

ESTIMATES COMMITTEE (1- 64-65)

SIXTY-SEVENTH REPORT (THIRD LOK SABHA)

MINISTRY OF TRANSPORT

CALCUTTA AND HALDIA PORTS



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Page 3, line 3 from below, for 'Chairman' read
'Chairmen'.
Page 5, line 2 in Table, for 'Cunnies' read
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Page 6, line 5 in Table, for '1965' read '1964'.
Page 6, line 15 from below, for 'steps' read
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Page 18, line 8 in Table, for '117.98' read
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Page 19, para 23, line 2, for 'Crop' read 'Corps'.
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'9,58,408'.
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'44 working berths'.
Page 38, para 44, first statement, line 1, for
'etty' read 'jetty'.
Page 40, line 5, for 'inuentification' read
'identification'.

F.T.O.

Page 42, para 50, line 8, for 'ofter' read 'often'.

Page 51, para 62, line 11, for 'tones' read 'ions'.

Page 65, para 80, line 2, add 'are' after 'area'

Page 67, para 81, line 6 from below, for 'here' read 'there'.

Page 72, sub-heading 'C', for 'Division' read 'Civersion'.

Page 72, para 88, line 1, for 'or' read 'for'.

Page 73, para 89, last line, for 'period' read 'periods'.

Page 73, para 90, under headings in columns 2 and 3 of the Table, add '(Rupees in lakhs)'.

Page 75, para 93, line 10, for 'synchsonise' read 'synchronise'.

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(1964-65)

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Shri B. K. Mukherjee—*Under Secretary.*

INTRODUCTION

I, the Chairman, Estimates Committee having been authorised by the Committee to submit the Report on their behalf, present this Sixty-Seventh Report on the Ministry of Transport—Calcutta and Haldia Ports.

2. The Committee took evidence of the representatives of the Ministry of Transport on the 11th, 12th and 13th November, 1964. The Committee wish to express their thanks to the Secretary, Ministry of Transport, Chairman, Calcutta Port Trust and other officers of the Ministry for placing before them the material and information they wanted in connection with the examination of the estimates.

3. They also wish to express their thanks to the representatives of the Indian National Steamship Owners' Association, Bengal Chamber of Commerce and Industry, Bengal National Chamber of Commerce and Industry and the Southern India Chamber of Commerce for giving evidence and making valuable suggestions to the Committee.

4. The Report was considered and adopted by the Committee on the 25th March, 1965.

5. A statement showing the analysis of recommendations contained in the Report is also appended to the Report (Appendix VI).

ARUN CHANDRA GUHA,
Chairman,
Estimates Committee.

NEW DELHI-I;

April 2, 1965.

Chaitra 12, 1887 (Saka).

CALCUTTA PORT

CHAPTER I. INTRODUCTORY

A. Introduction

The Port of Calcutta is situated on the left bank of River Hooghly, 80 miles down-stream from the confluence of the Bhagirathi and Bairab-Jalengi, the two spill channels of the parent River Ganga. The seaward approach to the Port is at Sandheads about 126 miles from Calcutta.

A Port on the Hooghly has existed from times immemorial. Periplus refers to a great commercial city near the mouth of the Ganges. This was Tamralipti or modern Tamluk below Calcutta. Ptolemy also refers to the Port on the mouth of the Ganges and remarks that "it is through this place (that) is brought malabathrum and Gangetic spikenard and pearls and muslins of the finest sorts which are called 'Gangetic' ". Ships from different countries used to flock at this Port which maintained direct maritime communications with Ceylon on the one hand and Indo-China and Indonesia on the other. Fa-hien (4th Century A.D.) boarded a merchant ship on his homeward journey, from Tamralipti Huen Tsang (7th Century A.D.) refers to the Port as follows: "It is 40 yojanas south from the eastern limit of India. This is the place where we embarked while returning to China". Recent archaeological explorations and excavations carried out by the University of Calcutta have brought to light evidence of the existence of several long-forgotten ports on the Hooghly, near Calcutta. To mention only a few—Berachampa, Bidyadhami, Harnarainpur and Atghara.

The history of the present town of Calcutta, however, dates from August 24, 1690, when it was founded by Job Charnock of the English East India Company. The new settlement soon spread along the river to a village called Kalikatta, and by degrees the cluster of neighbouring hamlets grew into the present town. In 1696, the English built the original Fort William with the permission of the Nawab and in 1698 they formally purchased the three villages of Sutanati, Kalikata and Gobindpur from Prince Azim, son of Emperor Aurangzeb. Modern Calcutta dates from 1757.

The Port of Calcutta serves an area larger than Britain and France taken together. The vast hinterland of Calcutta is rich in mineral resources. Calcutta is well served by island waterways. It is also

the terminus of two large zonal railways, namely, Eastern and South Eastern Railways.

B. Organisational Set-up

2. The affairs of the Port of Calcutta are managed by a statutory body of Commissioners set up under the Calcutta Port Act, 1890. This body, known as "The Commissioners for the Port of Calcutta", is composed of 24 members representing the principal Chambers of Commerce in the city of Calcutta, Customs, Railways, Corporation of Calcutta, Howrah Municipality, the Government of West Bengal, Indian National Steamship Owners' Association and labour interests. The Chairman and the Deputy Chairman of the Commission are appointed by the Government of India. The Chairman is the executive head of the Commission. The non-official Commissioners are elected by various interests for a period of two years. The powers and duties and responsibilities of the Commissioners and the Chairman and the Deputy Chairman are laid down in the Calcutta Port Act.

A chart showing the internal set-up of the Calcutta Port and indicating the functions of the various departments of the Commissioners is given in Appendix I.

The limits of the Port under the Calcutta Port Act extend from Konnagar to Budge Budge, a distance of 23 miles. The Commissioners are also the conservators of the Port and their jurisdiction under the Indian Ports Act extends from Sandheads to half a mile up the confluence of rivers Bhagirathi and Jalangi above their confluence.

C. Powers of Chairman of the Port Commissioners

3. The financial and other powers of the Chairman, Calcutta Port Trust are laid down in the Calcutta Port Act, 1890. In a written note supplied to the Committee it has been stated that under the Major Ports Act, 1963, which has been extended to the major ports of Cochin, Vishakhapatnam and Kandla, the monetary limits for creation of posts, appointments, approval of estimates for works, acceptance of tenders, etc. by the Port Trust, are to be decided by the Central Government from time to time. In addition, there are other provisions in the Act relating to day-to-day administration which are also of a flexible nature. This ensures flexibility in the operation of the Act and enables Government to delegate powers to the various Port Trusts governed by the Act, according to their needs.

The Committee have further been informed that as the monetary limits for the creation of posts, approval of estimates, etc. in respect of Ports of Calcutta, Bombay and Madras, are fixed in the respective Port Trust Acts, Government intend to bring before Parliament a Bill to amend suitably the provisions of Calcutta, Madras and Bombay Ports Acts in the light of the provisions included in the Major Port Trusts Act, 1963.

The Committee would urge that the proposal to amend the existing Port Acts of Calcutta, Madras and Bombay should be finalised at an early date and that due provision should be made therein for delegation of greater financial and administrative powers to the respective Port authorities as these are the most important well-established Ports of the country.

D. Reorganisation of Port Trust

4. It has been represented to the Committee by a non-official organisation that "at present the Chairman of the Commissioners for the Port of Calcutta is not only responsible (under Government) for policy, including forward planning, but is also the sole connecting and directing link within the Port Administration itself between the various major Departments, such as Accounts, Traffic, Labour, Marine, Engineering etc. It is submitted that present circumstances in Calcutta call for a division to be made between, first, overall administration, including finance, policy and forward planning, and secondly, the exercise of day-to-day operational control and direction to obtain the best out of the Port's present facilities".

The Committee understand that in Great Britain while the Chairman heads the statutory port body, looking generally after policy matters there is the General Manager who looks after the day-to-day affairs. The General Manager thus acts as a vital link between the statutory policy-making body of the port and the executive machinery.

The Committee suggest that the question of reorganising the Port Trust on the lines obtaining in more advanced countries to ensure better planning and execution may be examined. The Committee would also suggest that the work-load on the Chairman of the three major Port Trusts, particularly Calcutta a complex and difficult port, may be examined with a view to see how it can be better rationalised in the interest of efficiency.

CHAPTER II. TRAFFIC HANDLED AT THE PORT

A. Principal Imports and Exports

5. Calcutta Port is the receiving and distributing centre not only for West Bengal but also for the neighbouring States of Assam, Bihar and Orissa. The most important foreign exchange earning commodities such as tea from Assam, jute products and engineering goods from mills and factories around Calcutta, manganese ore from Orissa and coal* from Bihar are exported from the Port. The principal imports through the Port are salt,* foodgrains, machinery, petroleum/lubricating oil.

The figures of export and import traffic, together with ships handled at this Port during the last eight years are given below:

Year	No. of ships	Import tonnes	Export tonnes	Total
1956-57	1383	4,352,958	4,516,252	8,869,210
1957-58	1593	5,515,768	4,640,579	10,156,347
1958-59	1742	5,065,327	4,133,498	9,198,825
1959-60	1820	4,954,017	4,675,339	9,629,356
1960-61	1786	5,491,709	4,008,805	9,500,514
1961-62	1806	4,884,320	4,417,870	9,302,190
1962-63	1821	5,479,724	4,723,218	10,202,942
1963-64	1828	6,028,090	4,910,346	10,938,436

Comparing the volume of traffic during 1956-57 with that in 1963-64, it is observed that there has been an increase of about 39 per cent. in import traffic and an increase of about 9 per cent. in export traffic.

The break-up of the traffic handled in 1956-57 and 1963-64 in terms of principal commodities is given below:

Imports	1956-57 tons	1963-64 tonnes
Salt	418,913	396,241
Foodgrains	720,675	1,553,219
Petroleum including lubricating oil	1,210,522	1,889,990
Other cargo	2,002,848	2,188,640
TOTAL	4,352,958	6,028,090

*Coal is mostly shipped to ports in India. Similarly, salt is mostly brought in from Tuticorin and other Indian Ports.

Exports		1956-57 tons	1963-64 tonnes
Coal including Bunkers	.	2,105,818	1,983,665
Cunnies	.	936,913	1,104,128
Ores	.	773,538	789,856
Tea	.	189,186	163,172
Other Cargo	.	510,797	869,525
	Total	4,516,252	4,910,346
	GRAND TOTAL	8,869,210 or 9,011,117 tonnes	109,38,436 tonnes

B. Congestion in the Port

6. Congestion in the Port is created by the detention of vessels, both incoming and outgoing. Congestion not only affects the turn-round of vessels but results in incurrence of demurrage with far-reaching effects on the economy of the country.

7. *Detention of Incoming Vessels.*—The detention suffered by an incoming vessel is calculated from the time it arrives in Port upto the time of allotment of berth. This is influenced by several factors such as:

- (a) availability of a berth. Temporary shortage occurs during bore tides when the river moorings and riverside jetties cannot be freely used;
- (b) irregular arrival of vessels resulting in bunching;
- (c) readiness of the vessel to unload;
- (d) rates of discharge of different types of cargo which determine the period of occupation of berth;
- (e) weather conditions.

Detention suffered by incoming vessels during the last three years has been as follows:

Year	Detention suffered	
	by general import vessels	by food vessels
1961-62	0.03 day	0.02 day
1962-63	0.40 „	0.3 „
1963-64	1.00 „	1.1 „

The Committee note that the detention suffered by the general import vessels has risen from 0.03 days in 1961-62 to 1.00 days in 1963-64. The increase in detention of vessels carrying foodgrains is even more marked and has risen from 0.02 day in 1961-62 to 1.1 day in 1963-64.

As regards the detention money paid and despatch money earned by shippers in Calcutta the figures for the last four years are indicated in the following table:

Year	(in '000 rupees)	
	Detention money paid	Desptc money earned
1961-62	90.6	1521.2
1962-63	1299.5	889.1
1963-64	358.7	1567.8
1964-65 (upto Aug. 1965)	1136.9	255.2

In reply to a question asked in the Lok Sabha* on the subject, it was stated that:

"The congestion of vessels at Sandheads can be avoided during bore-tide periods if more berths are provided in the Port. This is, however, not an economically feasible solution, nor is it possible within a short time to provide additional berths. Other steps which were feasible had, therefore, to be taken. One such steps was to improve the labour output so that vessels occupying berths inside the docks could be loaded and unloaded more quickly and detention to vessels waiting for berths reduced. A scheme providing incentives to shore labour for higher output has already been introduced and is working satisfactorily. The drawing up of a similar scheme as far as labour employed on ships is concerned was, therefore, taken in hand on an urgent basis."

It has been represented to the Committee by a leading Chamber of Commerce and Industry that Calcutta Port "is more expensive because the movement takes longer. The movement takes longer because of the extra time required for actual handling, documentation and removal.

*U.S.Q. No. 131 dated 8th Sept., 1964.

L.S. Debate Col. 354-356 dated 8th Sept., 1964.

The extra time results from a lower rate of work, too many paper hoops through which the merchant has to jump, and inadequate road and rail offtakes.

Basically, the lack is of a full appreciation by all concerned that time is money, and ultimately their own money."

The Committee are distressed to note that detention suffered by vessels during the current year is on the increase resulting in payment of increased detention money. There has been an equally marked downward trend in the despatch money earned.

The Committee would suggest that concerted measures* should be taken by the Calcutta Port authorities to reduce detention to ships and to speed up their turn-round. In their 66th@ Report on Dock Labour Boards, the Committee had already observed that the Government should investigate the reasons for the low output of Calcutta dock labour as well as delay in the unloading of ships and take suitable remedial measures including extension of incentive scheme and they cannot but regret that it should not have been possible to take effective action in this direction so far.

*For measures suggested please see paras 13, 39, 43, 48, 49, 57, 58, 78 and 80.

①Please see Para 22 of the Sixty-Sixth Report of the Estimates Committee.

CHAPTER III. FIVE YEAR PLANS

8. The following brief details of the number of projects provided for and executed by the Calcutta Port authorities will give an idea of the pace of development of the Port during the First, Second and Third Five Year Plan periods:

(a) *First Five Year Plan*

(1951-52 to 1955-56)

Outlay

Estimated outlay on the approved projects	Rs. 12.07	crores
Expenditure during first Five Year Plan period	Rs. 3.49	"
Amount carried over to the Second Plan	Rs. 8.58	"
Number of Projects included in the Plan	26	

(b) *Second Five Year Plan*

(1956-57 to 1960-61)

Number of Projects

Carried over from First Plan	10	
New Projects	26	
Total number of projects for Second Plan period	45	

Outlay

Carried over projects	Rs. 8.58	crores
Extra provision to meet the revision of the original estimates	Rs. 3.87	"
New Projects	Rs. 18.68	"
	Rs. 31.13	"

Expenditure

Rupee expenditure	Rs. 10.91	crores
Foreign Exchange	Rs. 4.82	"
TOTAL EXPENDITURE	Rs. 15.73	crores

Amount carried over to Third Plan Rs. 15.40 crores

(c) *Third Five Year Plan*

(1961-62 to 1965-66)

Number of Projects

Carried over from Second Plan	29	
New Projects	21	
Total number of Projects for Third Plan period	50	

Outlay

Carried over Projects	Rs. 15.40	crores
New Projects	Rs. 24.57	"
	<u>Rs. 39.97</u>	"

The following table indicates provision in the Third Five Year Plan for continuing and new projects and the expenditure incurred upto 30th November, 1964. For the sake of convenience the tables have been divided into two parts. Part A deals with projects within the scope of the International Bank Loan Assistance while Part B covers projects outside the scope of the International Bank Loan Assistance. The physical progress made in the execution of the projects is indicated in the detailed statement reproduced at Appendix II.

PART A.—Projects within the scope of the International Bank Loan Assistance

	Plan provision	Expenditure incurred upto 30-11-1964
		(in lakhs of rupees)
I. Continuing Projects (25 projects)		
Development of Berthing Capacity (7 projects)	410.93	381.38
Improvement of River Hooghly (1 Project)	123.00	120.66
Improvement of Railway facilities (3 Projects)	115.01	88.78
Replacement of Floating Craft (12 Projects)	603.44	529.17
Other improvements (2 Projects)	112.08	63.70
	<u>1364.46</u>	<u>1183.69</u>
II. New Projects (17 Projects)		
Floating Crafts (10 Projects)	1313.90	213.70
Roads and Bridge (1 Project)	69.50	4.58
Port Equipment (3 Projects)	131.00	16.69
Docks and Berths (1 Project)	100.00	5.70
Studies (2 Projects)	175.30	116.93
	<u>1789.70</u>	<u>357.57</u>

PART B—Projects outside the scope of International Bank Loan Assistance

I. Continuing Projects (4 Projects)		
Other Improvements (4 Projects)	56.10	38.09
	<u>56.10</u>	<u>38.09</u>
II. New Projects (4 Projects)		
Improvement of River Hooghly (1 Project)	100.00	40.12
Social Services (2 Projects)	133.22	110.13
Project Expansion (1 Project)	700.00	132.26
	<u>933.22</u>	<u>172.51</u>

The principal reasons for the short-falls in expenditure in the First and Second Five Year Plan periods have been stated by the Port Commissioners, Calcutta to be as follows:

- (i) The execution of projects in the First Five Year Plan was taken in hand after two years of Plan period had elapsed. During the remaining period it was found difficult to make much headway as a separate organisation had to be set up to deal with development works involving a great deal of planning and coordination.
- (ii) Non-availability of loan from International Bank for Reconstruction and Development, Washington for two and half years to meet the foreign exchange expenditure on the new and certain carried over projects included in the Second Five Year Plan. The first IBRD loan of Rs. 13.81 crores was negotiated in 1958 and an agreement was signed on the 25th June, 1958. On completion of certain formalities, the Commissioners were permitted to commence withdrawals from the 2nd October, 1958. The closing date of the loan was originally fixed as 30th September, 1962 but later extended at Commissioners' request to 31st March, 1965, since they were unable to complete withdrawals by the original date. The amount paid as commitment charge on the loan from the effective date viz., the 2nd October, 1958 to 31st March, 1964 calculated at $\frac{1}{3}$ of 1 per cent. per annum on the loan amount not withdrawn from time to time was Rs. 35 lakhs. The second IBRD loan of Rs. 10 crores was negotiated in 1961 and an agreement was signed on the 17th August, 1961. On completion of certain formalities, the loan was made effective for commencing withdrawals from the 27th September, 1961. The closing date of the loan has been fixed as 30th September, 1965. The amount paid as commitment charge on the loan from the effective date viz., the 27th September, 1961 to 31st March, 1964 calculated at $\frac{1}{3}$ of 1 per cent. per annum was Rs. 15 lakhs. The commitment charge has been reduced to $\frac{3}{8}$ of 1 per cent per annum with effect from 1st July, 1964.
- (iii) the unusual shoaling of the Balari Bar necessitated the expansion of the dredging fleet and consequently the construction of certain less urgent craft and projects

were deferred. The change involved replanning and slowed down the pace of execution.

The Committee regret to note that there has been heavy shortfall in the planned expenditure during the First Plan period. Against the total outlay of Rs. 12.07 crores provided in the First Plan only Rs. 3.49 crores were spent, and only 7 out of 26 projects could be completed.

The Committee also note that only 50 per cent. of the total outlay provided in the Second Plan was utilised and out of 45 projects, including 19 projects carried over from the previous Plan, only 16 projects (i.e. 39 per cent.) were completed.

The Committee are distressed to find that a start for the execution of projects included in the First Five Year Plan was made only after two years of the Plan period had elapsed and that it was then found difficult to make much headway even in the remaining period of the Plan because a separate organisation had to be set up for planning and coordination.

The Committee cannot help regretting these shortfalls all the more since they find that most of the ills of the Calcutta Port are traceable to the failure of the authorities to properly plan and execute the projects during the first two Five Year Plans. The Committee consider that the progress even in the Third Five Year Plan has not been very satisfactory inasmuch as only about Rs. 17.52 crores have been spent upto 30-11-1964 out of a provision of Rs. 39.97 crores for the entire Plan period. They would stress that the execution of the Plan projects which are essential for the improvement of Calcutta Port operations should be speeded up so that these are completed as per schedule within the Third Plan period.

The Committee would also suggest that a careful outline of the works to be provided in Calcutta Port during the Fourth Five Year Plan may be drawn up at an early date after taking into account the likely development of Haldia Port and the neighbouring Paradeep Port. Advance action is necessary to be taken up during the last year of the current Plan period so that the new schemes in the Fourth Plan can be taken up for implementation without avoidable delay.

CHAPTER IV. HOOGHLY RIVER

A. Bars

9. As stated earlier, the Hooghly is formed by the confluence of the Bhagirathi and the Bhairab-Jalengi, two spill channels from River Ganga, at Nabadwip. The seaward approaches to the Port from the Sandheads at the head of the Bay of Bengal are difficult to navigate and there is a constant struggle with nature in maintaining adequate depths, especially during the dry season and the period of seasonal changes. In the 126 miles of navigable channel leading to the Port of Calcutta from the seaward limit there are a number of bars. Eleven of these are between Calcutta and Diamond Harbour (42 miles from Calcutta) and the remaining three are located in the Estuary below Diamond Harbour. In addition, there are a number of sharp bends making navigation on the Hooghly a difficult and arduous task and imposing restrictions on the size of the vessel that can come upto Calcutta.

