

**ESTIMATES COMMITTEE
(1971-72)**

(FIFTH LOK SABHA)

SECOND REPORT

**MINISTRY OF SHIPPING AND TRANSPORT
Tuticorin and Mangalore Ports**



**LOK SABHA SECRETARIAT
NEW DELHI**

July, 1971/Asadha, 1893 (Saka)

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CORRIGENDA

TO

**Second Report of Estimates Committee
(Fifth Lok Sabha) on the Ministry of
Shipping and Transport - Tuticorin &
Mangalore Ports.**

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(1971-72)

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INTRODUCTION

1. The Chairman, Estimates Committee having been authorised by the Committee to submit the Report on their behalf, present the Second Report on the Ministry of Shipping and Transport—Tuticorin and Mangalore Ports.

2. The subject was examined by the Estimates Committee (1970-71) and necessary information obtained and evidence taken by them. That Committee, however, could not finalise their Report due to the sudden dissolution of the Lok Sabha on the 27th December, 1970. The Estimates Committee (1971-72) have perused the minutes of evidence and have come to their own conclusions which have been embodied in the Report.

3. The previous Committee (1970-71) took evidence of the representatives of the Ministry of Shipping and Transport and Tuticorin and Mangalore Ports on the 6th November, 1970. The Committee wish to express their thanks to the Joint Secretary, Ministry of Shipping and Transport, Chief Engineers of Tuticorin and Mangalore Ports and other officers of the Ministry of Shipping and Transport for placing before them the material and information they wanted in connection with the examination of the estimates.

4. The Committee also wish to thank M/s. New India Maritime Agencies Private Ltd., for furnishing Memorandum to the Committee.

5. The Report was considered and adopted by the Committee (1971-72) on the 7th July, 1971.

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

NEW DELHI;
July 15, 1971.

Asadh 24, 1893 (Saka).

KAMAL NATH TEWARI,
Chairman,
Estimates Committee.

CHAPTER I

TUTICORIN PORT

A. History of Port Development

The existing Tuticorin Port is the largest Intermediate Port in India in respect of the quantum of traffic handled. At present it handles one million tonnes of cargo annually. It is situated in latitude 8°48' North and longitude 78°09' East, on the East Coast of India about 500 km. South-West of Madras. The Port is an open roadstead, the anchorage being situated about 6 miles offshore in deeper waters and cargo is being handled by lighters, sheltered against cyclones by the presence of Ceylon on the East and Adams Straits on the North-East.

1.2. The development of Deep-Sea Harbour at Tuticorin was under active consideration for a long time and various proposals were examined from time to time. Finally, the Intermediate Ports Development Committee (1960), after a detailed study, recommended the construction of Deep-Sea Harbour off Hare Island. The scheme was included in the Third Five Year Plan and a provision of Rs. 5 crores was made in the Plan. On the basis of the Preliminary Project Report and an Estimate for Rs. 14.00 crores for the construction of the Harbour, the Government of India accorded approval in principle for taking up the work in 1963. The proposals and designs of the various shore and marine structure were finalised to cater to 30' draft vessels in the first stage. The proposals contemplated the construction of an artificial Deep-Sea Harbour by forming an enclosed basin between two breakwaters, South and East, each of about 4,000 m. long getting into the sea and 1275 m. apart with an entrance of 122 m. width. Six berths were to be accommodated in the first phase in two stages for a maximum draft of 30' capable of being deepened to 35' later on. The Project was taken up for discussion at the Planning Commission in December, 1966 and it was decided to review the trend of traffic on the basis of industrialisation of the area and assess the probable traffic in 1971-72. An expert Committee appointed by the Ministry of Shipping and Transport went into the question of industrial development of the hinterland and projected the likely traffic in 1971-72 as 2.235 million tonnes, in 1975-76 as 3.510 million tonnes and 1980-81 as 4.420 million tonnes.

1.3. The Government of India have accorded administrative approval on 3rd June, 1968 for the construction of an all-weather

port at Tuticorin for Rs. 24.40 crores for the construction of 6 berths, four along the eastern wharf one for salt, one for coal, one for cement and one for general cargo and two berths along the finger pier—one for general cargo-cum-ship repair and one for fertiliser. An amount of Rs. 17.00 crores was included in the approved Fourth Five Year proposals. The detailed Project Estimate for Rs. 24.40 crores was sent to Ministry for expenditure sanction and sanction has been accorded by the Government on 17th July, 1969 for Rs. 21.76 crores for the construction of only 4 alongside berths—one for salt, one for coal, one for cement and one for general cargo.

