown were made for a proposed line.

It was decided to by-pass King Williams Town, but to provide a junction to it from Blaney. This junction from Blaney reached King Williams Town on May 1, 1877, and the line was completed to Queenstown in May 1880.⁽⁴⁾ This line was extended, reached Molteno in November, 1884, and Aliwal North in August, 1885. Aliwal North remained the terminus of this Eastern Line until 1892.

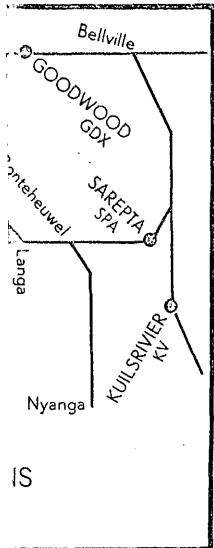
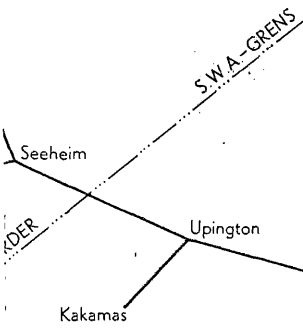
The line from Bloemfontein to Viljoens Drift was completed in May, 1892, and at the same time the line from Albert Junction (now Dreunberg) to Springfontein was opened for traffic, providing East London with direct communication to the Transvaal border. A few months later the line from Viljoens Drift to Germiston was opened, providing East London with a direct railway line to the Witwatersrand Goldfields - the shortest route from any of the Cape Ports. A branch line from Bowkers Park to Tarkastad was completed in 1900 and one from Molteno to Jamestown in 1931.

In 1939 the reconstruction of the Eastern Main Line was sanctioned. This involved a complete relocation of the line, particularly between Amabele and Imvani, where extensive use was made of heavy earthworks and tunnels. This reduced the mileage between East London and Queenstown by 16 miles (about 25,6 km). On February 1, 1896, the line to Indwe was completed, linking it up for the much needed coal from Indwe.

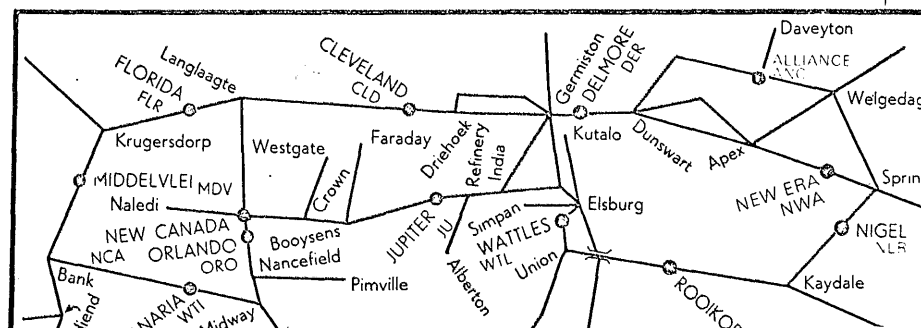
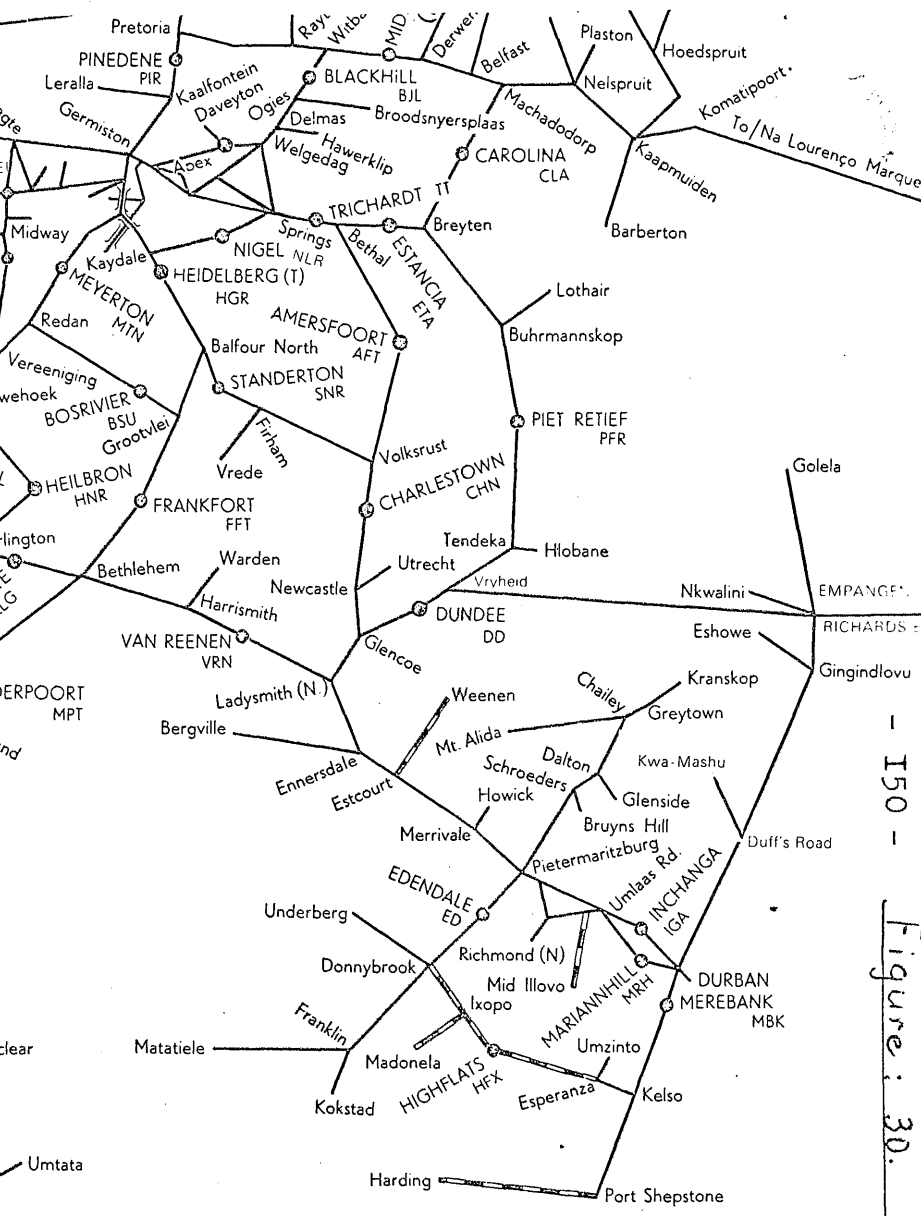
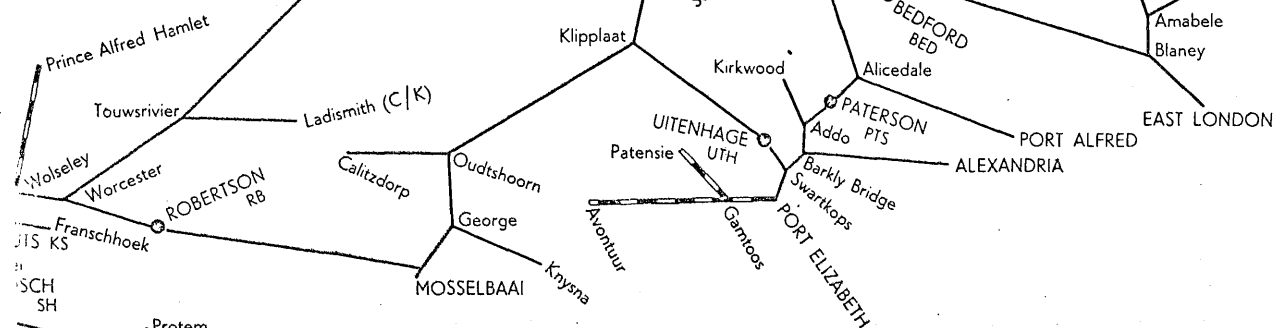
The line from Amabele reached Butterworth in 1906, was extended to Idutywa in 1913 and to Umtata in 1916. The line



-Gobabis



IS



- 150 -
Figure: 30.

from Indwe reached Maclear in 1906, passing about 3 miles (about 5 Km) away from Dordrecht. It was not until 1932 that a deviation, giving Dordrecht direct rail communication for the first time, was authorised. Finally, in 1927, a short line was built from Imvani to Qamata.

Eventually the Cape Government built a line from the Natal border to Matatiele and Kokstad, leaving a gap between Umtata and Kokstad and another gap between Maclear and Matatiele. (See Figure 30). They had no intention of closing these gaps. It was not desirable from the point of view of East London, which was the business centre for the Native Territories, and would be seriously handicapped if it had to share this trade with Durban.

In 1915 the railway line from Aliwal North towards Lady Grey and Barkley East was started but only reached Barkley East, its present terminus, in 1930. Meanwhile, in 1916, Aliwal North had been linked with lines in the Orange Free State.

By 1910, when the four Colonies were unified into the Union of South Africa, the pattern of railway development in the Border Region had been very largely determined. In the years since Union, only 260 miles (about 416 Km) of line have been constructed, compared with 942 miles (about 1 507 Km) up to May 31, 1910. Since 1931, no further railway lines have been constructed in the Border Region, the Railways Administration having provided communication with many of the outlying districts by means of its Road Transport Service. (5)

The routing diagram of the South African Railways (see Figure 30) shows very clearly how the main lines are linked with our harbours. The Transvaal via Volksrust, the North and North-Eastern Free State via Bethlehem, Harrismith, joining up at Ladysmith to Durban. The Northern main line through the Free State, diverging at Springfontein to Port Elizabeth or East London, and the line from Bloemfontein via Aliwal North, joining at Stormberg the line from Rosmead, via Queenstown to East London.

The railway connections which are advantageous to East London harbour are : the line passing through the North-Eastern Cape branching off from Springfontein via Bethulie; and the line from Bloemfontein via Aliwal North, joining up at Dreunberg

via Queenstown to East London, giving East London an advantage over Port Elizabeth as to distance. Branch lines joining the Eastern Main Line are from Barkley East, Jamestown, Maclear, Tarkastad, Seymour, Fort Beaufort, Qamata and Umtata. The gaps between Maclear and Matatiele, Umtata and Kokstad still exist, so that there is no link between the Cape Eastern System and the Natal System.

b. Road Transport Services.

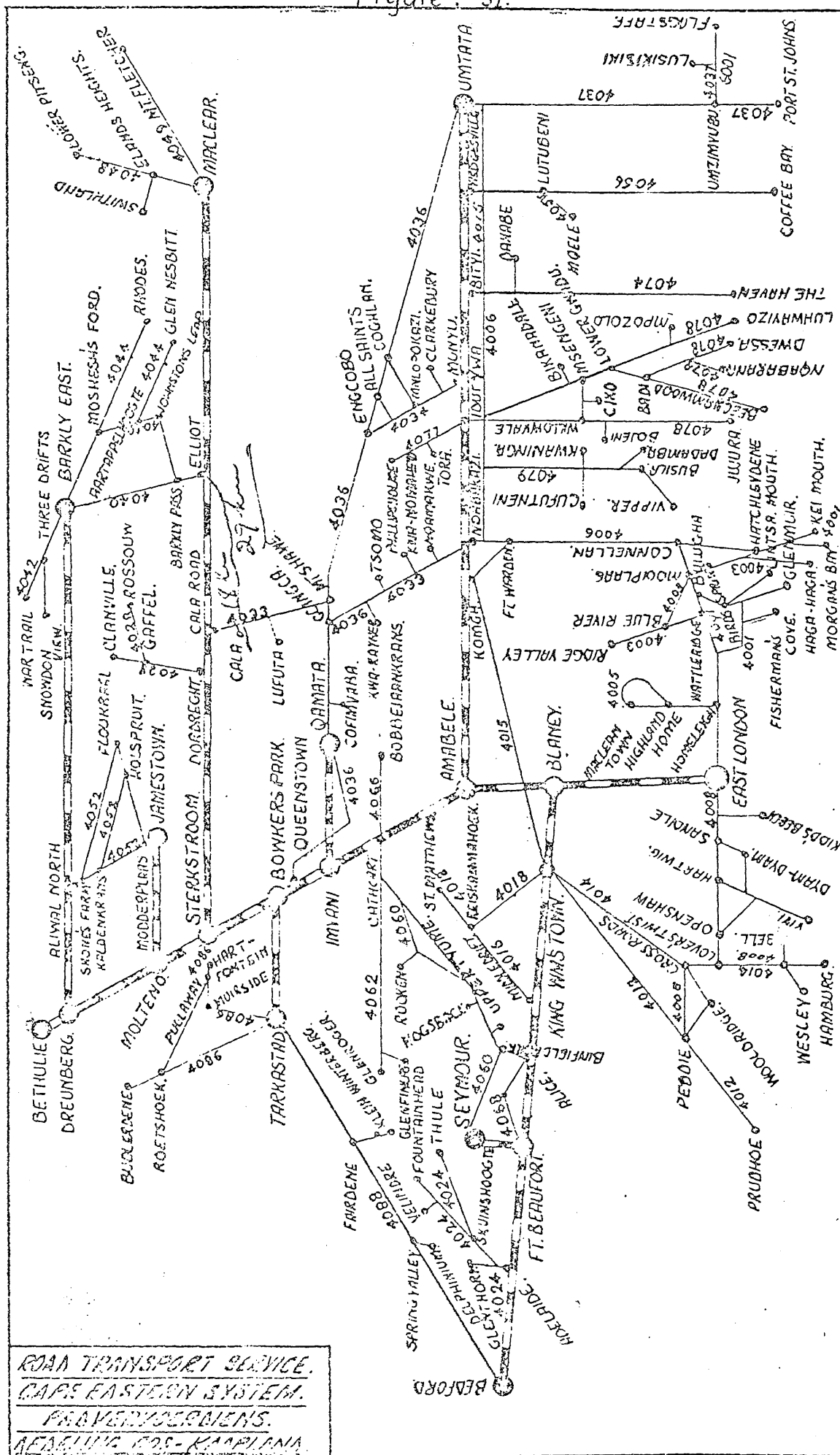
With the improvements in road construction and maintenance, and the building of national roads, the importance of the road as a feeder to the railway cannot be over-estimated. This is emphasized by the Administration's policy of not building branch lines any more, but rather developing Road Transport Services to provide communication in areas not served by the railways. The Railways Administration's Road Transport Service operates passenger vehicles, goods vehicles and dual purpose vehicles, and is by far the largest of the commercial carriers in the rural areas of South Africa.

In 1930 the Motor Carrier Transportation Act was passed to control road motor transport. In terms of this Act, Boards were set up to issue licences to both ancillary and public carrier motor transport.

Each form of transport has advantages within certain spheres and for certain types of traffic. Motor transport is better adapted to the carriage of high grade commodities and for short hauls, whereas trains are better for long haul movement of goods, particularly in truck-load quantities.

As seen from the railway map (Figure 30) the whole vast area of the Transkei and certain parts of the Ciskei are without any railway facilities and are served by and dependent on the Road Transport Service of the Cape Eastern System. It renders an intensive service throughout the whole area, linking all outlying districts in the Transkei and Ciskei to the terminal railway points.

Figure 31 shows the whole system of Road Motor Transport Services of the area and how they are linked with railway lines. On the Eastern side of the main railway line, lie all the



different routes connecting with Barkley East, Jamestown, Maclear, Qamata, Umtata and direct to East London. On the Western side of the main line lie the routes connecting with Tarkastad, Bedford, Seymour, Alice, King Williams Town and direct to East London.

This system is served by about 110 different routes, providing an efficient sub-distribution service to the most important places. The focal point of the transport system of the Border Region is East London, a fact which is undoubtedly due to the existence of Buffalo Harbour.

The area of the Transkei and Ciskei practically surrounds East London, and as these areas are mainly dependent on road transport, it exercises an indispensable function in respect of the transportation requirements of industry and trade in the area.

3. Tariffs, Rebates and Concessions.

Specially reduced rates were introduced by the Railway Administration to stimulate exports from the Border area by assisting producers to compete in overseas markets at favourable prices. This policy was also actuated by a desire to secure a more even flow of traffic between the ports and the inland area, for in the early years the traffic consisted principally of imported manufactured commodities consigned from the ports to the interior, resulting in a constant movement of empty trucks to the coast.

a. Preferential Rail Port Rates.

At the time of Union, it was agreed that a Cape port and a Natal port would enjoy the same freight rates from the United Kingdom as well as the same rail rates to the competitive Witwatersrand area. The tariff was accordingly prepared and it was agreed that the ocean freight rate to Cape Town and Port Elizabeth would be the same, but lower than that of East London and Durban to the competitive area. (See Table II).

The basic reasoning was that cargo consigned to Johannesburg and the competitive area would be spread among the South African ports to ensure that they were utilised to the best

advantage, and this would avoid congestion.

For many years East London and Durban enjoyed the same freight rates and the same rail rates to Johannesburg, but unfortunately cargo consigned through East London was landed in lighters and when vessels started entering the harbour, the consignees were still burdened with lighterage charges. After continued representations the lighterage charge was removed, but simultaneously the Railway Administration increased the rail rate from East London to the Reef by 3c per cwt., and the rate from Port Elizabeth was increased to 5c per cwt. more than that from Durban.

Traffic between Cape Town and the competitive area was charged ordinary schedule rates and the traffic from or to Lourenco Marques (Maputo) was charged slightly more than schedule rates. This meant that traffic between East London or Port Elizabeth and places outside the competitive area was sometimes charged more than traffic between these ports and the competitive area, although in the former case the mileage or distance was less. (6)

This revised rating structure by the S.A.R., adopted with effect from September 1, 1954, retained the special rates between East London or Port Elizabeth and the competitive area of the Transvaal, but altered slightly the principle under which rail rates from these ports to the Transvaal competitive area were not based on distance but on the rate from Durban to the stations concerned, plus the surcharge mentioned. With metrication these surcharges became 7 cents per 100 kg. and 11 cents per 100 kg. respectively.

Although it was recommended by the Schumann Committee that this arrangement be abolished, because the rates represented a form of preferential rating granted to certain railway users and the granting of those rates placed those users in a favourable competitive position vis-à-vis other users, particularly those in the Western Cape and the Orange Free State, the rates remained in force until April 1, 1976.

With the rates revision on that date (See Tariff for Port Rates, Table I6) the differential was increased to 9 cents per 100 Kg. for East London and 14 cents per 100 Kg. for Port Elizabeth.

TABLE 16

T A R I F F

(CENTS PER 100 KGS.)

PORT RATES:	1	2	3	4	5	6	7	8	9	10
TO:										
<u>JOHANNESBURG</u> <u>(KASERNE)</u>										
FROM:										
<u>EAST LONDON</u>	784	688	604	531	467	410	361	308	239	210
<u>DURBAN</u>	745	653	572	502	440	385	338	287	221	193
<u>PORT ELIZABETH</u>	789	693	609	536	472	415	366	313	244	215
<u>CAPE TOWN</u>	1268	1112	974	854	749	656	575	489	376	329

As a result of this rating arrangement, the changing of the rate structure in the interim, and the more or less constant absolute differential retained, the relative rate reduction in fact meant an increase and the competitive area expanded. With effect from September 1, 1976, steps were taken to curb this expansion and the constant differential was abolished. The new differential in the case of East London is as follows: (See Table I6).

Tariff No. 1	39 cents per 100 kg.
Tariff No. 2	35 cents per 100 kg.
Tariff No. 3	32 cents per 100 kg.
Tariff No. 4	29 cents per 100 kg.
Tariff No. 5	27 cents per 100 kg.
Tariff No. 6	25 cents per 100 kg.
Tariff No. 7	23 cents per 100 kg.
Tariff No. 8	21 cents per 100 kg.
Tariff No. 9	18 cents per 100 kg.
Tariff No. 10	17 cents per 100 kg.

Notwithstanding the increased differential, the rates from East London to stations in the Transvaal competitive area are still on average approximately 18,5% lower than the rates would be, were they based on actual distance. At the time of the Schumann Committee's investigations the rail port rates were approximately 17,0% lower than the ordinary schedule rates.

It is not the function of the Railways to promote decentralisation through rate considerations, and where it is found that rail rates are hampering decentralisation, it is the function of the Central Government to make any necessary adjustments. In this regard it may be mentioned that the Railways are moving to a cost-orientated rate structure, which cannot provide for preferential rates.

b. Faster goods traffic to Kaserne.

The fastest goods service between East London and Kaserne is the express goods service, guaranteeing delivery of the goods on the third day after acceptance, except when there is an intervening weekend or public holiday, when delivery is effected on the Monday or the working day following the holiday.

The transit time of ordinary goods fluctuates according to the running of the trains, and where an intervening week-end or public holiday occurs, delivery is correspondingly delayed.

Every effort is made to deliver goods as soon as possible after arrival, but as a result of the accumulation of traffic over week-ends and on public holidays, preference in delivery must be given to perishable traffic and express goods consignments on Mondays and the days following public holidays.

The transit time for a container between East London and Kaserne varies according to the running times of the train by which it is conveyed. In the case of containers dispatched by express goods, the transit time may be as little as two days, whereas in the case of ordinary goods trains, where the transit time is longer, delivery of a container may take as much as five or more days.

The rate of delivery of containers is governed by the number of empty trailers available for loading. This number, in turn, is determined by the rate at which senders load and consignees unload. When loading or unloading is not performed expeditiously, the trailers are delayed and the working of the cartage plant disrupted, which inevitably results in delays.

Sea-borne commercial traffic to the competitive area must be viewed against the background of the differentials in the sea freight rates from the United Kingdom or the United States of America to the various South African Ports. As already pointed out, sea-borne traffic with both the United Kingdom and the United States of America pays the same freight to Cape Town or Port Elizabeth: traffic to East London or Durban pays the same sea freight, which is higher than the freight to Cape Town or Port Elizabeth. In the case of sea freight, Port Elizabeth will have an advantage over East London, while the differentiated rail rate gives East London an advantage over Port Elizabeth - a way of equalising advantages and disadvantages of one port over another.

However, with reference to the new tariff introduced on September 1, 1976, it is noteworthy that the difference between the East London and Port Elizabeth rail rates is 5 cents per

100 kg., but consignees who ship via Port Elizabeth enjoy a differential of 35 cents per ton on freight; Durban's rail rate is 39 cents per 100 kg. less than East London's, with the same freight rate, which means that East London has now been completely outpriced in relation to Durban and Port Elizabeth, and is therefore not in a position to compete with either port.

c. Harbour Dues.