The bars upstream of Diamond Harbour are subject to considerable seasonal fluctuations in depths and changes in the alignments of the channels, most of them scouring at the end of the freshets except where the configuration of the banks is unfavourable. Deposition of sand along the convex side of the channel takes place during the freshets while the channels along the concave bends are scoured out. With the cessation of the upland water supply, alteration in the orientation of the channels takes place and the tidal inflow endeavours to push the sands on to the channels along the concave side upstream. This process goes on for about 9 months of the year but with the advent of the freshet and restoration of upland water supply, the navigable channels of the bars gradually shift back.

The eleven bars between Calcutta and Diamond Harbour can be classified into the three following groups:

- (i) The five bars between Garden Reach and Ulubaria *viz.* Panchpara, Sankral, Munikhali, Pirserang and Poojali are known as low water crossings because a medium or a shallow draft vessel should normally be able to cross them just before low water. These bars improve during the freshets and deteriorate to a varying degree in the dry season. The progressive deterioration of Sankral and Munikhali where both banks developed abnormal double concavity and the

river became unusually wide, was causing concern and a spur was constructed in 1954 to correct this. As a result the flow condition have improved considerably although dredging is still required at the end of the dry season. Panchpara, Pirserang and Poojali bars require to be dredged at the end of the dry season and in the early part of the freshets.

- (ii) The two typical bars downstream of Ulubaria Anchorage, known as Moyapur and Royapur are the direct result of concavity abruptly changing from one bank to the opposite bank resulting in the formation of a shallow crossing connecting the two deep pools. The position of the navigable channel changes seasonally over these two bars and dredging operations are carried out to assist nature during these seasonal changes without loss of navigable depths in the transitional period.
- (iii) The Fulta Hooghly Point area is in a complicated section of the river with the outfalls of the two rivers, Damodar and Rupnarayan in this area. There are four bars known as Fulta, Ninan, Nurpur and the Eastern Gut. These bars and their seasonal behaviour are the direct result of the faulty configuration of the river in this stretch viz. an unnatural protrusion at Fulta Point and a sudden right angled bend of the river at Hooghly Point further complicated by the hydraulic balance between the Damodar, Rupnarayan and the Hooghly rivers. Dredging is carried on in this area throughout the year as while the Eastern Gut Bar shoals after the diminution of upland water and throughout the dry season (this bar is known to shoal as much as 5 feet in a day during perigee spring tide) Ninan/ Nurpur which depends on the hydraulic balance between the Hooghly and the Damodar and Fulta deteriorates in the freshets. Thus at most times two dredgers are simultaneously dredging in this reach. The training scheme known as the Fulta Point Scheme has recently been implemented. Further works will be necessary to drive optimum benefits.
- (iv) There are three main bars in the estuary of the river below Diamond Harbour known as Balari, Auckland and Saugor Crossing/Middleton the outer bar. Very little dredging had in the past been carried out in the estuary where periodic cyclic changes of channels has been the main feature. The dredgers now available with the Commissioners are

designed to dredge mainly in the Upper river and it is only in winter months, that the dredger can attempt to dredge the outer bars, when they can be spared from their commitments in the Upper Reaches. Balari Bar can, however, be dredged on most days of the year except in very bad weather. While the outer two bars have shown improvement in depth, Balari Bar had been deteriorating steadily for the past thirty years. After detailed investigations this bar has recently been developed in a more favourable alignment by training works and dredging and is showing steady improvement.

10. **Siltation of Navigable Approaches.**—Inadequate head water supply coupled with considerable sand charge due to orientation of the off-takes of the feeder rivers being on the unfavourable side of the Ganga has gradually brought about deterioration of the Bhagirathi, the Upper Hooghly and the bars between Calcutta and Diamond Harbour. These bars and channels now do not scour out to the same extent at the end of the freshets as was the case in the beginning of this century.

B. Port Area

11. The deterioration in the Port area between Howrah Bridge and King George's Dock is even more pronounced and alarming. The two Docks, River Moorings, riverside berths and the two bars in the Port area i.e. Hastings Bar and Outram Shoal have all been silting entailing intensive dredging operations. It is now found that the riverside berths need continuous dredging, siltation occurring during bore tides. The Dock basins and berths are also silting up and require periodic dredging.

The two dock systems in Calcutta have their own further limitations viz. the K.P. Dock cannot take ships more than 515 ft. in length, and in K.G.D. the deep drafted vessels can proceed out only at slack high water time, thereby restricting the number of vessels that can proceed out of dock. Also there are a limited number of safe anchorages in the River Hooghly, which restricts the number of deep drafted vessels that can be booked outward from the Port of Calcutta. The number of deep drafted inward bound vessels have also to be restricted, due to insufficient depth of water at the dock entrances, which does not usually permit more than one or two such vessels being docked in particular tides.

C. Bore Tides

12. Another problem facing the Port is the frequent occurrence of bore tides. Although bore tides have been experienced in the Port, probably from its very inception, there has been considerable increase in frequency and intensity of bore tides in recent years. The progressive deterioration of the entire tidal prism upto the tidal limits at Swarupgunj 80 miles upstream of Calcutta and the decrease in the depths of the navigable approaches between Diamond Harbour and Calcutta have brought about this. The incidence of the bore tides almost throughout the year during perigee spring tides has become a present day feature. In order to obviate serious damage to shipping, it has been found necessary to shift medium draft vessels to the Docks and at time the riverside jetties have to be cleared of even light draft vessels. This has led to congestion in the Docks and bunching of ships as vessel can only avail of better drafts during spring tides when more tide restrictions are imposed.

D. Draft of 26 feet

13. The following table shows the changes in the navigable depths of the river Hooghly in terms of 26' and 24' draft vessels since 1954:

Year	Number of days open to	
	26' draft vessels	24' draft vessels
1954	148	276
1955	148	272
1956	168	276
1957	49	288
1958	9	129
1959	12	94
1960	34	125
1961	0	37
1962	13	71
1963	56	187
1964	40	123

The Committee note that while in 1956 the Calcutta Port remained open for 168 days to vessels of 26' draft and 276 days to vessels of 24' draft, the position rapidly deteriorated thereafter reaching the lowest point in 1961 when the Port was not open even for a single day to 26' draft vessels and was open for only 37 days to 24' draft vessels. The position slightly improved in 1962 and to a greater extent in 1963. The Committee regret to find that in 1964 the num-

ber of days for which the Port was open to vessels of 26' draft and 24' draft has again come down as compared to the corresponding figures for the preceding year.

The Committee consider that there is need for intensifying measures to ensure that the Port of Calcutta remains open to vessels of 26' draft and 24' draft for at least the same number of days as used to be the case in 1956. The Committee need hardly add that after head-waters become available from Farakka the effort should be not only to improve upon the record of 1956 but also to open the port to vessels of about 30 feet draft as far as possible.

E. Fall in Navigational Depths

14. According to Port Commissioners the fall in the number of days in the navigable drafts of the river is related directly to—

- (a) problems of local nature; and
- (b) the long-term deterioration of the river.

F. Problems of Local Nature

15. One of the chief problems of local nature of Calcutta Port is the existence of bars and shoals at—

- A. Balari-Rangafalla
- B. Ninan-Nurpur, Eastern Gut
- C. Moyapur-Royapur

16. The Committee are informed that as a result of corrective measures and construction of new navigational tracks, the depth at Balari improved from 7'-6" in February, 1962 to about 12' in 1964. It is stated that with this depth, the bar is not likely to involve any restrictions to 26' draft vessels for about 200 days in a year.

As regards the Eastern Gut, Ninan-Nurpur and Fulta area, it is stated that due to extensive training measures recently carried out, it is anticipated that a depth of 12' would be available in 1965 for 26' draft vessels to negotiate this reach for about 200 days in a year.

The Committee have been further informed by the Port Commissioners that depths in Moyapur and Royapur bars have been progressively falling in spite of sustained dredging. Schemes for improvement of depth in Moyapur and Royapur by training measures have not yet been formulated.

G. Long-term Deterioration

17. It is stated that the long-term deterioration of the River has been brought about primarily by the diminution of fresh water supply from the Ganga. It has been described aptly by A Chamber as "a flood river *i.e.*, the force of the flood in the river is greater than the force of the ebb. More silt is brought up the river than is taken down. This in turn raises the level of the river bed which in turn increase the force and frequency of the bore tides which again bring up more silt, thus creating a general snow-balling effect."

H. Draft of 35'

18. The Committee have been informed in evidence that even after the Farakka Barrage* is commissioned and Ganga water brought in, all the ills of the Calcutta Port would not be over as it would still not be possible to bring in vessels of 35' draft due to sharp bends and bars in the river. At present the Port hardly gets a draft of 26' to 27' on any day.

I. Length of Ships

19. Apart from draft, there is the problem of the length of the ships of 600', 750' and even 800'. The maximum length of a ship that can navigate the river at present above Diamond Harbour is restricted to 530 feet under ordinary circumstances and 550 feet under special circumstances.

The Committee are given to understand that with the development of the subsidiary port of Haldia, which is also dealt with later in this Report, the problems of length and draft of the Calcutta Port would be resolved as the Haldia Dock System will provide access to ships upto 35 feet draft without any restriction in regard to length of this ships.

The Committee have no doubt that much of the present ills of Calcutta Port referred to above in regard to navigability will end with the construction of the Port at Haldia and therefore suggest that the Haldia Project should be executed on a high priority basis.

*Discussed in Chapter VII.

CHAPTER V. DREDGING

20. As indicated in earlier paragraphs, the riverine Port of Calcutta survives only by intensive dredging throughout the year.

A. Rising Cost of Dredging

21. The cost of dredging the river Hooghly has been going up every year as would be seen from the following table:—

(In lakhs of rupees)

Year	Total expenses (including depreciation)
1948-49	57.95
1949-50	66.35
1950-51	79.33
1951-52	92.54
1952-53	101.24
1953-54	109.57
1954-55	108.12
1955-56	117.98
1956-57	137.41
1957-58	142.14
1958-59	193.46
1959-60	190.37
1960-61	234.49
1961-62	260.98
1962-63	320.59
1963-64	350.00
1964-65 (estimated)	381.00

B. Representation by Chambers of Commerce

22. The cost of maintaining and servicing the river Hooghly is being financed entirely by the Commissioners for the Port of Calcutta out of the dues levied on the users of the Port.

A leading chamber of commerce and industry have urged in its memorandum to the Committee that "the enormous cost of maintaining and servicing the river Hooghly is financed entirely by the

Commissioners for the Port of Calcutta out of the dues levied on the users of the Port and the magnitude of this cost in comparison with that borne by the users of other Indian Ports constitutes, in our opinion, a discriminatory burden albeit unintentional, which should more equitably be borne by the Central Government and thus shared indirectly by the whole of India". A number of other chambers of commerce have also pleaded that the cost of maintaining navigability in the river Hooghly should be met from the Central Revenues.

C. Practice in Foreign Countries

23. The Committee understand that in the United States, the Crop of Engineers of the American Army, are responsible for maintaining navigation in harbour projects.

The Committee are informed that the maintenance of river Nieuwe Mass which serves the Port of Rotterdam is the responsibility of the State.

The Committee are also given to understand that "the dredging of the River Elbe and maintenance of the fairways in the lower part of the Elbe to its mouth in the North Sea is undertaken by the Federal Government of Germany on the basis of a State's contract between this Government and the State of Hamburg."

As is well-known, river Hooghly is one of the most difficult rivers for navigation and huge amounts have to be spent to clear the silt to keep the Port in operation. Besides, the Port of Calcutta serves not only the State of West Bengal but also the neighbouring States of Assam, Bihar, Uttar Pradesh, Orissa etc. Calcutta, in fact is the biggest Port of the country handling about 45 per cent of export trade and 40 per cent of import trade. The port charges are in a way direct burden on India's export and to that extent handicap the country's export effort. In view of these considerations, the Committee would suggest that the question of the Central Government* taking over the responsibility for the maintenance of river Hooghly for Calcutta Port may be examined in all its ramifications.

D. Dredging Fleet

24. The Port at present possesses five large and one small suction dredgers for the bars and crossings and two small suction dredgers, four Bucket dredgers, six hopper barges and one Grab dredger for

*See para 19 also.

lock entrance, Dock berths and basins and Riverside berths. Particulars of these dredgers are as follows:

Vessel	Year of Commission
Large Suction Dredgers	
Dr. 'Balari'	1913
Dr. 'Gunga'	1922
Dr. 'Jalengi'	1950
Dr. 'Bhagirathi'	1958
Dr. 'Maitena'	1961
Small Suction Dredgers	
Dr. 'Pansy'	1951
Dr. 'Daisy'	1951
Bucket Dredgers	
Dr. 'Boxer'	1912
Dr. 'Bulldog'	1928
Dr. 'Bully'	1951
Dr. 'Ajoy'	1961

E. Dredging Operations

25. Dredging of river Hooghly was first introduced in 1907 to cope with the problems of siltation of the Upper Bars. Since then the technique and the design of dredgers has been considerably improved to cope with the changing conditions.

The dredging units may be divided broadly under the following two categories:—

- (1) The first category, viz., the Port Dredging Unit deals with the problems of siltation in the Port area, lock entrances and at various jetties and river side moorings which shoal considerably during the bore tides.
- (2) The large suction dredgers, constituting the second category, are used for maintaining navigable approaches between Diamond Harbour and Calcutta and at Balari Bar.

During the past four years with the deterioration of Balari Rangafala Channels considerable dredging has been carried out in this area down stream of Diamond Harbour. The dredger "Maitena" acquired by the Port Trust in 1961 is capable of operating in the estuary on most days in the year.

It has been stated during evidence before the Committee that Calcutta Port has recently placed an order for an estuarian dredger costing about Rs. 250 lakhs so that the governing bars in the estuary can be sufficiently deepened to bring in 35 draft vessels in the proposed Haldia Port.

F. Maintenance of Dredgers

26. It has been represented to the Committee by a leading non-official organisation that "repair and maintenance is taking too long, perhaps due to the absence of adequate Port Commissioners' repair facilities, and that better use could be made of the fleet by working overtime at the repair yard....We believe that the dredging effort could be increased by providing double crews and by working double shifts, and by fitting dredgers with the latest navigational aids."

As dredgers involve large capital outlay, the Committee would suggest that the Port authorities should make every effort to improve their utilisation by making adequate arrangements for servicing, maintenance and operational staff. The Committee would also suggest that the question of providing latest navigational aids to improve utilisation of dredgers may be considered.

G. Central Dredger Pool

27. The Committee have been informed that a decision has been taken for the construction of a Central Dredger Pool for minor ports and that a beginning has been made with two dredgers of identical design intended primarily to help the Maritime State Governments in dredging their Ports. The dredgers would be hired to the State Governments according to a programme drawn up in advance from time to time. The cost of these dredgers and ancillary equipment is as follows:

Two Tugs	Rs. 45.40 lakhs
Pipeline	Rs. 27.10 lakhs
Hopper Barges	Rs. 73.04 lakhs

It is stated that the intention of the Government is to add to the Pool additional dredgers which may be of different specifications if need be from those now in use.

The Committee welcome the formation of a Central Dredger Pool for minor ports. The Committee need hardly stress that a Central Dredger Pool apart from ensuring economy in dredging opera-

tions would make available a Central reserve of strategic machinery and equipment for use in an emergency in any port.

H. Manufacture of Dredgers indigenously

28. A dredger is generally tailor made that is to say built specially to specifications of the job. An effort has been made in recent years to construct dredgers within the country. A list of dredgers built in the country or under construction is given below:—

Dredger	Built for	Name of firm
12" Cutter Suction dredger for the Ganga with pipe-line	I.W.T. use	Garden Reach (1957) Workshop, Calcutta IHC, Holland were the collaborators.
Two Self-propelled 22" cutter suction dredgers. (cost Rs. 170.00 lakhs foreign exchange content—Rs. 100 lakhs.)	Minor Ports Pool	Ellicott Machine Corporation, USA are the main contractors (Hooghly Docking Company Calcutta are the builders in India)
Suction Dredger (cost Rs. 125 lakhs—foreign exchange content—Rs. 61.83 lakhs)	Paradeep	Garden Reach Calcutta, in collaboration with L.M.G. West Germany.
Suction Dredger (cost Rs. 15.51 lakh—foreign exchange content Rs. 6.17 lakhs).	Kerala Govt.	Brunton & Co (IHC Holland are collaborating)

A proposal of Garden Reach Workshop, Calcutta to build a bucket dredger for Calcutta Port fell through due to price difference and the stipulations of the International Bank for Reconstruction and Development. This price difference was as follows:—

	Total cost (Rs. in lakhs)
(i) Lowest offer of a foreign (U.K.) firm	99.02
(ii) Offer of M/s Garden Reach Workshop	114.12
Difference	15.10

The Committee suggest that Government may take suitable measures such as allowing drawback of import duty on parts and machinery required for manufacture of dredgers within the country so that the quotations of Indian manufacturers can stand favourable comparison with quotations received from foreign manufacturers in response to global tenders.

The Committee would also emphasise that special attention should be paid to the designing of the dredgers so that in due course "know-how" is developed within the country to undertake manufacture of dredgers suited to local conditions and requirements.

I. Disposal of Spoil Dredged

29. The disposal of spoil dredged has always presented a very complex problem due to the extraordinary hydrological regime of the river. Except for the port area where a part of the spoil dredged in the Docks by the Bucket Dredgers has been utilised for reclamation, the majority of the spoil dredged in the river is dumped back into the river at the head of the *Culs-De-Sac* where the current in preponderance is dissipating. The main idea of dumping this spoil at the head of the *Culs-De-Sac* is to ensure that this material is pushed further up on the sand upstream and may assist in deflecting the current on to the channel dredged. The question of selecting suitable dumping grounds was also referred to the Research Station. Poona and model experiments are now nearing completion to select the most suitable dumping ground. Experiments have also been carried out by the Port Authorities recently on the river by using (a) Radio Active Isotopes and (b) Flourescent Tracers to study the bed movement in certain reaches.

The Committee suggest that the research on the question of selecting the most suitable dumping ground to disposal of spoil dredged from the river should be intensified and should receive constant attention in view of its far-reaching effects on the navigation of the river.

CHAPTER VI

RIVER TRAINING WORKS

30. The extent to which the four river training works so far undertaken viz. construction of Spur at Akra, training work at Fulta Point, reclamation of Diamond Sand and cutting a new channel over the Balari Bar have contributed to an improvement in the navigable depths is indicated below:—

(i) *Akra Spur*

The construction of the Akra Spur has reduced the dredging in that locality by about 50 per cent.

(ii) *Fulta Point Scheme*

- (a) Navigational hazards that existed have been eliminated.
- (b) The river in this reach is still in a state of transition and further works in the nature of symptomatic corrective treatment is contemplated.

(iii) *Diamond Sand Reclamation Works*

The erosion on the western bank opposite Diamond Harbour has been stopped after the construction of the Spur at Diamonds Sands.

This, in turn, has helped in a stabler regime of the river in that reach and resulted in better flow conditions on the re-aligned Balari Bar.

(iv) *Re-alignment of the Balari Bar*

In 1960, the depths on the old Balari Bar alignment fell to 4 feet 6 inches. As a result of re-alignment of the Balari Bar and the beneficial effect of the works mentioned in para (iii), the depth on the Balari Bar has improved to about 11 feet.

It has been represented to the Committee by a non-official organisation that:

“The local experts are at variance as to the benefits/disadvantages of the Fulta Point Scheme and it seems as if only time will tell. Doubt has been expressed whether the

scheme has proved as beneficial as was envisaged. Silt-ing continues to take place here during most of the year and there are considerable eddies at the change of tide.

Balari Bar crossing, to which must be linked the Diamond Harbour Sand Scheme, is unstable and the crossing requires frequent dredging to maintain navigable depths."

The Committee regret to note that the depths on the old Balari Bar alignment should have been allowed to fall as low as 4'-6" in 1960. The Committee would suggest that a critical assessment of these training works may be undertaken with a view to take remedial action in good time and to devise new training works in the light of experience.

CHAPTER VII. GANGA BARRAGE SCHEME AT FARAKKA

31. The Ganga Barrage Scheme at Farakka was sanctioned in 1961. It consists of a barrage across the Ganga at Farakka, a few miles above where the Ganga branches into the Bhagirathi, and a canal 26 miles long taking off from the barrage and falling into the Bhagirathi.

The Ganga Barrage is not an irrigation project. Its object is to divert fresh water from the Ganga so as to open up the Bhagirathi (Hooghly) and save Calcutta Port. It has been stated that of the nine principal bars and crossings in Hooghly the upper five bars are sure to improve with upland supplies, while the lower bars will improve with upland supplies and the construction of training works.

A. Benefits

32. The benefits expected from the Farakka Barrage are briefly described below:

- (a) It will reduce the frequency and intensity of great tidal waves which move up the Hooghly and affect ships going up to and down from Calcutta.
- (b) It will reduce the content of salt in the water of Calcutta and thus improve it for drinking and use in factories;
- (c) On the top of the barrage will be a rail-cum-road bridge to connect by railway the southern part with the northern part of West Bengal and with Assam.
- (d) It will improve navigation in the Ganga.
- (e) It will reduce flood hazards in the catchment area of the river.

33. It has been represented that there has been delay in the execution of the Project largely due to non-availability of earth-moving and other equipment, delay in the release of foreign exchange, too many committees through which processing is done, frequent revision of designs etc.