1.4. Asked if there was any set policy with the Government regarding the development of Ports, the representative of the Ministry of Shipping and Transport stated during evidence before the Committee "In 1950, when we started we had the ports of Bombay, Calcutta, Madras, Visakhapatnam and Cochin. Then Kandla was brought in. That scheme was undertaken so that the loss incurred on account of Karachi could be set off. Then Paradeep was taken up in 1962. Marmugao came into our possession with the liberation of Goa. We have also Mangalore and Tuticorin Ports. On the whole, I should say, that Kandla was taken up specifically to fill up the gap for that areas. Paradeep was linked up with iron-ore export. Export potentiality of Mangalore was related to iron-ore near Mangalore in places like Hassan etc. Tuticorin had already been having a traffic of one million tonnes roughly. And this was stabilised at that level. So, we thought that Tuticorin deserved to be converted into a major port. The distance between the shore and the anchorage at Tuticorin is five miles. It was thought that for this range of traffic it would be advantageous to have alongside facilities. That will help the trade also. There has been a growth of industries in that area. On the whole, these are the considerations that led to the development of the major ports."

1.5. The Committee are constrained to note that with the completion of Tuticorin and Mangalore as major ports, there would be considerable overlapping of the hinterland of the ten major ports in the country. In this connection, the Committee would also like to invite the attention of the Government to the very pertinent observation made by the Major Ports Commission in their Report (1970): "The Commission notes that with the existing eight major ports and the two new under construction, there is a considerable overlapping of the hinterland of these ports..... The Commission has reached the conclusion that there is no need for any major port in the foreseeable future." The Committee, consider that justification for the construction/expansion of a new

major/intermediate port should be examined most carefully by the Government with particular reference to its financial viability, state of development of hinterland, the nature of traffic expected to be generated etc. so that in the name of development of infrastructure facilities the country is not saddled with overambitious projects which are economically not viable.

B. Detailed Project & Proposed Facilities

1.6. The salient features of the Tuticorin Harbour Project are as follows:—

- (i) *Layout.*—The artificial deep-sea harbour is formed by construction of two breakwaters, south and north—each about 4,000 metres long into the sea and 1275 metres apart, with an entry of 122 metres through the approach channels, 183 metres wide thus providing a calm and tranquil basin. The marine terminals proposed will be in the form of an along-side wharf adjoining eastern arm of South breakwater to accommodate 4 berths in the initial stage. The approach to the berths from shore will be in the form of road and rail, laid over the approach embankment adjoining South breakwater.
- (ii) *Facilities.*—The project envisages construction of four berths for salt, coal, cement and general cargo. In the initial stage the berths will accommodate 30' draft vessels and will be capable of being deepened to 35' later on.

To increase the rate of cargo handling and to effect quicker turn round of ships semi-mechanised handling facilities for salt and coal berths in the first stage are contemplated, which can be fully mechanised in due course. The master plan provides space for additional 13 berths by adding two finger piers in the ultimate stage.

- (iii) *Handling and Mechanical facilities.*—The following mechanical equipments are proposed to be installed at Tuticorin:—

A. Cranes and other machinery for port operation.

1. Coal Berth:

The mechanical facility will be decided after knowing the exact demand.

2. Salt Berth:

Mechanical Handling Equipment with a capacity of 5,000 tonnes per day.

3. Cement Berth:

18 Fork Lift Trucks 3-Ton Capacity.

4. General Cargo Berth No. 1:

(a) 3 Nos. 3 Ton cranes.

(b) 1 No. 3 Ton/10 Ton cranes.

(c) 6 Fork-Lift Trucks.

(d) 1 Heavy Lift Crane and other trailer units.

5. General:

Bunkering facilities, pipeline upto temporary jetty and oil barges:

B. Harbour Crafts

2 Nos. Twin Screw Diesel Harbour Tug of 15T bellard pull—1000 HP power capable of berthing and unberthing ships fitted with fire fighting and salvaging equipment.