The tariff of dues and charges framed under the provisions of Act No. 70 of 1957 operates at the harbours of the Republic of South Africa and of South West Africa, in respect of landing, delivery and forwarding, shipping and transhipping services, and is calculated in accordance with the provisions of the Official Harbour Tariff Book. (7)

These dues and charges will not all be dealt with in detail, but the main charges are classified as follows :

1. Port and Light Dues on ships.
2. Craft and Berthing Services.
3. Drydocks and Slipways.
4. Hire of Wharf Cranes and Miscellaneous Services.
5. Surveys, Licences and Permits.
6. Lighterage and Stevedoring.
7. Landing, Wharfage and Storing Charges on Goods Landed.
8. Shipping, Wharfage and Storing Charges on Goods Shipped.
9. Transhipment Cargo.
10. Miscellaneous Charges on Goods Landed or Shipped.

In the Official Harbour Tariff Book, all these charges and the rates applicable and payable by ships are given in detail.

There are also however, special rebates and preferential tariffs granted by the Government through the Decentralisation Board. The one applicable to East London harbour is a 25% rebate on wharfage and harbour dues on goods manufactured or processed at the growth points of Berlin, King Williams Town, East London, Umtata and Butterworth and shipped through East London to other South African ports.

d. Railage Rebates.

The S.A.R. is a State monopoly and the only conveyer of passengers and goods by rail.

Goods conveyed by the Railways are classified into 14 tariff categories. Generally railway tariffs are determined according to "what the traffic can bear". The result is that low value / high mass commodities are railed much more cheaply than high-value commodities. It is the policy of the railways to narrow this gap in the tariff structure, but it is generally agreed that this can only be achieved over the long term. (8)

The Government, however, allows certain privileges to certain areas in the form of concessions, through the Decentralisation Board, such as loans at low rates of interest, rental concessions, housing, income tax concessions, cash grants for moving costs, railage rebates and rebate on harbour dues. (See Appendix No. 3I).

The railage rebate is granted on a selective basis in respect of certain industrial products and of goods manufactured in certain areas. The one applicable to the Border region is a 40% railage rebate for the growth points at Berlin, King Williams Town, East London, Umtata and Butterworth.

Transport costs are in many cases a factor important to industrialists, and these rebates help materially to make these areas more attractive to them and so to stimulate decentralisation.

(1) Annual Report : S.A.R. & H. 1973/74. Pages 17 - 21.

(2) Ports of South Africa. 1975. Page 219.

(3) *ibid* : Page 220.

(4) Hugh H. Smith : The Transport System of the Border Region.
Page 78.

(5) *ibid* : Page 122.

(6) *ibid* : Page 195.

(7) Ports of South Africa. 1975. Page 148.

(8) State of S.A. Yearbook. 1974. Page 562.

Chapter 7.

Present Utilisation of East London's Harbour Facilities.

a. Shipping-Lines serving East London Harbour.

In South Africa we deal primarily with three Conference Lines:

The S.A./U.K., N.Continent Conference Lines.

The S.A./ Far East Conference Lines.

The S.A./ North American Conference Lines.

The following lines operate between the United Kingdom and all South African ports:

1. The Union-Castle Mail Steamship Co. Ltd.
2. The Clan Line Steamers Ltd.
3. Ellerman and Bucknall Steamship Co. Ltd. (Managers - Ellerman City Liners).
4. Hall Line Ltd. (Managers - Ellerman City Liners).
5. Harrison Line.
6. Springbok Shipping Co. Ltd.
7. Houston Line Ltd.

The following lines operate between the North-West Continental Ports as far as Hamburg to all South African ports:

1. Koninklijke Nedlloyd.
2. Compagnie Maritime Belge (Lloyd Royal) S.A.
3. Rederiaktiebolaget Transatlantic.
4. Compagnie des Messageries Maritimes.
5. Compagnie Maritime des Chargeurs Reunis.

The following operate from both the United Kingdom and the North-West Continent to all South African ports:

1. South African Lines Ltd.
2. South African Marine Corporation Ltd.
3. Deutsche Ost-Afrika Linie, G.m.b.H.

The two lines : Companhia Nacional de Navegacao and Companhia Mocambicana de Navegacao operate between Portugal and the South African ports while the two lines : Lloyd Triestino and Ignazio Messina and C. operate between the Mediterranean ports and all South African ports.

The Rederiaktiebolaget Transatlantic Line operates between Scandinavia and South African ports.

The Lines serving South African ports to and from the United States of America are :

1. S.A. Marine Corporation Ltd. (S.A.)
2. Farrell Lines (American).
3. Moore-McCormack Lines Inc. (American).
4. Lykes Line ex Gulf only (American).

From Japan and Hong Kong to South Africa and vice versa, the services are operated by Japanese Lines and South African Marine Corporation Ltd. (S.A.)

b. Main Ports of Loading.

United Kingdom - Southampton (mail vessels only), Middlesbrough and London on East Coast and Liverpool on West Coast.
Continent - Hamburg, Bremen, Rotterdam, Antwerp, Dunkirk and le Havre.

Mediterranean - Venice, Trieste, Naples, Leghorn, Genoa, Marseilles, Barcelona, Valencia.

U.S.A. - Gulf and Atlantic ports - New York, Philadelphia, Baltimore, Newport, Charleston, Savannah, Houston and New Orleans.

c. Policy of the Lines.

Where a number of shipping companies operate in the same trade, it is worldwide practice for them to get together and agree to certain working arrangements and in particular the application of a common tariff of rates of freight. It is claimed that the conference system ensures a uniformity of procedure and stabilised rates, of sailings and of loading and discharge ports. Regular schedules, special facilities such as refrigerated space, and reliability of treatment are said to be the principal benefits passed on to the Shipper.

The Conference System has been carried a stage further in respect of the S.A./U.K., North East Continent. To secure even greater stability than that envisaged under a conference system, a contractual arrangement has been entered into by the SOUTH African Government and the Perishable Products Export

Control Board on the one hand and the S.A./N.E.Continent / U.K. Conference Lines on the other. The substance of the agreement is that the S.A./N.E.Continent and U.K. Conference Lines will provide a regular freight service with adequate specialist functions at freight rates which may only be changed after consultation with the South African Government, which would in turn use its influence with the South African Shippers to persuade them to use only the Conference Lines.

The advantage of this is that a regular and reliable service with fairly stable rates is provided, but it also has the disadvantage that when shipping competition is fierce, the shipper is not able to derive any benefit from cut rates.

On average, these Lines maintain rationalised services to and from Europe and South Africa, varying from weekly to fortnightly and in some instances a monthly service. All the Lines carry general cargo and, with the virtual exception of the Union-Castle Mail Steamship Co. Ltd. do not carry passengers. The Union-Castle Mail Steamship Co. Ltd. operates only between Southampton and South African ports on a strict weekly service and enjoys full priorities at both ends, such as reserved berthing space and exemption from congestion surcharges if the port is congested. No other Lines enjoy port priorities either in country of origin or South Africa.

d. Congestion Surcharges.

When a harbour is congested and ships must wait to be unloaded, they lose valuable time and pay more harbour fees and shippers may be liable for demurrage. The Lines then impose a congestion surcharge on goods loaded or unloaded at that harbour. This surcharge is based on the freight rate, and the importer must then pay more, with the result that if one port is congested the surcharge diverts cargo to other ports where there is no congestion and no surcharge. For example, if a 100% surcharge were applied to Durban and none to East London, there would be such a rush of shipping to East London that East London in turn will also be congested. On the other hand, if a 100% surcharge were applied to East London and only 50%

to Port Elizabeth, then East London's harbour would be emptied and the pile-up would be transferred to Port Elizabeth. It is therefore clear that different surcharges applied to different harbours might result in chaos in the South African ports.

The Lines were therefore asked to apply the same congestion surcharges, when these were deemed necessary, to all South African ports, even though some might be under - utilised at that moment. This was agreed by most^{of} the Lines, but some still imposed different surcharges on the different harbours according to the period of delay to shipping.

Congestion surcharge did not apply to mail ships owing to the priority given at all ports for this service. There is however a standard small increase in freight rate applicable to mail vessels, which is presently 15% over the basic tariff. This helps to compensate for the huge costs of operating large vessels on a regular service.

Congestion surcharges originally came into operation in November, 1974, and were based on the freight rate. Between Europe and South Africa the surcharge was as follows:

November 4, 1974	-	20%
March 3, 1975	-	40%
April 14, 1975	-	20%
June 30, 1975	-	12½%
September 1, 1975	-	Nil.

Between South Africa and Europe a 10% surcharge was officially introduced on November 4, 1974, and was not changed. The surcharge was cancelled on June 30, 1975.

To and from the United States of America, the following surcharges were the same in both directions :

September 5, 1974	-	15%
October 25, 1974	-	25%
December 7, 1974	-	35%
January 9, 1975	-	50%
March 15, 1975	-	100%
April 1, 1975	-	50%
May 12, 1975	-	25%
September 28, 1975	-	10%
December 1, 1975	-	Nil.

Consequently, something very like a boycott was in operation from January 9, 1975 to May 12, 1975.

Surcharges imposed to Japan and the Far East were :

August 29, 1974	-	10%
October 7, 1974	-	15%
December 12, 1974	-	40%
May 1, 1975	-	20%
May 20, 1975	-	Nil.

Surcharges from the Far East to South Africa were :

September 1, 1974	-	10%
October 7, 1974	-	15%
December 15, 1974	-	40%
May 29, 1975	-	Nil.

East London was singled out by the Lines as the port with the worst record of delays in 1974. ⁽¹⁾ Some of the Lines, especially American Lines, imposed a 100% surcharge on freight and cargo to East London, which naturally had a detrimental effect on the working of the port. Importers therefore diverted their imports to Port Elizabeth and Durban, with the consequent loss to East London of a substantial amount of trade. ⁽²⁾

As the port was already seriously under-utilised, this position may appear anomalous. It must be borne in mind that empty berths in a harbour are not necessarily the ruling factor in regard to congestion. Other activities such as utilisation of cranes, crane drivers, trucks, truck drivers, stevedores, storage, customs etc. must also be completely geared up to handle increased traffic.

e. The Utilisation of East London Harbour.

(i) Berth Occupation.

The East London port has at its disposal seven commercial quays, a container berth, the elevator berth and a tanker berth.

According to the number of ships arriving in port every day, and the number of days ships stayed over in the port, a monthly percentage of berth occupation is calculated. ⁽³⁾

Table I7 gives a summary of the monthly percentage berth occupation for East London harbour for the years 1970 to 1975.

TABLE 17

PERCENTAGE BERTH OCCUPATION - EAST LONDON HARBOUR

Month	1970	1971	1972	1973	1974	1975
January	63,3	79,3	62,6	51,0	62,6	97,3
February	62,8	73,9	70,8	57,6	56,6	96,4
March	67,7	64,1	62,2	56,6	75,1	56,7
April	68,6	79,5	70,4	64,7	69,5	48,8
May	66,8	76,5	62,2	57,6	82,5	58,7
June	70,5	83,8	52,2	63,3	95,4	73,6
July	63,6	76,5	53,9	53,4	95,6	68,8
August	72,4	68,2	57,6	61,9	98,3	52,7
September	80,0	63,8	51,4	63,8	97,8	70,8
October	77,9	79,7	55,7	56,2	97,3	52,3
November	79,1	63,8	64,7	63,8	100,0	61,1
December	83,9	73,7	52,9	65,5	98,4	60,8
Average	71,4	73,6	59,7	59,6	85,8	66,5

Total Average 69,4%.

Source: From Records of the S.A.R.& H. Administration -
East London Harbour.

The average berth occupation of 69,4% illustrates the earlier statement that East London harbour is far from fully utilised. Comparing the different years it is noticeable that during 1970 and 1971 berth occupation remained more or less the same at 71,4% and 73,6% respectively, but in 1972 and 1973 there was a considerable drop to 59,7% and 59,6%. In 1974 there was a remarkable increase to 85,8% which was due to the closing of Lourenco Marques harbour and the consequent congestion at Durban, which resulted in the extra traffic being diverted to East London. This started in June 1974, and lasted until February 1975 : with the congestion at East London and the delay in working ships, the different Lines then imposed a 100% surcharge on freight and cargo to East London, as already mentioned. This again diverted the traffic from East London harbour with the result that the average berth occupation dropped to 66,5% in 1975.

(ii) Quay Occupation.

The Administration realises that harbour occupation according to ships entering and leaving the harbour does not give a true picture of the utilisation of the harbour. The harbour and berths may be fully occupied, but this does not necessarily mean that all the berths are fully utilised.

The Administration therefore collected statistics for every quay on a 24hour-basis, according to working hours available and working hours occupied at each berth. These statistics are given in Appendices 26 to 30. From these appendices the following summary has been compiled for the utilisation of each berth in East London harbour - see Table I8.

This presents a rather different picture with an average of 49,7% compared to an average of 69,4% according to the number of ships arriving at and departing every day from the port. This lower average is due to the fact that ships are assigned to the berths early in the morning and very seldom late in the afternoon, when the quay is not working any more. Further, some of the bigger ships occupy two berths at the same time and hence virtually put one berth out of operation. On a basis of 24-working hours, it is obvious that a quay working one shift cannot be utilised for more than one-third,

TABLE 18

BERTH OCCUPANCY : EAST LONDON HARBOUR
(ACCORDING TO WORKING HOURS AVAILABLE,
AND WORKING HOURS OCCUPIED AT BERTHS.)
PERCENTAGE QUAY UTILISATION 1971-1975.
(COMPILED FROM APPENDICES NO. 26 TO 30)

Berths	1971	1972	1973	1974	1975	Average
East Bank:						
L	64,2	56,4	54,3	81,1	55,6	62,3
KM	51,3	42,8	45,0	63,0	39,7	48,4
KC	50,1	39,5	41,0	63,8	40,5	47,0
I	50,2	41,0	44,0	70,4	43,4	49,8
G	62,7	46,9	47,9	80,8	55,3	58,7
F	62,3	50,9	47,3	77,4	53,3	58,2
West Bank:						
N	54,2	46,0	43,2	74,0	43,5	52,2
O	32,5	27,9	38,3	48,3	47,5	38,9
P	48,5	38,6	43,3	69,0	51,2	50,1
R	52,4	45,3	49,8	78,1	50,4	55,2
Other Berths:						
T. (Grain Elevator)	54,1	57,2	50,8	77,3	85,4	65,0
S. (Sundries)	41,6	64,5	40,2	63,3	50,1	51,9
Oil Tankers	33,6	39,6	27,4	52,0	54,9	41,5
Graving Dock	61,0	63,9	59,2	51,9	73,0	61,8
C. (Coal)	16,7	0,1	0,9	0	0	3,5
Average	49,9	44,0	42,2	63,3	49,6	49,7

Source: From Records of the S.A.R. & H. Administration -
East London Harbour.

and a quay working double shift, two-thirds of the time. So we may still have a high percentage occupancy but a low percentage utilisation.

Considering working hours available, compared to hours worked at the different berths, gives a far more realistic figure of the utilisation of the port. According to the summary given (See Table I8) there was no marked degree of difference in the averages for the different years, except in 1974 when it was much higher : this correlates with the previous summary and was a result of the port congestion during 1974, as mentioned earlier, when much overtime had to be worked to try to ease the congestion.

Another significant feature is that C Berth, originally designated as a Coal Berth, is not used any more, and was found on investigation to be used at present to berth the tug-boats.

Table I8 shows that the aggregate average percentage berth utilisation for East London harbour for the period 1971 to 1975 was 49,7%.

(iii) Working Capacity.

The two-shift system, which has been developed for the attainment of higher productivity through the better utilisation of existing harbour assets over a greater portion of a day - i.e. 16 hours of a 24-hour period - has been successfully applied on an experimental basis at the ports of Cape Town, Durban, Port Elizabeth and East London.

During the experimental period, it has been proved that the system has great advantages for the Department and its employees in the ports as well as for port users. Notwithstanding a gradual decline in the number of ships calling at the ports and consequently a decline in the tonnage of general cargo handled since the introduction of the two-shift system, results point to a general increase in productivity, especially in instances where work has been performed under pressure.

With a computerised and document-control system now being tested in the practical work situation, it will be possible to determine whether the desired higher productivity in the handling of cargo is being attained. The computer and document-

control system has been designed to set a target for the period in which each general cargo vessel's cargo has to be landed and / or shipped at a specific berth. Cargo handling norms, based on a realistic rate at which the different commodities / packings are normally handled by wharf cranes, are used for the calculation of tasks based on harbour tons. The final task or period in which a ship's cargo-handling activities should be finalised is expressed in crane-hours.

From October 16, 1975, harbour staff employed on cargo working will be expected to reach or exceed the pre-calculated task level per ship before they will be entitled to the incentive payment. (4)

The double-shift system was introduced in East London harbour on February 16, 1975, and also incorporated the incentive bonus system. The harbour employees now work two shifts - from 06h00 to 14h00 and from 14h00 to 20h00.

When a ship enters port, the estimated time to offload and load is worked out by computer. If, for example, it is estimated the offloading and loading should take 100 hours, the men are told by what time the work has to be completed. If work on this particular ship is only completed in 101 hours, the men working on that ship do not receive the incentive bonus - which is three hours' pay.

The task set to the men is however always within easy reach. Should the weather or other physical disabilities, like crane breakdowns, hamper offloading or loading operations, the men do not lose their bonus if the ship is not cleared within the stipulated time. The System Manager at East London has said that should port congestion occur, the three-shift system will be introduced, whereby the harbour will be worked round the clock. This will, however, be introduced only if the traffic build-up is permanent.

The speed of loading and offloading also depends on the number of cranes available at different berths. At present the tanker berth, the elevator berth and the container berth are not served by shore cranes. At K and L berths there are 14 wharf cranes, 12 of which are of 4-ton capacity and two are 15-ton. F, G and I berths are served by 12 wharf cranes,

eleven of 4-ton capacity and one of 15-tons. The N / O and P / R berths on the West Bank are served by 12 wharf cranes, eleven of 4-ton capacity and one of 20-ton. At all the berths there are the necessary handling appliances and other back-up facilities to serve the cranes adequately.

Taking everything into consideration, the improvement in working capacity of East London harbour compares very favourably with that of other South African ports, as shown by the following statistics : (5)

Average Turning-time per Ship. (Total Hours).

	Durban (Hours)	Cape Town (Hours)	Port Elizabeth (Hours)	East London (Hours)
1974	234,2	71,2	71,9	72,0
1975	185,3	64,6	56,8	45,7
Reduction %	-20,9%	-9,3%	-21,0%	-37,3%

The turning-time of a ship is taken from the time when she enters port, offloads and loads, until she leaves port again. All the ports showed a reduction in the turning-time for 1975 compared with 1974, i.e. ships were handled more quickly and saved time in port. East London harbour tops the list by showing the highest percentage, 37,3%, in reducing the turning-time per ship from 1974 to 1975.

Considering the nett tonnage handled by the harbours in terms of tonnage handled per wharf per hour, there is an increase in the working capacity for all the South African harbours.

Tonnage per nett Quay / Crane / Hour.

	Durban (Tons)	Cape Town (Tons)	Port Elizabeth (Tons)	East London. (Tons)
1974	13,3	16,1	18,0	14,0
1975	17,2	19,4	19,2	21,1
% Increase	+29,3%	+20,5%	+6,7%	+50,7%

With the highest increase of 50,7%, East London harbour improved its efficiency and working capacity to a high degree

over the period from 1974 to 1975.

- (1) Minutes of the - Meeting of the Harbour Advisory Board -
on November 28, 1974.
- (2) Minutes of the - Meeting of the Harbour Advisory Board -
on January 23, 1975.
- (3) Statistics obtained from the Port Captain's Office of
monthly returns to the Harbour Advisory Board.
- (4) Harbour News, 1975, No. 6. Page 2.
- (5) Statistics obtained from the System Manager's Office at
East London.

Chapter 8.

Future Potential of East London's Harbour Facilities.

I. The impact of Containerization as introduced by the S.A.R. & H. Administration.

The S.A.R. & H. Administration decided to introduce containerisation on the South African trade routes, and South Africa is at the present the focal point of interest in the field of container development. South Africa's position is unique in that nowhere else in the world has a containerisation project of this magnitude been tackled in such a short space of time. On all the other trade routes containerisation has been initially introduced on a limited scale and developed in stages.

Experimental development of the organisation, systems and procedures was consequently necessary, as it is expected that South African operations will commence with a large volume of containerised traffic. This means that the facilities required to handle the containers must be carefully planned and the organisation, systems and procedures fully worked out, to ensure that the Administration is geared and ready when containerisation is officially introduced.

At this stage the Administration's planning of the programme for the provision of container facilities at the ports is proceeding apace, by supplying the ports with the necessary container wharf cranes, straddle carriers and other container handling equipment such as rail / road transfer cranes and fork-lift trucks.

The Administration decided however that the volume of container trade passing through East London did not warrant the expense of developing it as a major container port, so it is designated as a feeder port only. This means that East London will not be provided with the equipment necessary to handle big overseas containers weighing up to 40 tons. All the overseas containers from Europe to East London will be landed at Cape Town and transported by Coaster Container ships to East London, and overseas containers from East London will be shipped to Durban to be loaded there. These containers will be handled by the coaster container ships' own gear. Coasters have derricks up to 40 tons while Container Ships have no derricks.

At East London harbour provision has been made for a container berth with the extension of the West Quay, but at this stage it is not yet certain whether the Administration will provide a shore-based container wharf crane able to handle big containers. The prospects of substantial overseas trade in big containers are not bright in the foreseeable future. A big container crane would enhance these prospects but whether sufficiently to justify the heavy capital cost is open to question. As far as coastal trade is concerned, a big container crane might prove an active cause of controversy. The Coaster Companies have made it quite clear that they do not consider the provision of a container wharf crane at East London to be necessary, as their vessels can handle containers with their own gear. The harbour regulations state that where a facility is provided, it has to be used, so the coastwise operators would have to make use of the container wharf crane were it provided, costing them more than when their ships used their own derricks.

In the container trade, therefore, two distinct spheres are at present involved : the coastal traffic between Durban, Cape Town , Port Elizabeth and East London, and the international overseas trade from the United Kingdom and Continent - and a third one will soon enter the picture. Containerisation will not end with the North-West Continent and United Kingdom traffic, but will ultimately spread to the U.S.A. and the Far East. There are already indications that this trade is building up.

The following questions will arise :

- (1) as to how containers coming from these directions will be handled at East London's port in future ?
- (2) East London has been designated a feeder port - should this position be accepted now and if so, for how long ?
- (3) should East London have main container port facilities i.e. principally a big container wharf crane ?

Arguments for and against, resemble the egg and chicken argument - are the facilities necessary to stimulate the trade, or must the trade come first to justify the provision of the facilities ? Provision of a container wharf crane for East London

may represent a considerable capital expenditure, but is a negligible sum in terms of national or even provincial expenditure if one has faith in the overall future of South Africa, the Border region and the new States dependent on East London's harbour. The balance of argument seems to indicate that East London port should be provided with a wharf crane capable of handling containers that may be expected in the future from sources other than the coastal trade.