The Study Group of the Committee which visited the Project site in July, 1964 were informed that out of the Irrigation and Power

quota a sum of Rs. 103 lakhs had been earmarked during the first half of 1964-65 for meeting the requirements of the Project from sterling and dollar areas. Another sum of Rs. 400 lakhs has also been earmarked for meeting the requirements of purchases from U.S.S.R. and East European countries. Sanction for purchases of 4500 M. tonnes of U.S.S.R. Sheet Piles or Cofferdam has since been issued. Apart from this, sanction for purchase of 7500 M.T. of Japanese Sheet Piles for Cofferdam has also been given. It is also understood that some earth-moving equipment is being made available for this working season by the Ministry of Defence.

It has been represented to the Study Group that the major difficulty is that there is no separate block sanction of foreign exchange for the project with the result that for purchase of each item involving foreign exchange a number of formalities have to be gone through before application for Import Licence is sent to the Controller of Imports and Exports. This inevitably takes time. It is stated that this time lag can be minimised if a block amount of foreign exchange is sanctioned for the project. in which case as soon as sanction to purchase equipment, spares and stores is issued by the competent authority, arrangement for issue of Import Licence may be made simultaneously.

As Farakka Barrage has a vital bearing on the navigability of river Hooghly and the future of Calcutta Port, the Committee would stress that the work on the Barrage should be proceeded with utmost expedition. The Committee would in particular suggest that adequate foreign exchange should be made available well in advance for importing the requisite essential equipment and materials so that the progress of the work is in no way impeded and the scheduled programme of construction is kept up.

The Committee would also suggest that the processing of applications for the release of foreign exchange for import of requisite essential equipment and materials may be streamlined to obviate delay.

B. Integrated Control over Farakka, Calcutta and Haldia

34. It has been stated that when the Farakka Barrage is in operation it must be ensured that release of water at Farakka is regulated keeping in view fully the needs of Calcutta Port and all other interests and that the river from Calcutta to Farakka is also properly maintained. The Committee are assured that Government are fully aware of the need for an effective liaison at a high level between the organisation incharge of the Project and the Calcutta

Port Commissioners. The present Farakka Control Board includes the Chairman, Calcutta Port Trust, as one of its Members.

The Committee would like to mention here the importance of the Farakka in connection with the Calcutta Port and also as an important link for road and river transport between Calcutta and upper and north eastern India. The Committee feel that the flow of water down the spill channel from the Bhagirathi and Hooghly should be carefully regulated as it would be of great importance not only for Calcutta Port but also for Haldia. As such, the Committee would suggest to the Government to consider the question of co-ordinating working of Farakka Barrage, Calcutta Port and Haldia Port through proper administrative machinery. The Committee would also suggest that Farakka should be developed as a junction for river and road transport from Calcutta upto at least Patna and from Calcutta to Assam and the strategic section of the north east frontier so as to give relief to the over-worked rail and road transport system in the area. As such, the Committee feel that Farakka should be developed as an industrial area also, particularly for the manufacture of road and river transport vehicles. This may also give added employment facilities for the displaced persons entering West Bengal.

CHAPTER VIII. HYDRAULIC STUDIES

A. Hydraulic Study Department

35. The Calcutta Port Commissioners' Hydraulic Study Department was set up in February, 1962. Its principal functions are to understand the hydraulic problems of the River Hooghly and direct appropriate model experiments and draw conclusions on completion of such experiments for improving its navigability. The Committee are informed that in the last three years the Department have suggested practical measures in the matter of selection of ground for dumping of dredged spoil, bank erosion and alignment of navigational channels in difficult stretches.

The following problems are stated to be currently under study in the Hydraulic Study Department:

(a) Studies in advanced stage

- (i) Location of site for dumping dredged spoil of Auckland Bar;
- (ii) Studies for improvement of depths at Balari Bar;
- (iii) Regime of the Bhagirathi in the post-Farakka period for improvement of the regime of the Hooghly;
- (iv) Drafts of River Hooghly 1964 to 1974.

(b) Studies in progress but not sufficiently advanced for purpose of evaluation

- (i) Feasibility studies for removal of bars in the upper tidal compartment (from Calcutta upto Swarupgange) for improvement of navigable depths of the River Hooghly.
- (ii) Prototype studies of siltation in the Fulta reach for improvement of depths in the Ninan, Nurpur and Eastern Gut.
- (iii) Measures for prevention of erosion of the banks for improvement of depths.
- (iv) Studies of salinity intrusion and its influence on navigable depths.
- (v) Studies of various dredging sites and measures on improvement of depths.

(c) *Studies in early stages*

- (i) Study of contribution of tributaries for the improvement of navigability of the River Hooghly.
- (ii) Mathematical studies for determining the reasons of shoaling and measures for their elimination.

It has been suggested to the Committee by a leading Chamber of Commerce that the River Hooghly should have its own Research Station.

The Committee are glad to note that the Calcutta Hydraulic Department is rendering valuable service to the Port in hydraulic studies of the river. They, however feel that with the coming up of the Haldia Port on the one hand and the Farakka Barrage on the other, the Hydraulic Study Department will have to undertake study of a larger number of problems in the coming years. The Committee, therefore, suggest that the scope of the Department should be expanded gradually to enable it to face the additional tasks ahead in the process of rendering on-the-spot expert advice to the Calcutta Port Authorities on the complex hydraulic problems of the river made all the more complex by the coming into being of the Farakka Barrage and the Haldia Port.

B. Central Water and Power Station, Poona

36. Calcutta Port authorities have been availing of the expert services of the Central Water and Power Research Station, Poona, to advise them on intricate problems connected with the positioning of various engineering structures in the river Hooghly. It is stated that the Central Water and Power Research Station, Poona, have been carrying out long term studies of the River Hooghly with the help of models and that the port authorities have been continuously supplying them the requisite data. The specific problems referred by the Calcutta Port authorities to the Central Water and Power Research Station, Poona, during the last three years are indicated below:

- (1) Studies for stability of Haldia channel—Work completed.
- (2) Positioning of the Lock Entrance to the Haldia Dock system with a view to realising optimum manoeuvrability and minimum maintenance dredging—Work completed.
- (3) Positioning of the Haldia Oil Jetty and investigations for the effects of proposed structural design on the manoeuvrability—Advanced stage.

- (4) Studies in respect of proposed Calcutta-Howrah High level bridge across the Hooghly—Awaiting evaluation.
- (5) Feasibility studies for improvement of depths at Nurpur—Awaiting evaluation.
- (6) Effect of wreck of s.s. 'Nartand' on the tidal regime of the Hooghly—Work completed.

While advice on problems indicated against items (1), (2) and (6) has already been rendered, the remaining three problems are still under study.

The following problems are stated to be on the waiting list of the Poona Station and would be taken up as soon as models are available or their studies:

- (1) Investigations for the training works for the improvement of the Moyapur Bar.
- (2) Training works for the stabilization of the Balari Bar Crossing.
- (3) Basic investigations on the effect of deterioration of Rupnarain on the tidal propagation in the Hooghly.
- (4) Effect of bank erosion on the tidal propagation in the Hooghly.

The Committee are informed that no practical difficulties have been experienced in the existing arrangements and that there has been close association between the Port authorities and the Central Water and Power Research Station, Poona.

The Committee would stress the need for close liaison between the Hydraulic Study Department of Calcutta Port and the Central Water and Power Research Station, Poona so as to ensure that there is no over-lapping in the study of problems and that the Hydraulic Study Department in the port is helped to develop on the right lines. The Committee would also suggest that the problems pending investigation particularly those relating to the stabilization of Balari Bar Crossing and the effect of bank erosion on the tidal propagation in the Hooghly should be taken in hand at an early date.

The Committee would also suggest that Calcutta Port authorities should maintain liaison with the State Government River Research Institute at Hiranghata.

CHAPTER IX. RIVER SERVICES

A. River Survey Service

37. The River Survey Service under the Director of Marine Department was set up in the year 1881 when the control of the Port was transferred to the Commissioners. The normal functions of the River Survey Service are to produce a daily chart of the river in regard to the depth, which is given to the pilots, shipmasters etc. in order to enable them to navigate the ships.

The table below gives an idea of the expenditure incurred on the River Survey Service in 1927-28 and 1963-64. These figures do not include depreciation of the survey vessels and general charges and other items of common expenditure debitible to River Survey establishment on *pro-rata* basis.

	1927-28	1963-64
	Rs.	Rs.
Establishment	1,71,035	4,81,857
Running cost of three vessels	32,797	4,76,551
	<hr/>	<hr/>
	2,03,832	9,57,408

The Committee hope that close liaison exists between River Survey Service and the Hydraulic Study Department which studies problems regarding the navigability of River Hooghly.

B. Calcutta Pilot Service

38. Hitherto pilotage in the Calcutta Port has been divided into two parts, *viz.*, River Pilotage performed by Hooghly Pilots and Harbour Pilotage performed by the Assistant Harbour Masters. It has been stated that only Master Mariners were recruited as Assistant Harbour Masters while persons with First Mate's Certificate or ex-Dufferin cadets were appointed as apprentices in the Hooghly Pilot Service and given intensive training for four to five years before they qualified as River Pilots.

Under a scheme of re-organisation both the marine services have been merged with effect from the 10th June, 1964 into a combined service called 'The Calcutta Pilot Service'. The recruitment to the combined service is restricted to Master Mariners.

The Committee are informed that although by and large the pilots have favoured the merger, there has been some resistance

from the Assistant Harbour Masters who have adopted delaying tactics following the formation of the new service. The main reason for such a state of affairs is said to be service rivalry between the Hooghly pilots and the Assistant Harbour Masters.

The Committee note that the Assistant Harbour Masters went on a strike in January, 1965 when an officiating Harbour Master was demoted to his substantive post by the Port Authorities. The strike has been given up after it had lasted for several weeks. When pressure was being put by shippers to raise freight rates on the alleged ground of slow turn round of ships and when all-out efforts should have been made to bring about operational efficiency in Calcutta Port, the Committee regret that a strike among the essential services of the Calcutta Port has occurred creating further difficulties for the Port. The Committee view the recurrence of such strikes among the essential services with concern and distress and feel the Government should have taken appropriate actions to prevent the strike and/or to take adequate steps as provided by the law in the event of a strike by essential services.

The Committee agree that "the Hooghly channel is a difficult river and none of the Marine services should be or would be allowed to interrupt the service". The Committee further expect that the Marine services will also realise their responsibilities in this matter to the nation.

CHAPTER X. PORT CHARGES

A. High Charges

39. It has been represented to the Committee by leading Chambers of Commerce that Calcutta Port charges are higher as compared to other ports in India. Comparative statistics of aggregate port charges are not available, but from the table below it would be evident that on the basis of income received per unit metric ton of cargo handled, the charges in Calcutta are higher than in Bombay or Madras:

Port	Year	Total Imports/ Exports	Total revenue received	Income received per unit metric ton of cargo handled
		(Rs. in thousands)	(Rs. in lakhs)	Rs.
Calcutta	1962-63	10,203	16.97	16.6
Bombay	1961-62	14,548	15.54	10.7
Madras	1962-63	3,785	4.78	12.6

The Committee understand that a strict comparison between the charges in different ports may not be quite appropriate since they handle different types of cargo and the rates charged also differ from port to port; but it is admitted that taking into account the 'river due element' of the port, charges in Calcutta are on the high side.

It would be recalled that the Committee of Inquiry into the Major Ports of Great Britain had recommended *inter alia* as follows:—

"There is, however, a wide field for standardisation in the structure and nomenclature of port charges. We have already mentioned the many different terms which are used to describe dues on ships and goods; it should not be too difficult to arrive at a standard terminology for all ports. Similarly a greater measure of standardisation might be applied to the period which is

covered by payment of the initial due and to the method by which additional charges are made after this period, to the areas under which voyages are classified for dues purposes, to the special circumstances which rank for reduced rates and to the type and unit of weight, volume or number by which dues on goods are charged."

The Committee would suggest that Government may consider the question of appointing a Committee consisting of representatives of the major ports, shipping interests, leading Chambers of Commerce and Industry, Ministries of Transport and Finance to go into the question of rationalisation of port charges for major ports of India and bringing about as much standardisation in the structure and nomenclature of port charges as possible. The aforementioned Committee may also examine the question of Central Government taking over responsibility of the maintenance of navigation of river Hooghly so that the port charges for Calcutta are brought in line as far as possible with the charges levied in other major ports.*

B. Standardisation of documentation

40. As mentioned in para 39 of the Report, a leading Chamber of Commerce and Industry has represented to the Committee that "the merchant has to jump through too many paper hoops" in order to comply with the formalities of documentation. In this connection the Committee would like to draw attention to the following recommendation made by the Committee of Enquiry into the Major Ports of Great Britain in their Report (1962):

"Standardisation of documentation is another field in which more rapid progress would be of great benefit to importers and exporters. We see no reason why, for example, standard consignment notes and forms of account should not be adopted by all the major ports, even allowing for the fact that different mechanised accounting systems are used from port to port".

The Estimates Committee would suggest that the Committee suggested above may also examine the question of standardisation and simplification of documentation so as to speed up clearance from the port.

C. Publicising Port Facilities

41. The Committee find that the facilities available in the Indian Ports are not being adequately publicised unlike Europe and United States where hand-books and other informative literature on the ports are brought out in an attractive form and widely circulated. *The Committee suggest that the major ports in India should bring out hand-books and other informative literature showing the facilities available at the ports and other rules and regulations of interest to the shippers, importers, exporters, etc.*

D. Management Accountancy

42. The Committee would suggest that special attention may be paid to the need for introducing and developing management accountancy in ports with a view to provide ready index of the income and expenditure accruing on diverse activities and making each one self supporting, as far as possible. They would also suggest that the question of adopting a common Accounts Code for the analysis of income and expenditure in all major ports may be examined in consultation with the Ministry of Finance and Comptroller and Auditor General.

CHAPTER XI. BERTHING FACILITIES

A. Existing Facilities

43. The Calcutta Port has two Dock systems namely the Kidderpore Docks and the King George's Docks which are provided with a number of berths. The present position is as under:—

Calcutta	.	.	.	.	.	5	Jetties
Kidderpore	.	.	.	.	.	25	"
King George	.	.	.	.	.	9	"
Garden Reach	.	.	.	.	.	5	"
<hr/>							45 Working Berths

Besides, these there are 60 buoys and river moorings.

It has been represented to the Committee by a leading Chamber of Commerce that as the severity of bore tides has of late been increasing, it is imperative that more holding berths should be provided in Calcutta Port. It has been represented that in 1964 the 46 river moorings were effected by bore tides for 131½ days while the 10 Calcutta and Garden Reach Jetties were affected for 40 days. The Committee note that provision exists in the Third Five Year Plan for providing additional docking and berthing facilities at an estimated cost of Rs. 3·78 crores. It has been stated during evidence that work has been started for providing additional moorings in King George's Dock. The additional mooring facilities would be sufficient to meet the present requirements, but if the demand later developed it would be possible to provide for additional facilities in what is popularly known as the 'Crocodile Ponds' area.

The Committee feel that now that a firm decision has been taken on the construction of Haldia Port, close to Calcutta, it is desirable that the entire position regarding the berthing requirements of Calcutta Port are reviewed by an Expert Committee.

The expert committee may take a long term view of the requirements—say for the next 25 years—with particular reference to the nature and quantum of cargo expected to be handled in Calcutta Port so that detailed schemes can be drawn up for modernising the existing facilities and for providing additional berthing facilities as may be required.

The expert Committee should also go into the related questions of providing proper berthing facilities for execution of repairs to

ships which are stated to be inadequate at present as also the provision of modern facilities for handling of large tankers.

The Committee need hardly emphasise that as and when new working berths are provided it should be ensured that not only they allow easy approach for the latest type of ships but are fully equipped for speedily handling the expected cargo.

B. Tanker Discharge Jetties

44. One of the leading Chambers of Commerce has represented that there has been no improvement for some years in the provision of suitable tanker discharge jetties and in fact there has been a marked deterioration in the condition of the existing jetties at Budge-Budge.

The Committee have been informed that there are 8 jetties at the Petroleum Wharf, Budge-Budge and they have remained in operation during the last three years as under:—

etty	No. 1	.	.	.	.	.	.	.	1962	1963	1964
									In commission throughout		
	No. 2	.	.	.	.	.	.	.		Do.	
	No. 3	.	.	.	.	.	.	.		Do.	
	No. 5	.	.	.	.	.	.	.		Do.	
	No. 7	.	.	.	.	.	.	.		Do.	
	No. 8	.	.	.	.	.	.	.		Do.	

It is stated that Jetty No. 4 was out of commission in 1963-64 for about 4 months due to damage to the gangway by bore tides and that No. 6 jetty was out of commission for six months since June 1964 due to damage to pontoons which immobilised it.

The number of tankers which entered the Port in the last three years and the quantity of petroleum products discharged are given below:—

Year	Number of Tankers	Quantity (In tonnes)
1961-62	239	1,371,358
1962-63	260	1,482,828
1963-64	262	1,442,358

It is stated that four of the eight Jetties at the Petroleum Wharf, Budge-Budge, can accommodate modern tankers which are about 560 feet in length provided their beam is between 70 and 72 feet and draft 20 feet only. In bore tides, tankers exceeding 510 feet in length are not permitted to work at Budge-Budge. During the course of evidence the Committee have been informed that in view of the proposed Haldia Refinery it would not be proper to carry out any major modifications of tankers facilities at Budge-Budge at this stage. It has been further stated that all the jetties are now in good working condition and the only point on which the Port authorities are not satisfied relates to the size of the jetties.

The Committee understand that the question of mode of transport/transmission of refined products from the proposed refinery at Haldia to Calcutta would be decided when the negotiations for setting up the refinery are finalised with the foreign collaborator.

The Committee have no doubt that Government would keep in view the existing facilities available at tanker discharge jetties at Budge-Budge while deciding on the best means of transport/transmission of oil from Haldia to Calcutta.

C. Transit Area

45. A dock area is intended to be a transit area and it should not be utilised as a storage area, particularly for imports. Cargoes after discharge should move to the hinterland expeditiously.

46. *Confiscated Cargo.*—It has come to the notice of the Committee that quite often imported consignments are left uncleared or have to be confiscated by the Customs as the importers do not come forward or do not possess valid licenses and import documents.

47. *Unidentified Cargo.*—The incidence of imported cargo in Calcutta which went unidentified and therefore unclaimed during each of the last three years is as under:—

Year	Unidentified Cargo in tonnes
1962	5,000
1963	4,500
1964	3,500

It has also been represented to the Committee that at present considerable quantities of cargo go unclaimed because they cannot be identified. The Committee are informed that efforts are made to

reduce the incidence of such cargo by proper stacking so that the marks on the packages do not get obliterated. In cases where packages are landed with no marks, connecting up with the parent consignment presents a problem, endeavours are made to deliver such cargo to the lawful owner wherever identification is possible otherwise than by marks.

The Committee suggest that the following measures may be considered urgently to prevent hold up of consignments in the dock area and for improving the quick movement of imported cargo through the port premises:

- (i) *Every facility may be given to importers to clear the goods through customs and from the Port as quickly as possible after landing. They would suggest that the committee constituted recently by the Collector of Customs, consisting of representatives of Port Commissioners, import trade and shipping interests, to look into the complaints of shippers, may be asked to suggest measures for streamlining and expediting the clearance of goods through customs.*
- (ii) *The Port authorities may review the period for which goods may be left in transit sheds. It may also be examined whether it would be desirable to levy rent and incidental charges on cargoes confiscated by customs and left lying on the port premises by them beyond a certain period.*
- (iii) *A small committee consisting of representatives of port authorities, Customs importers and steamer agents may be set up to go into the question of unclaimed/unidentified imported cargo on account of lack of identification marks and suggest suitable remedial measures.*
- (iv) *The road system within the dock area may be kept free for moving vehicles and if possible, parking areas for lorries awaiting load may be provided.*

D. Warehousing Facilities

48. The Committee have been informed that the total area of the warehousing accommodation available in Calcutta Port is 13,89,481 square feet. Apart from this, the Port have leased out land where private parties have put up their own warehouses. It has been stated that there has been no great demand for additional warehousing accommodation presumably because private parties are building warehouses outside the Port area. The warehousing facil-

lities within the Port are stated to be adequate for storage of import and export cargo.

The following figures indicate the income and expenditure during 1963-64 on the warehouses in the Port:

Income—1963-64

	Rs.
Earnings from Bonded, Fairlie, Canning, Clive and Strand Warehouses and Tea Warehouse	21,04,285
	<hr/>
	21,04,285

Expenditure—1963-64

Establishment	5,86,061
Maintenance of warehouses and Interest and Service charges on loan	5,11,342
Municipal Taxes	60,000
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	11,57,403
	<hr/>
Surplus of income over expenditure	9,46,882

The Committee feel that as the Port authorities have been making sizeable profit from their warehouses, they should utilise a portion of this profit to improve the conditions of warehousing in general and introduce scientific and modern methods for storage and staking and to facilitate quick delivery to prevent any damage to the goods.

E. Lighters

49. The Committee are informed that there are about 3200 lighters out of which the Port Trust own a dozen only.

It is understood that 55 per cent of the total quantity of general cargo comprising jute manufactures is moved by lighters from the mills to the ships. As per an old custom of trade, contracts between jute goods shippers and the jute mills, are based on the goods being placed alongside the ocean vessels by the last day of the month known as the "due date" and the contracts between the jute goods shippers and the buyers overseas premit seven days grace for loading by the ocean vessel. As a result of this system, there is heavy concentration at the Port during the end of the month and the first week of the following month some staggering of "due date" to the middle of the month has been arranged, but it is not adequate to meet the situation.