3 Nos. Mooring boats.

1 No. Pilot Launch.

1 No. Survey Launch and 1 No. Inspection Launch.

(iv) *Ship Repairing facilities.*—The project estimate for which administrative approval has been accorded for construction of harbour with 6 berths for salt, coal, cement, General Cargo, General Cargo-cum-ship Repair and fertilizer at a cost of Rs. 24.40 crores contemplated construction of one berth for General Cargo-cum-ship repairing at a cost of Rs. 00.80 crores. However, expenditure sanction for Rs. 21.76 crores has been accorded for construction of harbour with four berths only for salt, coal, cement and General Cargo in which construction of berth for General Cargo-cum-ship Repairing has been deleted. As such on commissioning of the harbour with four berths in 1972-73, facilities for ship repairing will not be available.

- (v) **Storage facilities.**—The storage facilities contemplated in this project are (a) Transit sheds to be provided in the wharf area for berths which need closed provision for transitory storing, prior to loading and unloading operations. In the first stage of construction, the project contemplates construction of harbour with four berths only with provision for putting up 2 nos. of transit shed each of size 500' x 120', one for cement and another for general cargo. (b) open stocking yards, for berths handling cargos like salt, coal etc. and (c) warehouses to be provided in the foreshore for storing various materials that may be imported in or exported. In the project estimate for which administrative approval has been accorded, there is provision for construction of 3 nos. of warehouses each of size 120' x 40' in the foreshore and the same provision has been made in the expenditure sanction also.

1.7. Asked if any perspective planning had been done to ensure that sufficient facilities would be available at the port to handle the quantum of traffic likely to grow at the new harbour, the Ministry of Shipping and Transport have stated in a note furnished to the Committee "According to the Report of the Expert Committee on the Industrial Development of the hinterland of Tuticorin and Traffic Projections, the traffic in Tuticorin will be 22.35 lakh tonnes in 1971-72, 35.10 lakh tonnes in 1975-76 and 44.20 lakh tonnes in 1980-81. The mechanised facilities will be decided after knowing the exact demand. The type of facilities required for handling raw material for fertiliser Plant and any additional facilities will be provided as need arises. Much depends upon the actual traffic offerings and their nature. The actual operation of the Port will also enable it to decide, the nature of the additional facilities required. The traffic projections will have to be reviewed before future plans are drawn up."

1.8. The Committee note that the sanctioned Tuticorin Harbour Project provides for a number of facilities like cranes and other mechanical handling equipment for Salt, Cement and General Cargo berths and the mechanised facilities for Coal, and Fertilizer berths. They also note that other mechanised facilities for the berths will be decided after knowing the exact demand. In this connection, the Committee would like to emphasise that as the Tuticorin Port will cater mostly to the export of Salt and Cement and import of raw-materials for fertiliser plant which would be bulky commodities, steps should be taken to ensure that up-to-date mechanised handling facilities are provided at the Port in time for minimising the handling charges.

C. Traffic Projections and Hinterland of the Port

1.9. The pattern and volume of traffic at any port depend on the nature and extent of agricultural, industrial and other activities in its hinterland. The hinterland, in turn is determined by the facts of physical geography, patterns of trade, locations of industrial establishments and the transport facilities available. Keeping in view the existence of transport facilities in the region and also the major ports of Madras and Cochin, the hinterland of Tuticorin Port would consist of Kanyakumari, Tirunelveli, Ramanathapuram and Madurai Districts and Southern Taluks of Tiruchirapalli District in Tamil Nadu and might also include Trivandrum District and part of Quilon District in Kerala.

1.10. The following are the various industries existing in the hinterland of Tuticorin Harbour:

1. Salt

The present salt production in and around Tuticorin is in the order of 6 lakh tonnes per year and the production is effected from 10,800 acres. The Government of Tamil Nadu are of the view that about 25,000 acres of land can be brought under salt cultivation which would yield about 20 lakhs tonnes of salt by 1980-81. 8.50 lakh tonnes of salt is expected to be exported by 1975-76 and 12.00 lakh tonnes by 1980-81. It has been stated that there is foreign market, even for more quantity of salt, if the same can be developed locally.