The Port Manager of East London harbour has stated that at the present time a 35-ton sideloader, a 15-ton stacker and a $7\frac{1}{2}$ -ton stacker are available at the container berth, and in his opinion these will be adequate to cope with existing container traffic.

From the minutes of discussions in late 1975 between the Coastwise Conference Lines and the S.A.R. & H. Management, it was apparent that the Coastwise Conference Lines were confident that the derricks on their vessels would be capable of handling up to 35 containers of any size per crane per hour.

According to the statistics set out in Table I5, the total number of containers handled in East London harbour (i.e. containers landed and shipped both overseas and coastwise) averaged 502 per month for 1974 and 702 for 1975, showing an average monthly increase of 39,3%. (I) This confirms that containerisation is increasing and adequate provision will have to be made at East London harbour for container facilities to meet increased demand in the future.

2. Other Facilities.

Other facilities having an influence on the utilisation of East London's harbour are the Grain Elevator, Precooling-store and the Grazing Dock.

The Grain Elevator at East London, as already mentioned, is the largest in the country, with a storage capacity of 75 300 tons, and is mainly used in the export of maize. The working capacity of the Grain Elevator is adequate and it can load ships at the rate of 1 633 tons an hour through four spouts. A seasonal congestion of maize ships is still experienced every year, when ships have to await their turn at anchor outside in

the roadstead. This is sometimes due to late harvesting as a result of late rains inland.

The Pre-cooling Store for the export of citrus and deciduous fruit at No.6 Quay is also adequate for handling local fruit exports. With cooling chambers with a capacity of 2724 cubic metres it can handle more than the local supply, which comes from the Kat River Valley, the only area where citrus is grown locally. With space available, regular consignments of citrus for export are received every year from the Northern Transvaal, as Durban's pre-cooling store is fully utilised during the harvesting season.

The Princess Elizabeth Graving Dock at East London harbour is very much under-utilised. According to statistics, the average monthly percentage utilisation of the Graving Dock was 16,8% in 1974 and only 6,9% in 1975. ⁽²⁾ Although it is large enough to take big ships and all the required repairing facilities are available and adequate, the greatest obstacle seems to be to find local firms to tender for repairs. Most of the tenders to repair ships in East London are received either from Durban or Cape Town, involving a distance/cost factor, which makes it cheaper to take the ship to tenderers in Durban or Cape Town. This means that the Graving Dock at East London is used only for emergencies and minor repairs to ships, with the result that it is very seriously under-utilised.

3. Potential of East London Harbour.

Every harbour serves a specific hinterland, or is used for the export of certain commodities for which it is specially equipped. East London harbour is geographically situated to serve the Border area, the Transkei, the Ciskei and the North-Eastern Cape. These are however agricultural areas producing agricultural products such as wool, mealies, pineapples and to some extent citrus fruit, without any notable industrial or manufactured products.

From 1903 to 1933 East London was the premier wool port of South Africa. Although it was overtaken by Port Elizabeth and Durban in the latter years, is still one of South Africa's

major wool ports. In 1958 the S.A.R.&H. Administration decided to develop East London as a maize port and built the largest grain elevator in South Africa at East London harbour. Consequently the maize from the maize growing areas of the Orange Free State and Transvaal was exported through East London and it has since been known as the maize port of South Africa.

With the Government's decentralisation policy, growth points were proclaimed in this area at Berlin, East London, King Williams Town, Butterworth and Umtata. This may stimulate and speed up the industrialisation of the area, and with the expected growth at these centres and the expected economic growth of the Transkei and the Ciskei, it can readily be assumed that more manufactured goods will be exported and imported through East London harbour in the near future. East London will remain the port ready at hand and useful for this area.

4. Conclusion.

In summarising the facts and conclusions in this chapter, it is clear that the port of East London is grossly under-utilised. East London has as yet not reached anything like its peak for export or import cargo and could handle a great deal more. Since the introduction of the two shift system, the computerisation and document control system and other facilities and improvements, exports and imports are being handled very efficiently and the port is now enjoying the fruits of misfortune elsewhere, in that copper (from Zaire) and many other commodities are now coming to East London.

It has been decided to set up a Committee of Investigation into the complete replanning of the port of East London and expansion to its maximum capacity. Management's approach would be to provide the facilities for the expansion programme, short term and long term, and then to expect East London, its environments and hinterland to create the demand. (3)

To quote Mr. C.E.Lubbe, System Manager S.A.R.&H. at East London, when he addressed a group of industrialists :

"I realise that the harbour is at present under-utilised, that considerable additional tonnage of cargo can be handled with ease before existing facilities are taxed to anyway near maximum capacity and that the double shift system, which has stepped up the performance of the port to a marked degree, can be adjusted

to increase capacity still further. Additional facilities, as recommended by the committee, will, however be implemented in good time so that the capacity of the harbour will not be an impediment in so far as your import and export programme is concerned."

- (1) Statistics obtained from the System Manager's Office at East London.
- (2) Statistics obtained from the Port Captain's Office at East London.
- (3) Minutes of the - Meeting of the Harbour Advisory Board - on May 27, 1975.

Chapter 9..

Government Policy and Economic Tendencies affecting East London Harbour.

I. Government Policy regarding the Administration of Harbours.

(a) Administration.

The country's national transportation organisation comprises a comprehensive rail network, the principal commercial harbours, the internal, overborder and international airline known as South African Airways, an extensive road transport service and two pipelines for the conveyance of petroleum and related products.

The organisation has been in existence since May 31, 1910, when it took over and combined into a single enterprise the severally autonomous railway and harbour organisations of the Colonies. In terms of the South Africa Act, 1909, and the Republic of South Africa Constitution Act No. 32 of 1961, the organisation is owned and controlled by the State, ownership being vested in the State President.

It functions as a government department administered by the Minister of Transport, assisted by a Deputy Minister. The Railways and Harbours Board, consisting of the Minister (Chairman) the Deputy Minister and three Commissioners, is its advisory body. The day-to-day operation is entrusted at executive level to the General Manager, who is assisted by two Deputy General Managers and eight Assistant General Managers, each being responsible for a particular aspect of its multifarious activities.

The principles upon which the Railways and Harbours are administered are defined in Section 103 (1) of the Constitution Act. It states that "The railways, ports and harbours of the Republic shall be administered on business principles, due regard being had to agricultural and industrial development within the Republic, and to the promotion, by means of cheap transport of the settlement of an agricultural and industrial population in the inland portions of all provinces." (1)

(b) Harbours.

The ports occupy a special position in relation to the existing and expanding trade areas on the African sub-continent giving them many advantages for trade with all parts

of the world. They are constantly being improved to provide shipping with first-class facilities and services at reasonable tariffs and charges.

South African ports have a reputation for reliability and regularity of operation, largely due to the fact that the ports and the railways are controlled by one authority. This system of control ensures uniform tariffs and regulations at all ports, an efficient service and a high standard of operation. A complete range of services is provided to ships calling at these ports, including navigational aids along the entire coast. The large tugs stationed at the ports are fitted with salvage and fire-fighting equipment to assist ships in distress.

The department is responsible for all harbour services at the major ports, except stevedoring. They include pilotage, tugs, berthing, shore labour for shipping and discharging, tally clerks and checkers.

The Department also operates the port grain elevators at Durban, East London and Cape Town, as well as the pre-cooling stores for the export of fruit in these three ports and at Port Elizabeth.

The movement of cargo is largely from ship to shore for delivery by rail or road, or from the quayside to the ship. For this reason the harbours are planned to bring a ship to a quay provided with good roadways and rail connections to the hinterland. The sheds are entirely in-transit, and special warehouses for the storage of goods for long periods are not provided. Clearing agents have bonded warehouses available outside the harbour area for the storage of cargo in bond.

Handling equipment is highly mechanised and a large fleet of fork-lift and straddle trucks, mobile cranes, and other modern equipment ensures rapid loading and discharge between ship and rail. (2)

(c) Harbour Advisory Boards.

Harbour Advisory Boards have been constituted at every harbour. Each Board consists of nine members, of whom one is nominated by the Municipal Council of the town at which the harbour is situated, one by the local Chamber of Commerce, one by the local Chamber of Industries, one by the local Trade

Union, one by the Afrikaanse Sakekamer and the remaining four by the Government. In the nomination of the last-mentioned four, one is selected to represent shipping interests, one to represent persons paying harbour dues and charges, one to represent agriculture and one to represent other interests. Government-nominated members serve three years and the elected members one year.

It is the function of the Board to advise the Harbour Administration on any matter affecting the interests or welfare of any of the respective harbours. The membership of the Boards was increased from seven to nine by Act No. 49 of 1955. (3)

(d) The South African Shipping Board.

The functions and duties of the South African Shipping Board are :

- I. The Board shall receive, from any person or department of State, representations, recommendations or complaints relating to the efficiency, suitability, regularity or costs of shipping services to, from or between South African ports.
2. The Board shall investigate and evaluate all representations, recommendations or complaints received by it in terms of subsection (i) and if it deems it necessary, make representations to any person or department of State with a view to the improvement or rectification of that aspect of shipping services to which the representations, recommendations or complaints so received by it, relate.
3. The Board may of its own accord investigate the efficiency, suitability, regularity or costs of shipping services to, from or between South African ports and if it deems it necessary, make representations as contemplated in subsection (2) in connection with any matter so investigated by it.

Its powers are :

- I. For the purposes of the performance of its functions and the execution of its duties, the Board may require any shipowner or, in the case where the principal office of such shipowner is situated outside the Republic of South Africa, his representative or agent in the Republic, to furnish the Board with information relating to :
 - (a) sailing schedules to, from or between South African ports;
 - (b) the tonnages of shipping space available on the various sea routes to, from or between South African ports;

- (c) the freight rates at which goods are being carried to, from or between South African ports; and
 - (d) contracts and special arrangements entered into between such shipowner and shippers, in so far as such information relates to ships belonging to or chartered by such shipowner.
2. Any shipowner or, as the case may be, his representative or agent in the Republic of South Africa, who fails to furnish the Board with information required by it in terms of subsection (I), or who furnishes the Board with false information knowing such information to be false or not knowing or not believing it to be true, shall be guilty of an offence and liable on conviction to a fine not exceeding R500.

Membership of the Board consists of one representative each from the following :

Department of Commerce.

South African Railways and Harbours.

P.P.E.C.B.

Department of Industries.

Department of Customs.

Department of Agriculture.

Chamber of Commerce.

Handelsinstituut.

Chamber of Mines.

N.A.A.M.S.A.

F.C.I.

S.A.A.U.

S.E.I.F.S.A.

The Board will discharge its obligations by delegating its functions to committees for :

- (a) Shipping services, schedules and tariff of rates.
- (b) Containerisation and inland depots.
- (c) Harbours.
- (d) Administration and documentation.

2. Economic Tendencies affecting East London Harbour.

(a) Decentralisation.

The decentralisation policy of South Africa dates back to the 1930's when a commission investigated industrial

decentralisation from an economic point of view. During the middle 1950's the Tomlinson-Commission reported on possible future patterns of regional industrial development from both the economic and socio-political points of view. The Commission's view was that there was more merit in bringing the work to the source of labour than in moving labour into the existing metropolitan areas. The result was that during the early 1960's, the Government implemented a policy of industrial decentralisation whereby industry was encouraged, with the help of concessions and other financial aids, to move to the border areas or the areas adjacent to Bantu homelands.

The Bantu homelands may also include decentralised areas where industrialists can settle on an agency basis.

In these declared decentralised areas the government selected certain points as growth points, even inside the Bantu homelands, which qualify for concessions and additional financial aid, such as the provision of the necessary infrastructure services.

The Republic of South Africa was then divided into 38 Planning Regions for physical planning. One of these regions is the Eastern-Cape Border area - Region No. 21 - which includes the areas surrounding East London harbour i.e. the North-Eastern Cape, Border area, Ciskei and Transkei, with growth points at East London, Berlin, King Williamstown, Queenstown, Butterworth and Umtata.

(b) Development of the Eastern-Cape Border area.

The development of this area will directly influence the development and usage of the East London Harbour. For the purpose of this study, the hinterland of East London's port is defined on the basis of its economic relationship to East London. It is that area which, because of geographical factors or the transport system, or of government policy, finds in East London its natural and cheapest importing and exporting harbour. To define the boundaries it is necessary to consider certain commodities distributed from East London or commodities exported through East London.

Perhaps the best example to determine the sphere of influence of East London is the area in which East London's newspaper, the Daily Dispatch, is circulated. According to their statistics, the area covers : Port Alfred, Grahamstown, Fort Beaufort, Elliot, Venterstad, Aliwal North, Burgersdorp, Barkley East, Kokstad and Port St. Johns, which includes the whole of the Border area; Cape Midland area; a great part of the Albany area; the whole of the North-Eastern Cape area; and the whole of the Ciskei and Transkei.

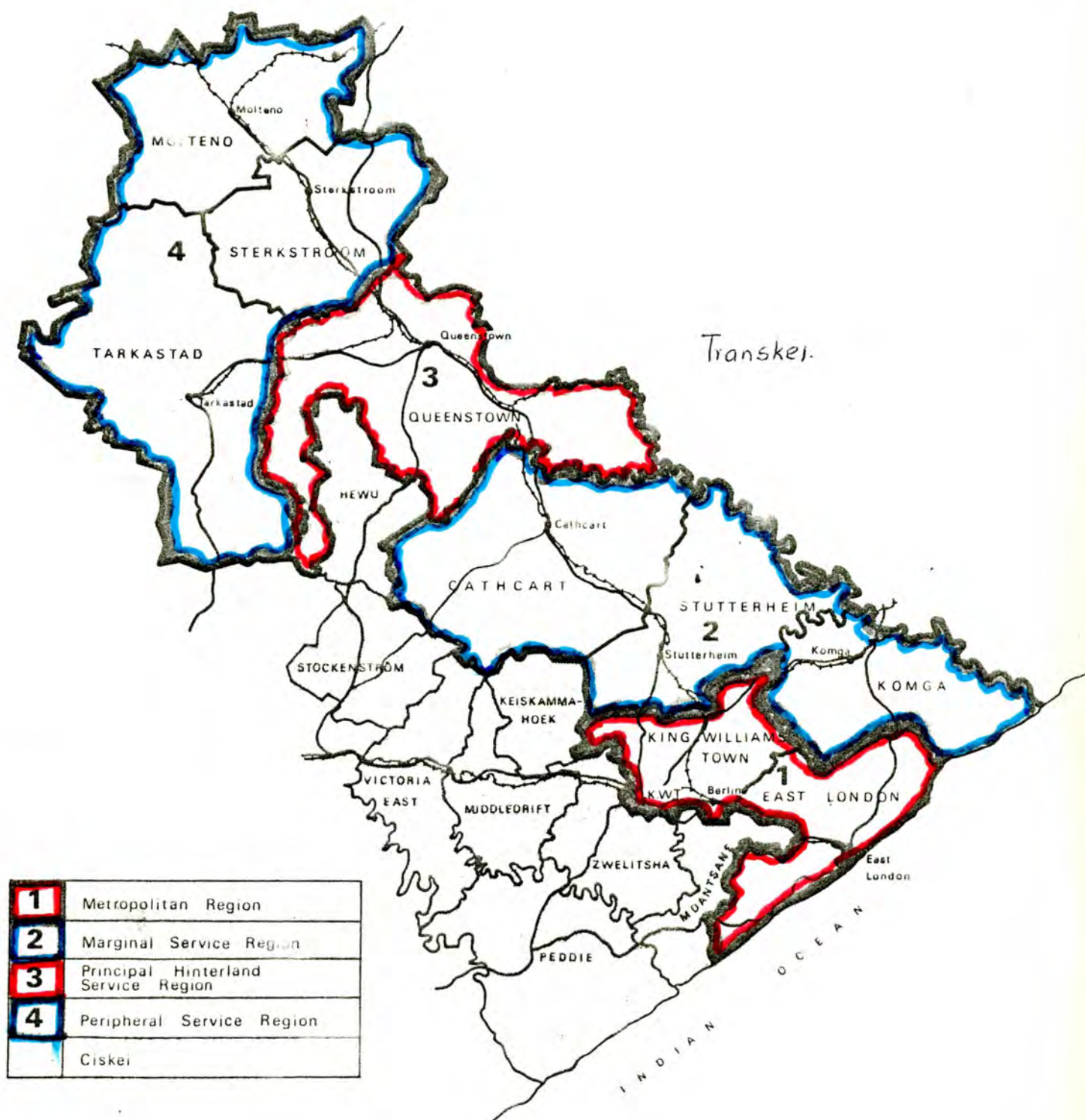
Petrol and Oil is another commodity distributed from East London by road and rail. Road tankers are allowed a radius of 48 kilometres from East London, which includes the area Kidds Beach, Stutterheim and Kei Mouth : petrol is consigned by rail as far as Bloemfontein on the Northern line, Umtata on the Eastern line and Adelaide on the Western line.

The origins of commodities exported through East London show a greater degree of variation. Pineapples are local from the coastal area from Kei River to Port Alfred; Timber from Stutterheim and the Transkei; Citrus from the Kat River Valley and Northern Transvaal; Illemenite Ore and Sand from the North-Western Cape (Pofadder); Asbestos from Rhodesia and Phalaborwa in Transvaal, also from Draghoender in the North-Western Cape; Copper from Zaire and Rhodesia; Maize from the Transkei, North-Eastern Cape, Orange Free State and Transvaal. The commodity that possibly best defines the boundaries of the hinterland of East London port is wool. The area sending wool to East London includes : East of Grahamstown, Bedford, Steynsburg, Venterstad, Trompsburg, Edenburg, Reddersburg, Bloemfontein, Kroonstad, Ladybrand, the whole of the North-Eastern Cape from the Lesotho Border, and the whole of the Transkei up to Kokstad.

East London port enjoys a virtual monopoly of the overseas trade with this whole area, being strategically placed to control the wholesale distribution of consumer goods which form so important a part of its imports.

The Border Region is not an industrialised area. Apart from East London itself, there are only two areas with any significant industrial development; King Williams Town and Queenstown, but both are small in comparison with East London.

Figure : 32.



INTERNAL SUB-REGIONS OF THE BORDER REGION

They are however, potential industrial areas which have good communications by road and rail with the port of East London and the interior.

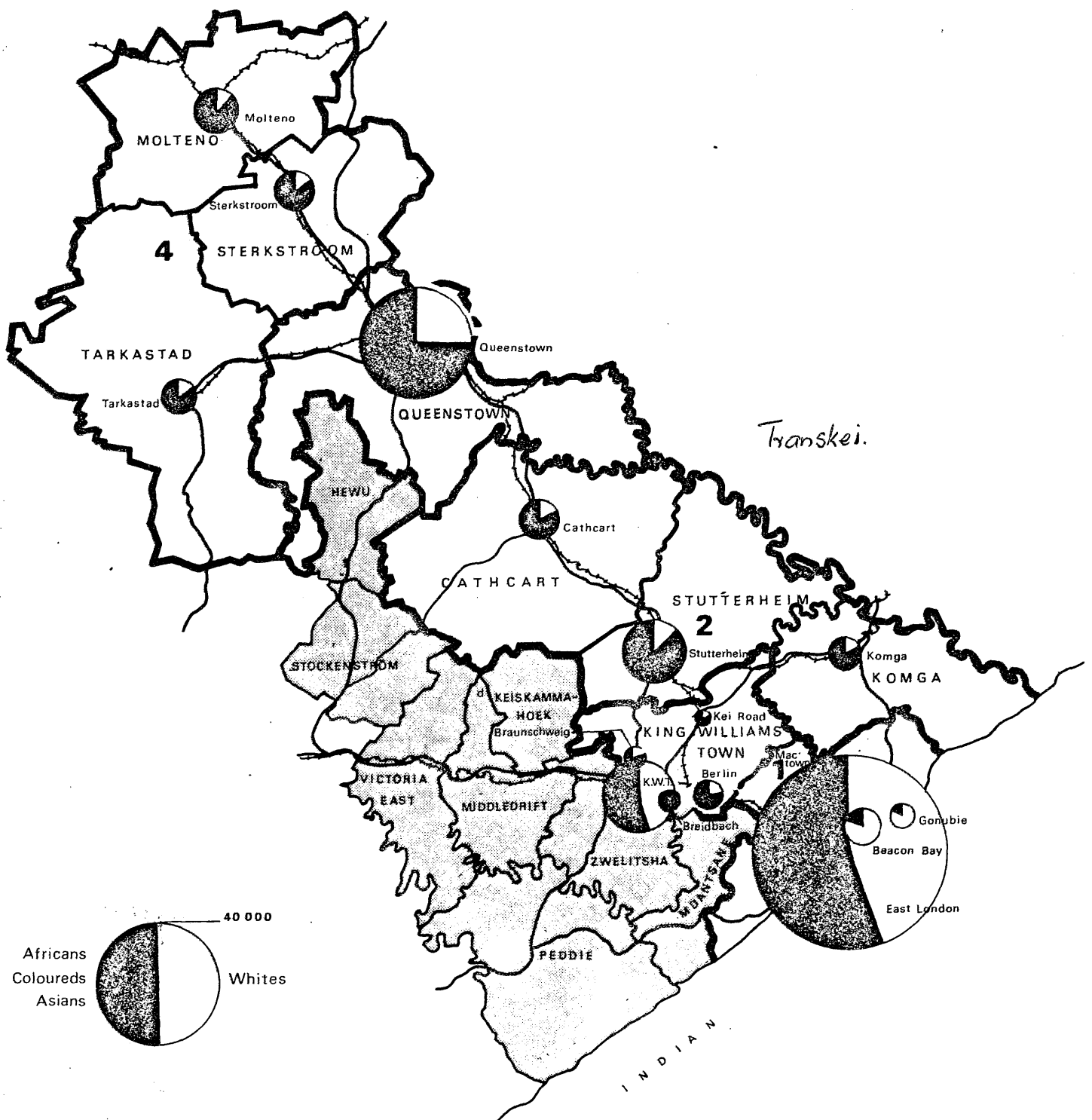
It is convenient to identify four sub-regions which constitute the Border Region. These are shown in Figure 32 : (1) the Metropolitan Region; (2) the Marginal Service Region; (3) the Principal Hinterland Service Region; and (4) the Peripheral Service Region. This regional sub-division is largely a matter of convenience, to highlight particular aspects of the contrasts that exist within the Border Region.

In 1970, the total population of the Border Region was just under 350 000, representing about 1,5 % of the national population. The details of the composition and distribution of this population are shown in Figures 33 and 34, from which it can be determined that more than half (56,5 %) live in the metropolitan areas of East London / King Williams Town, which constitute only about one-eighth (12,8 %) of the region's total area. Almost three-quarters (73,6 %) of the region's population is Non-White, and 65,9% is African. (4) The structure and distribution of population in the Border Region is an essential factor in considerations of the future development of the area, and show the dominant position that the East London / King Williams Town metropolitan areas hold by comparison with the rest of the Border Region.