The Committee would suggest that the Port authorities may use the good offices of the Jute Commissioner to arrange for the spread of movement of jute manufactures in lighters throughout the month.

It has also been represented to the Committee that there is a tendency on the part of some merchants to use the lighters for storage with the result that it causes shortage.

It has also been represented to the Committee that there is "insufficiency of dock entrance openings for the entry and exit of lighters."

The Committee would suggest that the position regarding the number of lighters, their usage for storage and facilities for entrance and exit to the dock area may be examined and necessary remedial measures taken so that the lighters, which are meant to speed up loading and unloading of goods, contribute effectively towards that end.

F. Hazardous Cargo

50. It was represented to the Committee last year by a leading chamber of commerce and industry that "There appears to be a great confusion at the moment about categorisation of hazardous cargo. Before the arrival of a vessel, a list is forwarded to the Port Safety Officer. He classifies Category I cargo and these details are forwarded by agents to the Shed Master concerned. The Shed Master declares his own list of Category I cargo and includes many consignments not included by the Port Safety Officers. After an approach to the Port Safety Officer later results in instructions to the Shed Master by him not to treat those items as Category I cargo. This is most irksome from the Agents point of view because all consignees of Category I cargo must be advised well in advance to take direct delivery of their cargo.

The Committee desired to know the latest position regarding classification of hazardous cargo and have now been informed by the Ministry that:

"A list of hazardous cargo of different categories has been drawn up in consultation with the Inspector of Explosives, Government of India and this has been finalised at a meeting of the Traffic Managers of different Ports This list will be followed at other Indian Ports also. In the past, classification was done on the basis of an old list."

The Committee regret that the delay on the part of Government in rationalising classification of hazardous cargo gave rise to numerous complaints from the Trade. The Committee would emphasise that a uniform policy should now be enforced in all the ports in the matter of classification of hazardous cargo.

It has also been represented to the Committee by a leading chamber of commerce and industry that there are inadequate facilities for handling of various categories of hazardous cargo, particularly Category I where the delivery has to be taken directly by the consignee.

It has also been represented to the Committee that due to difficulties experienced in the delivery of hazardous cargo Category I an additional surcharge on it has been imposed by shipping conference lines.

The Port authorities have explained the position regarding handling of hazardous cargo at Calcutta as follows:—

“Hazardous cargo is classified into different categories, the most hazardous being Category I (i.e. having a flash point below 76°F). There is no difficulty about other categories. In view of the risk involved in storage of Category I cargo this type of cargo is required to be cleared immediately on landing. There are however instances where the importers fail to take direct delivery. The shipping agents represented that storage facilities should be provided by the Port for such cargo so that they could be landed and left with the Port authority and they had not to be carried back. Considering their general difficulties a small godown which was specially built has been set apart for temporary storage of such cargo. Since December, 1962 many steamer agents have been utilising this facility.

As the godown mentioned above is very small it has been decided to construct a new godown for storage of Hazardous I cargo. The Chief Fire Adviser to the Government of India, Ministry of Defence is being consulted to determine the nature and extent of minimum fire fighting arrangements necessary to equip the godown.

As already mentioned, there is no great difficulty about other types of hazardous cargo. In view, however, of the increase in the volume of such cargo, an additional godown with a floor area of 8000 ft. is being built at King George's Dock at a cost of Rs. 4.07 lakhs.”

The Committee would urge that the Port authorities should review the position for handling of hazardous cargo in consultation with the trade and provide suitable facilities including godown facilities so that the handling of such cargo is not impeded. They need hardly emphasise that godown for hazardous cargo should be so located and equipped with fire fighting appliances as to reduce the hazards in a busy port like Calcutta to the minimum.

The Port authorities claim that the surcharge on hazardous cargo Category I should be refunded by the Shipping Conference Lines where the importer or his agent take direct delivery for in such cases the shippers are not put to any inconvenience, but in actual practice the refund has not been given.

The Government should follow up the question of waiving of the surcharge imposed by the Shipping Conference Lines on hazardous cargo Category I so that the users are not subjected to extra levy.

CHAPTER XII. MECHANISATION

51. The efficiency of a Port lies largely in the quick movement of goods between the seaborne and inland transport.

It has been stated that Government's general objective is to explore all possible methods of further mechanising the handling of every variety of cargo at the major ports consistent with the principle that employment opportunities of labour are not seriously affected and such labour, as may be rendered surplus in the process, is provided with alternative employment without being subjected to loss of emoluments or other disadvantages.

A. General Cargo

52. So far as general cargo is concerned, mechanisation of loading or unloading largely means provision of adequate shore cranes and mobile cranes of different types, and vehicles to move cargo quickly. A detailed account of the handling equipment available at the Port is given below:

B. Shore Cranes

53. In 1950, the Port had only 124 electric cranes, 177 hydraulic cranes and 13 diesel cranes making a total of 314 for loading and unloading work as well as for shifting cargo from one place to another. The hydraulic cranes were slow in operation and structurally unsuitable for loading into or unloading from modern ships with wide beam. A programme for replacement of these hydraulic cranes by electric cranes was taken up in the Second Five Year Plan period. All the berths in Dock II Kidderpore Docks have now been renovated and new electric cranes of 3 to 5 tonnes capacity have been installed replacing the old 35 cwt. capacity hydraulic cranes at a cost of Rs. 158 lakhs.

The number of cranes at Transit sheds and Yards today is 330 composed of 198 electric cranes, 119 hydraulic cranes and 13 diesel cranes.

C. Heavy-Lift Yards and Floating Cranes

54. For handling heavy-lifts separate Yards have been provided at the Calcutta Jetties, the Kidderpore Docks and the King George's

Dock. The heavy-lift yard in the Calcutta Jetties is served by a 30-tonne gantry crane. The heavy-lift yard in the Kidderpore Docks is served by a 30-tonne crane, a 15-tonne crane and a number of 6-tonne cranes. The heavy-lift yard in the King George's Docks is served by two 10-tonne Clyde cranes, one 10-tonne steam Scotch crane and a 15-tonne crane. In addition to these facilities, fixed sheerlegs are available at No. 5/7 berths, Kidderpore Dock capable of lifting 100 tonnes, besides, one 60-tonne floating crane vessel 'Atlas', a 30-tonne floating crane vessel 'Samson' and a non-propelling pontoon crane capable of lifting 20 tonnes. These facilities were found inadequate in recent years owing to the appreciable increase in the number of heavy-lifts passing through this Port. The following additional facilities have been provided by the Commissioners at a cost of Rs. 150 lakhs:

- (i) One 200-tonne Cantilever electric crane at No. 1 Berth, King George's Dock which has been developed into a Heavy-lift Berth.
- (ii) One self-propelling floating crane, 'Vir Bahu' capable of lifting upto 30 tonnes.
- (iii) One self-propelling floating crane, 'Maha Bahu' capable of lifting upto 60 tonnes.

The 200-tonne electric crane is also fitted with a 30-tonne auxiliary hook and it can, therefore, handle various types of heavy-lifts. These additional facilities have helped the Port in handling all the heavy materials imported by the project authorities in the hinterland and locomotives and rolling stock imported by the Railways. The new floating cranes added to the fleet are stated to be modern in design and capable of carrying out work more efficiently and in less time.

D. Cargo Handling Lifts

55. The transport of cargo from one floor to another in the Transit Sheds and Warehouses of the Commissioners is done with the help of lifts or elevators. In the year 1950 there were only 152 lifts of which 60 were operated by hydraulic power and 92 by electricity. To speed up the operations, 28 additional electric lifts have been provided bringing the total number of lifts to 180.

E. Mechanical Handling Appliances

56. In the war years the Port had only 8 mobile cranes and some trolleys and battery trucks for handling cargoes like heavy machinery and iron and steel. In the post-war years imports of heavy machinery and iron and steel increased. To handle this traffic, the Commissioners purchased in 1956, 12 more mobile cranes,

6 fork-lifts and certain other items at a cost of about Rs. 13 lakhs. These additions were then found to be sufficient to cope with the traffic in heavy machinery, iron and steel etc. In 1957, there was a sharp rise in imports of heavy machinery, railway materials and iron and steel consignments. Orders were, therefore, placed for the purchase of 15 mobile cranes, 8 front-loading fork-lifts, 12 side-loading fork-lifts and other appliances like trolleys tractors etc. at a cost of about Rs. 45 lakhs. In addition, two pay-loaders were also purchased for the Mechanical Ore Berth at King George's Dock.

It has been represented to the Committee by leading chamber of commerce and industry that "heavy lift cranes, mobile cranes and fork lift trucks and trailers are in short supply although we understand that more are on order. To illustrate the present shortage of mechanical equipment in Calcutta, a comparison in the scale of availability of fork lift trucks may be made with the Port of Bombay. In Bombay we understand the scale per shed is that each shed has one fork lift truck for each of its cranes, with in addition, two spare fork lifts per shed. A shed with three cranes would, therefore, have five fork lift trucks available. In Calcutta, the availability is only one fork lift truck per shed perhaps".

It has been admitted by the Chairman, Calcutta Port Trust in evidence before the Committee that the number of fork lift trucks is less in Calcutta than in Bombay. It is stated that in the Third Five Year Plan there is a provision for an estimated expenditure of Rs. 70 lakhs for fork lift trucks and other mobile equipments. It has been stated that orders have been placed for four 10-tonne mobile cranes, six diesel driven fork-lifts and a crawler crane. Some of these items have been delivered. As regards Fourth Five Year Plan, it has been stated that a provision of Rs. 97 lakhs is being made out of which the foreign exchange component would be to the tune of Rs. 25 lakhs.

F. Advances in Methods of Handling in Foreign Countries

57. The Committee note that the traditional method of handling general cargo is giving way to pallet and container systems. The traditional method of transferring miscellaneous parcels of general cargo between ship and shore has been to load them in a cargo net which can be lifted by crane or ships gear and lowered into the hold or on to the quay. The method involves delay in making up suitable loads and breaking them down again, and this limits the speed at which a ship can be loaded or discharged.

One advantage of the pallet is "that a suitable load can be made up in advance in the transit shed (or better still in the factory), conveyed by fork-lift truck to the quay, lifted by slings and lowered into the hold. Another is that a much better rhythm of working can be obtained when pallets are used. Ideally the load remains on the pallet in the hold, is stacked by fork-lift truck, and is available for equally speedy removal at the end of the voyage."

The object of the container system is "to reduce the number of handling operations required for individual packages or parcels by putting a quantity of them into a standardised container which lends itself equally readily to carriage by land or sea and which, after being locked and sealed, can be transported unopened from the point of origin to the point of destination."

The Committee would consider that there is need for organising research to devise the most suitable and forward-looking methods for handling general cargo so as to take full advantage of modern technology and practices followed in ports of advanced countries. The Committee would, in particular, suggest that modern equipment and handling practices should be adopted in new ports which are coming up at Haldia, Tuticorin, Paradeep etc.

The Committee would also suggest that an Expert Committee may be constituted to go into the problem of mechanisation of ports not only with a view to suggest improvements in technology and practices but also to standardise the equipment as much as possible and suggest measures for its indigenous manufacture.

The expert committee may specially examine the need for providing additional heavy lift facilities particularly for a port like Calcutta which has to handle large sized and heavy machinery required for the steel plants, Heavy Engineering Corporation, etc.

There should be close coordination between the Port authorities/ Ministry of Transport and the Railways concerned/Ministry of Railways in the matter of devising best means for transferring goods from ships into the wagons and vice versa.

In this context the Committee would like to draw attention to the reported delay in arranging special types of wagons required for clearing heavy machinery. The Committee feel that if there is proper coordination between the consignees of heavy machineries (which are mostly in Public Sector), the Port authorities, shippers*

*Please see, in this connection, paras 42 and 45 of the Fifty-First Report of the Estimates Committee on Heavy Engineering Corporation Limited, Ranchi.

and the railway concerned, it should be possible to arrange for wagons of the special type to effect prompt clearance. This would not only save the consignees payment of heavy demurrage charges but also will keep the Ports free from unnecessary congestion.

G. Break-down of Cranes

58. It has been represented to the Committee by a leading chamber of commerce that the time lost and the extra expenditure incurred by stoppages of work due to crane break-downs is unusually high in Calcutta. During the course of evidence the Committee have been informed that the percentage of loss of man-hours on account of crane break-downs worked out to 0.52 per cent. It has also been stated that there is continuous round-the-clock maintenance of the cranes and minor repairs are attended to immediately.

As the efficient working of cranes is of crucial importance in ensuring quick handling of goods, the Committee cannot too strongly stress the need for maintaining them in excellent working condition. The Port Trust may also consider the advisability of having suitable stand by equipment and sufficient spare parts so that the handling of goods is not impeded by machine break-downs.

H. Shipment of Coal

59. For shipment of coal, six berths have been set apart in the Kidderpore Docks. One or two additional berths are, sometimes allotted to cope with the traffic in peak periods. Only one of the berths (No. 18) is fully mechanised. It is provided with a mechanical plant for tippling wagons and a belt conveyor system to load the coal direct into ships at 500 tonnes per hour. The plant was installed in July, 1957 at a cost of Rs. 50 lakhs.

The Committee have been informed during evidence by the Chairman, Calcutta Port Trust that "the coal mechanical handling plant at No. 18 coal berth is used to about 50 per cent of its capacity. The main reason is that it can operate only 22 ton four wheeler open wagons. Closed wagons* cannot be handled there. The Railways, consistent with their other traffic, are not able to supply more than two trains a day. We can handle roughly about four trains and we are getting only two."

The Committee have been given to understand by a leading non-official organisation that "the tipplers are so placed at present, that

*The Plant cannot also handle box wagons of 55 tons in which increasing quantities of coal are being moved on Indian Railways.

there is insufficient packing space for the wagons. The fact that only 10 wagons can be placed at one time means that the plant has to shut down very often to allow for removal of empty wagons, shunting and bringing up of a fresh set of loaded wagons."

The Committee are constrained to observe that the coal mechanical plant has not been made fully operational even after several years of its erection. They suggest that urgent steps should be taken by the Port authorities in conjunction with the Railways to utilise the plant to its full capacity.

The Committee would also stress that the coal handling facilities to be provided at Haldia should be designed in full consultation with the Railways so that operational difficulties, of the nature which are being experienced at present at Kidderpore do not occur. In particular the mechanical plant should be so designed that it can handle Box Wagons which are being increasingly used for movement of coal.

I. Shipment of Ores

60. In the past, exports of ores from Calcutta Port were negligible, but in recent years this traffic has gone up. To speed up loading of ores No. 5 Berth, King George's Dock has been set apart exclusively for ore traffic with semi-mechanical loading arrangements and pay loaders for stacking and re-stacking. This berth is in a position to handle 6 to 7 lakh tonnes of ores per year. Additional traffic, if any, is handled at No. 1 Garden Reach Jetty and general cargo berth where loading is done manually. It has been stated that there is a proposal to divert iron-ore traffic to Haldia where there would be a fully mechanised high rated berth with a belt conveyor system for handling the entire traffic.

The Committee would stress that the mechanical ore handling plant to be installed at Haldia should be of the latest design so as to make for economic and competitive handling of ore.

J Discharge of Oil and Salt

61. As regards the other two items handled in bulk viz. oil and salt, the position is as follows:

Oil is discharged direct from the tankers by pipe lines and no further mechanisation is necessary. There will be an oil jetty with pipe lines for discharge of crude oil from tankers for the oil refinery at Haldia.

As regards salt, no mechanisation is possible as salt is discharged overside into boats from ships moored in the river and boats are taken to various discharging points including salt golas upstream.

K. Grain Silo at Kidderpore Docks

62. One of the berths in the port viz. 23 Berths Kidderpore Dock has been set apart for discharging foodgrains. There is a grain silo at Kidderpore Docks which takes the grain into the silo, stores it and then turns it over when either any heating of the grain is discovered in the silo or fumigation of the foodgrains is necessary.

The silo was obtained from the United States Government under the T.C.M. Aid programme in March, 1956 but its installation was completed in September, 1961. The cost of the machinery and equipment of the silo is Rs. 19.04.810/- and the expenditure incurred on its installation is Rs. 14.77.544 -. The installed capacity of the silo is 20,000 tones but it is not being utilised fully in the absence of the marine leg. It is stated that the decision for the installation of the marine leg was taken in November, 1957, request for allocation of funds of T.C.M. Aid was made in January 1960 and the equipment was received in May, 1961.

The work of installation of Marine Leg was entrusted to the Calcutta Port Commissioners who in turn, after calling tenders, entrusted it to a private firm in September, 1962. The Committee are informed that the installation of the marine leg is expected to be completed in early, 1965.

The Committee are constrained to observe that the scheme for installation of the silo was not properly planned from the very beginning. About six years were allowed to elapse from the time of the receipt of equipment in March 1956 to its installation in September 1961. It is going to take another four years to instal the Marine Leg. The Committee suggest that a detailed analytical study may be made of the reasons which have impeded the installation of the silo and marine leg so that in the light thereof adequate steps may be taken to ensure that silos and other foodgrains handling equipments to be installed at other ports, notably Haldia, do not suffer from such delays.

63. **Recommendations of American Experts on Indian Port facilities.**—The Committee would like to draw the attention of Government to the following recommendations contained in the Report of

the Indian Port Facilities and Cargo Handling Improvement Team 1964 (U.S. AID).

"Present silos and associated ship discharge equipment should be placed in operation as soon as possible. Because of limited vertical elevating capacity and limited automatic bagging capacity the average tonnage handled through this system can only amount to about 2,000 tons per 24 hours day. Hatches of a ship not being discharged mechanically can be discharged simultaneously in the conventional fashion so that overall performance at the silo berth should be about 3,500 tons per day.

Consideration should be given to providing the silo system with additional vertical elevating capacity so that silo clearance can proceed without impeding ship discharge clearance of 4,000 tons per day, if bagging and stitching at the silos can also be stepped up or can be aided by some bulk handling into lorries or rail wagons."

The Committee would suggest that early action should be taken on the above recommendations so that the capacity of the Grain Silo, Kidderpore for handling foodgrains is further stepped up.

The Committee would also like to draw attention of Government to the following recommendations of the American Team which are of general nature:—

"In all ports management should be coordinated toward the objective of getting grain into the supply system as rapidly as possible. Numerous incidence were observed where unnecessary and time-consuming double handling was involved in the dock shed itself or in the movement from dock shed to lorry or rail wagon.

Steps should be taken to ensure that work is carried on continuously on a round-the-clock shift system to the maximum extent permitted by weather. Consideration should be given to quickly-erectable rain shelters for cargo operations at designated grain berths, where feasible.

Bags provided for food grains should be subjected to more rigid quality control in connection with the sewing of side seams. Numerous cases were observed where side seams

were inadequately sewed, resulting in considerable loss of foodgrain by leakage."

The Committee hope that early action would be taken by Government on the above recommendations of the expert team so as to improve the efficiency of handling operations of foodgrains at Indian ports.

The Committee should, however, like to add that apart from taking action on the above recommendations of the Expert Team a comprehensive review of the capacity of the ports to unload and move imports of foodgrains with reasonable expedition is called for. The latest performance in this respect at a time when the country was faced with a severe food crisis, was not a happy one. Apart from technological or procedural handicaps, the human factor involving lack of cooperation on the part of labour proved to be a major bottleneck on that occasion. The country cannot afford to have a repetition of this experience. The Committee urge that concerted action may be taken to forestall and provide against all such handicaps or bottlenecks in future.*

CHAPTER XIII. SHIP-REPAIR AND DRY-DOCK FACILITIES

64. In the context of the growth of Indian Shipping during the recent years the need for the expansion of ship repair and dry dock facilities in the country cannot be over-emphasised. Just as the ship building industry is necessary for providing additions and replacements to the fleet, the ship repair industry is necessary for the efficient maintenance of the units of the fleet. The ship repair industry is capable of making a significant contribution to the 'invisible exports' of the country by way of repairs to foreign ships. It has potential capacity to earn and save foreign exchange by carrying out repairs to Indian and foreign ships.

A. Dry Docks

65. There are five dry docks in Calcutta controlled by the Calcutta Port Commissioners. Two of these are King George's Dock and take ships of upto 550' length. The other three are in Kidderpore Dock and can take ships of upto 520', 470' and 335' length respectively.

King George's dry docks can accommodate two ships in tandem with a caisson in between but as there is an entrance only at one end the vessel in the inner dry dock cannot move out, even if work is complete, until the vessel in the outer dry dock is undocked.

It has been represented to the Committee by a leading Chamber of Commerce and Industry that the dry dock facilities in Calcutta are quite inadequate. The Chamber's memorandum states *inter alia* that "There is in fact only one dry dock in Calcutta for modern vessels and here again it is beyond question that as a result of this inadequacy, valuable foreign exchange is being lost. The basic requirement for the sitting of a dry dock is that it should be at a terminal port where the vessels become available in ballast. The urgency of the situation is such that we suggest that serious thought should be given to the construction of a graving dock in Calcutta."

The Committee find that the Planning Group on Ship Building which was constituted in 1963 under the Chairmanship of Dr. Nagendra Singh, Secretary, Ministry of Transport has worked out the requirements of dry dock facilities in Indian Ports and have recommended *inter alia* that one large and one medium sized dry docks may be provided at Haldia and that one additional medium

sized dry dock may be provided in Calcutta to meet the increasing requirements of Indian shipping during the Fourth Five Year Plan. It has been added that instead of having two dry docks at Haldia the Port authorities may consider the construction of a single large dock to cater for two medium sized ships or one large ship, at a time.