For some years past, the Department of Planning has done everything possible to encourage the development of industry in the East London / Berlin Industrial Complex. It has, however, become evident that other Government Departments, which are also directly and indirectly involved in the industrial build up, have not appreciated the efforts of the Decentralisation Board, and the Berlin area has not shown any industrial development over recent years.

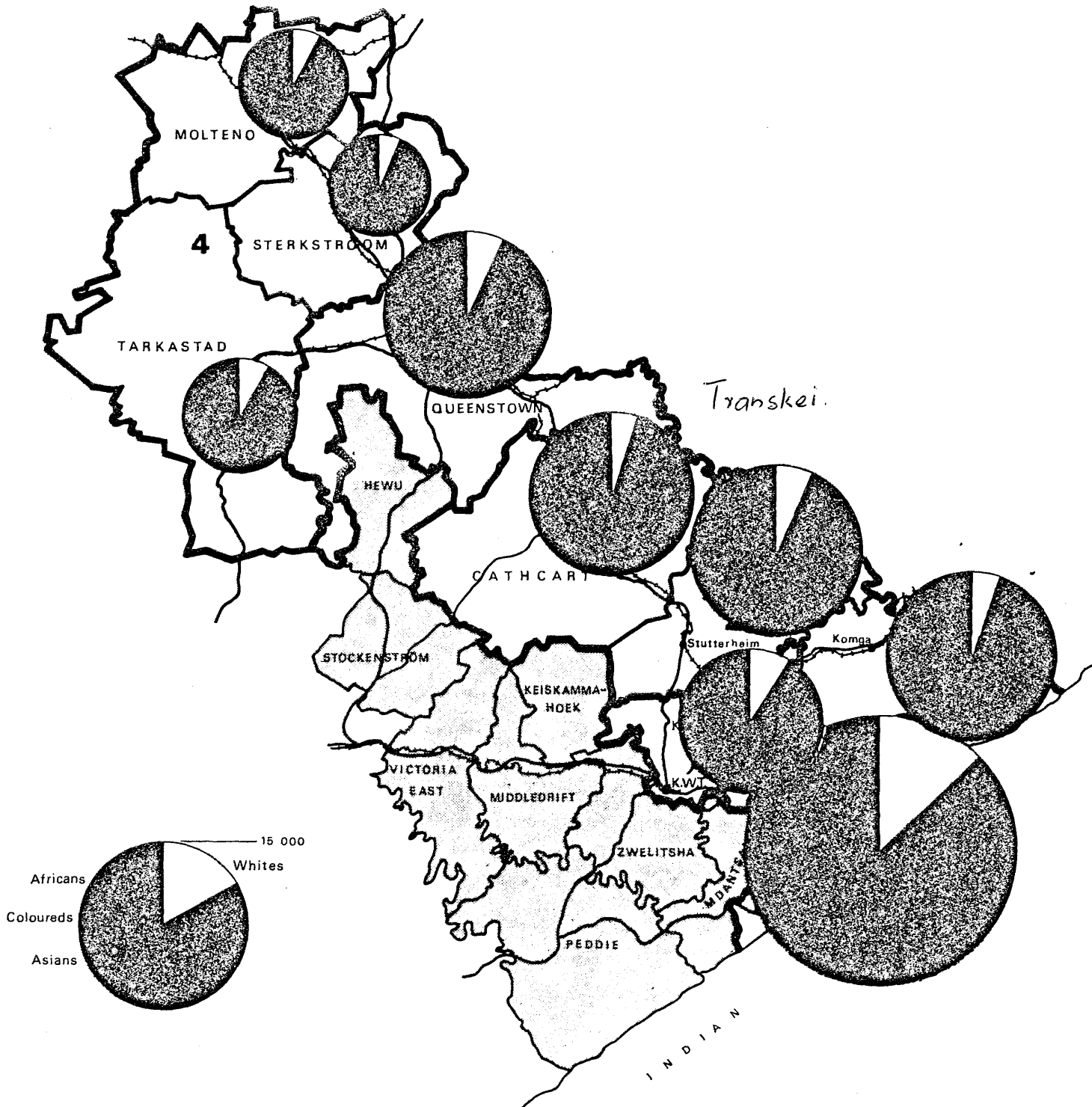
The Border Region is a good area for industries. There is plenty of low cost land, a more than ample water supply and no shortage of electrical power, a vast labour source resident in their own homeland cities with no problem of having to provide housing and accommodation, but industry in this area is at a time and distance disadvantage to industry in the Pretoria / Witwatersrand / Vereeniging area. Being near the

Figure : 33.



DISTRIBUTION OF URBAN POPULATION - 1970

Figure : 34.



bigger markets is one of the most important factors for an industrialist in deciding where to situate his factory, which explains why industrialists have not established themselves on a large scale in the Border Region.

The excellent prospects for continued growth and development of our country as a whole should spill over into the Border Region, but this will call for encouragement from the Government through its programme for the decentralisation of industry and the development of the Transkei and Ciskei homelands.

The main growth area in this region is the East London / King Williams Town complex. A firm industrial base must be created there, not only as a means in itself to provide employment for a large and growing population, but also as a stepping stone for accelerated industrial growth in the homelands themselves.

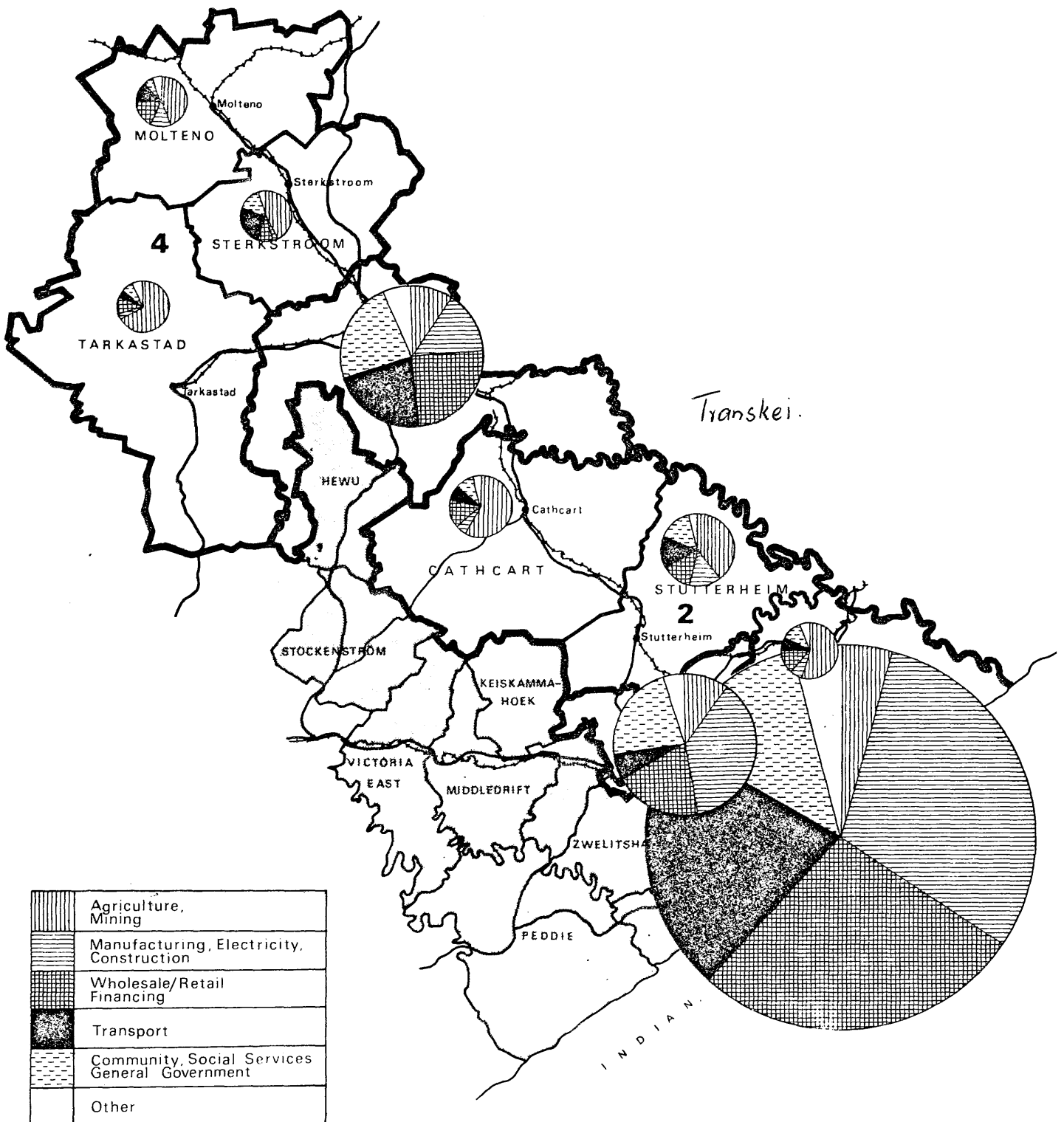
The extent to which intra-regional economic activity has been polarised towards the East London / King Williams Town metropolitan region is very clear, and more than 80% of the Gross Geographical Product of the Border Region comes from this area. The sector which is most dominated by the Metropolitan Region is Manufacturing, of which 93% is concentrated in the East London / King Williams Town region. This tendency can be ascribed to the influence of several main factors :

(a) The harbour at East London gave an initial impetus to its immediate environment, and its development into a substantial import and export port led to the establishment of a wide range of manufacturing activities, mainly concerned with the processing of primary raw materials.

(b) The relatively low population density in that part of the hinterland of the East London / King Williams Town area which falls into the Border Region resulted in only a limited demand being generated for goods and services. The potential for intensive non-agricultural economic development in the Border Region outside the East London / King Williams Town region was thus limited, even more so by the relatively rapid development focussed on the port of East London.

(c) Although the population density in the areas adjacent to the Border Region is relatively high, that population consists

Figure : 35



DISTRIBUTION OF GROSS GEOGRAPHIC PRODUCT

predominantly of rural Africans with a very restricted purchasing power because of their low incomes, and does not constitute a basis for any kind of intensive development outside the agricultural sector.

(d) The development of a transportation infrastructure consisting of roads and railways which converge on the East London / King Williams Town region from all directions has ensured its dominant position in the region, and resulted in other places along the main routeways which traverse the Border Region being relegated to distribution and service roles. (See Figure 35).

The status of Queenstown, the principal hinterland Service Region, shows that almost 70% of Queenstown's Gross Geographical Product was generated by service and service-related activities up to 1975.

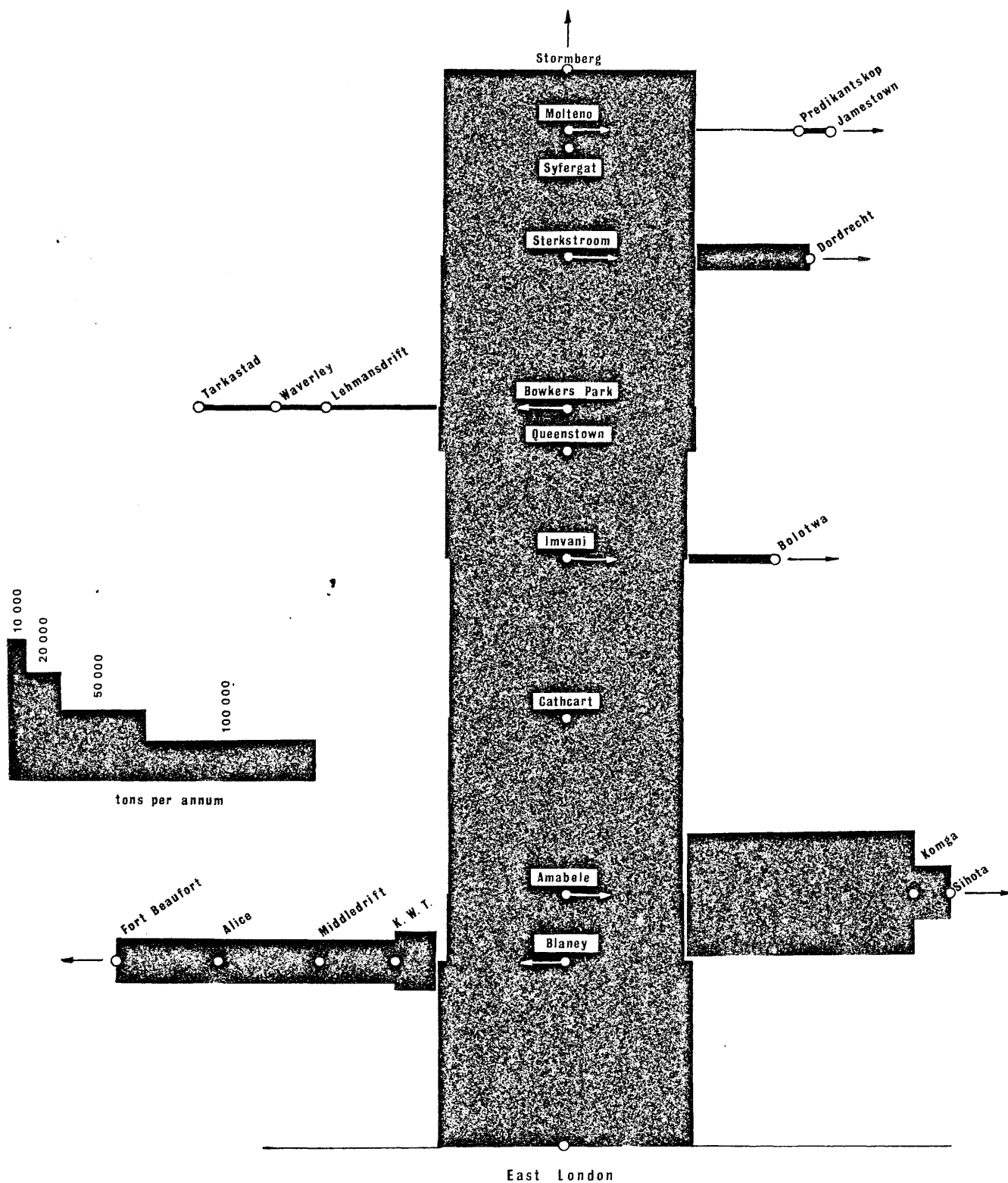
The two other Service Regions, the Marginal Service Region and the Peripheral Service Region, are characterised by the dominant role that the agricultural sector plays in their Gross Geographical Product distribution. In both cases this amounts to about half their total Product, next most important activities being service and service-related.

For the Border Region as a whole, the Manufacturing, Construction, Electricity, Gas and Water sector (i.e. the manufacturing production and infrastructure development portion of the Gross Geographical Product) has had a consistently dominant position over the last fourteen years. The percentage of agricultural activities in the total region's Gross Geographical Product has been steadily declining, although its importance is indicated by the increase in the absolute value of its output. The Commerce and Transport, Storage and Communication sectors also reflect important roles in the regional economy. These are essentially service activities which has grown in response to growth in the directly productive sectors such as Agriculture and Manufacturing.

The distribution of Regional Gross Geographical Product amongst the four sub-regions for 1968 is shown in Figure 35, and the predominance of the Metropolitan Region shows up very clearly. (5)

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Figure: 36.



AVERAGE ANNUAL VOLUME OF RAIL TRAFFIC
[GOODS & MIXED TRAINS] 1973, 1974, 1975

(c) Transportation Infrastructure.

The Border Region is essentially an elongated corridor which links the East London / King Williams Town Metropolitan Region to the interior of the Republic, and it is along this corridor that the principal transportation arteries run. East London is clearly the focal point of all such routes, and its major harbour and airport add considerably to its vitally important role in the Border Region's transportation network. The port of East London is given an added impetus by the grant of a 50% rebate on harbour dues for goods manufactured at declared growth points in the Border Region and the adjacent Homelands, and exported to other South African ports. This is one of the concessions that have been declared under the State Decentralisation Policy. The region is also made more attractive by decentralisation concessions over the railway system which allow a 40% rebate on railage of goods manufactured at declared growth points in the Border Region and the adjacent Homelands.

Apart from the main railway which runs along the length of the Border Region from East London through Queenstown, Sterkstroom and Moltencro to the northern interior, there are several branch lines which serve the region and the adjacent territories, as well as a main line to the west from King Williams Town which links up with the southern interior railway system. Figure 36 provides an indication of the volume of rail traffic on the lines that enter the Border Region's internal railway system. This serves to indicate the extent to which the Metropolitan Region, due to its harbour, its developed manufacturing structure, and its concentration of population, is a focal point for railway traffic. It also emphasises the economic as well as strategic importance of the main railway route through Queenstown to the northern interior.

(d) Distribution of Growth Centres and Decentralisation Concessions.

Growth Centres, where decentralisation concessions are available to entrepreneurs in terms of the National regional development policy are shown in Figure 37. Their location follows the lines one would expect in the light of the overall economic structure of the Border Region. From the national

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Figure 37.



LOCATION OF GROWTH CENTRES AND PLACES
AT WHICH CONCESSIONS ARE AVAILABLE

point of view, they represent the most efficient way in which decentralisation can be achieved in the short term. The East London/ Berlin/ King Williamstown region clearly has a considerable advantage over any other area in the Border Region in respect of the services and amenities it can provide to prospective industrial entrepreneurs.

The designation of Queenstown as a centre at which full concessions are available gives recognition to its important status in the hinterland region. It appears however, as if Queenstown can expect no further substantial boost from the State in its development programme and will have to rely on its own initiative to secure the benefits of decentralisation concessions.

The success of a policy that is based on the creation of attractive location incentives for economic activity, especially manufacturing activity, depends very largely on the number of places to which such incentives are allocated, and the extent to which these become "growth centres" in terms of the policy. If too many growth centres are established, the benefits of concentrated growth and the associated agglomeration forces that such growth initiates, may be so dissipated as to be ineffective in setting off a process of sustained growth. (6)

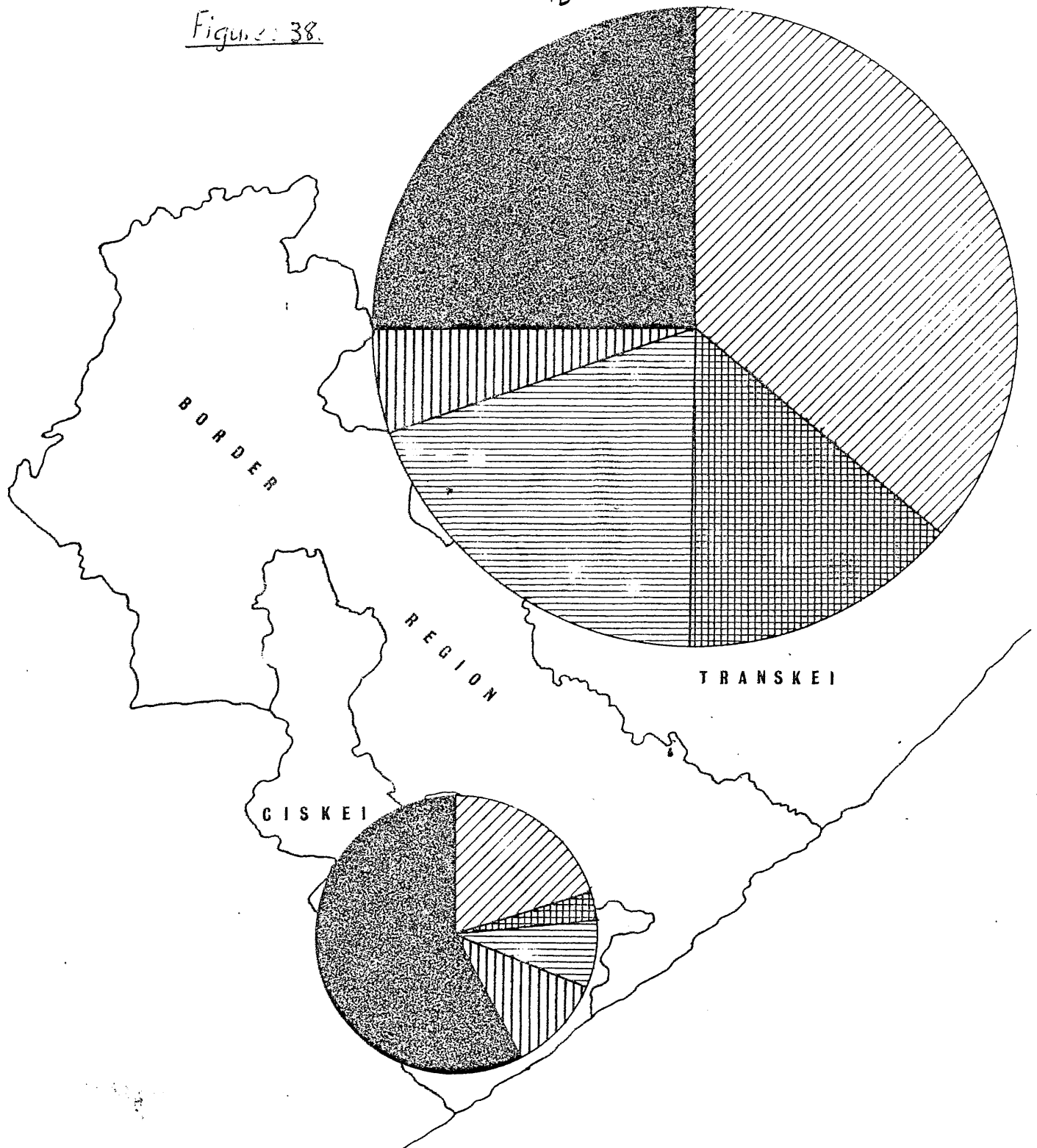
(e) Interdependence between the Border Region and the Adjacent Homelands.

Figure 38 shows the relative size and sectional division of the Gross Geographical Product of the two homelands. There can be little doubt that the future development of the Border Region and the homelands will be very closely inter-related, and consideration must be given to the degree of their interdependence, and the extent to which they will serve as stepping-stones for accelerated industrial growth in the homelands themselves.

The homelands of the Ciskei and Transkei form an integral part of the economic jigsaw of the whole Border Region. All Government planning takes account of this fact. The homelands make an important contribution to the economic viability of

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Figure 38



	Agriculture, Mining
	Manufacturing, Electricity, Construction
	Wholesale/Retail Trade, Financing
	Transport, Storage, Communications
	Community, Social Services, General Government

GROSS GEOGRAPHIC PRODUCT
CISKEI AND TRANSKEI

the white area, especially East London and the smaller towns throughout the Border Region.

The homelands make a substantial contribution to the economic activity of the area. The Transkei occupies the best watered part of the country and its agriculture supports a large population. Exports of tea, phormium tenax, timber, hides, skins and wool are all important to the economy of the Border Region. Further, there are large markets in the Ciskei and Transkei homelands which are supplied through East London.