The Committee recommend that early decision may be taken on the question of providing an additional dry dock in Calcutta and one large dry dock in Haldia. The Committee would also emphasise that the new dry docks should be equipped on modern lines in consultation with ship-repairing works so that upto-date facilities are available to facilitate execution of repairs to ships. The Committee would also suggest that the question of standardising the equipment and machinery for the new dry docks and undertaking their manufacture within the country may be considered.

B. Ship Repairing Areas

66. It has been stated by the Indian Engineering Association in their Report on Ship Building and Repairing Industry of India that—

"There are no repair berths as such in Calcutta. There are two lay-up berths in Kidderpore Docks (off 28 and 29) and one in King George's Dock (G Berth), which are used by vessels undergoing repairs. They are in the nature of dead berthing space. None of the facilities required for carrying out repairs to ships alongside are available, such as water, electric power, compressed air, heavy lift cranes, etc. The repairers are required to provide portable generators, welding sets, compressors, etc. which must be transported to and from the site, resulting in delays and higher costs. For heavy lifts they have to depend on the availability of the Port floating crane. No barge for discharge of oil sludge is available. There is no approach road to these berths, nor any hard standing for lorries to come alongside the ship and there are no telephone facilities. Moreover, these berths have been silting up, with consequent limitations on the draft of the vessels using them.

In view of the position stated above, repair work is mostly carried out in vacant cargo berths if they are available, but this is uncertain as it is dependent on their not being required for cargo work. The ships are liable to be shifted at short notice to another berth, banked alongside another vessel or moved out into the stream. Con-

sequently, even when undergoing repairs, vessels cannot be immobilised and have to maintain steam to be able to move as and when ordered. Besides, as these berths are primarily equipped for cargo work, there are no special facilities for carrying out repairs."

It has been pointed out by a leading ship repairing works in their memorandum that foreign flag vessels do not have their repairs undertaken in Calcutta due to non-availability of repair berths.

The Committee find that the Ship Repairs Committee, 1959 had recommended that major port authorities of Calcutta and Bombay should earmark berths for repair of ships. The Committee note that the major ports have been unable to commit themselves to the earmarking of specified berths for repair, with the result that the difficulties experienced by ship repairing works have got accentuated.

The Chairman, Calcutta Port Trust, admitted during evidence before the Committee that serious difficulties are being experienced in the matter and that even repair work of vessels, belonging to the Port Commissioners, has been suffering on this account. Some relief is expected after about two years when the work of expansion of King George Dock is completed. When the new docks are ready at Haldia, eight or nine berths may get released in Calcutta, out of which some may be earmarked as repair berths.

The Committee would suggest that the work on the expansion of King George's Dock may be expedited and that a suitable number of berths to be released at Calcutta on the completion of Haldia Port, may be earmarked for repairs. In the meantime, the Port authorities may consider the question of providing adequate craneage facilities and improving the approach road to the dead berth area where repairs are being carried out presently.

C. Ship Repairing Industry

67. It has been represented to the Committee by the Indian Engineering Association that since 1958 the fortunes of ship repairing industry have been generally on the decline, despite the constant increase in the size of the Indian merchant fleet and all other merchant fleets. The Report prepared by the Indian Engineering Association states *inter alia*:

"To assess the exact position, the Indian Engineering Association has recently carried out a survey among its member firms engaged in ship building and repairing in Bombay, Calcutta and Madras. This survey reveals a general pat-

tern of decline or stagnation over the past five years. The downward trend is particularly marked in the case of the 'invisible exports' by the three main ship repairing firms of Calcutta:

	1958	1959	1960	1961	1962	1963 (1st half)
(Figures in lakhs of Rupees)						
G. R. Workshops .	71.01	64.98	49.76	36.01	25.50	15.12
Shalimar Works] .	44.89	35.99	36.47	24.10	20.12	6.00
Hooghly Docking	17.00	22.00	18.00	12.00	8.00	3.00
TOTAL	132.90	122.97	104.23	72.11	53.62	24.12

It is significant that these firms, in order to utilise their surplus capacity, have been turning more and more to general engineering work and are becoming jobbing engineers and manufacturers of a variety of items such as telegraph poles, cable pylons, bridge girders, mining machinery, and so on. This is a disturbing trend in a century-old industry, as the emphasis should rather be on the expansion and modernisation of Indian yards for the repair of both Indian and foreign ships."

It has also been represented to the Committee by a leading ship repairing works that Indian Shipping Companies often take their vessels to foreign ports for carrying out repairs which not only results in increase of expenditure payable in foreign exchange but also deprives the country's own ship repairing works of opportunities of work.

The Committee are informed that the following expenditure has been incurred by Indian shipping companies on repairs of their ships abroad:

	Rs.
1960-61	104,61,391
1961-62	112,98,300
1962-63	156,05,307

The Committee are informed that the Indian shipping companies have to take the prior approval of the Director-General of Shipping before they are permitted to have surveys and repairs etc. carried out abroad. It is stated that such permission is usually granted only if the surveys, repairs etc. cannot be carried out in India and the estimated cost of the repairs is considered to be reasonable.

The Committee are constrained to observe that the underlying objects, of imposing the restrictions, viz. conserving foreign exchange and securing the maximum utilisation of indigenous ship repair yards do not appear to have been fulfilled, as would be seen from the above tables showing increasing amounts spent on Indian ships abroad and the declining trend in the earnings of indigenous ship repairing works.

The Committee would emphasise that stringent action should be taken to ensure that the existing capacity of indigenous ship repairing yards is put to the maximum use and that foreign exchange is conserved to the extent possible.

D. Shortage of Repair Materials

68. The Report of the Indian Engineering Association on the Ship Building and Repairing Industry of India points out the difficulties which are being experienced by the shipping works in obtaining supplies of the requisite raw materials, stores, components etc. Many of these items are stated to be not available in sufficient quantities and considerable delays are alleged in obtaining import licences.

The Report gives the following list of items which are reported to be generally in short supply:

Item	Availability as % of requirements
Llyods' tested steel plates	25%
Welding Electrodes	20%
Pig Iron (foundry quality)	25%
Hard Coke (foundry quality)	25%
Stainless steel rounds	15%
White Metal	50%
Gun Metal	50%
Corrugated Sheets	nil
Cement	nil
Copper & Brass pipes	25%
Boiler Tubes solid drawn	15%
Tube Expanders	10%
Phosphor Bronze Shafts	10%
Monel Metal Shafts	nil
Fibreglass Cloth	20%
Glue and Hardener	20%
Oregon Pine	nil
Lignum Vitae	25%

The Committee would recommend that necessary assistance should be extended to the ship repairing works in obtaining the

requisite items from indigenous sources and where these are not available due assistance should be extended by permitting their import from abroad to the extent necessary. Refusal to permit their import on the ground of conserving foreign exchange obviously defeats its own purpose.

E. High Cost of Repair Materials

69. The Report of the Indian Engineering Association on "The ship Building and Repairing Industry of India" also contains a statement showing the local and imported prices of certain key materials used in the ship repairing industry (see Appendix III). The Report claims that the "items obtained from local suppliers may be two or three times as expensive as the same items obtained by direct imports". The Indian Engineering Association have urged drawback of indirect taxes, tax relief and grant of other incentives to effect the high cost of raw materials.

The Committee would suggest that Government may look into the high prices for materials required by ship repairing industry and take suitable action to make the materials available to the ship repairing yards at competitive rates.

The Committee cannot over-emphasise the need for ship repairing works to increase their productivity and bring down the cost of repairs so as to make their services fully competitive in the international market.

F. Central Advisory Council

70. *The Committee are distressed to find that the difficulties of ship repairing industry have not received adequate attention of the Government during the last few years. The Committee hope that now that a *Central Advisory Council on Ship Building and Ship Repairs has been formed it would tackle the problem on an urgent basis having due regard to the fact that it is a long established industry which can save and earn valuable foreign exchange by executing repairs to Indian ships.*

Government may also consider the question of extending proper incentives to the ship repairing industry to make its rates competitive for undertaking repairs to foreign ships and earn the much needed foreign exchange.

*The Central Advisory Council on ship building and ship repairs has been constituted in 1964.

CHAPTER XIV. SECURITY ARRANGEMENTS

A. Port Police

71. The security arrangements in the Port area are primarily looked after by the Port Police. The strength of the Port police is 1827. In addition, there is an Armed Police Force with a strength of 239. The Port Police are drawn from the State police and are under the charge of a Deputy Commissioner. The Commissioner of Police, Calcutta, exercises general control over Port police also. The Port authorities bear 7/10th of the establishment expenses of the Port Police. The total expenditure borne by the Port Commissioners on the Port police during the last three years, as their share, is indicated below:

1961-62	..	Rs. 22,33,195
1962-63	..	Rs. 22,13,803
1963-64	..	Rs. 23,33,025

B. Watch & Ward Staff

72. In addition, the Port authorities are at present maintaining a small Watch & Ward Section composed of about 700 personnel for guarding godowns, landed properties, offices etc. The annual expenditure on this Establishment is about Rs. 9 lakhs.

C. Withdrawal of Port Police

73. The Committee have been informed in evidence that the Port Police is occasionally withdrawn by the Government not only to meet law and order situation in the city but also for guarding play-grounds when football matches are held. It has been stated that prior concurrence of the Port Commissioners is not taken whenever a part of the Port Police is withdrawn. The statement below gives the number of occasions during 1964 (from January to July) when the Port Police was withdrawn from the Port area and the

number of Watch and Ward Staff deputed to replace the Policemen on each occasion:

S. No.	Period	Number of Watch & Ward staff deputed to replace police-men.		
		Sub.	Jem.	W/Man
1. 10-1-64 to 31-1-64	.	87	234	5711
2. 1-2-64 to 20-2-64	.	72	208	4556
3. 21-2-64 to 29-2-64	.	35	99	2243
4. 17-3-64 to 18-3-64	.	4	8	143
5. 3-3-64 to 31-3-64	}	27	9	1474
6. 28-3-64 to 31-3-64		14	0	743
7. 1-4-64 to 14-4-64	.	6	10	248
8. 22-4-64 to 24-4-64	.	26	19	1392
9. 25-4-64 to 30-4-64	.	6	8	274
10. 19-5-64 to 21-5-64	.	10	18	495
11. 8-6-64 to 11-7-64	.	86	244	4469
12. 21-6-64 to 13-7-64	.			

The Committee have been given to understand that there is a general impression that an increase in the incidence of pilferage takes place whenever the port police is withdrawn.

The Committee are informed that the question of having a Port Protection Force on the lines of the Railway Protection Force is under consideration. It is estimated that if a large watch and ward force is kept exclusively for the Port area the cost will be in the region of Rs. 30 lakhs per annum.

The Committee would suggest that the question of having a separate Port Protection Force, on the lines of the Railway Protection Force, may be considered by the Union Government in consultation with the Port authorities and the State Government, at an early date. In any case, the withdrawal of the Port Police for maintaining law and order in the city should be reduced to the minimum and that as far as possible prior approval of the Chairman, Calcutta Port Trust should be taken. The charges to be borne by the Calcutta Port Trust should in equity be proportionately reduced for the days that the Port Police are withdrawn by the State Government to meet their requirements of law and order situation in the city.

D. Incidence of Pilferage

74. It has been represented to the Committee by a number of Chambers of Commerce that the incidence of pilferage in Calcutta

Port is on the high side. The Committee have been furnished the following information by the Government on the subject:—

“The number of cases of theft dealt with in 1963-64 was 131, whereas 117 cases of theft occurred in 1962-63. The figures pertaining to 1961-62 are not available as such statistics were not then maintained but 30 important cases of yard theft occurred in that year.

The value of claims, paid in the last three years and for which the Commissioners were legally liable under the various statutory provisions were as follows:—

1961-62	.. Rs. 77,332
1962-63	.. Rs. 1,03,829
1963-64	.. Rs. 87,038”

E. Collusion of Port Employees

75. It has been stated that pilferage takes place mostly in costly items which are in great demand, such as motor parts, ball bearings, bales of cotton or rubber etc. There is a general impression in shipping circles that pilferage is largely due to collusion between the pilferers and the port employees as in the absence of such “inside knowledge and contacts” pilferage would be very difficult. It has been admitted during evidence that “some port employees are equally to blame for pilferage.”

The Committee urge that the existing security arrangements in the Port should be further tightened and that the responsibility for the protection of goods in the sheds etc. should be fixed at each level. Government may consider in this context the question of having a mobile police squad for intensified patrolling inside the docks and jetties. The Committee also cannot too strongly stress the need for taking strict and prompt departmental action against employees found conniving with pilferers so that it may act as deterrent to others.

F. Anti-Pilferage Committee

76. The Committee understand that an Anti-Pilferage Committee has been constituted in Calcutta Port Trust to coordinate measures against pilferage. Besides the Traffic Manager and other officials representing the Port Commissioners it has representatives of importers, exporters, police, customs, watch and ward etc.

The Committee note from the minutes of some of the meetings of the Anti-pilferage Committee that enquiries into crime cases are not made expeditiously. For example, out of 14 cases registered in September, 1964 enquiries regarding 10 cases were still pending on the 6th November, 1964. Similarly all the 11 cases registered in October, 1964 were pending for enquiry on the 4th December, 1964.

The Committee are constrained to note that an appreciable number of cases of pilferage remain pending for enquiry. The Committee would suggest that no time should be lost in holding enquiries so that all significant clues can be pursued without loss of time and the culprits brought to book.

The Committee would suggest that the question of forming a highly qualified investigation squad to trace the pilferers and their contacts may be examined.

The Committee would also like the Port authorities to take suitable measures to improve the lighting arrangement of the yard at night, check entry of unauthorised persons in the Port area, erect boundary wall, encourage expeditious delivery of goods, improve tally etc. so as to bring down the incidence of pilferage.

G. Need for Intensifying River Patrolling

77. The Committee find from the Minutes of the meetings of the Port Coordination Committee* held during 1964 that the problem of pilferage and smuggling on the River Hooghly had been referred to repeatedly at these meetings. It is stated that Calcutta Customs have two launches, out of which one is out of commission, while the police have five launches. These launches are stated to be inadequate in number for preventing pilferage and smuggling.

The Committee are of the view that Government should examine the question of pilferage and smuggling on River Hooghly in all its aspects and take effective measures including intensification of river patrolling to check these evils.

*The Port Co-ordination Committee consists of the Chairman Calcutta Port, representatives of shippers and importers, customs and other leading users of the Port.

CHAPTER XV CALCUTTA PORT TRUST RAILWAYS AND ROADS

A. Railways

78. Calcutta Port Trust Railways serves the Port area. The first Railway line in the port area was laid in 1875 to connect Meerbohar Ghat and Bagbazaar. This line was gradually extended to the jetties and docks. The Calcutta Port Trust Railway has at present 70 locomotives and 2231 wagons. The number of locomotives and wagons in use in the Port is stated to be adequate but a large percentage of them are overaged requiring replacement. This would be clear from the following table which gives break-up of locomotives and wagons, age-wise:

Locomotives

16	40 years old
6	20 years old
12	15 years old
6	13 years old
11	10 years old
10	9 years old
9	recent purchase (diesels at a cost of Rs. 46 lakhs)
<hr/> 70	

Wagons

Number	Description	Year of purchase
495	Covered 49, EF 5 PF-29, W.T.-12 . . .	1888—1900
377	Covered-356, EF 10 PF 4, WT-6, Bogie-I . . .	1901—1915
481	Covered-300, High sides-99, EF-82 . . .	1915—1924
182	High sided-165, PF 17 . . .	1925—1950
796	Covered-500, High sided 126, OM-70 also covered-100 (2nd hand) . . .	1951—1965
<hr/> 2331		

The Committee are informed that it is proposed to replace 16 steam locomotives which are over 40 years old by 13 diesel locomotives. Similarly, it is proposed to replace 500 over-aged wagons. Necessary provision is proposed to be made in this behalf in the Fourth Five Year Plan. Advance action is proposed to be taken in the Third Plan itself particularly for getting release of foreign exchange.

It has been stated that the oldest railway track in Port in use is 30 years old. The track in those sections where box wagons are

handled, has been suitably strengthened. Marshalling yard at the East Dock Junction has also been remodelled at a cost of Rs. 100 lakhs to enable it to handle train loads of 70 wagons each at a time and to facilitate sorting and marshalling operations.

It has been represented to the Committee by a leading chamber of commerce and industry that—

“Few shippers utilise the services of the Port Trust Railway if they can avoid it.

A large number of wagons are in a bad state of repair. As an example, Tea Interests will not risk moving consignments by the Port Railway as many wagons are not waterproof. Export goods consigned by the Port Trust Railway often arrive at the shipping berth after a vessel has sailed. The incidence of pilferage is high.”

The Committee would suggest that the working of the Calcutta Port Railways may be examined thoroughly by an expert team drawn from the Indian Railways and a comprehensive plan drawn up for modernising the rail facilities in the port area to keep pace with modern requirements. The expert team should in particular suggest measures to improve efficiency and effect economy.

B. Operating Ratio of Port Trust Railway

79. The Committee desired to know the operating ratio of Calcutta Port Railway and have been furnished the following information by Government:

“The operating ratio of the Calcutta Port Commissioners’ Railway (percentage of total expenditure minus interest and sinking fund charges to total expenditure) for the year 1960-61 was 78.8 per cent. The ratio for the succeeding years has not been worked out as it involves a lot of calculations since railway operations are ancillary to Port operations and separate accounts are not kept of all aspects of the railway working.”

The Committee would suggest that the accounts of the Port Railway may be maintained separately so that watch can be exercised on the efficiency of its operations and necessary remedial measures taken.

C. Port Roads

80. It has been represented to the Committee by a leading chamber of commerce that roads on the periphery of the Port area are in a state of disrepair.

The Committee have been informed that a number of roads have been constructed by the Commissioners within their property in the Dock area, for movement of vehicles carrying import and export cargo. Two of the roads namely (1) Nimak Mahal Road (2) Duma-ayne Avenue have been handed over to the Calcutta Corporation for maintenance and repairs.

Two main arterial roads constructed and maintained by the Calcutta Corporation pass through the Dock area and these provide connections to several roads which run in the area surrounding the Docks. In the former category fall the Garden Reach Road and the Circular Garden Reach Road and in the latter Bhukailash Road and Sasvitolla Road.

It has been stated that the roads in the Dock area maintained by the Commissioners are in good condition. The roads under the Calcutta Corporation, including the two handed over by the Commissioners are not in a satisfactory state. Before the closure of No. 2 Swing Bridge to traffic the question of repairs to these roads was taken up with the Calcutta Corporation and they have carried out patch repairs to make them usable.

It has been stated further that the roads under the control of the Corporation suffer damage particularly during the rains when there is severe flooding in some areas. If permanent improvement is to be affected, then the drainage of these areas will have to be improved to prevent water logging. Some of the roads will have to be resurfaced. In some cases it may be desirable to raise the levels of the roads to facilitate drainage in monsoon. The question of reconstructing the roads to heavier specifications to withstand the volume and weight of traffic now passing over them may have to be considered as a long term solution to the problem of transport to and from the Port area.

The Committee have been informed during evidence that the present arrangement under which the Calcutta Corporation maintains the roads in the Port area is not working satisfactorily. The Committee have been further informed that the Commissioners' engineers have been asked to prepare a technical report with suggestions as to what should be done by the Corporation to improve the condition of roads.

The Committee would urge that the question of demarcating the responsibilities of the Calcutta Corporation as also the Port authorities in regard to the maintenance of roads should be taken up expeditiously so that the roads may not remain in a state of disrepair due to conflicting jurisdictions.

CHAPTER XVI.—IMPORTANCE OF CALCUTTA PORT

81. Calcutta is a premier Port of India and has been recognised as such all over the world. It is the main Port and outlet for north and north-eastern regions of India having for its hinterland, the Eastern Zone, portions of the Northern and Central Zones as also for Nepal, Bhutan and Sikkim. It is a river Port and situated on a very difficult river. As such it is perhaps the most difficult Port in the world. But as it has developed and has also helped the development of a number of industries around it, its importance has to be maintained and it is for this that on the one hand Farakka barrage is being constructed to supply flow of fresh water from the head-stream, and on the other hand, Haldia Port is being developed as an associate Port for Calcutta. The development of Haldia is a necessary concomitant of the importance and development of Calcutta as a Port.

Apart from the natural and physical difficulties of the Port, there are some historical things which have added to its difficulties, particularly in administration. The marine services as also the dock labour are more difficult in Calcutta than in the two other major ports of India. Yet, considering all these things, the Committee feel that the Port Trust has more or less been able to maintain the importance and utility of the Calcutta Port. At one stage perhaps dredging was somewhat neglected and the draft declined. But during the last few years, here has been considerable improvement in the draft position of the Calcutta Port. The Committee hope that the Port Trust authorities will be in a position to maintain the importance of Calcutta Port and also to improve its draft, particularly after the completion of the Farakka barage, and to utilise Haldia as an associate Port for Calcutta.