It is estimated that the timber industry of the Transkei will supply about 356 000 m³ of timber which, together with 8 000 m³ from the Ciskei, will be about 12% of the total timber production of South Africa, at the moment estimated at 3 million m³ per annum.

Butterworth, and latterly Umtata, are important industrial centres. The X.D.C. has so far spent some R50 million on new projects in the Xhosa homelands, and plans to spend R70 - R80 million in the next two years, creating 11 000 new jobs.

Big plans have been drawn up for the Ciskei's agriculture. Some 800 ha are being irrigated near Queenstown by the X.D.C. and another 3 000 ha are coming into production nearby at Qamata. Government reposes great trust in this type of development and looks forward to more at places such as the Ncora Flats in the Transkei. Near Alice the biggest Citrus farm is controlled by the X.D.C. Pineapple farms in the Peddie area, which will soon be incorporated into the Ciskei, will be important contributors to the Ciskei National Product.

The main emphasis so far has been on developing secondary industry in Butterworth, but other areas will not be neglected. A major industrial estate with rail sidings will be developed at Umtata to supplement the present small industrial area, where ten industries, employing 2020 people, have been established or assisted by the X.D.C.

Towns such as Lusikisiki, Mount Ayliff, Mount Frere, Qumbu, Tsolo and Cofimvaba are all acquiring industries which, though small, are exploiting and building on natural resources and contributing to local wealth.

Numerous trading firms regard the homelands as important markets for a wide range of consumer goods and these markets are increasing in volume and value as economic development gets under way. All this increase in homeland economic activity will contribute materially to the region's economic wellbeing. (7)

Industries in the East London / King Williams Town / Queenstown area have experienced a considerable stimulus from the introduction of Border area concessions since their introduction in 1960.

This trend is likely to be reversed with the establishment of industries across the border at Sada, Dimbaza, Butterworth and Umtata. The latest policy is to establish entirely new growth points within the homelands, far removed from East London / King Williams Town and Queenstown.

The East London region, the Ciskei and Transkei are destined to be mutually interdependent in the future to the same degree that they have been very closely linked in the past, particularly in regard to transportation and services.

All three will rely heavily on imported raw materials and the Ciskei and Transkei will be dependent to a very large extent on the capitalisation of their labour resources.

This means that they will lean heavily on the central communication and transportation axis for external linkages, both for import of resources and export of manufactures.

The communication axes that seem to be most important are :

- (a) The East London - Queenstown rail and road corridor as the backbone of the main transportation system.
- (b) The East London - Umtata link through Butterworth.
- (c) The East London - King Williams Town - Alice road and rail corridor linking the Ciskeian capital and industrial growth points with the specialised services and the export harbour at East London.
- (d) The Queenstown - Lady Frere corridor through the Xonxa settlements to Umtata.
- (e) The Queenstown - Sada corridor and a possible future rail link between the two.
- (f) The Queenstown - Tarkastad - Middelburg - Cape route.
- (g) The King Williams Town - Peddie - Grahamstown national road to the Cape.

The airport at East London is an important adjunct to the transportation system, as it will presumably serve as the main air terminal for the entire area. (8)

During his visit to East London in May, 1975, the Prime Minister, Mr. B.J. Vorster, announced increased concessions for industrialists and the establishment of a Steel Distribution centre for East London. He said that the government had already created a strong infrastructure of rail, harbour and communication links in this area.

A survey carried out by the Decentralisation Board in 1973 showed that in 1971 there were in the city 104 factories representing a capital investment of R73 million and employing 22 000 people. By 1973 this had increased to 122 factories with an investment of R134 million employing 27 000 people, showing very substantial progress over a relatively short period.

This progress was made possible by the liberal concessions the Government has made to industry and it appears that improvements to these concessions will be announced at a later stage.

The establishment of the Iscor Steel Distribution centre will benefit the whole area by attracting ancilliary industries and will create additional employment opportunities. (9)

(f) Concessions offered to Industrialists at Growth Points.

In order to promote the programme of decentralisation, the Government made a firm offer to industrialists who wished to establish or expand in the designated growth points of the concessions which appear in Appendix No. 31, and are as follows:

1. Loans available and Interest concession:

Interest rate payable on loans is equal to prime rate of interest less 0,5% and less the rates indicated :

(i) Land and factory Buildings - Berlin 5,5% ; King Williams Town 4,5% ; East London 1,5% ; Umtata and Butterworth nothing.

(ii) Plant and current Assets - Berlin 5,5% ; King Williams Town 4,5% ; East London 1,5% ; Umtata and Butterworth 7,5%.

2. Leased Buildings and Rental concession:

Interest rate payable on loans is equal to prime rate of interest less 0,5% and less the rates indicated:

Factory buildings (in every case depreciation and insurance is incorporated): Berlin nothing ; King Williams Town nothing ; East London nothing ; Umtata and Butterworth 4,5%.

3. Housing for White Key Personnel.

(i) To a maximum of R23 000 per dwelling unit at 2,5% below the official Building Society rates:

Berlin yes ; King Williams Town yes ; East London yes ;
Umtata and Butterworth no.

(ii) Leased houses at 2,5% of the cost of the dwelling unit :

Berlin no ; King Williams Town no; East London no ;
Umtata and Butterworth yes.

4. Income Tax Concessions.

The tax is reduced by an amount equal to the following percentages of :

(i) Wages for total additional Bantu or Coloureds for the first two full financial years after establishment or expansion : Berlin 40% ; King Williams Town 35% ; East London 30% ; Umtata and Butterworth 50%.

(ii) Book value for income tax purposes of total or additional manufacturing plant, with the exception of motor vehicles and office equipment and furniture, as at the end of the first financial year after establishment or expansion : Berlin 10% ; King Williams Town 10% ; East London 10% ; Umtata and Butterworth 10%.

5. Cash Grant for Moving Costs.

Re-imbusement of approved costs for moving from the P.W.V. area, or from the Cape Peninsula in the case of Darling and Dassenberg : Berlin yes ; King Williams Town yes ; East London yes ; Umtata and Butterworth yes.

6. Railage Rebates.

On a selective basis in respect of goods manufactured in the area : Berlin 40% ; King Williams Town 40% ; East London 40% ; Umtata and Butterworth maximum 40%.

7. Rebate on Harbcur Dues.

On goods manufactured in the area and shipped from East London to other South African ports : Berlin 25% ; King Williams Town 25% ; East London 25% ; Umtata and Butterworth 25%.

8. Price preference on purchases by :

(i) Procurement and Disposal Board for Bantu Authorities :
Berlin 10% ; King Williams Town 10% ; East London 10% ;
Umtata and Butterworth 10%.

(ii) Other Central and Provincial State Authorities excepting

the South African Railways : Berlin 5% ; King Williams Town 5% ; East London 5% ; Umtata and Butterworth 5%.

The Department of Planning and Environment released a comprehensive publication in 1974 (Decentralisation Growth Points 1974) in which particulars of the basic services and related aspects of the selected growth points were given.

Prospective industrialists can therefore readily ascertain what facilities and assistance are available at the various growth points. This will make it much easier for them to decide where to establish themselves and to plan their projects.

Rebates on railway rates on goods which are processed or manufactured in specified selected areas and consigned to other places have been in operation since 1964. The rebates were introduced to help industrialists to compete in the cities, even though they were established in areas that are some way from metropolitan areas and where the market is small and raw materials are not freely available locally. Transport costs are in many cases an important factor to such industrialists.

Initially, these rebates amounted to 10% and later, in 1968, they were increased to 15%. In two cases, Butterworth and Umtata, a rebate of 20% was granted to make these areas more acceptable.

Later, the rebate on railage was again increased for East London, Berlin, King Williams Town, Butterworth and Umtata in view of the need to create employment opportunities in these areas.

These increased rebates, which became effective in 1974 (see Appendix No. 30) materially helped to reduce the transport costs of industrialists in the decentralised areas in question and this, together with the other decentralisation concessions which have been granted, should serve generally to place them in a sound competitive position vis-à-vis their competitors in the metropolitan areas. This will no doubt make the decentralised areas more attractive to industrialists and contribute largely to industrial decentralisation in South Africa. (10)

Railage rebates from May 1, 1964, up to the end of 1973 were estimated to total R5 507 000.

Harbour rebates - the rebate of 25% on wharfage and other harbour dues in respect of goods manufactured or processed in these areas and consigned through East London harbour to other harbours in the Republic and South-West Africa - came into operation on December 1, 1968. The cost of this rebate up to the end of 1973 is estimated at R248 200. (II)

Industrialists in the Border area however felt that in spite of all the concessions, existing industries here are still at a disadvantage vis-à-vis the metropolitan industries. The regional growth points in East London, Berlin and King Williams Town have fallen far short of the industrial development envisaged by infrastructure investment and required to provide work opportunity for the growth and influx of the Bantu population.

Population growth projections and further influx that will be forthcoming show an ever widening gap between job generation and work opportunities required, and the closing of this gap cannot solely be met by the influx of new industry. It relies also on the healthy growth of the existing base of industry, most of which is suffering in a varying degree from transportation disadvantages.

Industries already settled in the region and those considering the regional growth points as a potential area for decentralisation, both suffer the very real penalty of time and distance. In the case of the outbound finished product, except for the export-orientated industries, those which service the country's internal market will supply 50 to 60% of their production to the Reef and the Transvaal. To compete with those industries, local Border industries must establish expensive depot and sub-distribution services. The additional accrued cost for time / distance, the higher working capital outlay needed to support in transit and depot inventories, and further additional operating costs that occur in damage and losses through multiple handling, are not offset by the 40% railage rebate enjoyed.

For the inbound raw materials, most of the major suppliers are situated in the Pretoria, Witwatersrand and Vereeniging triangle. For local industry, the disadvantages are the extra railage costs; more capital outlay to support higher safety stocks;

time in transit, which from the Transvaal to East London, and vice versa, varies between two and three weeks. Express Goods Service can reduce this time to five days but incurs 25% to 30% additional cost.

Road transport has certain advantages in speed, safety and cheapness over rail transport as far as a portion of the traffic is concerned; e.g. petrol is conveyed by road tankers, but only up to a distance of 48 Km. , giving them a radius to Kei Mouth, Stutterheim and Kidds Beach from East London. Outside this area petrol must be sent by rail. Manufacturers of Television sets have also stated that they would prefer road transport to rail transport because of the delicate nature of this type of article.

In view of this, the Border Chamber of Industries requested the Board of Decentralisation of Industries to make the following representation to the Government on the subject of Road Transportation :

"This Chamber now respectfully recommends that the new Road Transportation Bill recognises existing Government Policy and the severe locational transportation disadvantages impeding the development of the Border Region's Growth Points, and firmly entrenches in its legislation that industries in this area may use road transportation for both inbound and outbound traffic, within their own judgement and without reference on an ad hoc basis to the Road Transportation Board." (I2)

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- (I) South Africa 1974 - Official Yearbook of the Republic of S.A. : Pages 447 and 448.
- (2) *ibid* : Page 452.
- (3) State of the Union - Yearbook for South Africa. Page 245.
- (4) William T. Davies : Principal Distributional and Structural Characteristics of the Border Region and some internal implications of the National Regional Development Policy : Institute for Planning Research : University of Port Elizabeth : Research Report No. 16. July 1976. Pages 8,10.
- (5) *ibid* : Pages 22 and 25.
- (6) *ibid* : Pages 32 and 33.
- (7) Article written for the Border Industrial Review by the Minister of Economic Affairs, Mr. J.C. Heunis on : The Industrial Development in the Border, Transkei and Ciskei Regions : Supplement to the Daily Dispatch, Saturday April

I2, 1975. Page 25.

- (8) Prof. D. Page of the University of Stellenbosch in his address to the Border Regional Development Association at East London : Daily Dispatch, Monday April 14, 1975.
- (9) The Prime Minister Mr. B.J. Vorster - when unveiling the name PLAQUE for the new John Vorster Bridge over the Buffalo River : Daily Dispatch, Monday May 12, 1975.
- (10) Board for the Decentralisation of Industry : Report on the Board's Activities for the period 1 January to 31 December 1973: Pages 3 to 5.
- (11) *ibid* : Page 9.
- (12) Meeting of the Border Chamber of Industries in East London : March 17, 1975.

Chapter IO.

Future Planning and Development of the East London Harbour.

I. Present Situation.

The port of East London is unique in that it is the only river port in South Africa. As a river port it is subjected to the floods of the Buffalo River on which it is situated and also to silting up from both the sea and river side. It therefore requires continual dredging with consequent high maintenance costs to the Administration.

The maintenance dredging alongside the quays, the entrance channel of the harbour and the basin in the riverbed, is done by two dredgers, the D.E. Patterson and the J.F. Craig. The third dredger, the Sir Thomas Price is used in widening the entrance channel and the initial stages of dredging for the extension of the West Quay.

Considering the role of East London port in the import and export trade of South Africa in the light of statistics given in earlier chapters, one must reach the conclusion that East London harbour handles only a very small portion of South Africa's total imports and exports, that it has the lowest sea-traffic of all our ports and that consequently the harbour itself has a low berth occupation and a low quay utilisation.

Hence it is accepted by the Administration, the Port Authorities and the Harbour Advisory Board that East London's port is seriously under-utilised. This may be attributed to the following facts : firstly that East London, as a midway port, comes in sharp shipping competition with Port Elizabeth and Durban. It is at a disadvantage to Port Elizabeth in that overseas freight rates are the same for Cape Town and Port Elizabeth, giving Port Elizabeth the edge over East London; East London and Durban again have the same freight rates, but this does not put Durban at a disadvantage to East London.

Secondly, East London is at a disadvantage as to distance and time from the main industrial areas and markets of South Africa for both manufactured goods and raw materials, with a

very small industrialised area round or near it.

Thirdly, with containerisation under way, East London is not planned as a container port, but only as a feeder port handling coastwise containers. Therefore, the provision of shore-based container cranes at East London is not scheduled, because coastwise traffic uses ship's gear to handle containers. Consequently other container ships will in future not call on East London, but will go to ports where the facilities are available.

East London was long known as the maize and wool port of SOUTH AFRICA. Although it will in future continue to handle the bulk of maize exports, with the maize coming from the Orange Free State and the Maize Triangle, it has lately been losing a large percentage of its wool exports to Port Elizabeth.

When the hinterland for East London harbour is considered, one sees an area with few industries and agricultural products for export, limited mainly to wool and pineapples. This area cannot supply the volume of exports and imports necessary to stimulate the development and growth of the port. The productive capacity of the East London / King Williams Town metropolitan region is still very low, while the two homelands of the Ciskei and Transkei are not even selfsupporting, producing very little export or import traffic through the harbour. Any stimulus for the development and expansion of East London's harbour must therefore come from outside this area.

Exports and imports are at present being handled very efficiently, and as already pointed out, this port has not as yet reached anything like its peak and could handle much more traffic. Although the harbour cannot compare with the bigger ports in respect of tonnage handled it has the highest productivity of all South African ports in terms of tonnage landed and shipped per nett crane hour. This high productivity can be attributed mainly to the effective way in which the double shift system is working in the harbour.

2. Recommendations.

The Harbour Advisory Board has expressed its grave concern about the declining volume of tonnage handled at the East London harbour. It recommended that the West Quay should

be extended further to provide the port with a quay for containerisation. It proposed that the Management be requested to give immediate consideration to the provision of stub-type lay-by facilities for vessels at the East London harbour, bearing in mind that maize ships would in future have to be fumigated. It further recommended the construction of an additional berth on the West side of the river, next to the turning basin and embracing the Victoria slipway, which would be suitable for the handling of timber, conventional and roll-on / roll-off vessels.

It proposed that the Government and the Wool Board be approached with a request to investigate arrangements to retain East London as a wool port. Lastly, it proposed that a Committee of Investigation be appointed to look at the port objectively in order to establish what could be done in the short term and in the long term to improve and develop the harbour. (I)

As a result, the Assistant General Manager (Harbours and Pipelines) accompanied by senior officers from Headquarters, visited East London on May 27, 1975. Discussions were held with the harbour directorates and the Harbour Advisory Board with regard to the optimum utilisation of harbour facilities. Particular emphasis was placed on the importance of eliminating any shortcomings or obstacles in order to ensure efficient harbour operations.

During July 1975, a Departmental Investigation Committee was appointed to go into the replanning and development of the harbour. This committee, headed by an experienced harbours engineer, looked at the possibility of providing for maximum development within the present confines of the existing harbour. It was found that the greater scope for development exists on the West Bank of the harbour. This envisages procuring adequate working areas behind the quays for more efficient cargo handling and containerisation by removing substantial quantities of the adjacent hillside. The committee found that the open area that could be acquired for the future handling of cargo might be of the order of 25 hectares. The additional length of quayage that could be provided would increase the capacity of the harbour by about 60%.

Since the visit of this Investigation Committee to East London, local Management has been taking action on financial and other aspects insofar as immediate improvements to the port are concerned. Steps which have so far been taken include the appointment of yard planners in the harbour area and the introduction of the two-shift system. The second phase in the two-shift system would be the doubling of staff, but this would be at a considerable cost to the Administration, and will only be implemented when it is needed. Provision has been made for a loop at "S" berth, the installation of portal tracks, setting aside of the area at the rear of "L" berth for the handling of timber, and the improvement of lighting in the port.

The other immediate short term improvements which were considered were :

- (1) The installation of additional tracks behind "L" shed for the staging of trucks ;
- (2) The extension of "I" shed to increase its capacity by one third ;
- (3) The provision of a direct connection between the East and the West Banks ;
- (4) The installation of a further four tracks at the Terminus Yard ;
- (5) Preparing a container stacking area in the old quarry on the West Bank side ;
- (6) Track improvement at the back of "G" shed ; and
- (7) The building of a new Port Captain's office on Signall Hill.

In the long term, provision will be made for the extension of the West Quay, and for the necessary straddle-carriers, semi-trailers, mechanical horses and ship-side cranes to handle containers : this was to be ready by 1977 to meet the challenge of containerisation. (2)

Considering the hinterland of East London harbour, one finds an area with an integrated economy comprising the Border region and the two homelands, the Ciskei and Transkei. The short term effect of the National Regional Development policy is characterised by a greater degree of concentration in the East London / Berlin / King Williams Town metropolitan area.

The subsequent development in the longer term is also important, and the Principal Hinterland Service Region, with Queenstown as its centre, must be given more serious consideration with a view to determining forms of industrial development that might most suitably be located there, and establishing ways and means of attracting entrepreneurs.

The rest of the Border Region performs an essentially service role in the economy of the area, and cannot be ignored in the overall development programme. Hence consideration of the Marginal Service Region - Komga, Stutterheim, Cathcart - and the Peripheral Service Region - Sterkstroom, Molteno and Tarkastad - must be specifically included in the search for a broader regional development policy.

This region, being poor in mineral resources and situated far from our country's main markets, needs special stimuli if it is to develop faster than it has done in the past - and this is vital if it is not to start going backwards.

3. Future Planning and Development.

The immediate plan for the future of the harbour is the extension of the West Quay. Work has already started on drilling and blasting the rock to obtain the required depth before dredging can commence. Tenders are awaited for the construction of the quay wall.

The Board of Industries has suggested the construction of an additional avoiding railway line on the West Bank, crossing the Buffalo River to the north of the new bridge, which would greatly enhance the port's facilities. It has been suggested that once the new bridge is completed, the old bridge should be removed. This would permit better use of the upper reaches of the harbour for commercial ships and possibly for lighters if a C.B. operation (Container Barges transported in a ship) at present in use between the U.S.A. and Europe, is introduced in South Africa.

The Board of Industries also recommended the construction of container or bulk handling berths embracing the Victoria Slipway, and suggested that the removal of the Power Station and that the demolition of structures on the banks of the river in that area, would further improve the port.

The Harbour Advisory Board has recommended that the positioning of cranes should be reconsidered. If containers could be landed at "K" middle or "L" shed, it would be a facility which the port could offer in the absence of container type cranes. The present drawback at "K" and "L" sheds, is that they have not a track under the cranes. It would be advantageous if the cranes could lift the containers and put them on to a container trailer or a truck.

The System Manager said that in order to handle containerisation, P to R berth would be extended by about 103 metres to provide for an additional container berth. As a necessary adjunct to this scheme, the disused quarry behind P - R sheds is being developed into a container park which will provide 1.4 hectares for the handling and storing of containers. He also said it was estimated that by the end of 1977, about 46 000 containers would be handled annually at East London. Of these 34 000 would be coastwise containers.

The future development of the Border Region depends on fostering regional awareness in order to stimulate local initiative directed towards development. It also calls for the identification of bottlenecks which may hamper development in the region and the organisation of measures to help eliminate them.

Otherwise, no real stimulus is arising in this area for the development and expansion of East London's harbour. The area itself cannot supply enough to ensure a steady stream of exports and imports, because the whole of the Border region and the two homelands are essentially merely aimed at achieving self-sufficiency and little immediate industrial growth can be foreseen. The homelands becoming independent will not change the picture appreciably, and it will take years for them to become economically strong enough to develop an import and export trade substantial enough to stimulate East London's harbour.

In East London itself, the development of industry is comparatively slow and is still at a low level. The revival and growth of industry in the Border Region and in East London itself would help to place the development of East London harbour on a more balanced and viable basis than it has been.

It is impossible to over-estimate the importance of the harbour as far as the commercial development of East London and the Border Region is concerned. For the latter it provides the means of disposing of surplus agricultural products, and of obtaining the imported manufactured goods.

Containerisation, when it comes into effect in July, 1977, is going to put East London harbour and the Border's importers and exporters at a further disadvantage. The original plan envisaged one charge from Britain or Europe to the South African port of destination, but East London having been declared a feeder port, containers bound for East London will have to be taken off the big container vessels at one of the favoured ports and put on to coastwise container ships which will then land them at East London. The S.A.R. Administration has decided that containers bound for East London will be liable to landing and transshipment charges at Cape Town for incoming containers and at Durban for outgoing containers, and these landing and transshipment charges are likely to cost about R150 a container extra.

Another disadvantage is that when the new tariffs come into effect, East London will lose the preferential tariff to the Reef - a tariff which brought East London almost in line with Durban, although the distance is much greater. (3)

An interesting situation has arisen in regard to East London harbour, where the Harbour Advisory Board, the Municipality, the Chamber of Industry and the Chamber of Commerce, have asked the Administration to extend and improve the port and to provide further facilities, with the intention of attracting new industries to the Border Region. They are able to state from first-hand experience that almost every entrepreneur they have invited to establish new enterprises here, has enquired whether the port has competitive facilities and will be able to handle his exports, before he can seriously consider settling in the Border Region.

The Administration, on the other hand, has argued that Industry and Commerce must first of all create the demand and guarantee the required volume of trade, before expansion of the port or other facilities can be approved.