HALDIA PORT

CHAPTER XVII INTRODUCTORY

A. Introduction

82. The establishment of a subsidiary port nearer the sea than the present port of Calcutta had been considered from time to time during the last 80 to 90 years and the suitability of different locations had been exhaustively examined. The records show that a scheme for setting up a subsidiary port at Diamond Harbour was considered in 1875 when an enquiry was held to determine whether the new wet Dock should be constructed at Kidderpore in Calcutta or at Diamond Harbour. In 1903 a Commission was appointed to report on the possibility of establishing a subsidiary port at Luff Point. The matter was again considered in 1954 when Government appointed a Committee to suggest measures for stepping up exports of coal.

Because of sharp bends and shallow depths in the river Hooghly and particularly above Diamond Harbour and the limitations of the two Docks at Calcutta, ship beyond a certain length and draft cannot use the Calcutta Port. The deterioration of the river in recent years, due to silting, has necessitated considerable reduction of the permissible draft. The modern tendency in ship construction is to build larger and deeper draft ships, particularly for bulk cargo.

The Committee are informed that the situation cannot be met by any scheme of modernisation or extension of the existing port facilities at Calcutta. It has, therefore, become imperative to have another dock nearer the sea where there would be no limitation to length or beam of the ship and where much deeper draft would be available throughout the year. It is obvious that a Port serving a vast and very important hinterland and handling a very large portion of the country's total trade (45 per cent of the total exports and 40 per cent of the imports) should provide an easy access to modern ships which are now being made deeper and longer, eliminate delay in their voyages up and down the river and enable them to load to their required drafts and sail immediately after loading. It has further been stated that if Calcutta is to serve the growing needs of trade and commerce of this important industrial region of India the establishment of an auxiliary port nearer the sea is the only answer and it should no longer be delayed.

B. Benefits expected from the Subsidiary Port at Haldia

83. The Committee are informed that the Port Haldia, when fully developed will have the following advantages:

- (a) There will be only two or three bars downstream of Haldia depending on whether the Eastern Channel or the Western Channel over the Beaumont's Gut is used by ships for navigation.
- (b) The approaches to this Port will be free from sharp bends and, therefore, there will be no restriction on the length of the ships using this Port.
- (c) Deeper draft ships will be able to use the Port.
- (d) There will be no bore tides to contend with.
- (e) There will be no restriction on the number of deep draft ships entering or leaving the Port.
- (f) There will be considerable saving in the time taken by a ship to come up or go down the river.
- (g) Unlike the Calcutta Port, the subsidiary Port at Haldia will be safe from any blockage by sinking of a ship, accidental or otherwise.
- (h) It would be possible to lighten deep laden ships, with bulk of the cargo meant for Calcutta, at Haldia before proceeding to Calcutta and this would avoid the need for them to go to Vizagapatnam or to Madras for lightening. Similarly, it would be possible to top up and load to the maximum capacity outgoing ships from Calcutta.
- (i) Shifting of the coal, iron ore and foodgrains traffic to Haldia will reduce strain on the capacity of the two existing docks and on other services in Calcutta and thus permit growth of other traffic in the present Port.
- (j) The use of larger ships, the full or much larger utilization of their capacity and the saving in time will result in lower freight. This will be a great relief to the trade and commerce. It will encourage growth of traffic at a much faster rate than in the past, it will facilitate further economic development of the vast hinterland served by the Calcutta-Haldia combine. The setting up of a dock system at Haldia should, therefore, be considered an essential need for and

an integral part of the development of eastern India. Without Haldia dock, the international and coastal trade of India and thus the development of Indian economy will be seriously affected.

(k) Haldia dock with its communication system will open up a new area in an over-congested part of the country. It will be a 'Counter-magnet' town easing to some extent the pressure of population in Calcutta.

CHAPTER XVIII MASTER PLAN

84. A Master Plan for the Project was prepared by the Calcutta Port Commissioners in consultation with experts from the Port of London Authority and their own Consulting Engineers, Messrs. Rendel, Palmer and Tritton. The Master Plan includes the immediate and long term development of the whole Port. The Plan provides for the first phase development of a Dock System at Haldia and its further development in future, the development of the Port Township and also of the areas that will be required by industries including the Refinery, Fertilizer Plant etc. It is stated that on the basis of the Master Plan a Project Report was prepared in November, 1963. The Project Report was supported by the Government in applying for a loan in December, 1963 from the International Bank for Reconstruction and Development.

A. First Phase

85. The cost of the first phase of development according to the Project Report is estimated at Rs. 30 crores including the foreign exchange component to the extent of Rs. 14 crores. A part of the outlay amounting to Rs. 7 crores has already been provided in the Third Five Year Plan. The Dock System envisaged under the first phase of development provides for two mechanised coal berths, one mechanised ore berth, one berth to cope with rock phosphate traffic, one berth for general cargo, one river side berth for oil and one large dry dock. The detailed break-up of the expenditure of Rs. 30 crores is given in Appendix IV.

B. Traffic Estimates

86. The traffic estimates for which it is proposed to provide facilities in the first phase are as follows:

1. Coal—About 4 million tons.
2. Iron Ore—2 to 3 million tons.
3. Crude Oil—Minimum of 3 million tons.
4. Rock-phosphate—over 1 million tons.
5. Other cargo—About a million tons to start with.

The Committee are informed that since the submission of the Project Report in November, 1963 it has become clear that import of foodgrains will have to continue for many years and it is, therefore, proposed to provide a berth for handling about 1.5 to 2 million tonnes

of foodgrains. The volume of general cargo is also likely to be higher necessitating one or two additional berths. On the other hand, there is a possibility that the coal traffic may be somewhat less in which case one coal berth instead of two may suffice unless there is some energetic drive for increasing the export of coal to foreign countries. It is stated that the traffic estimates are at present being re-examined by a Study Group set up by the Government.

C. Division of traffic from Calcutta Port

87. It is estimated that traffic in coal (1.5 to 2 million tonnes at present), iron ore (0.5 to 1 million tonnes at present) and foodgrains (1 to 1.8 million tonnes at present) might be diverted from Calcutta on the completion of Haldia Port. It has been stated that as a result of this diversion, the traffic at Calcutta which may be 12 to 13 million tonnes by the time Haldia Port is ready for operation may go down to about 10 million tonnes.

D. Loan from International Bank

88. An application or a loan of Rs. 14 crores was made to the International Bank for Reconstruction and Development in December, 1963 to cover the foreign exchange requirements of the project. The Committee are informed that in July, 1964 the Bank asked for detailed economic data regarding the project including a commodity by commodity projection of the traffic that might be handled at each of the Indian ports including Calcutta and Haldia in 1970-71, an analysis of the coal traffic with detailed study of individual markets, points of final consumption, quantities and types of coal involved, uses for which coal is required, reasons for not obtaining coal from nearer coal fields, type of ships to be used in coal trade, an evaluation of alternative methods of shipping wheat to Calcutta, an analysis of the likely requirements for imports of rock phosphate and sulphur in Calcutta area, etc. and the quantities of general cargo traffic that might be economically diverted from Calcutta to Haldia. It is stated that a Study Group was constituted in September, 1964 to collect the data and it is still engaged in these studies.

The Committee consider that information required by the International Bank for Reconstruction and Development regarding commodity-wise projection of traffic to be handled by the Indian Ports in 1970-71 should have been available with the Ministry of Transport as it constitutes the basic frame-work for drawing up the outlines for the next Plan. The Committee hope that the Study Group constituted by the Government in September, 1964 to collect the information would complete the work without further delay so that the application pending with the International Bank for Reconstruction and Development for loan is finalised early.

CHAPTER XIX DEVELOPMENT OF HALDIA

A. Effect of Haldia on Calcutta Port

89. In response to a question regarding the extent to which the development of Haldia would affect the utilization of facilities provided and expected to be provided at Calcutta Port (after implementation of Farakka Barrage), the Committee have been informed by the Ministry of Transport that "The development of Haldia will not affect the utilisation of the facilities at Calcutta. The traffic at Calcutta is increasing and facilities available at Calcutta Port are already proving inadequate. There are frequent spells of congestion. The berths released by the diversion of coal, iron ore and foodgrains traffic will be made use of for handling increased traffic in other commodities and for meeting the urgent need of ship repairing facilities."

The Secretary in the Ministry of Transport stated in evidence before the Committee that "The Ministry of Transport is firmly of the view that Haldia is independent of the Paradeep Port. It has several points to justify its existence. As an adjunct of the Calcutta Port, this is a necessity and we have also answered the World Bank in that manner."

As the Committee are aware that Haldia is being developed as an ancillary Port to the Calcutta Port system, its development programme should be in line and consistent with the needs of Calcutta Port.

The Committee like to stress the necessity of having an integrated development programme for the Ports on the eastern coast taking in view the traffic potentiality of the next two Plan period.

B. Progress made in Studies & Works for Haldia

90. The Committee note from the statement at Appendix IV that the following amounts have been provided in the Third Five Year Plan for undertaking studies in connection with Haldia Port:

	III Plan provision	Expenditure upto 30-11-64	Physical Progress
1. Additional Hydraulic studies of River Hooghly and Estuary and Satellite Port Site.	135.30	103.41	Work in progress, Research Launch delivered in July 1962 and Research Vessel in October, 1963. Equipment received with the exception of some ancillary items. Progress made 95. %
2. Engineering studies in connection with Haldia Port Projects.	40.00	13.49	Work in progress.
TOTAL	175.30	116.90	

The Committee find that out of the total provision of Rs. 175.30 lakhs under these heads only Rs. 116.90 lakhs have been utilized till 30th November, 1964.

The Committee would stress that now that research vessels have been acquired and necessary equipment received, studies should be intensified so that engineering works for Haldia Port are suitably sited.

91. The Committee also note from the Statement at Appendix IV that out of total provision of Rs. 7 crores made in the Third Five Year Plan for the auxiliary port at Haldia, only Rs. 1.32 crores have been utilized till 30th November, 1964.

The Committee would suggest that details of the various engineering works required to be executed in the first phase of the Haldia Project may be prepared so that the work can be taken in hand as soon as foreign exchange component of the project is assured.

C. Land Acquisition

92. The West Bengal Government have been requested by the Commissioners to acquire on their behalf 9.373 square miles of land in Haldia as provided for in the Master Plan. This area also includes the land that will be required by the Oil Refinery and Fertilizer Plant. For the Petro-chemical and other industries, some additional land may have to be acquired later.

So far, an area of 4.4 square miles of land has been acquired. It is stated that an area is being developed for the rehabilitation of about 2,000 families who are expected to be displaced by the acquisition of land for the port. The port authorities and the State Government are equally sharing the cost.

It has been stated during evidence by the Chairman, Calcutta Port Trust that "Only 10% of the developed area has been taken up" by the displaced agriculturists. The Committee would suggest that suitable measures may be taken to ensure that developed plots are given to the displaced agriculturists at an early date. The Committee would suggest that agriculturists who have been displaced from their lands in Haldia should be given due preference in employment in the new Port and that training facilities for them, as necessary, may also be provided.

D. Rail and Road Communication

93 Railway line.—The Committee are informed that detailed estimate for the construction of 40 miles long railway line from Panchkura to Haldia Port has yet to be prepared and sanctioned. Two urgency certificates for a total value of Rs. 266 lakhs to cover the cost of land, earthwork in formation, bridges, some quarters and other miscellaneous works have been sanctioned in the meantime. the cost of land, earthwork in formation, bridges, some quarters and about 5 per cent of the earthwork in formation has been completed. It is stated that the work is being planned in such a manner as to synchronise the completion of the project with that of the main Port Project.

The Committee would stress that the rail link to Haldia should be completed by the target date. Government may also consider in due course the question of providing a shorter and alternative rail link between Haldia and Calcutta via. Kolaghat.

94. Road.—It is stated that the construction of a new road, 32 miles long, from Kolaghat to Haldia has not yet been sanctioned. The existing road between Panchkura and Haldia, which is to be used for the transport of construction materials, is being suitably strengthened and widened by the State Government.

To relieve the congestion of traffic in this area, the West Bengal Government have taken in hand the construction of the Tamluk Road. The preliminary works of the National Highway No. 6 to be connected to Haldia have also been taken in hand by the West Bengal Government.

The Committee would suggest that early decision may be taken on the question of providing a second road link between Calcutta and Haldia via Kolaghat which will be a shorter route and can be effected by extending the National Highway No. 6 from Kolaghat to Haldia.

Committee's Views

The Committee would suggest that the Port Commissioners, Calcutta should maintain close liaison with the Ministry of Railways, Ministry of Transport and the West Bengal State Government in the matter of developing rail and road link for facilitating the construction work at Haldia and for providing easy means of communications to carry exports to and imports from the new port. The Committee would suggest that more than one rail-road link may be provided between Haldia and Calcutta—the main consuming centre.

E. Oil Jetty at Haldia

95. The Committee understand that a pipeline has been laid for carrying crude oil from Haldia to the existing refinery at Barauni. *The Committee hope that necessary facilities for handling of the crude oil including construction of an oil jetty at Haldia would be provided in time.*

F. Oil Refinery

96. It has been decided that a refinery of 2.5 million tons capacity should come up in stream in the Haldia region from about July 1968.

The Committee understand that Government have invited offers by the 15th April 1965 for entering into foreign collaboration for setting up the refinery. *The Committee hope that collaboration arrangements would be finalised in time so that Haldia Refinery comes up in stream by the scheduled date.*

CHAPTER XX FREE TRADE ZONE AT HALDIA

97. The Indian Engineering Association, Calcutta, have prepared a detailed scheme for establishment of a free export trade zone at Haldia. The scheme envisages an industrial area at Haldia where manufacturers would be given import licences freely for any item of plant, machinery, components, spare parts and raw materials which they require for purposes of production. Such imports would be duty free and Haldia units would also have a measure of relief from direct taxation. The usual import barriers, however, would be erected around Haldia so that Haldia products would be subject to the same quota restrictions and import duties as are applied to goods exported to India from foreign countries. Likewise the usual export incentives/subsidies should be given for all items which are sent into the Haldia zone from the rest of India either for export or for production purposes within the zone.

In this way a special industrial area would be created which is wholly export-oriented and where the conditions would exist for cutting down production costs to the levels required for successful export. A testing ground would also be provided for Indian enterprise to function under conditions of international competition and to set standards of productivity and efficiency for the rest of the country to follow in due course. The scheme as a whole is expected to make a significant, though necessarily marginal contribution towards improving the country's balance of payments.

This scheme for Haldia has received the support of the Government of West Bengal, the Calcutta Port Commissioners and the Calcutta Metropolitan Planning Organisation, but the Government of India has indicated that consideration of the Association's scheme should be deferred until such time as the results of the experiment of a free trade zone at Kandla have been ascertained.

The Committee would suggest that as a firm decision on the development of Haldia has now been taken, the question of the establishment of free trade zone at Haldia, may be considered, without waiting for the results of the free trade zone recently established at Kandla, keeping in view the fact that unlike Kandla, Haldia has one of the most industrialised hinterland to provide skill and experience as well as raw materials for developing manufacture of engineering goods for export.

The Committee would also suggest that Government may consider the question of developing the area around Haldia as a petro-chemical complex and industrial complex to provide inter alia the much needed employment to absorb over 9 lakhs new migrants who have crossed the border from East Bengal since January, 1964.

NEW DELHI;
April 2, 1965.
Chaitra, 12, 1887 (Saka).

ARUN CHANDRA GUHA,
Chairman,
Estimates Committee.

APPENDIX I

(*Vide Para 2 of the Report*)

Internal Set up of the Commissioners for the Port of Calcutta as on 1st April, 1964.

Chairman

Deputy Chairman

Heads of Departments	
Designation	Functions
Secretary	Administrative matters, meetings.
Financial Adviser & Chief Accounts Officer	Accounts, Financial matters.
Traffic Manager	Traffic operations
Chief Manager	Civil works, maintenance as well as development.
Deputy Conservator	Navigation, dredging, river conservancy.
Chief Mechanical Engineer	Mechanical equipment Locos, Wagons, repairs to craft.
Controller of Stores	Purchase of stores, equipment, building materials.
Chief Medical Officer	Health, Hospital, Medical Examination.
Chief Hydraulic Engineer	Hydraulic problems, Training Works, Model experiments.
Land Manager	Port estate, leases, quarters.
Legal Adviser	Legal matters.
Chief Labour Officer	Labour matters, Class IV Staff quarters Welfare.

APPENDIX II

(Vide Para 8 of the Report)

Statement showing physical progress of Calcutta Port Development Projects during Third Five Year Plan period

Part 'A'—Projects within the scope of World Bank Loan Assistance

(In lakhs of rupees)

Sl. No.	Name of Project	Expenditure incurred			Total of columns 4 & 5	Notes on physical progress upto the 30th November, 1964	8
		Revised plan provision	1-4-61 to 31-3-64	1-4-64 to 30-9-64			
1					6		
2			3	4	5		7

1. Continuing Projects

Development of Berthing Capacity

- 1 Development of 'B' Berth, King George's Dock into a General Cargo Berth and conversion of 'C' Berth into an Oil Berth.
- 2 Reconditioning and strengthening of quay walls of Dock 1, Kidderpore Docks and installation of electric cranes.

211.58 206.29 2.32 208.61 All the 12 berths reconditioned, Delivery and installation of 58 cranes completed. Progress made 99%.

3	Purchase of one 30-Ton and one 60-Ton Floating cranes.	110.21	105.86	1.35	110.21	Work completed. Vessels delivered in May and June 1963.
4	Improvement of water supply to shipping, construction of two water boats.	42.42	31.71	1.95	33.66	All items of Civil Engineering work completed. The water boats have been delivered—one in May 1963 and the other in October 1963. Progress made 99%.
5	Conversion of D.C. supply into A.C. at Kidderpore Docks.	7.85	6.08	0.01	6.09	Work completed.
6	Laying moorings at Diamond Harbour/ Haldia.	5.00	..	..	..	Moorings laid at Haldia from stock held for maintenance purposes. New materials received and are being taken into maintenance stock. Progress made 60%.
7	Improvement of the facilities at Kidderpore and King George's Dock, Dry Docks, 25-Ton Crane, Air Compressor and under-water lighting arrangements.	24.35	21.49	2.94	24.43	Work at K. G. Dry Dock completed. Progress made 97%.
	Sub-TOTAL—Improvement of Berthing capacity . . .	410.93	369.87	11.51	381.38	
	<i>Improvement of River Hooghly</i>					
8	River Training Works at Fulta-Hooghly Point Reach.	123.00	120.21	0.45	120.66	Work completed.
	Sub-TOTAL—River Works . . .	123.00	120.21	0.45	120.66	

1	2	3	4	5	6	7
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Improvement of railway facilities

9	Diversion of Railway Lines (Budge Budge Section), providing a new marshalling Yard and reconstruction of Majerhat Bridge.	17.5	1.19	2.68	61.87	Temporary diversion line in commission. Permanent diversion of the Budge Budge line expected to be completed by Eastern Railway by the end of 1964. Work of remodelling the Marshalling Yard expected to be completed by March 1965.
10	Purchase of nine diesel locomotives and construction of a repair shop.	5.70	4.82	..	4.82	Work completed.
11	Modernisation of No. 8 Workshop, Wagon Repair Shop, Diesel Engine Repair Section and Loco Running Shed.	21.46	16.98	5.11	22.09	Major portion of the work of installing, plant and machinery completed.
	Sub-total—Railway facilities	115.01	80.99	7.79	88.78	

Replacement of Floating Craft

12	Salvage Tug-cum Despatch vessel "Seva".	84.25	67.99	7.96	75.95	Vessel delivered on 5-12-1963.
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13	Bucket Dredger "Ajoy" and two attendant Hopper Barges.	98.65	74.69	5.32	80.01	Bucket Dredger delivered on 18th May, 1961. Construction of two Hopper Barges in progress at the Shipyard of Hooghly Docking and Engineering Co. Ltd. Delivery of one expected by the end of December, 1964 and other in May, 1965.
14	Jet Dredger	.	.	.	11.60	12.55
15	Two Fire Floats	.	.	.	62.46	57.38
16	Two Anchor Vessels	.	.	10.97	7.65	..
17	Three launches for Dock Master	10.75	9.81	..	..	..
18	Modernisation of existing ship repair facilities.	10.87	8.81	0.62	10.48	Work completed. Launches delivered on 21-10-1963, 8-11-1963 and 6-12-1963.
19	Construction of a new suction Hopper Dredger "Churni" similar to Dredger "Bhagirathi".	82.19	82.37	..	9.43	All work completed except installation of the 5-ton Winch. Progress made 99%.
					82.37	Work completed. Vessel delivered on 30th June, 1961.

1	2	3	4	5	6	7
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20 Reconditioning of the existing Dredger "Gunga". 6.05 6.06 .. 6.06 Work completed.

21 Two Hopper Barges . . 117.82 56.33 51.01 107.34 Work completed. Vessels delivered one on 14-5-64 and the other on 6-6-64.

22 One Grab Dredger . . 79.87 71.83 2.05 73.88 Work completed. Dredger delivered on 8-2-64.

23. Three launches for three Dredgers "Bhagirathi", "Churni" and the Secondhand Dredger. 27.96 0.02 5.85 5.87 Order placed for two launches in May, 1963. Order for the third launch placed on 8-10-63. One delivered. Delivery of the second and third effected in January, 1965.

Sub-TOTAL—Floating Crafts. . . 603.44 455.49 73.68 529.17

Other Improvements.

24. Construction of a Tea Warehouse and additional transit accommodation. 99.73 59.37 0.95 60.32 Superstructure work completed & other items of work in progress. Orders for cage elevators and spiral chutes placed. Progress made 91%.