This situation again, raises the chicken and egg question -

whether ports generate large-scale industry or whether "location plans and trade independently considered and determined by other factors give rise to demand for new port development." James Bird argued that the second proposition is nearer the truth, but there is the important factor of what may be termed " industrial latency". The demand may exist, but the locational opportunities may not, because coastal sites are not ubiquitous, and suitable sites may have to be constructed. It is this sequence of events that gives port projects the superficial appearance of industrial stimuli. In other words the hen (industrial decision-maker) wants to lay an egg (obtain a seaboard industrial site) but cannot do so. Hen food (port industrial infrastructure) is provided and the hen lays the egg (seaboard industrial implantation), and does so, moreover, at relatively short notice. But the hen must have the latent ability to lay the egg in the first place.

The development and expansion of East London harbour is dependent on external stimuli. To take a recent example, the Government actually forced Iscor to establish a Steel Distribution Plant at Berlin, with the aim of stimulating industry in this area and enabling undertakings dependent on iron and steel to obtain these materials more cheaply and so induce them to settle here.

East London may become the future harbour for Rhodesia. A delegation from Rhodesia recently visited East London to investigate the possibilities of using the harbour for their exports and imports. As the harbour is at the present stage under-utilised, it can easily handle extra traffic, as it does at the moment with the export of copper from Zaire, which amounted to about 60 000 tons over the past two months. This then has appeared as a solution to the problems both for Rhodesia in finding a port, and for East London harbour in obtaining more imports and exports and being better utilised.

The important question still remains - does East London and its hinterland by itself have the potential to supply or create the demand - or is it dependent on stimuli from outside sources to warrant extensions or expansion of East London harbour ?

In conclusion it may be said that the future of East London harbour presents an uncertain picture, with the port at presently seriously under-utilised, the tendency to lose trade instead of gaining it, and the possibility of expansion and development seemingly dependent on stimuli from outside sources like the South African Government or other countries.

- (1) Minutes of the Harbour Advisory Board Meeting: May 27, 1975.
- (2) *ibid* : July 31, 1975.
- (3) New Shipping Fees : Daily Dispatch, Thursday August 26, 1976.
Page 15.
- (4) James Bird : Seaports and Seaport Terminals. Page 211.

Appendix No. 1

PORTS OF SOUTH AFRICA
EAST LONDON HARBOUR FACILITIES

TANKER BERTH

Can accommodate one tanker at a time of a maximum overall length of 204,2 m and a present maximum permissible draught of 9,9 m.

MOBILE CRANES, ETC.

One mobile crane, one straddle truck and 53 fork-lift trucks are available.

SHED AND STORAGE ACCOMMODATION

Floor space for cargo in sheds:—

East Bank	7 159,0 m ² (net)
West Bank	4 907,1 m ² (net)
Total	<u>12 066,1 m² (net)</u>

Shed capacity:—

East Bank (based on a stacking height of 2,43 m)	24 542,4 m ³ (net)
West Bank (based on a stacking height of 2,43 m)	16 826,7 m ³ (net)
Total	<u>41 375,1 m³ (net)</u>

OPEN STORAGE

3,52 hectares of open storage ground for rough goods.

PRE-COOLING FACILITIES

Pre-cooling store for the export of citrus and deciduous fruit at No. 6 Quay. The capacity of the cooling chambers is 2 724 m³.

DEPTH AT HARBOUR ENTRANCE

10,67 m at L.W.O.S.T.

LIGHTER

One lighter of 170 tons capacity.

TUGS

Two powerful tugs equipped with salvage and fire-fighting appliances, direction-finding apparatus and wireless telegraph and telephone. Two pilot tugs equipped with wireless telephone.

REPAIRING FACILITIES

Princess Elizabeth Graving Dock:—

Dimensions—Overall docking length	198,5 m
Length on keel blocks	193,1 m
Length on bottom	198,5 m
Width at coping	31,2 m
Width at entrance top	27,2 m
Maximum width at sill level	22,9 m
Depth on entrance sill, H.W.O.S.T.	10,2 m
Depth on inner sill, H.W.O.S.T.	10,2 m

A docking length of 209,2 m can be obtained by placing the caisson in the emergency stop at the entrance.

Two 15-ton and one 5-ton electric cranes on 1,9 m gauge track are available.

The dock can be emptied in four hours.

Slipway—Extreme length	222,5 m
Length of cradle	63,4 m
Draught on keel blocks, H.W.O.S.T.:—	
Forward end	3,5 m
Aft end	6,7 m
Capacity	610 tons

GRAIN ELEVATOR

Storage capacity 75 300 tons

Ship loading at 1 633 tons per hour through 4 spouts

Appendix No. 2

EAST LONDON HARBOUR

Wharfage	Length m	Depth at L.W.O.S.T. m	Cranes		
			No.	Lifting Capacity (Tons: 1,000 kg.)	Gauge of Track
EAST BANK					
Fish Wharf	169,7	6,1	—	—	—
No. 2 Quay (C Borth)	206,7	10,7	—	—	—
No. 3 Quay	359,7	9,8	{ 1 9	10 tons (electric) 4 tons (electric)	} 4,1m
No. 4 Quay (Hely-Hutchinson)	102,0	8,5	{ 1 3	5 tons (electric) 4 tons (electric)	} 4,1m
No. 5 Quay	60,5	10,7	—	—	—
No. 6 Quay	505,9	10,7	{ 1 14	15 tons (electric) 4 tons (electric)	} 4,1m
Repair Quay	109,7	9,1	—	—	—
WEST BANK					
West Quay	457,3	8,5	{ 1 11	20 tons (electric) 4 tons (electric)	} 4,1m
Slipway Wharf	80,2	4,6	—	—	—
New Commercial Berths (S and T Berths)	300,1	10,7	—	—	—
Oil Tanker Berth	259,1	10,7	—	—	—

EAST LONDON HARBOUR CRAFT

Type and Name of Craft	Year Built	Description	Dimensions			Ton- nage	Horse-power of Propelling Engines	Speed	Remarks
			Length (Over- all)	Breadth (Mould- ed)	Depth (Mould- ed)				
			m.	m.	m.	Gross	Knots		
EAST LONDON									
Tugs—									
F. Schormbrucker	1937	Twin-screw, steel	47,01	10,06	5,18	1 757	3 590	13,20	—
E. S. Steytler	1939	Twin-screw, steel	47,24	10,06	5,18	1 765	3 220	13,50	—
Pilot Tugs—									
Harry Cheadle	1944	Single-screw, steel	24,38	5,33	2,69	250	100	8,00	—
A. C. Craigie	1952	Twin-screw, steel	25,14	5,18	2,59	176	400	12,00	B.H.P. 400.
H. T. V. Horner	1952	Twin-screw, steel	25,14	5,18	2,59	176	400	12,00	B.H.P. 400.

Miscellaneous craft: 4 launches.

APPENDIX NO. 3 .

GOODS IMPORTED AND EXPORTED THROUGH EAST LONDON

HARBOUR 1885 - 1975

YEAR	IMPORTS	EXPORTS	TOTAL TRADE
	IN MEASUREMENT	TONS	
1885	59 657	14 364	74 021
1886	29 307	29 493	58 800
1887	40 862	37 791	78 653
1888	37 016	43 349	80 365
1889	67 226	43 444	110 670
1890	78 457	45 604	124 061
1891	88 330	45 411	133 741
1892	128 289	40 873	169 171
1893	166 918	40 974	207 892
1894	170 849	39 553	210 402
1895	203 061	43 827	246 888
1896	241 214	45 024	286 238
1897	246 731	52 796	299 527
1898	310 835	61 519	372 354
1899	284 557	64 739	349 296
1900	679 919	41 205	721 124
1901	633 832	98 840	732 672
1902	640 687	66 938	707 625
1903	696 073	69 113	765 186
1904	486 824	58 062	544 886
1905	404 097	58 155	462 252
1906	319 036	59 852	378 888
1907	299 199	72 238	371 437
1908	246 243	70 272	316 515
1909	216 310	104 957	321 267

(CONTINUED)

APPENDIX NO. 3 (CONTINUED)

GOODS IMPORTED AND EXPORTED THROUGH EAST LONDON

HARBOUR 1885 - 1975

YEAR	IMPORTS	EXPORTS	TOTAL TRADE
IN HARBOUR TONS			
1910	307 155	105 765	412 920
1911	312 825	95 158	407 983
1912	336 487	102 670	439 157
1913	355 113	137 531	492 644
1914	256 725	126 536	383 261
1915	195 340	154 564	349 904
1916	195 906	113 847	309 753
1917	116 851	107 228	224 079
1918	77 285	118 800	196 085
1919	139 747	152 091	291 838
1920	271 644	92 529	364 173
1921	167 565	201 112	368 677
1922	168 633	132 357	300 990
1923	217 599	183 487	401 086
1924	290 993	111 596	402 589
1925	342 825	239 407	582 232
1926	392 553	140 004	532 557
1927	380 119	189 938	570 057
1928	442 204	188 037	630 241
1929	547 178	191 602	738 780
1930	383 151	146 377	529 528
1931	293 320	126 436	419 756
1932	230 008	198 587	428 595
1933	277 763	138 290	416 053
1934	364 831	97 865	462 696
1935	426 002	125 924	551 926

(CONTINUED)

APPENDIX NO. 3 (CONTINUED)

GOODS IMPORTED AND EXPORTED THROUGH EAST LONDON

HARBOUR 1885 - 1975

YEAR	IMPORTS	EXPORTS	TOTAL TRADE
	IN HARBOUR TONS		
1936	545 561	112 868	658 429
1937	610 573	124 710	735 283
1938	619 984	123 833	743 817
1939	536 131	101 544	637 675
1940	397 061	85 064	482 125
1941	444 289	73 987	518 276
1942	311 562	150 785	462 347
1943	293 440	58 842	352 282
1944	206 813	33 705	240 518
1945	308 205	72 823	381 028
1946	509 473	193 235	702 708
1947	576 931	114 439	691 370
1948	815 278	130 141	945 419
1949	791 183	125 066	916 249
1950	669 910	127 239	797 149
1951	746 244	129 249	875 493
1952	873 717	135 948	1 009 665
1953	876 988	151 233	1 028 221
1954	862 629	242 876	1 105 505
1955	897 141	270 981	1 168 122
1956	920 159	258 446	1 178 605
1957	993 231	352 378	1 350 609
1958	1 007 883	407 265	1 415 148
1959	951 825	384 427	1 336 252
1960	817 854	357 816	1 175 670
1961	814 950	460 011	1 274 961

(CONTINUED)

APPENDIX NO. 3 (CONTINUED)

GOODS IMPORTED AND EXPORTED THROUGH EAST LONDON

HARBOUR 1885 - 1975

YEAR	IMPORTS	EXPORTS	TOTAL TRADE
IN HARBOUR TONS			
1962	666 302	631 852	1 298 154
1963	782 831	729 116	1 511 947
1964	765 448	790 645	1 556 093
1965	909 907	337 839	1 247 746
1966	1 111 623	278 149	1 389 772
1967	1 061 815	291 025	1 352 840
1968	655 006	1 622 845	2 277 851
1969	632 526	1 546 143	2 178 669
1970	573 261	514 939	1 088 200
1971	1 328 104	849 958	2 178 062
1972	1 362 607	1 790 516	3 153 123
1973	1 210 752	2 045 240	3 255 992
1974	1 360 451	527 061	1 887 512
1975	1 591 799	1 891 648	3 483 447

APPENDIX NO. 4

PRINCIPAL COMMODITIES EXPORTED THROUGH EAST LONDON HARBOUR. 1860 - 1955

(IN TONS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	Wool	Hides and Skins	Angora Hair	Maize and Maize Products	Other Grain	Iron	Beans and Peas	Hattle Park	Fodder and Forage	Citrus Fruit	Other Fruit	Butter	Eggs	Fresh or Frozen Meat	Ground Nut Oil	Asbestos
1860	151	167		15	1		3									
1861	91	434		43	1		2									
1862	348	261		1	1											
1863	241	60														
1864	245	13		5												
1865	298	10		6												
1866	765	31		7			2									
1867	885	5														
1868	1042			29	20		10									
1869	336			159	5		2									
1870	383	1		180	66	3	8									
1871	671	21														
1872	1030	292	2	57												
1873	504	145	3													
1874	670	152	1	183	8											

APPENDIX NO. 4 (CONTINUED)

PRINCIPAL COMMODITIES EXPORTED THROUGH EAST LONDON HARBOUR. 1860 - 1915

(IN TONS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	Wool	Hides and Skins	Angora Hair	Wheat and Maize Products	Other Grain	Bran	Beans and Peas	Cattle Bark	Podder and Forage	Citrus Fruit	Other Fruit	Butter	Eggs	Fresh or Frozen Meat	Ground Nut Oil	Asbestos
1875	963	65		40												
1876	1296	77														
1877	1595	99	1													
1878	1190	658			6											
1879	2561	608	10													
1880	2627	269	24													
1881	3162	742	34				2									
1882	4059	839	145													
1883	4493	1106	147													
1884	5223	2021	270													
1885	5596	3301	189													
1886	7876	2735	428	994	2	31	5									
1887	8745	2341	383	1622	2496		101									
1888	11695	2303	525	1467	2945	14	25									
1889	12803	2666	646	177		125	2									

APPENDIX NO. 4 (CONTINUED)

PRINCIPAL COMMODITIES EXPORTED THROUGH EAST LONDON HARBOUR. 1869 - 1904

(IN TONS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	Wool	Hides and Skins	Angora Hair	Maize and Maize Products	Other Grain	Brass	Beans and peas	Wattle Bark	Fodder and Forage	Citrus Fruit	Other Fruit	Butter	Eggs	Green or Frozen Meat	Ground Nut Oil	Insects
1890	13054	2800	660	1136	5	17	16									
1891	13188	3094	576	1375	4	65	2									
1892	11759	3260	588		1	570										
1893	11111	3622	486	140	4	325										
1894	11162	3624	511	94	7	463	16									
1895	11894	3515	381			322	36									
1896	13505	3295	423		2	210										
1897	11358	5544	501		3	265										
1898	14032	6000	502			815										
1899	13866	1967	631	1	3	800										
1900	6319	1869	510			126										
1901	15376	2625	616		1	90										
1902	16516	2969	892			25										
1903	15705	2585	1057			130										
1904	15315	3195	924	1												

APPENDIX NO. 4 (CONTINUED)

PRINCIPAL COMMODITIES REPORTED THROUGH EAST LONDON HARBOUR, 1860 -- 1955

(IN TONS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	Wool	Hides and Skins	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and peas	Cattle Bark	Podder and Forage	Citrus Fruit	Other Fruit	Butter	Eggs	Fresh or Frozen Meat	Ground Fat Oil	Asbestos
1905	No	figures available.														
1906	16869	x	1000													
1907	17928	x	1119					537								
1908	19551	x	1015					182	14							
1909	25231	x	1320					303	399							
1910	No	figures available.														
1911	No	figures available.														
1912	29486	6534	1327	1677		4		125					2			8
1913	32440	7443	1289			10		12					1			
1914	26456	4875	1158	1749												527
1915	32055	6650	993	5930		10							1			2078
1916	27937	4997	1153	11679				95								2599
1917	21317	3877	159													386
1918	20520	3162	932	51430												
1919	33785	8013	867	31525												

APPENDIX NO. 4 (CONTINUED)

PRINCIPAL COMMODITIES SHIPPED THROUGH EAST LONDON HARBOUR. 1860 - 1955

(IN TONS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	Wool	Hides and Skins	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and peas	Cattle Bark	Podder and Forage	Citrus Fruit	Other Fruit	Butter	Eggs	Fresh or Frozen Meat	Ground Nut Oil	Asbestos
1920	22183	4743	972	13185		100		18								
1921	40798	4793	1025	65146		78		11		24						
1922	41500	6278	1397	727		105		55		89						
1923	30802	6326	721	77496				2		194			2			
1924	32101	8405	893	1943				200		550	x			2		
1925	39210	6772	472	94615				350		552	x		40			
1926	36319	5740	474	26102				734		376	x		52	3		
1927	47329	9457	413	23260				2296		648	x		104			
1928	46095	7868	175	26758				3607		956	x		168			
1929	47904	5690	203	33213				1417		2112	x		240			
1930	46425	5051	55	396				1827		2766	x		332			
1931	40235	3935	227	111				1395		2012	x		474	771		
1932	64072	4186	172	550				576		3477	x	121	506	847		
1933	43584	5386	499					910		2875	x	133	374	330		

APPENDIX NO. 4 (CONTINUED)

PRINCIPAL COMMODITIES EXPORTED THROUGH EAST LONDON HARBOUR, 1860 - 1955

(IN TONS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	Wool	Hides and Skins	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and Peas	Wattle Bark	Podder and Forage	Citrus Fruit	Other Fruit	Butter	Eggs	Fresh or Frozen Meat	Ground Butter	Asbestos
1934	26972	5045	182	195				336		4490	x	156	328	81		
1935	38012	4179	314					126		5101	x	695	354	551		
1936	28164	3619	234							9316	x	620	390	2792		
1937	31236	3607	152							9833	x	1008	214	2268		
1938	34722	3708	334					231		9247	x	254	200	180		
1939	24069	4006	236					84		12047	x	464	246	466		
1940	} No figures available															
1941																
1942																
1943																
1944																
1945	13458	788	502							6234		2		10		
1946	64275	1717	481							7181				1		
1947	30329	2285	503							12069	13			5		

APPENDIX NO. 4 (CONTINUED)

PRINCIPAL COMMODITIES EXPORTED THROUGH EAST LONDON HARBOUR. 1860 - 1955

(IN TONS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Year	Wool	Hides and Skins	Angora Hair	Maize and Maize Products	Other Grain	Bran	Beans and Peas	Wattle Bark	Fodder and Forage	Citrus Fruit	Other Fruit	Butter	Eggs	Fresh or Frozen Meat	Ground Nut Oil	Asbestos
1948	34649	1803	417							12415			72			
1949	28372	2449	194							17061			100	896		
1950	24238	2544	492							22461		76	76	111		
1951	21528	1018	387							22424		214	110			
1952	29652	2268	306							18352	367		216		664	
1953	26874	2271	295	16880						20972	591		280	3	5542	
1954	28710	1650	336	65687						28893	1274	10	422		8372	
1955	31918	1938	275	80261				233		23829	1793		791		9771	
(x No figures available)																

APPENDIX NO. 5

EXPORTS (HARBOUR TONS)

EAST LONDON HARBOUR

Year	General Cargo	Produce	Ores and Minerals	Maize and Maize Meal	Total	Wool (Bales)
1956	35186	151574	-	71686	253446	242839
1957	27987	161283	-	163108	352378	247720
1958	25493	157378	-	224394	407265	214526
1959	27067	173152	-	184208	384427	181040
1960	35499	213743	-	108574	357316	275269
1961	31343	213384	-	215284	460011	231447
1962	25227	236724	-	319901	631852	302744
1963	24243	231615	-	473258	729116	249620
1964	28466	247075	-	515104	790645	235359
1965	32748	246498	-	58593	337839	220073
1966	32879	245270	-	-	278149	259080
1967	36336	214409	13946	26334	291025	263404
1968	30008	244003	24368	1324386	1622845	257398
1969	29020	217536	28966	1299587	1546143	177769
1970	32814	244551	21178	216397	514939	159959
TOTAL	454396	3248222	88458	5200813	8962896	
%	5,0	36,1	0,9(10,3)	58,0	100	

APPENDIX NO. 6

SHIPPING AND CARGO (TONS) EXPORTED AT EAST LONDON HARBOUR.

(FINANCIAL YEAR ENDED 31st MARCH)

		1971	1972	1973	1974	1975
Passengers Embarked	4	2 706	2 297	1 940	1 939	1 984
Livestock Shipped	-	8	-	-	-	-
General Cargo (Incl. Oil)	11,9	117 789	136 417	153 586	149 816	120 388
Maize and Maize products	68,3	559 908	1 370 141	1 694 944	154 986	1 511 025
Grain other than maize	4,2	7 388	88 757	8 467	84 749	51 177
Other Produce	3,5	21 940	53 670	46 961	28 876	50 709
Wool	4,3	64 325	52 304	58 399	38 562	33 968
Skins and Hides	0,2	3 694	3 535	2 577	302	390
Wattle Bark	0,1	1 568	1 360	2 250	1 545	409
Fruit: Citrus	2,7	25 310	35 034	32 063	27 676	32 266
Deciduous	-	68	-	-	-	-
Other	1,1	11 830	14 670	12 150	16 818	5 977
Bunker Oil	1,2	11 578	15 871	12 081	6 567	20 221
Ores and Minerals	2,5	24 560	18 757	21 762	17 164	65 123
TOTAL	100	849 958	1 790 516	2 045 240	527 061	1 891 648

ANNEX II. 7

MAIN GROUPS OF EXPORTS (S.A.) (P. MILLION)

(ANALYSIS OF TRENDS)

	1971	1972	1973 (3 months only)
Food and Livestock	344,4	576,0	392,8
Beverages and Tobacco	13,0	14,9	9,9
Raw Materials (Inedible)	420,6	508,1	411,9
Animal and Vegetable Oils and Fats	8,7	8,6	7,5
Chemicals	69,0	78,0	62,7
Manufactured Goods	432,0	590,3	549,1
Diamonds (Rough and Uncut)	110,9	141,4	185,6
Diamonds (Cut and Polished)	53,3	67,6	67,3
Machinery and Transport Equipment	113,2	134,5	91,7
Miscellaneous Manufactured Articles	20,3	25,6	18,2
General	98,9	80,8	93,4
Export Value of Gold	922,3	1 161,0	1 154,1

(S.A. Yearbook 1974. Page 123)

N.B. Value as basis of comparison is not an ideal measurement, but gives an indication as to trends.

APPENDIX NO. 8

IMPORTS BY COUNTRIES (R.MILLION)

(S.A. EXPORTS)

(ANALYSIS OF TRENDS)

	1970	1971	(8 months only)	
			1972	1973
Africa (Total)	131,2	127,8	151,3	122,8
Europe (Total)	1 392,0	1 573,5	1 489,2	1 484,3
Common Market Countries	658,5	715,2	-	-
United Kingdom	560,6	670,6	590,5	469,5
Sweden	45,1	43,9	43,8	34,4
Switzerland	49,6	56,0	62,7	44,3
West Germany	408,9	408,9	413,0	368,8
America				
United States	423,8	469,7	466,6	343,6
Canada	70,5	47,3	41,3	29,2
Other America	3,6	5,0	3,6	2,9
Asia (Total)	409,8	538,4	543,0	463,1
Japan	221,2	292,1	267,1	253,7
Other	188,6	246,2	260,3	14,6
Oceania (Total)	65,3	74,2	75,7	68,2
Australia	60,5	62,2	70,6	63,4
New Zealand	4,8	12,0	5,1	-
Unspecified	25,8	22,2	20,1	5,3

APPENDIX NO. 9

TOTAL OVERSEA TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
	Tons	Tons	Tons	Tons	Tons	Tons
1956						
Landed	4 280 255	920 159	1 491 728	3 008 529	No	9 700 671
Shipped	3 679 041	258 446	602 182	2 296 240	Figures	6 835 909
1957						
Landed	4 244 061	999 331	1 499 171	3 047 232	No	9 789 795
Shipped	3 618 224	354 015	590 044	2 292 822	Figures	6 855 105
1958						
Landed	4 571 355	1 003 526	1 829 911	3 169 867	No	10 574 659
Shipped	3 683 715	441 088	584 404	2 112 308	Figures	6 821 515
1959						
Landed	4 269 333	949 370	1 777 089	2 899 730	No	9 895 522
Shipped	3 744 003	384 584	572 490	1 823 563	Figures	6 524 640
1960						
Landed	4 233 820	817 854	1 644 225	2 801 494	No	9 497 393
Shipped	4 026 518	357 816	874 218	1 864 377	Figures	7 102 929

APPENDIX NO. 9 (Cont.)

TOTAL OVERSEA TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
1961	Tons	Tons	Tons	Tons	Tons	Tons
Landed	4 453 988	814 947	1 552 712	2 699 181	No	9 520 828
Shipped	4 836 305	477 235	1 046 785	1 839 640	Figures	8 199 965
1962						
Landed	4 583 687	691 621	1 290 712	2 389 983	No	8 955 761
Shipped	5 888 264	565 022	1 116 454	2 153 926	Figures	9 723 666
1963						
Landed	6 815 923	782 831	1 867 425	2 545 826	No	12 012 005
Shipped	5 946 210	729 116	1 528 040	2 228 575	Figures	10 431 941
1964						
Landed	7 219 483	765 448	2 006 381	2 931 418	No	12 922 730
Shipped	7 912 543	790 645	2 146 821	2 641 215	Figures	13 491 224
1965						
Landed	9 334 148	1 147 311	2 240 978	3 011 587	447 983	16 384 125
Shipped	7 673 540	278 309	2 399 818	2 024 384	735 764	13 177 687

APPENDIX NO. 9 (Cont.)

TOTAL OVERSEA TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
	Tons	Tons	Tons	Tons	Tons	Tons
1966						
Landed	9 431 972	1 065 873	2 128 329	3 715 015	513 862	17 071 497
Shipped	8 116 725	265 422	2 942 299	2 273 056	718 508	14 368 387
1967						
Landed	9 920 785	1 086 721	2 246 982	4 169 270	527 052	18 212 029
Shipped	6 550 459	287 829	2 947 734	2 060 191	770 496	12 673 526
1968						
Landed	3 536 444	570 717	1 332 261	2 013 916	260 739	7 526 572
Shipped	8 901 935	1 628 462	3 626 111	3 453 366	761 695	19 433 910
1969						
Landed	3 027 109	634 337	1 349 996	1 856 406	211 433	7 143 358
Shipped	8 743 588	1 582 233	3 640 857	3 458 114	811 332	18 285 591
1970						
Landed	10 047 305	919 248	2 031 113	3 853 170	538 905	17 568 700
Shipped	9 895 379	546 555	4 160 125	2 848 203	701 265	18 179 681

APPENDIX NO. 9 (Cont.)

TOTAL OVERSEA TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
	Tons	Tons	Tons	Tons	Tons	Tons
1971						
Landed	16 939 015	1 328 104	2 864 296	5 479 546	766 467	27 220 409
Shipped	10 721 719	849 958	4 685 262	3 241 559	609 962	18 269 909
1972						
Landed	17 803 985	1 362 607	2 890 898	5 322 426	721 939	27 608 920
Shipped	11 296 471	1 790 516	5 083 645	3 620 347	506 685	21 815 536
1973						
Landed	16 963 269	1 210 752	2 754 391	4 718 363	727 129	25 894 518
Shipped	12 907 164	2 045 240	5 579 494	4 065 561	507 902	24 607 060
1974						
Landed	19 890 917	1 360 451	3 067 158	5 829 414	766 284	30 376 373
Shipped	12 538 042	527 061	6 770 268	3 382 496	638 258	23 223 874
1975						
Landed	20 712 493	1 591 799	3 319 971	6 394 559	748 362	32 163 583
Shipped	13 730 974	1 891 648	7 106 496	4 087 981	796 047	26 819 579

APPENDIX NO. 10

TOTAL COASTWISE TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
1956	Tons	Tons	Tons	Tons	Tons	Tons
Landed	126 697	112 754	158 744	314 031	61 733	885 383
Shipped	464 664	27 958	66 513	247 643	56 231	885 383
1957						
Landed	133 854	113 292	166 730	338 587	77 286	939 425
Shipped	519 785	23 673	69 076	243 468	48 853	939 425
1958						
Landed	125 141	110 410	172 179	335 183	74 803	922 922
Shipped	528 234	24 328	76 395	233 680	39 536	922 922
1959						
Landed	130 633	114 282	172 993	348 533	94 585	955 921
Shipped	547 175	35 216	80 662	228 412	49 536	955 921
1960						
Landed	147 158	117 467	187 763	362 232	94 857	1 011 011
Shipped	574 381	32 975	88 126	246 671	50 511	1 011 011

APPENDIX NO. 10 (Cont.)

TOTAL COASTWISE TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
1961	Tons	Tons	Tons	Tons	Tons	Tons
Landed	156 979	129 738	179 630	394 200	96 961	1 065 625
Shipped	616 942	22 998	98 927	257 370	53 381	1 065 625
1962						
Landed	170 913	132 111	196 439	389 580	89 274	1 088 288
Shipped	636 173	22 352	111 519	250 455	49 546	1 088 288
1963						
Landed	186 963	142 125	219 649	455 705	87 116	1 186 808
Shipped	721 885	26 189	120 844	239 116	62 609	1 186 808
1964						
Landed	227 789	164 806	251 048	486 946	108 837	1 362 339
Shipped	781 256	33 197	133 323	320 844	74 811	1 362 339
1965						
Landed	217 504	178 741	263 019	508 506	125 647	1 416 549
Shipped	824 777	33 437	119 273	327 163	89 119	1 416 549

APPENDIX NO. 10 (Cont.)

TOTAL COASTWISE TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
1966	Tons	Tons	Tons	Tons	Tons	Tons
Landed	217 418	182 000	253 379	544 665	134 161	1 454 133
Shipped	850 177	32 001	129 560	321 191	101 918	1 454 133
1967						
Landed	222 147	181 720	259 854	559 396	140 805	1 485 676
Shipped	872 870	32 937	130 897	324 264	107 088	1 485 676
1968						
Landed	238 767	177 603	255 803	529 536	138 758	1 462 070
Shipped	858 677	31 651	137 417	308 852	107 542	1 462 070
1969						
Landed	264 505	181 402	261 410	552 066	149 906	1 535 485
Shipped	882 302	33 989	135 811	334 775	124 762	1 535 485
1970						
Landed	281 285	185 950	269 506	581 718	119 216	1 573 964
Shipped	924 605	34 131	144 253	329 360	118 663	1 573 964

APPENDIX NO. 10 (Cont.)

TOTAL COASTWISE TRAFFIC FOR ALL HARBOURS

(Figures for smaller harbours not given, but included in totals)

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY	TOTAL
1971	Tons	Tons	Tons	Tons	Tons	Tons
Landed	310 860	204 500	274 678	575 535	122 757	1 597 560
Shipped	926 315	37 251	162 267	355 787	115 940	1 597 560
1972						
Landed	330 817	215 642	286 184	637 420	126 992	1 681 415
Shipped	1 011 203	45 853	152 035	377 585	94 739	1 681 415
1973						
Landed	297 536	203 828	301 767	746 317	114 282	1 764 975
Shipped	1 139 490	48 239	144 825	336 288	96 133	1 764 975
1974						
Landed	387 988	229 649	334 297	812 641	144 449	2 029 261
Shipped	1 250 292	50 173	148 668	441 845	138 283	2 029 261
1975						
Landed	380 076	207 612	344 640	874 859	145 333	2 092 427
Shipped	1 323 371	32 047	129 928	459 123	147 958	2 092 427

APPENDIX NO. 11
CARGO (HARBOUR TONS) SHIPPED COASTWISE

Financial Year ended 31st March 1971

C = Coasters: O/S = Other Ships.

SHIPPED OUTWARD FROM:	TO:	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>GENERAL CARGO:</u>						
DURBAN	C	-	125 902	179 314	457 925	70 922
	O/S	-	15 120	11 830	20 792	325
EAST LONDON	C	10 713	-	3 565	6 413	374
	O/S	5 077	-	2 079	8 828	75
PORT ELIZABETH	C	84 368	9 544	-	46 978	421
	O/S	7 401	6 829	-	5 877	461
CAPE TOWN	C	112 443	38 939	65 473	-	46 268
	O/S	4 698	4 938	5 977	-	497
WALVIS BAY	C	75 184	3 011	4 920	22 939	-
	O/S	901	235	1 456	1 166	-
GENERAL CARGO	C	292 780	177 378	253 336	537 656	121 399
	O/S	18 077	27 122	21 342	37 879	1 358
TOTAL GENERAL CARGO LANDED		310 860	204 500	274 678	575 535	122 757
TOTAL GENERAL CARGO SHIPPED		926 315	37 251	162 267	355 787	115 940
TOTAL GENERAL CARGO HANDLED		1 237 175	241 751	436 945	931 322	238 697

Note: Statistics from Mossel Bay, Port Nolloth, Luderitz, Lamberts Bay, Saldanha Bay, St. Helena Bay are not given but they are included in the Totals.

APPENDIX NO. 12
CARGO (HARBOUR TONS) SHIPPED COASTWISE
Financial Year ended 31st March 1972

C = Coasters: O/S = Other Ships.

SHIPPED OUTWARD FROM:	TO:	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>GENERAL CARGO:</u>						
DURBAN	C	-	148 677	188 022	523 202	69 065
	O/S	-	11 132	13 562	8 602	3 153
EAST LONDON	C	14 065	-	39	15 774	283
	O/S	3 806	-	2 300	9 379	16
PORT ELIZABETH	C	78 051	889	-	47 984	103
	O/S	10 743	7 983	-	5 822	211
CAPE TOWN	C	146 754	40 208	69 741	-	49 563
	O/S	3 909	2 207	3 956	-	185
WALVIS BAY	C	53 090	3 628	6 159	20 920	-
	O/S	1 156	117	412	1 600	-
GENERAL CARGO	C	311 203	194 203	265 954	611 587	123 114
	O/S	19 614	21 439	20 230	25 833	3 878
TOTAL GENERAL CARGO LANDED		330 817	215 642	286 184	637 420	126 992
TOTAL GENERAL CARGO SHIPPED		1 011 203	45 853	152 035	377 585	94 739
TOTAL GENERAL CARGO HANDLED		1 342 020	261 495	438 219	1 015 005	221 731

Note: Statistics from Mossel Bay, Port Nolloth, Luderitz, Lamberts Bay, Saldanha Bay, St. Helena Bay are not given but they are included in the Totals.

APPENDIX NO. 13
CARGO (HARBOUR TONS) SHIPPED COASTWISE
Financial Year ended 31 March 1973

C = Coasters: O/S = Other Ships.

SHIPPED OUTWARD FROM:	TO:	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>GENERAL CARGO:</u>						
DURBAN	C	-	155 332	220 343	633 055	65 773
	O/S	-	3 908	7 995	8 288	218
EAST LONDON	C	18 594	-	2	18 647	300
	O/S	3 014	-	1 276	6 034	57
PORT ELIZABETH	C	77 072	197	-	42 013	9
	O/S	10 437	5 469	-	9 083	425
CAPE TOWN	C	119 795	31 933	63 810	-	43 796
	O/S	3 382	2 341	3 563	-	-
WALVIS BAY	C	55 208	3 977	3 014	22 343	-
	O/S	196	76	427	2 530	-
GENERAL CARGO	C	280 507	192 034	288 506	720 098	113 582
	O/S	17 029	11 794	13 261	26 219	700
TOTAL GENERAL CARGO LANDED		297 536	203 828	301 767	746 317	114 282
TOTAL GENERAL CARGO SHIPPED		1 139 490	48 239	144 825	336 288	96 133
TOTAL GENERAL CARGO HANDLED		1 437 026	252 067	446 592	1 082 605	210 415

Note: Statistics from Mossel Bay, Port Nolloth, Luderitz, Lamberts Bay, Saldanha Bay, St. Helena Bay are not given but they are included in the Totals.

APPENDIX NO. 14

CARGO (HARBOUR TONS) SHIPPED COASTWISE

Financial Year ended 31 March 1974

C = Coasters: O/S = Other Ships.

SHIPPED OUTWARD FROM:	TO:	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>GENERAL CARGO:</u>						
DURBAN	C	-	171 988	243 415	704 987	68 839
	O/S	-	4 660	4 117	8 751	1 177
EAST LONDON	C	24 743	-	583	17 407	354
	O/S	2 157	-	2 445	2 002	439
PORT ELIZABETH	C	92 968	2 546	-	34 252	279
	O/S	5 899	4 242	-	7 320	976
CAPE TOWN	C	163 463	36 961	77 704	-	67 341
	O/S	4 114	1 872	1 846	-	2 279
WALVIS BAY	C	83 507	7 100	3 984	31 516	-
	O/S	4 120	13	73	2 146	-
GENERAL CARGO	C	371 698	218 862	325 816	791 797	139 171
	O/S	16 290	10 787	8 481	20 844	5 278
TOTAL GENERAL CARGO LANDED		387 988	229 649	334 297	812 641	144 449
TOTAL GENERAL CARGO SHIPPED		1 250 292	50 173	148 668	441 845	138 283
TOTAL GENERAL CARGO HANDLED		1 638 280	279 822	482 965	1 254 486	282 732

Note: Statistics from Mossel Bay, Port Nolloth, Luderitz, Lamberts Bay, Saldanha Bay, St. Helena Bay are not given but they are included in the Totals.

APPENDIX NO. 15
CARGO (HARBOUR TONS) SHIPPED COASTWISE
Financial Year ended 31 March 1975

C = Coasters: O/S = Other Ships

SHIPPED OUTWARD FROM:	TO:	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>GENERAL CARGO:</u>						
DURBAN	C	-	160 739	230 251	780 677	75 981
	O/S	-	3 420	6 468	4 833	8 361
EAST LONDON	C	18 955	-	215	10 594	22
	O/S	990	-	616	584	71
PORT ELIZABETH	C	88 695	279	-	33 768	1 508
	O/S	1 005	818	-	3 818	34
CAPE TOWN	C	170 762	32 606	98 951	-	54 110
	O/S	4 592	1 498	1 163	-	4 752
WALVIS BAY	C	80 038	7 923	6 528	36 812	-
	O/S	7 907	12	305	436	-
GENERAL CARGO	C	365 609	201 864	336 058	865 188	132 115
	O/S	14 494	5 748	8 552	9 671	13 218
TOTAL GENERAL CARGO LANDED		380 076	207 612	344 640	874 859	145 333
TOTAL GENERAL CARGO SHIPPED		1 323 371	32 047	129 928	459 123	147 958
TOTAL GENERAL CARGO HANDLED		1 703 447	239 659	474 568	1 333 982	293 291

Note: Statistics from Mossel Bay, Port Nolloth, Luderitz, Lamberts Bay, Saldanha Bay, St. Helena Bay
are not given but they are included in the Totals.

APPENDIX NO. 16

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1971

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>ARRIVALS:</u> Ocean-going	4 997	1 116	1 563	3 823	923
Coasters	588	234	453	628	108
Trawlers and Whalers	1 661	34	408	3 933	251
Total	7 246	1 384	2 424	8 384	1 282
<u>PASSENGERS:</u> Disembarked	57 088	2 850	14 143	36 046	366
<u>LIVESTOCK:</u> Landed	218	-	-	560	-
<u>CARGO LANDED:</u> General Cargo (incl. oil)	16 549 066	1 253 439	2 680 028	4 747 739	740 544
Fertilizers	88 971	-	160	42 627	-
Sulphur	78 074	23	194	28 366	-
Grain	47 040	28 521	25 984	4 002	-
Timber	172 800	37 483	28 153	104 779	25 923
Coal			125 682	537 765	-
Rice	-	-	-	-	-
Steel	-	-	-	-	-
Cement	-	-	-	-	-
Railway Material	3 064	8 629	4 095	14 628	-
Total	16 939 015	1 328 104	2 864 296	5 479 546	766 467

APPENDIX NO. 17

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1972

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>ARRIVALS:</u> Ocean-going	4 789	1 038	1 440	3 785	899
Coasters	563	193	345	569	113
Trawlers and Whalers	1 370	29	313	2 999	190
Total	6 722	1 260	2 098	7 353	1 202
<u>PASSENGERS:</u> Disembarked	55 392	2 237	8 369	34 686	486
<u>LIVESTOCK:</u> Landed	59	-	-	146	21
<u>CARGO LANDED:</u> General Cargo(incl.oil)	17 099 956	1 257 928	2 578 999	4 586 056	681 991
Fertilizers	122 057	-	351	51 888	-
Sulphur	84 051	-	347	21 110	-
Grain	-	-	-	4 500	-
Timber	140 594	32 110	19 163	80 803	28 302
Coal	-	-	255 316	525 330	-
Rice	60 344	-	7	27 927	-
Steel	207 377	45 953	31 775	12 110	1 748
Cement	69 689	1 175	42	917	9 898
Railway Material	19 917	25 441	4 898	11 785	-
Total	17 803 985	1 362 607	2 890 898	5 322 426	721 939

APPENDIX NO. 18

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1973

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>ARRIVALS:</u> Ocean-going	4 427	959	1 373	3 718	901
Coasters	624	188	401	578	80
Trawlers and Whalers	1 168	32	246	1 326	71
Total	6 219	1 179	2 020	5 622	1 052
<u>PASSENGERS:</u> Disembarked	47 894	2 269	5 436	21 283	345
<u>LIVESTOCK:</u> Landed	53	-	-	474	59
<u>CARGO LANDED:</u> General Cargo(incl. oil)	16 405 274	1 162 778	2 383 551	4 024 550	697 117
Fertilizers	213 655	-	67	44 178	-
Sulphur	76 665	-	2 516	27 251	-
Grain	-	-	-	5 625	-
Timber	114 579	26 311	16 302	75 416	13 353
Coal	-	-	328 898	497 155	-
Rice	81 989	-	857	30 817	-
Steel	50 820	4 923	17 436	337	2 443
Cement	-	19	31	8 067	14 216
Railway Material	20 287	16 721	4 733	4 967	-
Total	16 963 269	1 210 752	2 754 391	4 718 363	727 129

APPENDIX NO. 19

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1974

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>ARRIVALS:</u> Ocean-going	4 534	829	1 413	3 640	1 131
Coasters	577	202	390	584	101
Trawlers and Whalers	1 299	17	286	1 360	28
Total	6 410	1 048	2 089	5 584	1 260
<u>PASSENGERS:</u> Disembarked	49 570	1 729	3 140	17 461	318
<u>LIVESTOCK:</u> Landed	96	-	-	602	40
<u>CARGO LANDED:</u> General Cargo (incl. oil)	18 993 599	1 306 899	2 644 258	5 249 210	739 516
Fertilizers	78 639	426	21	59 705	-
Sulphur	30 916	-	-	28 877	-
Grain	-	-	-	24 775	-
Timber	210 585	35 465	20 922	110 662	11 057
Coal	2 145	38	316 538	284 239	-
Rice	35 933	-	-	33 142	-
Steel	518 448	17 623	78 884	32 506	3 297
Cement	-	-	-	665	12 414
Railway Material	20 652	-	6 535	5 653	-
Total	19 890 917	1 360 451	3 067 158	5 829 414	766 284

APPENDIX NO. 20

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1975

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
<u>ARRIVALS:</u> Ocean-going	4 056	834	1 303	2 919	317
Coasters	533	176	355	571	92
Trawlers and Whalers	1 417	30	542	2 038	757
Total	6 006	1 040	2 200	5 528	1 166
<u>PASSENGERS:</u> Disembarked	54 010	1 859	3 211	22 855	58
<u>LIVESTOCK:</u> Landed	64	--	148	1 978	127
<u>CARGO LANDED:</u> General Cargo(incl.oil)	19 217 831	1 520 198	3 165 966	5 752 046	720 891
Fertilizers	215 689	--	25	48 844	--
Sulphur	121 958	--	--	19 129	--
Grain	--	--	--	8 646	--
Timber	163 067	55 698	10 418	90 740	10 166
Coal	8	--	14	253 857	--
Rice	25 242	--	--	25 569	--
Steel	624 626	16 263	143 548	182 875	17 305
Cement	--	--	--	2 553	--
Railway Material	344 072	--	--	10 200	--
Total	20 712 493	1 591 799	3 319 971	6 394 559	748 362

APPENDIX NO. 21

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1971

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
PASSENGERS: Embarked	40 446	2 706	8 084	30 326	472
LIVESTOCK: Shipped	361	8	-	169	60
CARGO SHIPPED: General Cargo(incl.oil)	3 168 891	117 789	208 578	939 734	96 543
Fertilizers	5 877	-	-	4 581	-
MAIZE AND MAIZE Products	441 231	559 908	-	213 811	-
Grain other than maize	97 164	7 388	282	76	-
Other produce	405 341	21 940	29 611	123 838	40 247
Wool	68 514	64 325	96 691	35 796	1 367
Skins and Hides	28 674	3 694	39 023	19 073	6 287
Wattle bark	12 507	1 568	-	-	-
Wattle bark extract	55 747	-	-	-	-
Fish products	-	-	-	38 219	189 311
Sugar: In bulk	611 505	-	-	-	-
In containers	300 715	-	-	-	-
Fruit: Citrus	134 802	25 310	85 632	194 994	-
Deciduous	-	68	43 629	385 108	-
Dried	-	-	-	10 978	-
Other	310	11 830	-	-	-
Bunker Coal	-	-	-	46 725	-

APPENDIX NO. 21 (Cont.)