25. Fire Protection Works. 12.35 3.14 0.24 3.38 Work expected to be completed by the end of March, 1965.
Progress made 88%.

Sub-total—Other Improvements. 112.08 62.51 1.19 63.70
TOTAL of Continuing Projects. 1364.46 1089.07 94.62 1183.69

II. New Projects.

Floating Craft.

26. Estuarian Dredger to replace Dredger 'Balari'. 253.00 .77 63.26 64.03 Order placed with Messrs I.H.C. Holland in January, 1963. Delivery expected in March, 1965.
Progress made 55%.

27. Estuarian Dredger. 190.00 Order for the 2nd Estuarian Dredger will not be placed in the Third Plan period and the funds allotted will be utilised for meeting the increased cost of other vessels, etc.
Tender invited on 25th July, 1964. Closing date extended upto 8th January, 1965.
Progress made 3%.

28. Small Suction Dredger. 110.00

29. One Grab Dredger. 81.90 0.14 0.02 0.16 Order placed with Blyth Dry Docks & Shipbuilding Co. Ltd. of U.K. on 31-10-64. Delivery expected in June, 1966.
Progress made 10%.

1	2	3	4	5	6	7
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30. Two Pilot Vessels. 180.00 113.63 35.26 148.89 Work completed. Vessels delivered one on 9th June, 1964 and the other on 23rd July, 1964.

31. One light Vessel 30.00 Construction deferred.

32. Four Dock Tugs 110.00 0.16 0.01 0.17 Global tenders invited.

33. Four Hopper Barges. 250.00 0.09 0.10 0.19 Order placed for 2 Hopper Barges with Messrs. Blyth Dry Docks & Shipbuilding Co. Ltd. of U.K. and for 2 Hopper Barges with M/s. Fleming & Ferguson Co. Ltd. U. K. in December, 1964. **33**

34. One Survey Vessel 77.00 0.21 0.05 0.26 Order placed with Messrs. Henry Robb Ltd. U. K. on 30th December, 1963. Delivery expected in June 1965. Progress made 25%.

35. Three Launches. 32.00 Tenders received are under scrutiny.

Sub-Total—Floating craft. 1313.90 115.00 98.70 213.70

Roads & Bridges

36. Renewal of No. 2 Swing Bridge. 69.50 4.08 0.50 4.58 Order for fabrication and erection of the Bridge placed in April, 1964. Orders for demolition of the existing Bridge and foundation work for the new bridge also placed.

Port Equipment

37. Installation of pumping plant for recirculation of Kidderpore Dock Water. 65.00 0.23 0.04 0.27 Orders for pumping plant placed in January, 1965.

38. Plant and machinery for Workshops and Shipyard. 40.00 . . . 0.91 0.91 Some items delivered and others under procurement.

39. Purchase of mechanical cargo handling appliances 26.00 6.06 9.45 15.51 Orders placed for all items and some delivered. Progress made 46%.

Sub-Total—Port Equipment 131.00 6.29 10.40 16.69

Docks and Berths

40. Extension of one arm of King George's Dock. 100.00 4.13 1.57 5.70 Work in progress. Progress made 20%.

Sub-Total—Docks and Berths 100.00 4.13 1.57 5.70

Studies

41. Additional Hydraulic studies of River Hooghly and Estuary and Satellite Port Site. 135.30 95.39 8.02 103.41 Work in progress.

Research Launch delivered in July, 1962 and Research Vessel in October, 1963.

1	2	3	4	5	6	7
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Equipment received with the exception of some ancillary items.

Progress made 95%.

42. Engineering studies in connection with Haldia Port Projects.

Sub-Total—Studies	40.00	11.96	1.53	13.49	Work in progress.
	175.30	107.35	9.55	116.90	
Total of new Projects	1789.70	236.85	120.72	357.57	
Total of Part 'A'	3154.16	1325.92	215.34	1541.26	

Part 'B'—Projects outside the scope of World Bank Loan Assistance.

Sl. No.	Name of Project	Revised Plan Provision.	Expenditure incurred 1-4-61 to 31-3-64	Total of columns 4 and 5 1-4-64 to 30-9-64	Notes on physical progress upto the 30th November 1964	
					7	8
1	2	3	4	5	6	7
<i>I. Continuing Projects</i>						
<i>Other Improvement</i>						
1.	Construction of a new office for Traffic Manager at the Docks.	23.97	12.64	1.04	13.68	Work completed.
2.	216 Units of Class IV, 2 Units of Class III Quarters at Howrah Bridge Approach, Howrah side.	6.89	6.05 Cr. 0.03	6.02	Work completed.	
3.	64 Units of Class IV and 24 Units of Class III quarters at Brooklyn Depot, King George's Dock.	11.39	7.02	0.03	7.05	Work completed.
4.	608 Units of Class IV quarters, Taratolla Total of Continuing Projects.	13.85 56.10	11.27 36.98	0.07 1.11	11.34 38.09	Work completed.

1	2	3	4	5	6	7
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II. New Projects

Improvement of River Hooghly

5. River Training Works at Balari . .

100.00

40.05

0.07

40.12 Scheme to be finalised on completion of Model Experiments. Cutting up a new channel over the Balari Bar completed. First phase of the reclamation of Diamond Sand completed.

Progress made 50%.

8

Social Services

6. Construction of a New Hospital. .

60.00

..

0.13

Order for construction of the foundation of the Hospital building upto the ground floor level placed.

Progress made 20%.

7. Quarters for all classes of employees . .

73.22

..

..

Estimate for the construction of quarters awaiting Government sanction.

Progress made 12%.

Sub-Total—Social services . .

133.22

..

0.13

0.13

Project Expenditure

8. Auxiliary Port at Haldia (Partial cost.) 700.00 80.86 51.40 132.26 Master plan has been prepared.
Work on the acquisition of land is in progress. Preliminary work commenced.

Total of new Projects	<hr/> 933.22	<hr/> 120.91	<hr/> 51.60	<hr/> 172.51
Total of Part 'B'	<hr/> 989.32	<hr/> 157.89	<hr/> 52.71	<hr/> 210.60
Total of Part 'A'	<hr/> 3154.16	<hr/> 1325.92	<hr/> 215.34	<hr/> 1541.26
Grand Total	<hr/> 4143.48	<hr/> 1483.81	<hr/> 268.05	<hr/> 1751.86

APPENDIX III

(*Vide* Para 69 of the Report)

Statement of comparative prices for items used in ship building and repairing.

Item	Average Imported Price	Average Local Price*
Lloyds' tested steel plates	Rs. 640 per tonne	Rs. 840 per tonne
Tine block 100"	Rs. 13 per kg.	Rs. 45 per kg.
Steel wire ropes (size 1")	Rs. 0.78 per metre	Rs. 1.30 per metre
" " (size 1½")	Rs. 1.72 per metre	Rs. 3.18 per metre
" " (size 2½")	Rs. 3.67 per metre	Rs. 6.50 per metre
" " (size 3")	Rs. 4.61 per metre	Rs. 7.50 per metre
Copper pipes	Rs. 14 per kg.	Rs. 20.40 per kg.
Condenser tubes	Rs. 10 per kg.	Rs. 18 per kg.
Stainless steel rounds	Rs. 6.50 per kg.	Rs. 14.33 per kg.
Phos. bronze shafts	Rs. 11 per kg.	Rs. 30 per kg.
5% cobalt high speed steel bars from " flat to 1" square	Rs. 15 per kg.	Rs. 30 per kg.
Asbestos non-metallic cloth 1/16"	Rs. 8 per kg.	Rs. 21 per kg.
Jeffries marine glue black No. 2	Rs. 0.61 per kg.	Rs. 1.60 per kg.
Beldams packings, and joinings for steam and oil	Rs. 12 per kg.	Rs. 40 per kg.
Refrigerant 12	Rs. 6 per kg.	Rs. 25/40 per kg.

*N.B. The average local price relates to both imported and indigenous items which are available from local suppliers.

APPENDIX IV

(Vide para 84 of the Report)

Statement showing Estimate of Cost—Haldia Port (First Phase)

		Estimated amount	Foreign Exchange Expenditure.
		(in lakhs)	(in lakhs)
1. Acquisition of land	L.S.	200.00	..
2. Raising of land in township and other essential places.	L.S.	25.00	..
3. Dredging in the basin and river with departmental dredger and earth moving machinery. 15 million cu. yd.		200.00	80.00
4. Dock Construction:			
(a) Approach Jetty of open construction. 1,000 Rft. @ 6,000/- per Rft.		60.00	25.00
(b) Lock Entrance including solid approaches 1,000 Rft. @ 25,000/- per Rft.		250.00	180.00
(c) Sliding Caissons and Machinery. 3 Nos. @ 20 lakhs each		60.00	60.00
(d) Lock Pumping Machinery & Pump Houses :			
(i) Pumping Machinery including Pumps Motors, Switches, Control Gear etc. 2 sets @ 10 lakhs each		25.00	20.00
(ii) Pump Houses including foundation and necessary pipe lines. L.S. 5 lakhs			
(e) Penstock and Penstock Machinery 20 sets @ 50,000/- each		10.00	8.00
(f) (i) Quay Wall including Fenders, Bollards, Service Ducts etc. 1,400 Rft. @ 8,500/- per Rft.		119.00	40.00
(ii) Jetty Walls for Coal & Ore Berths. 1,800 Rft. @ 6,500/- per Rft.		117.00	50.00
(g) Sheet Pile Wall. 10,000 Rft. @ 3,000 - per Rft.		30.00	20.00

	Estimated Amount	Foreign Exchange Expenditure.
	(in lakhs) (in lakhs).	
(h) Sloped Revetment. 12,000 Rft. @ 150/- per Rft.	18.00	..
(i) Single storied Transit Sheds and one Warehouse. 2,90,000 Sft. @ 40/- per Sft.	116.00	20.00
(j) Dock security wall including Gates with Gate pillars, Gate-Keeper's Lodges, Goomties and Gate Offices .	5.00	..
(k) Railway lines on the Quay and at the back including concrete housing and Points & Crossings etc.	10.00	..
(l) Dry Dock Construction—One 1100' x 130' at Haldia :		
(i) Dry Dock Walls including floors say 2,500 @ Rft. 6,500 - per Rft.	162.50	50.00
(ii) Caissons and Machinery 2 sets @ 25 lakhs each	50.00	45.00
(iii) Pumping Machinery etc. including Pump House	30.00	20.00
5. Riverside Construction :		
(a) Oil Jetty including Dolphins, pipe, gangway etc.	60.00	40.00
(b) Equipment for the above	10.00	8.00
(c) Protective Bund	20.00	..
(d) Construction of Riverside Jetties at Diamond Harbour and Haldia or alternatively at Fulta Point Hooghly point and Kukrahati for transport of materials.	10.00	..
6. Mechanical Equipment for Berths :		
(a) Coal & Ore Loading Plants—		
(i) Wagon Tipplers	L.S.	
(ii) Conveyors, Travelling Loaders, Reclaimer, Mechanical Shovel etc.	L.S.	330.00
(iii) Coal Trimmers	L.S.	20.00
(iv) Lump Breakers	L.S.	15.00
(v) Erection of the above Plant	L.S.	35.00
(vi) Foundation including ancillary works	L.S.	35.00

		Estimated Amount	Foreign Exchange Expendi- ture.
		(in lakhs)	(in lakhs)
(b) Quay Cranes for two berths	14 Nos.		
(c) Mobile Cargo Handling Equipment, such as, Fork Lifts, Trolleys, Pallets etc.	L.S.	150.00	130.00
(d) Break-down Crane	1 No.		
(e) Locos	12 Nos.		
7. Permanent Way Work in Railway lines etc. for the Marshalling Yard	L.S.	60.00	..
8. Floating Craft :			
Dock-cum-River Tugs fitted with fire fighting equipment	4 Nos. L.S.	158.00	
Dock Master's Launches	3 Nos. L.S.	15.00	
Harbour Master's Launches	3 Nos. L.S.	25.00	180.00
Motor Jolly Boats	3 Nos. L.S.	2.00	
Moorings in the Dock	L.S.	10.00	
9. Construction equipment and plant <i>viz.</i> , Electric Generators, Wireless Equipment, Walking Drag-lines, Excavators, Dumpers, Bull Dozers, Cranes, Lorries, Cars, Jeeps, Station Wagons, Launches, Silt Pumping Plant, Barges etc	L.S.	60.00	40.00
10. Roads, drains, sewage disposal and water supply etc. :			
(a) Main feeder road from Durgachak and other secondary roads to township and main worksites	L.S.	30.00	..
(b) Stormwater drains, culverts, sluice gates, pumping arrangements, secondary feeder drains, culverts etc.	L.S.	8.00	..
(c) Sewage disposal plant, trunk sewers, feeder sewers, pumping arrangement etc.	L.S.	13.00	..

		Estimated Amount	Foreign Exchange Expendi- ture.
		(in lakhs)	(in lakhs)
(d)	Deep tubewells with borehole pumps including pump-houses overhead storage tanks on staging etc. in township	L.S.	10.00 1.00
(e)	Water mains in township	L.S.	8.00 ..
11.	Fire fighting for the Docks & township :		
(a)	Main pumps, booster pumps, valves, hydrants and equipments etc.	L.S.	10.00 10.00
(b)	C.I. Fire fighting main and fittings	L.S.	10.00 ..
(c)	Pump houses.	L.S.	5.00 ..
12.	Construction of Dock Offices etc. including furniture and equipment	L.S.	20.00 ..
13.	Construction of Workshop buildings and equipment.	L.S.	16.00 8.00
14.	Construction of dispensaries including equipment.	L.S.	8.00 4.00
15.	Construction of Storage sheds, latrines and wash places etc.	L.S.	5.00 ..
16.	Residential Quarters for Class I, Class II, Class III and Class IV Staff including all services and ancillary works	L.S.	110.00 ..
17.	Construction of a Rest House, club building and other social amenities including all services.	L.S.	10.00 ..
18.	School, Market etc.	L.S.	10.00 ..
19.	Supply of Electrical Power and distribution and Road Lighting	L.S.	60.00 24.00
20.	Taking boreholes of soil sampling, driving test piles and other investigation works as required.	L.S.	10.00 3.00

	Estimated Amount	Fore Exchange xpendi- ture
	(in lakhs) (in lakhs)	
21. Temporary buildings for site offices and temporary accommodation for staff, Workshops including water supply, sanitation and welfare arrangements etc.	L.S. 10.00	..
TOTAL Rs. . .	2855.50	1356.00
Add 3% contingencies or say . . .	85.50	44.00
	<hr/>	<hr/>
Add 2% supervision or say . . .	2941.00	1400.00
	59.00	..
GRAND TOTAL Rs. . .	3000.00	1400.00

APPENDIX V
Summary of Conclusions/Recommendations

Serial No.	Reference to Para No. of Report	Summary of Recommendations/Conclusions
1	2	3
1	3	The Committee would urge that the proposal to amend the existing Port Acts of Calcutta, Madras and Bombay should be finalised at an early date and that due provision should be made therein for delegation of greater financial and administrative powers to the respective Port authorities as these are the most important well-established Ports of the country.
2	4	The Committee suggest that the question of re-organising the Port Trust on the lines obtaining in more advanced countries to ensure better planning and execution may be examined. The Committee would also suggest that the work-load on the Chairmen of the three major Port Trusts, particularly Calcutta—a complex and difficult port, may be examined with a view to see how it can be better rationalised in the interest of efficiency.
3	7	The Committee are distressed to note that detention suffered by vessels during the current year is on the increase resulting in payment of increased detention money. There has been an equally marked downward trend in the despatch money earned.
		The Committee would suggest that concerted measures should be taken by the Calcutta Port authorities to reduce detention to ships and to speed up their turn-round. In their 66th Report on Dock Labour Boards, the Committee had already observed that the Government should investigate the reasons for the low output of Calcutta dock labour as well as delay in the unloading of ships and take suitable remedial measures including extension of incentive scheme and they cannot but regret that it should not have been possible to take effective action in this direction so far.

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4 8 The Committee regret to note that there has been heavy shortfall in the planned expenditure during the First Plan period. Against the total outlay of Rs. 12.07 crores provided in the First Plan only Rs. 3.49 crores were spent, and only 7 out of 26 projects could be completed.

The Committee also note that only 50% of the total outlay provided in the Second Plan was utilised and out of 45 projects, including 19 projects carried over from the previous Plan, only 16 projects (i.e. 39%) were completed.

The Committee are distressed to find that a start for the execution of projects included in the First Five Year Plan was made only after two years of the Plan Period had elapsed and that it was then found difficult to make much headway even in the remaining period of the Plan because a separate organisation had to be set up for planning and coordination.

The Committee cannot help regretting these shortfalls all the more since they find that most of the ills of the Calcutta Port are traceable to the failure of the authorities to properly plan and execute the projects during the first two Five Year Plans. The Committee consider that the progress even in the Third Five Year Plan has not been very satisfactory inasmuch as only about Rs. 17.52 crores have been spent upto 30-11-1964 out of a provision of Rs. 39.97 crores for the entire Plan period. The Committee would stress that the execution of the Plan projects which are essential for the improvement of Calcutta Port operations should be speeded up so that these are completed as per schedule within the Third Plan period.

The Committee would also suggest that a careful outline of the works to be provided in Calcutta Port during the Fourth Five Year Plan may be drawn up at an early date after taking into account the likely development of Haldia Port and the neighbouring Paradeep Port. Advance action is necessary to be taken up during the last year of the current Plan period so that the new schemes in the Fourth Plan can be taken up for implementation without avoidable delay.

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5 13 The Committee note that while in 1956 the Calcutta Port remained open for 168 days to vessels of 26' draft and 276 days to vessels of 24' draft, the position rapidly deteriorated thereafter reaching the lowest point in 1961 when the Port was not open even for a single day to 26' draft vessels and was open for only 37 days to 24' draft vessels. The position slightly improved in 1962 and to a greater extent in 1963. The Committee regret to find that in 1964 the number of days for which the Port was open to vessels of 26' draft and 24' draft has again come down as compared to the corresponding figures for the preceding year.

The Committee consider that there is need for intensifying measures to ensure that the Port of Calcutta remains open to vessels of 26' draft and 24' draft for at least the same number of days as used to be the case in 1956. The Committee need hardly add that after head waters become available from Farakka the effort should be not only to improve upon the record of 1956 but also to open the port to vessels of about 30 feet draft as far as possible.

6 19 The Committee have no doubt that much of the present ills of Calcutta Port in regard to navigability, will end with the construction of the Port at Haldia and therefore suggest that the Haldia Project should be executed on a high priority basis.

7 23 As is well-known, river Hooghly is one of the most difficult rivers for navigation and huge amount have to be spent to clear the silt to keep the Port in operation. Besides, the Port of Calcutta serves not only the State of West Bengal but also the neighbouring States of Assam, Bihar, Uttar Pradesh, Orissa etc. Calcutta, in fact is the biggest Port of the country handling about 45% of export trade and 40% of import trade. The port charges are in a way direct burden on India's export and to that extent handicap the country's export effort. In view of these considerations, the Committee would suggest that the question of the Central Government taking over the

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responsibility for the maintenance of river Hooghly for Calcutta Port may be examined in all its ramifications.

8 26 As dredgers involve large capital outlay, the Committee would suggest that the Port authorities should make every effort to improve their utilisation by making adequate arrangements for servicing, maintenance and operational staff. The Committee would also suggest that the question of providing latest navigational aids to improve utilisation of dredgers may be considered.

9 27 The Committee welcome the formation of a Central Dredger Pool for minor ports. The Committee need hardly stress that a Central Dredger Pool apart from ensuring economy in dredging operations would make available a Central reserve of strategic machinery and equipment for use in an emergency in any port.

10 28 The Committee suggest that Government may take suitable measures such as allowing drawback of import duty on parts and machinery required for manufacture of dredgers within the country so that the quotations of Indian manufacturers can stand favourable comparison with quotations received from foreign manufacturers in response to global tenders.

The Committee would also emphasise that special attention should be paid to the designing of the dredgers so that in due course "know-how" is developed within the country to undertake manufacture of dredgers suited to local conditions and requirements.

11 29 The Committee suggest that the research on the question of selecting the most suitable dumping ground for disposal of spoil dredged from the river should be intensified and should receive constant attention in view of its far-reaching effects on the navigation of the river.

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12 30 The Committee regret to note that the depths on the old Balari Bar alignment should have been allowed to fall as low as 4'-6" in 1960. The Committee would suggest that a critical assessment of the river training works may be undertaken with a view to take remedial action in good time and to devise new training works in the light of experience.

13 33 As Farakka Barrage has a vital bearing on the navigability of river Hooghly and the future of Calcutta Port, the Committee would stress that the work on the Barrage should be proceeded with utmost expedition. The Committee would in particular suggest that adequate foreign exchange should be made available well in advance for importing the requisite essential equipment and materials so that the progress of the work is in no way impeded and the scheduled programme of construction is kept up.

The Committee would also suggest that the processing of applications for the release of foreign exchange for import of requisite essential equipment and materials may be streamlined to obviate delay.