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1971

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
Cargo Coal: Coastwise	-	-	-	305	-
Foreign	1 463 537	-	-	-	-
Bunker Oil	2 559 075	11 578	41 289	157 920	56 259
Ores and Minerals	1 367 935	24 560	4 140 437	70 383	219 948
Total	10 721 719	849 958	4 685 262	3 241 559	609 962

APPENDIX NO. 22

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1972

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
PASSENGERS: Embarked	47 026	2 297	8 389	29 149	404
LIVESTOCK: Shipped	162	-	-	16	244
CARGO SHIPPED: General Cargo(incl.oil)	4 033 081	136 417	226 404	1 123 607	71 590
Fertilizers	8 636	-	-	13 786	-
MAIZE AND MAIZE products	961 241	1 370 141	19 713	255 327	-
Grain other than maize	257 836	88 757	4 989	578	-
Other produce	434 363	53 670	34 442	131 694	15 846
Wool	53 246	52 304	81 309	24 543	777
Skins and Hides	36 863	3 535	45 141	21 334	3 851
Wattle bark	1 718	1 360	-	-	-
Wattle bark extract	64 977	-	-	-	-
Fish products	-	-	-	58 012	159 089
Sugar: In bulk	738 181	-	-	-	-
In containers	308 305	-	-	-	-
Fruit: Citrus	115 719	35 034	98 595	284 554	-
Deciduous	-	-	78 825	586 431	-
Dried	-	-	-	13 471	-
Other	859	14 670	-	-	-
Bunker Coal	-	-	-	27 782	-

APPENDIX NO. 22 (Cont.)

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1972

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
Cargo Coal: Coastwise	-	-	-	241	-
Foreign	959 603	-	-	-	-
Bunker Oil	2 199 938	15 871	37 753	1 024 334	50 352
Ores and Minerals	1 121 905	18 757	4 456 474	72 653	205 180
Total	11 296 471	1 790 516	5 083 645	3 620 347	506 685

APPENDIX NO. 23

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1973

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
PASSENGERS: Embarked	45 846	1 940	5 156	16 885	456
LIVESTOCK: Shipped	351	-	-	-	318
CARGO SHIPPED: General Cargo(incl.oil)	4 873 822	153 586	215 761	950 716	139 641
Fertilizers	24 401	-	-	10 410	-
MAIZE AND MAIZE Products	1 347 507	1 694 944	260 585	701 832	-
Grain other than maize	208 331	8 467	7 323	41 494	-
Other produce	449 036	46 961	22 938	159 274	13 156
Wool	55 649	58 399	106 066	24 150	1 347
Skins and Hides	36 860	2 577	49 948	21 243	3 560
Wattle bark	1 551	2 250	-	-	-
Wattle bark extract	59 707	-	-	-	-
Fish products	-	-	-	85 281	125 836
Sugar: In bulk	913 422	-	-	-	-
In containers	361 311	-	-	-	-
Fruit: Citrus	131 661	32 063	127 079	257 124	-
Deciduous	-	-	120 803	621 364	-
Dried	-	-	-	12 521	-
Other	297	12 150	-	56	-
Bunker Coal	-	-	-	14 474	-

APPENDIX NO. 23 (Cont.)

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1973

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
Cargo Coal: Coastwise	-	-	-	283	-
Foreign	1 179 440	-	-	-	-
Bunker Oil	2 061 446	12 081	46 171	1 106 687	51 173
Ores and Minerals	1 202 723	21 762	4 622 820	58 652	173 189
Total	12 907 164	2 045 240	5 579 494	4 065 561	507 902

APPENDIX NO. 24

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1974

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
PASSENGERS: Embarked	41 546	1 939	1 818	18 318	369
LIVESTOCK: Shipped	112	--	--	--	116
CARGO SHIPPED: General Cargo(incl.oil)	6 022 994	149 816	224 345	933 556	22 503
Fertilizers	41 176	--	--	15 296	--
MAIZE AND MAIZE Products	508 694	154 986	26 267	32 971	--
Grain other than maize	134 384	84 749	--	155 957	--
Other produce	234 995	28 876	15 036	187 090	20 580
Wool	47 256	38 562	87 317	15 819	171
Skins and Hides	30 241	302	40 580	15 213	2 411
Wattle bark	1 972	1 545	--	--	--
Wattle bark extract	59 306	--	--	--	--
Fish products	--	--	--	114 704	343 735
Sugar: In bulk	810 865	--	--	--	--
In containers	329 359	--	--	--	--
Fruit: Citrus	171 032	27 676	94 703	233 173	--
Deciduous	--	--	81 226	510 632	--
Dried	--	--	--	14 959	--
Other	187	16 818	1 374	8 953	--
Bunker Coal	--	--	--	16 224	--

APPENDIX NO. 24(Cont.)

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1974

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
Cargo Coal: Coastwise	-	-	-	263	-
Foreign	1 404 123	-	-	-	-
Bunker Oil	1 935 708	6 567	54 593	1 071 920	67 839
Ores and Minerals	805 750	17 164	6 144 827	55 766	181 019
Total	12 538 042	527 061	6 770 268	3 382 496	638 258

APPENDIX NO. 25

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1975

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
PASSENGERS: Embarked	36 263	1 984	3 345	21 307	65
LIVESTOCK: Shipped	2 447	-	-	-	233
CARGO SHIPPED: General Cargo(incl.oil)	5 876 892	120 388	214 247	1 097 406	71 651
Fertilizers	8 735	-	-	52 778	-
MAIZE AND MAIZE products	1 225 862	1 511 025	99	626 714	-
Grain other than maize	177 573	51 177	-	-	-
Other produce	428 309	50 709	12 630	119 944	11 853
Wool	46 230	33 968	65 265	9 763	2
Skins and Hides	29 221	390	36 082	13 019	620 -
Wattle bark	3 614	409	-	-	-
Wattle bark extract	56 171	-	20	-	-
Fish products	-	-	-	104 319	383 548
Sugar: In bulk	579 920	-	-	-	-
In containers	142 689	-	-	-	-
Fruit: Citrus	164 791	32 266	131 082	301 066	-
Deciduous	156	-	68 046	495 988	-
Dried	-	-	9	1 796	-
Other	635	5 977	176	21 732	-
Bunker Coal	-	-	-	12 315	-

APPENDIX NO. 25(Cont.)

SHIPPING AND CARGO (TONS) AT PRINCIPAL HARBOURS OF S.A. AND S.W.A.

FINANCIAL YEAR ENDED 31 MARCH 1975

	DURBAN	EAST LONDON	PORT ELIZABETH	CAPE TOWN	WALVIS BAY
Cargo Coal: Coastwise	12 663	-	-	105	-
Foreign	1 472 127	-	10 541	-	-
Bunker Oil	2 588 974	20 221	62 450	1 145 280	81 932
Ores and Minerals	916 433	65 123	6 505 849	85 774	246 441
Total	13 730 974	1 891 648	7 106 496	4 087 981	796 047

APPENDIX NO. 26

BERTH OCCUPANCY : EAST LONDON HARBOUR

(ACCORDING TO WORKING HOURS AVAILABLE AND WORKING HOURS OCCUPIED AT BERTHS)

MONTHLY PERCENTAGE OCCUPANCY

1971

Berths	Jan.	Feb.	Mrch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
East Bank:													
L	55,3	55,2	65,7	66,1	76,0	61,8	71,1	69,5	55,8	71,6	61,0	61,1	64,2
KM	49,4	59,8	36,1	36,8	54,2	45,4	50,2	47,3	42,9	55,3	70,7	68,0	51,3
KC	44,1	42,3	49,0	51,5	44,4	57,1	56,7	45,1	32,5	55,3	60,6	63,0	50,1
I	38,2	59,3	38,4	40,9	50,1	57,0	42,8	62,4	34,9	68,0	48,0	62,6	50,2
G	48,2	71,4	61,4	72,4	60,9	64,9	73,1	64,9	43,8	69,3	59,0	63,0	62,7
F	61,4	68,3	54,1	59,9	55,1	70,8	79,8	66,8	51,4	77,5	37,1	62,2	62,3
West Bank:													
N	46,3	56,6	46,6	57,3	55,7	57,7	53,9	56,4	70,2	40,9	46,0	62,8	54,2
O	26,0	18,0	44,6	36,3	25,7	59,1	46,4	29,3	10,5	47,3	16,3	30,4	32,5
P	71,4	69,8	39,8	61,8	35,0	42,4	60,3	68,3	15,5	46,0	47,9	54,1	48,5
R	52,1	48,4	58,4	65,5	67,6	69,8	59,3	58,2	56,9	5,3	38,7	48,4	52,4
Other Berths:													
T(Grain Elevator)	8,2	43,4	11,9	30,7	69,1	70,4	63,7	39,9	69,4	65,0	80,7	96,6	54,1
S (Sundries)	17,2	43,6	4,5	43,3	48,0	64,6	26,1	25,1	26,7	77,3	59,5	62,7	41,6
Oil Tankers	10,2	24,6	17,4	5,5	33,7	45,5	21,0	34,2	39,2	54,5	75,4	42,4	33,6
Graving Dock	83,5	44,3	32,9	34,7	84,0	94,1	87,2	52,9	84,2	10,2	29,8	94,5	61,0
C (Coal)	0	60,0	20,1	39,6	0	6,5	8,2	10,5	2,5	0	52,9	0	16,7
Average	(40,8)	(51,0)	(38,7)	(46,8)	(50,6)	(57,8)	(53,3)	(48,7)	(42,4)	(49,6)	(72,2)	(58,1)	(49,9)

APPENDIX NO. 27

BERTH OCCUPANCY : EAST LONDON HARBOUR

(ACCORDING TO WORKING HOURS AVAILABLE AND WORKING HOURS OCCUPIED AT BERTHS)

MONTHLY PERCENTAGE OCCUPANCY

1972

Berths	Jan.	Feb.	Mrch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
East Bank:													
L	52,6	69,6	44,2	66,8	60,8	48,2	39,5	57,9	63,8	51,4	59,2	63,3	56,4
KM	44,6	42,5	57,7	58,4	37,6	40,1	41,1	54,7	36,9	27,3	29,1	43,7	42,8
KC	21,3	24,9	33,4	39,8	47,6	40,2	40,8	29,1	41,1	48,9	61,7	44,9	39,5
I	31,9	34,4	55,4	34,4	42,8	33,7	44,6	39,5	28,4	48,5	45,5	52,5	41,0
G	45,6	56,7	42,9	61,4	46,6	48,8	39,2	44,2	40,7	47,6	50,0	38,6	46,9
F	52,4	47,9	51,2	78,1	46,9	41,9	40,2	47,5	51,4	45,1	55,6	52,4	50,9
West Bank:													
N	40,2	51,4	53,7	60,2	53,0	57,9	42,6	41,0	39,8	23,5	55,8	32,8	46,0
O	37,0	18,2	23,3	30,0	46,9	25,6	18,4	27,9	16,1	36,8	34,6	20,0	27,9
P	54,2	48,9	52,6	31,8	41,1	31,2	18,8	27,8	58,1	23,2	30,6	44,5	38,6
R	48,9	48,6	6,0	59,8	58,5	42,4	53,5	52,3	19,6	37,6	57,5	58,9	45,3
Other Berths:													
T(Grain Elevator)	85,2	86,7	53,2	58,3	48,7	8,4	45,5	51,7	35,6	88,6	50,2	73,9	57,2
S (Sundries)	57,6	98,9	55,9	73,9	22,5	66,1	82,2	51,1	47,1	92,5	70,6	55,0	64,5
Oil Tankers	27,4	36,7	55,7	43,8	42,9	33,7	48,8	22,8	33,7	68,3	26,5	34,4	39,6
Graving Dock	40,5	27,9	97,5	74,0	100,0	100,0	75,5	100,0	52,3	23,4	27,3	48,6	63,9
C (Coal)	0	0	0	0	0	0	1,1	0	0	0	0	0	0,1
Average	(42,6)	(46,2)	(45,5)	(51,4)	(46,4)	(41,2)	(42,1)	(43,2)	(37,6)	(44,2)	(43,6)	(44,2)	(44,0)

APPENDIX NO. 28

BERTH OCCUPANCY : EAST LONDON HARBOUR

(ACCORDING TO WORKING HOURS AVAILABLE AND WORKING HOURS OCCUPIED AT BERTHS)

MONTHLY PERCENTAGE OCCUPANCY

1973

Berths	Jan.	Feb.	Mrch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
East Bank:													
L	52,7	60,7	65,9	56,2	48,5	52,6	32,9	77,4	51,3	34,7	55,1	60,4	54,3
KM	24,5	48,8	52,2	52,6	34,9	48,6	43,4	56,3	45,4	33,2	57,0	43,1	45,0
KC	38,4	50,9	34,7	41,5	28,4	47,2	35,8	36,2	38,3	48,8	46,1	45,8	41,0
I	41,8	35,5	34,6	49,8	40,6	44,2	43,4	47,9	50,1	36,1	35,2	68,9	44,0
G	36,3	56,5	49,2	63,5	50,7	54,6	39,2	57,9	45,8	42,0	49,0	29,9	47,9
F	36,5	50,8	61,8	58,9	43,8	52,4	27,2	54,9	46,0	39,9	54,8	40,2	47,3
West Bank:													
N	44,9	30,7	22,8	49,1	68,8	30,5	33,9	64,8	58,9	26,8	42,6	44,1	43,2
O	21,7	36,3	53,6	57,2	58,0	30,0	58,4	28,2	50,9	29,8	25,9	9,1	38,3
P	43,7	24,7	67,5	43,3	30,2	36,3	30,8	61,6	41,2	40,9	56,9	42,4	43,3
R	52,9	49,1	35,1	53,3	40,9	65,1	32,4	69,8	48,6	35,8	54,7	60,4	49,8
Other Berths:													
T (Grain Elevator)	93,3	98,5	99,2	95,6	12,8	37,4	18,4	4,7	77,9	14,1	0	58,7	50,8
S (Sundries)	92,4	82,4	80,2	88,8	13,0	17,2	8,1	13,0	39,2	17,9	4,6	25,0	40,2
Oil Tankers	60,1	67,4	31,4	48,4	20,3	19,2	15,7	13,0	24,9	12,5	4,7	6,9	27,4
Graving Dock	0	0	92,3	97,2	18,4	68,2	100,0	92,2	100,0	36,3	30,7	75,4	59,2
C (Coal)	0	0	0	4,0	0	7,1	0	0	0	0	0	0	0,9
Average	(42,6)	(46,1)	(52,3)	(57,3)	(34,0)	(40,7)	(34,6)	(45,3)	(47,9)	(29,9)	(34,5)	(40,7)	(42,2)

APPENDIX NO. 29

BERTH OCCUPANCY : EAST LONDON HARBOUR

(ACCORDING TO WORKING HOURS AVAILABLE AND WORKING HOURS OCCUPIED AT BERTHS)

MONTHLY PERCENTAGE OCCUPANCY

1974

Berths	Jan.	Feb.	Mrch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
East Bank:													
L	54,9	44,0	62,4	72,9	72,3	94,1	88,2	89,6	98,5	98,9	99,7	98,0	81,1
KM	33,8	45,9	70,4	50,5	54,1	49,6	67,2	52,1	82,0	88,8	63,4	98,5	63,0
KC	48,0	28,4	50,5	50,4	51,4	57,3	64,6	51,9	91,5	90,3	90,3	82,4	63,8
I	48,2	37,3	51,7	45,3	51,1	81,4	92,0	90,3	81,1	76,9	95,2	94,1	70,4
G	45,1	59,9	77,1	76,3	70,3	85,8	81,8	94,3	93,0	99,0	90,5	95,9	80,8
F	29,8	39,8	63,7	62,3	82,7	83,6	87,9	98,9	84,8	97,6	99,7	97,9	77,4
West Bank:													
N	60,9	33,7	75,3	73,5	61,6	56,3	91,1	87,4	91,9	86,6	99,6	69,9	74,0
O	32,6	5,0	57,4	21,9	30,5	66,8	38,2	65,3	37,3	79,7	79,7	65,6	48,3
P	42,6	23,6	63,7	40,8	72,1	74,1	84,9	77,3	71,5	98,7	79,3	99,7	69,0
R	51,7	34,1	80,4	61,4	87,8	82,8	86,6	75,6	94,0	98,7	84,8	99,7	78,1
Other Berths:													
T(Grain Elevator)	49,7	31,6	54,3	84,3	90,8	98,9	98,9	89,5	80,0	63,7	88,0	98,2	77,3
S (Sundries)	48,8	61,4	41,5	62,4	43,7	74,0	56,2	47,4	72,9	75,6	76,5	99,4	63,3
Oil Tankers	20,4	24,0	44,9	39,9	64,9	56,3	61,4	50,7	70,1	67,3	47,6	76,6	52,0
Graving Dock	81,5	36,4	85,5	23,8	26,9	61,1	34,6	45,0	45,1	74,1	53,4	55,1	51,9
C (Coal)	0	0	0	0	0	0	0	0	0	0	0	0	0
Average	(43,2)	(33,7)	(58,6)	(51,0)	(57,3)	(68,1)	(68,9)	(67,7)	(72,9)	(79,7)	(76,5)	(82,1)	(63,3)

APPENDIX NO. 30

BERTH OCCUPANCY : EAST LONDON HARBOUR

(ACCORDING TO WORKING HOURS AVAILABLE AND WORKING HOURS OCCUPIED AT BERTHS)

MONTHLY PERCENTAGE OCCUPANCY

1975

Berths	Jan.	Feb.	Mrch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
East Bank:													
L	91,5	98,9	78,4	47,9	46,2	63,3	44,9	32,8	49,8	34,2	36,6	42,9	55,6
KM	79,5	81,7	17,1	22,0	31,4	28,8	53,2	31,5	48,3	26,1	30,3	26,6	39,7
KC	53,4	60,5	52,1	31,1	29,7	46,0	53,6	31,2	42,9	28,0	30,6	26,9	40,5
I	75,8	84,9	58,9	38,6	48,6	38,1	29,8	23,6	42,9	25,1	18,5	36,3	43,4
G	98,5	97,6	74,7	41,1	61,3	32,6	58,6	42,7	37,9	33,6	39,7	44,9	55,3
F	95,6	99,6	59,5	36,6	62,9	57,0	55,7	25,6	39,1	43,1	28,8	35,7	53,3
West Bank:													
N	88,6	61,2	32,2	33,9	30,5	59,2	32,2	16,7	30,9	40,6	58,5	37,7	43,5
O	88,6	91,9	68,1	29,2	22,3	57,3	49,8	28,7	58,7	9,5	31,3	34,1	47,5
P	99,6	74,1	59,6	29,7	36,1	62,1	44,6	36,7	62,1	45,1	32,6	31,5	51,2
R	99,6	42,1	69,2	37,3	40,0	62,1	57,7	39,1	61,0	41,4	32,6	22,1	50,4
Other Berths:													
T (Grain Elevator)	98,3	96,6	94,4	72,1	77,5	96,4	95,3	96,3	90,8	65,1	77,9	63,9	85,4
S (Sundries)	85,8	86,0	57,3	56,7	38,9	39,0	31,3	44,1	49,0	31,2	35,8	46,2	50,1
Oil Tankers	64,7	76,4	64,4	60,1	35,8	62,8	73,4	37,9	57,1	35,4	35,2	55,0	54,9
Graving Dock	90,7	82,2	71,8	100,0	100,0	83,3	69,0	89,0	60,0	38,8	78,1	13,6	73,0
C (Coal)	-	-	-	-	-	-	-	-	-	-	-	-	-
Average	(80,7)	(75,6)	(57,2)	(42,4)	(44,1)	(52,5)	(49,9)	(38,4)	(48,7)	(33,1)	(37,8)	(34,5)	(49,6)

Appendix No. 31.

DECENTRALISATION BOARD

CONCESSIONS APPLICABLE IN RESPECT OF THE ESTABLISHMENT OR EXPANSION IN THE DESIGNATED AREAS AND ALSO RE-LOCATION FROM THE P.W.V. AREA SUBJECT TO AMENDMENT AT TWELVE MONTHS NOTICE

TYPE OF CONCESSION	PIETERSBURG POTGIETERSBURG	PHALABORWA	BRITS	RUSTENBURG	RICHARDS BAY	LADYSMITH	NEWCASTLE	BERLIN	KING WILLIAMS TOWN	EAST LONDON	KIMBERLEY	DARLING AND DASSENBERG	BAHELEGI	ISITHEBE	UNTATA AND BUTTERNORTH
1. LOANS AVAILABLE AND INTEREST CONCESSION															
INTEREST RATE PAYABLE ON LOANS IS EQUAL TO PRIME RATE OF INTEREST <u>LESS</u> 0,5% AND LESS THE RATES INDICATED:															
(1) Land and factory buildings	5,5% do	6,5% do	1,5% do	3,5% do	5,5% do	3,5% do	1,5% do	5,5% do	4,5% do	1,5% do	2,5% do	5,5% do	No 1,5%	No 5,5%	No 7,5%
(2) Plant and current assets															
2. LEASED BUILDINGS AND RENTAL CONCESSION															
INTEREST RATE PAYABLE ON LOANS IS EQUAL TO PRIME RATE OF INTEREST <u>LESS</u> 0,5% AND LESS THE RATES INDICATED:															
Factory buildings (in every case depreciation and insurance is incorporated)	No	No	No	No	No	No	No	No	No	No	No	No	1,5%	4,5%	4,5%
3. HOUSING FOR WHITE KEY PERSONNEL															
(1) To a maximum of R23 000 per dwelling unit at 2,5% below the official building society rates	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
(2) Leased houses at 2,5% of the cost of the dwelling unit	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes
4. INCOME TAX CONCESSIONS															
THE TAX IS REDUCED BY AN AMOUNT EQUAL TO THE FOLLOWING PERCENTAGES OF:-															
(1) Wages for total/additional Bantu/ Coloureds for the first two full financial years after establish- ment/expansion	40%	40%	20%	20%	35%	20%	20%	40%	35%	30%	20%	40%	20%	50%	50%
(2) Book value for income tax purposes of total/additional manufactu- ring plant with the exception of motor vehicles and office equip- ment and furniture as at the end of the first financial year after establishment/expansion	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
5. CASH GRANT FOR MOVING COSTS															
REIMBURSEMENT OF APPROVED COSTS FOR MOVING FROM THE P.W.V. AREA AND ALSO FROM THE CAPE PENINSULA IN THE CASE OF DARLING AND DASSENBERG	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6. RAILAGE REBATES															
(ON SELECTIVE BASIS IN RESPECT OF GOODS MANUFACTURED IN THE AREA)	MAX 30%	MAX 30%	No	No	MAX 30% for 5 yrs	No	No	40%	40%	40%	No	30%	No	MAX 30%	MAX 40%
7. REBATE ON HARBOUR DUES															
ON GOODS MANUFACTURED IN THE AREA AND SHIPPED FROM EAST LONDON TO OTHER SOUTH AFRICAN PORTS	No	No	No	No	No	No	No	25%	25%	25%	No	No	No	No	25%
8. PRICE PREFERENCE ON PURCHASES BY															
(1) Procurement and Disposal Board for Bantu Authorities	10%	10% on a selective basis	10%	10%	10%	10%	10%	10%	10%	10%	No	No	10%	10%	10%
(2) Other Central and Provincial State Authorities excepting the South African Railways	5%	5% on a selec- tive basis	3%	4%	Tex- tile 4% Other 3%	Tex- tile 4% Other 3%	Tex- tile 4% Other 3%	5%	5%	5%	3%	3%	3%	5%	5%

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