14 34 The Committee would like to mention the importance of the Farakka in connection with the Calcutta Port and also as an important link for road and river transport between Calcutta and upper and north eastern India. The Committee feel that the flow of water down the spill channel from the Bhagirathi and Hooghly should be carefully regulated as it would be of great importance not only for Calcutta Port but also for Haldia. As such, the Committee would suggest to the Government to consider the question of co-ordinating working of Farakka Barrage, Calcutta Port and Haldia Port through proper administrative machinery. The Committee would also suggest that Farakka should be developed as a junction for river and road transport from Calcutta upto at least Patna and from Calcutta to Assam and the strategic section of the north-east frontier so as to give relief to the over-worked rail and road transport system in the area. As such, the Committee feel that Farakka should be developed as an industrial area also, particularly for the manufacture of road and river transport vehicles. This may also give added employment facilities for the displaced persons entering West Bengal.

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15 35 The Committee are glad to note that the Calcutta Hydraulic Department is rendering valuable service to the Port in hydraulic studies of the river. They, however, feel that with the coming up of the Haldia Port on the one hand and the Farakka Barrage on the other, the Hydraulic Study Department will have to undertake study of a larger number of problems in the coming years. The Committee, therefore, suggest that the scope of the Department should be expanded gradually to enable it to face the additional tasks ahead in the process of rendering on-the-spot expert advice to the Calcutta Port Authorities on the complex hydraulic problems of the river made all the more complex by the coming into being of the Farakka Barrage and the Haldia Port.

16 36 The Committee would stress the need for close liaison between the Hydraulic Study Department of Calcutta Port and the Central Water and Power Research Station, Poona so as to ensure that there is no overlapping in the study of problems and that the Hydraulic Study Department in the port is helped to develop on the right lines. The Committee would also suggest that the problems pending investigation particularly those relating to the stabilization of Balari Bar Crossing and the effect of bark erosion on the tidal propagation in the Hooghly should be taken in hand at an early date.

The Committee would also suggest that Calcutta Port authorities should maintain liaison with the State Government River Research Institute at Hiran-ghat.

17 37 The Committee hope that close liaison exists between River Survey Service and the Hydraulic Study Department which studies problems regarding the navigability of river Hooghly.

18 38 The Committee note that the Assistant Harbour Masters went on a strike in January, 1965 when an officiating Harbour Master was demoted to his substantive post by the Port Authorities. The strike has been given up after it has lasted for several weeks. When pressure was being put by shippers to raise freight rates on the alleged ground of slow turn round of ships and when all-out efforts should have been made to bring about operational efficiency in Calcutta Port, the Committee regret that a strike among the essential

services of the Calcutta port has occurred creating further difficulties for the port. The Committee view the recurrence of such strikes among the essential services with concern and distress and feel the Government should have taken appropriate actions to prevent the strike and/or to take adequate steps as provided by the law in the event of a strike by essential services.

The Committee agree that "the Hooghly channel is a difficult river and none of the Marine services should be or would be allowed to interrupt the service". The Committee further expect that the Marine services will also realise their responsibilities in this matter to the nation.

19 39 The Committee would suggest that Government may consider the question of appointing a Committee consisting of representatives of major ports, shipping interests, leading Chambers of Commerce and Industry, Ministries of Transport and Finance to go into the question of rationalisation of port charges for major ports of India and bringing about as much standardisation in the structure and nomenclature of port charges as possible. The aforementioned Committee may also examine the question of Central Government taking over responsibility of the maintenance of navigation of river Hooghly so that the port charges for Calcutta are brought in line as far as possible with the charges levied in other major ports.

20 40 The Estimates Committee would suggest that the Committee suggested to go into the question of rationalisation of port charges for major ports of India may also examine the question of standardisation and simplification of documentation so as to speed up clearance from the Port.

21 41 The Committee suggest that the major ports in India should bring out hand-books and other informative literature showing the facilities available at the ports and other rules and regulations of interest to the shippers, importers, exporters etc.

22 42 The Committee would suggest that special attention may be paid to the need for introducing and developing management accountancy in ports with a view to provide ready index of the income and expenditure accruing on diverse activities and making each one self-supporting, as far as possible. They would also

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suggest that the question of adopting a common Accounts Code for the analysis of income and expenditure in all major ports may be examined in consultation with the Ministry of Finance and Comptroller and Auditor-General.

23 43 The Committee feel that now that a firm decision has been taken on the construction of Haldia Port, close to Calcutta, it is desirable that the entire position regarding the berthing requirements of Calcutta Port are reviewed by an expert committee.

The expert committee may take a long term view of the requirements—say for the next 25 years—with particular reference to the nature and quantum of cargo expected to be handled in Calcutta Port so that detailed schemes can be drawn up for modernising the existing facilities and for providing additional berthing facilities as may be required.

The expert committee should also go into the related questions of providing proper berthing facilities for execution of repairs to ships which are stated to be inadequate at present as also the provision of modern facilities for handling of large tankers.

The Committee need hardly emphasise that as and when new working berths are provided it should be ensured that not only they allow easy approach for the latest type of ships but are fully equipped for speedily handling the expected cargo.

24 44 The Committee understand that the question of mode of transport transmission of refined products from the proposed refinery at Haldia to Calcutta would be decided when the negotiations for setting up the refinery are finalised with the foreign collaborator.

The Committee have no doubt that Government would keep in view the existing facilities available at tanker discharge jetties at Budge-Budge while deciding on the best means of transport transmission of oil from Haldia to Calcutta.

25 47 The Committee suggest that the following measures may be considered urgently to prevent hold up of consignments in the dock area and for improving the quick

movement of imported cargo through the port premises :

- (i) Every facility may be given to importers to clear the goods through customs and from the Port as quickly as possible after landing. They would suggest that the committee constituted recently by the Collector of Customs, consisting of representatives of Port Commissioners, import trade and shipping interests, to look into the complaints of shippers, may be asked to suggest measures for streamlining and expediting the clearance of goods through customs.
- (ii) The Port authorities may review the period for which goods may be left in transit sheds. It may also be examined whether it would be desirable to levy rent and incidental charges on cargos confiscated by customs and left lying on the port premises by them beyond a certain period.
- (iii) A small committee consisting of representatives of Port authorities, Customs, importers and steamer agents may be set up to go into the question of unclaimed/unidentified imported cargo on account of lack of identification marks and suggest suitable remedial measures.
- (iv) The road system within the dock area may be kept free for moving vehicles and if possible, parking areas for lorries awaiting load may be provided.

26 48 The Committee feel that as the Port authorities have been making sizeable profit from their warehouses, they should utilise a portion of this profit to improve the conditions of warehousing in general and introduce scientific and modern methods for storage and stacking and to facilitate quick delivery to prevent any damage to the goods.

27 49 (i) The Committee would suggest that the Port authorities may use the good offices of the Jute Commissioner to arrange for the spread of movement of jute manufacturers in lighters throughout the month.

(ii) The Committee would suggest that the position regarding the number of lighters, their usage for storage and facilities for entrance and exit to the dock area may be examined and necessary remedial measures taken so that the lighters, which are meant to

speed up loading and unloading of goods, contribute effectivley towards that end.

28 50 (i) The Committee regret that the delay on the part of Government in rationalising classification of hazardous cargo gave rise to numerous complaints from the Trade. The Committee would emphasise that a uniform policy should now be enforced in all the ports in the matter of classification of hazardous cargo.

(ii) The Committee would urge that the Port authorities should review the position for handling of hazardous cargo in consultation with the trade and provide suitable facilities including godown facilities so that the handling of such cargo is not impeded. They need hardly emphasise that godown for hazardous cargo should be so located and equipped with fire fighting appliances as to reduce the hazards in a busy port like Calcutta to the minimum.

(iii) The Government should follow up the question of waiving of the surcharge imposed by the Shipping Conference Lines on hazardous cargo Category I so that the users are not subjected to extra levy.

19 52 The Committee would suggest that there is need for organising research to devise the most suitable and forward-looking methods for handling general cargo so as to take full advantage of modern technology and practices followed in ports of advanced countries. The Committee would, in particular, suggest that modern equipment and handling practices should be adopted in new ports which are coming up at Haldia, Tuticorin, Paradeep, etc.

The Committee would also suggest that an expert committee may be constituted to go into the problem of mechanisation of ports not only with a view to suggest improvements in technology and practices but also to standardise the equipment as much as possible and suggest measures for its indigenous manufacture.

The expert committee may specially examine the need for providing additional heavy lift facilities particularly for a port like Calcutta which has to handle large sized and heavy machinery required for the steel plants, Heavy Engineering Corporation, etc.

There should be close coordination between the Port authorities/Ministry of Transport and the Railways concerned/Ministry of Railways in the matter of devising best means for transferring goods from ships into the wagons and *vice versa*.

In this context, the Committee would like to draw attention to the reported delay in arranging special types of wagons required for clearing heavy machinery. The Committee feel that if there is proper coordination between the consignees of heavy machineries (which are mostly in Public Sector) the Port authorities, shippers and the Railway concerned, it should be possible to arrange for wagons of the special type to effect prompt clearance. This would not only save the consignees payment of heavy demurrage charges but also will keep the Ports free from unnecessary congestion.

30 58 As the efficient working of cranes is of crucial importance in ensuring quick handling of goods, the Committee cannot too strongly stress the need for maintaining them in excellent working condition. The Port Trust may also consider the advisability of having suitable stand by equipment and sufficient spare parts so that the handling of goods is not impeded by machine break-downs.

31 59 The Committee are constrained to observe that the coal mechanical plant has not been made fully operational even after several years of its erection. They suggest that urgent steps should be taken by the Port authorities in conjunction with the Railways to utilise the Plant to its full capacity.

The Committee would also stress that the coal handling facilities to be provided at Haldia should be designed in full consultation with the Railways so that operational difficulties of the nature which are being experienced at present at Kidderpore do not occur. In particular the mechanical plant should be so designed that it can handle Box Wagons which are being increasingly used for movement of coal.

32 60 The Committee would stress that the mechanical ore handling plant to be installed at Haldia should be of the latest design so as to make for economic and competitive handling of ore.

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33 62 The Committee are constrained to observe that the scheme for installation of the silo was not properly planned from the very beginning. About six years were allowed to elapse from the time of the receipt of equipment in March, 1956 to its installation in September, 1961. It is going to take another four years to instal the Marine Leg. The Committee suggest that a detailed analytical study may be made of the reasons which have impeded the installation of the silo and marine leg so that in the light thereof adequate steps may be taken to ensure that silos and other foodgrains handling equipments to be installed at other ports, notably Haldia, do not suffer from such delays.

34 63 (i) The Committee would suggest that early action should be taken on the recommendations of the Indian Port Facilities and Cargo Handling Improvement Team (U.S.A.I.D.) so that the capacity of the Grain Silo, Kidderpore for handling foodgrains is further stepped up.
(ii) The Committee hope that early action would be taken by Government on the recommendations of the above team so as to improve the efficiency of handling operations of foodgrains at Indian ports.
(iii) The Committee should, however, like to add that apart from taking action on the recommendations of the above team a comprehensive review of the capacity of the ports to unload and move imports of foodgrains with reasonable expedition is called for. The latest performance in this respect at a time when the country was faced with a severe food crisis, was not a happy one. Apart from technological or procedural handicaps, the human factor involving lack of cooperation on the part of labour proved to be a major bottleneck on that occasion. The country cannot afford to have a repetition of this experience. The Committee urge that concerted action may be taken to forestall and provide against all such handicaps or bottlenecks in future.

35 65 The Committee recommend that early decision may be taken on the question of providing an additional dry dock in Calcutta and one large dry dock in Haldia. The Committee would also emphasise that the new dry docks should be equipped on modern lines in consultation with ship-repairing works so that up-to-date facilities are available to facilitate execution of repairs to ships. The Committee would also suggest

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that the question of standardising the equipment and machinery for the new dry docks and undertaking their manufacture within the country may be considered.

36 66 The Committee would suggest that the work on the expansion of King George's Dock may be expedited and that a suitable number of berths to be released at Calcutta on the completion of Haldia port, may be earmarked for repairs. In the meantime the port authorities may consider the question of providing adequate craneage facilities and improving the approach road to the dead berth area where repairs are being carried out presently.

37 67 The Committee are constrained to observe that the underlying objects of imposing the restrictions, *viz.* conserving foreign exchange and securing the maximum utilisation of indigenous ship repair yards do not appear to have been fulfilled in view of increasing amounts spent on Indian ships abroad and the declining trend in the earning of indigenous ship repairing works.

The Committee would emphasise that stringent action should be taken to ensure that the existing capacity of indigenous ship repairing yards is put to the maximum use and that foreign exchange is conserved to the extent possible.

38 68 The Committee would recommend that necessary assistance should be extended to the ship repairing works in obtaining the requisite items from indigenous sources and where these are not available, due assistance should be extended by permitting their import from abroad to the extent necessary. Refusal to permit their import on the ground of conserving foreign exchange obviously defeats its own purpose.

39 69 The Committee would suggest that Government may look into the high prices for materials required by ship repairing industry and take suitable action to make the materials available to the ship repairing yards at competitive rates.

The Committee cannot over-emphasise the need for ship repairing works to increase their productivity and bring down the cost of repairs so as to make their services fully competitive in the international market.

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40 70 The Committee are distressed to find that the difficulties of ship repairing industry have not received adequate attention of the Government during the last few years. The Committee hope that now that a Central Advisory Council on Ship Building and Ship Repairs has been formed it would tackle the problem on an urgent basis having due regard to the fact that it is a long established industry which can save and earn valuable foreign exchange by executing repairs to Indian ships.

Government may also consider the question of extending proper incentives to the ship repairing industry to make its rates competitive for undertaking repairs to foreign ships and earn the much needed foreign exchange.

41 73 The Committee would suggest that the question of having a separate Port Protection Force, on the lines of the Railway Protection Force, may be considered by the Union Government in consultation with the Port authorities and the State Government, at an early date. In any case, the withdrawal of Port Police for maintaining law and order in the city should be reduced to the minimum and that as far as possible prior approval of the Chairman, Calcutta Port Trust should be taken. The charges to be borne by the Calcutta Port Trust should in equity be proportionately reduced for the days that the Port Police are withdrawn by the State Government to meet their requirements of law and order situation in the city.

42 75 The Committee urge that the existing security arrangements in the Port should be further tightened and that the responsibility for the protection of goods in the sheds etc. should be fixed at each level. Government may consider in this context the question of having a mobile police squad for intensified patrolling inside the docks and jetties. The Committee also cannot too strongly stress the need for taking strict and prompt departmental action against employees found conniving with pilferers so that it may act as deterrent to others.

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43 76 The Committee are constrained to note that an appreciable number of cases of pilferage remain pending for enquiry. The Committee would suggest that no time should be lost in holding enquiries so that all significant clues can be pursued without loss of time and the culprits brought to book.

The Committee would suggest that the question of forming a highly qualified investigation squad to trace the pilferers and their contacts may be examined.

The Committee would also like the Port authorities to take suitable measures to improve the lighting arrangement of the yard at night, check entry of unauthorised persons in the Port area, erect boundary wall, encourage expeditious delivery of goods, improve tally etc. so as to bring down the incidence of pilferage.

44 77 The Committee are of the view that Government should examine the question of pilferage and smuggling on River Hooghly in all its aspects and take effective measures including intensification of river patrolling to check these evils.

45 78 The Committee would suggest that the working of the Calcutta Port Railways may be examined thoroughly by an expert team drawn from the Indian Railways, and a comprehensive plan drawn up for modernising the rail facilities in the Port area to keep pace with modern requirements. The expert team should in particular suggest measures to improve efficiency and effect economy.

46 79 The Committee would suggest that the accounts of the Port Railway may be maintained separately so that watch can be exercised on the efficiency of its operations and necessary remedial measures taken.

47 80 The Committee would urge that the question of demarcating the responsibilities of the Calcutta Corporation as also the Port authorities in regard to the maintenance of roads should be taken up expeditiously so that the roads may not remain in a state of disrepair due to conflicting jurisdictions.

48 81 The Committee feel that the Port Trust has more or less been able to maintain the importance and utility of the Calcutta Port. At one stage perhaps dredging was somewhat neglected and the draft declined. But during the last few years, there has been considerable

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improvement in the draft position of the Calcutta Port. The Committee hope that the Port Trust authorities will be in a position to maintain the importance of Calcutta Port and also to improve its draft, particularly after the completion of the Farakka barrage, and to utilise Haldia as an associate Port for Calcutta.

49 88 The Committee consider that information required by the International Bank for Reconstruction and Development regarding commodity-wise projection of traffic to be handled by the Indian ports in 1970-71 should have been available with the Ministry of Transport as it constitutes the basic frame work for drawing up the outlines for the next Plan. The Committee hope that the Study Group constituted by the Government in September, 1964 to collect the information would complete the work without further delay so that the application pending with the International Bank for Reconstruction and Development for loan is finalised early.

50 89 (i) As the Committee are aware that Haldia is being developed as an ancillary port to the Calcutta port system, its development programme should be in line and consistent, with the needs of Calcutta port.

(ii) The Committee like to stress the necessity of having an integrated development programme for the ports on the eastern coast, taking in view the traffic potentialities of the new two Plan periods.

51 90 The Committee would stress that now that research vessels have been acquired and necessary equipment received, studies should be intensified so that engineering works for Haldia port are suitably sited.

52 91 The Committee would suggest that details of the various engineering works required to be executed in the first phase of the Haldia Project may be prepared so that the work can be taken in hand as soon as foreign exchange component of the project is assured.

53 92 The Committee would suggest that suitable measures may be taken to ensure that developed plots are given to the displaced agriculturists at an early date.

The Committee would suggest that agriculturists who have been displaced from their lands in Haldia should be given due preference in employment in the new Port and that training facilities for them, as necessary, may also be provided.

54 93 The Committee would stress that the rail link to Haldia should be completed by the target date. Government may also consider in due course the question of providing a shorter and alternative rail link between Haldia and Calcutta *via* Kolaghat.

55 94 (i) The Committee would suggest that early decision may be taken on the question of providing a second road link between Calcutta and Haldia *via* Kolaghat which will be a shorter route and can be effected by extending the National Highway No. 6 from Kolaghat to Haldia.
(ii) The Committee would suggest that the Port Commissioners, Calcutta should maintain close liaison with the Ministry of Railways, Ministry of Transport and the West Bengal State Government in the matter of developing rail and road link for facilitating the construction work at Haldia and for providing easy means of communications to carry exports to and imports from the new port. The Committee would suggest that more than one rail-road link may be provided between Haldia and Calcutta the main consuming centre.

56 95 The Committee hope that necessary facilities for handling of the crude oil including construction of an oil jetty at Haldia would be provided in time.

57 96 The Committee hope that collaboration arrangements would be finalised in time so that Haldia Refinery comes up in stream by the scheduled date.

58 97 The Committee would suggest that as a firm decision on the development of Haldia has now been taken, the question of the establishment of free trade zone at Haldia, may be considered, without waiting for the results of the free trade zone recently established at Kandla, keeping in view the fact that unlike Kandla, Haldia has one of the most industrialised hinterland to

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provide skill and experience as well as raw materials for developing manufacture of engineering goods for export.

The Committee would also suggest that Government may consider the question of developing the area around Haldia as a petro-chemical complex and industrial complex to provide *inter alia* the much needed employment to absorb over 9 lakhs new migrants who have crossed the border from East Bengal since January, 1964.

APPENDIX VI

Analysis of the Conclusions/Recommendations contained in the Report.

I. CLASSIFICATION OF RECOMMENDATIONS

A. Recommendations for improving the Organisation and Working:

Serial Nos. 1, 2, 5, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27(i), 27(ii), 28(i), 28(ii), 28(iii), 29, 30, 31, 33, 34, 36, 42, 43, 44, 45, 47, 48, 55(i), 55(ii), 56, and 58.

B. Recommendations for Effecting Economy :

Serial Nos. 3, 9, 10, 26, 32, 35, 37, 38, 39, 40, 41, and 45.

C. Miscellaneous Recommendations :

Serial Nos. 4, 6, 21, 49, 50(i), 50(ii), 51, 52, 53, 54 and 57.

II. ANALYSIS OF THE RECOMMENDATIONS DIRECTED TOWARDS ECONOMY

Serial No. as per Summary of Recom- mendations (Appendix V)	Particulars
3	Concerted measures should be taken by the Calcutta Port authorities to reduce detention to ships and to speed up their turn-round.
9	Central Dredger Pool apart from ensuring economy in dredging operations should also make available a central reserve of strategic machinery and equipment for use in an emergency in any port.
10	Drawback of import duty on parts and machinery required in manufacture of dredgers within the country may be allowed so that the questions of Indian manufacturers can compare favourably with the quotations from foreign manufacturers when global tenders are invited.
26	A portion of profits earned by Port Authorities may be utilized to improve the warehousing conditions.
32	For economic and competitive handling of ore, mechanical ore handling plant of latest design should be installed at Haldia.

Serial No. as per Summary of Reco mendations (Appendix V)	Particulars
35	The question of standardising the equipment and machinery on the new dry docks and undertaking their manufacture in the country may be considered.
37	Existing capacity of indigenous ship repairing yards should be put to the maximum use to conserve foreign exchange.
38	Assistance should be extended to the ship repairing works in obtaining the requisite items from indigenous sources.
39	There is need for ship repairing works to increase their productivity and bring down the cost of repairs.
40	Incentives to the ship repairing industry to make its rates competitive for undertaking repairs to foreign ships should be extended.
41	The expenditure on the Port Police should in equity be proportionately reduced for the days for which the Port Police are withdrawn by the State Government to meet their requirements.
45	An expert team may be appointed to suggest measures to improve efficiency and effect economy in the working of the Calcutta Port Railways.