2. Cement

The three factories on the metre gauge Railways within the hinterland of Tuticorin at Tolaiyuthu, Tulukkappati and Alangulam will have a production capacity of 15.9 lakh tonnes. After taking into account the local requirement; these factories would have a surplus of about 6 lakh tonnes to move through Tuticorin Port by 1975-76 and 7 lakh tonnes by 1980-81.

3. Fertilizers

The Government have sanctioned a scheme for locating a fertiliser plant at a cost of Rs. 52 crores to produce annually 1,98,000 tonnes of ammonia, 3,00,000 tonnes of complex fertilisers and 2,62,000 tonnes of urea. Rock phosphate and sulphur will have to be imported for this fertiliser factory

and fertilisers produced will be exported. Credit has been taken for 8 lakh tonnes of traffic on account of both for 1975-76 and 1980-81.

4. Chemicals

Chemicals like Caustic Soda, Soda ash, Beneficiated ilmenite ore produced from High Grade Industrial Salt are expected to be exported in the order of 2.50 lakh tonnes by 1975-76 and 3.90 lakh tonnes by 1980-81.

In addition to the above, general cargo like textile products, fishery products, iron and steel, banana, chenna leaves etc. are also expected to be handled at Tuticorin Port.

1.11. Several traffic studies have been undertaken in connection with the development of a major harbour at Tuticorin. The first systematic study was done by the National Council of Applied Economic Research in 1959, which was followed by the Report of the Intermediate Ports Development Committee in 1960. In December, 1966, the Planning Commission decided that the economic justification for the project with reference to the traffic potential and the number of berths should be worked and a phased programme for execution for both in physical and financial terms be drawn up. To assess the traffic potential and Expert Committee was appointed with the Director (Transport), Planning Commission and the Secretary, Public Works Department, Government of Tamil Nadu as members to make an on-the-spot study and assess the probable traffic in the proposed Tuticorin Harbour. According to the Report of the Expert Committee the traffic estimate for the new Major Port commodity-wise is as follows:—

	1971-72	1975-76	1980-81
	(Lakhs tonnes)		
1. Coal	6.00	6.00	7.00
2. Salt	5.50	8.00	11.50
3. Cement	4.50	6.00	7.00
4. Other Commodities	6.35	15.10	18.70
	22.35	35.10	44.20

1.12. Thus the Expert Committee had estimated that the traffic at the new Major Port would be 22.35 lakh tons by 1971-72, 35.10 lakh tons by 1975-76 and 44.20 lakh tons by 1980-81. The Committee had,

however, assumed that certain industrial projects under consideration by the Government of Tamil Nadu like setting up of fertiliser plant and a Soda ash plant would be taken up and brought into commission by 1975-76. It was also assumed that the State Government in consultation with the Salt Commissioner and the State Trading Corporation would make the necessary organisational effort to increase the export quality salt in the Tuticorin region.

1.13. Asked if co-ordinated plans had been prepared for the development of the hinterland of Tuticorin Port, the Ministry of Shipping and Transport have stated in a written note submitted to the Committee, "It is agreed that there should be co-ordinated plans for the development of the hinterland of Tuticorin. The present development plan has been based on a traffic survey carried out jointly by an Officer of the Planning Commission and an officer of the Government of Tamil Nadu. Further, with a view to keep a watch on the development of the hinterland as envisaged in the traffic Surveys and to ensure that the development takes place, the Government of India have constituted Committees with senior officers of the Ministry of Shipping and Transport and the Government of Tamil Nadu as members and co-opted representatives of State Trading Corporation, National Mineral Development Corporation and other leading hinterland undertakings. These Committees have already once met and will meet again at suitable intervals to keep a close watch on the position."

1.14. When asked if any scheme had been prepared for increasing the yield of salt in the hinterland of Tuticorin Port commensurate with the expected increase in the export of salt, the Ministry of Shipping and Transport have stated in a written note, "The Tamil Nadu Government is taking steps to increase the salt production in and around Tuticorin. In order to give a fillip to salt Development Programme, the State Government is constituting a State Salt Board with the Minister of Industries as Chairman and representative of Port department, railways, salt department, Chief Engineer and Administrator, Tuticorin Harbour Project, State Trading Corporation as members. This Board will not only advise the State Government on the measures necessary to cultivate salt in new areas but also to consolidate the existing salt pans and improve the quality of salt. With the coming into the existence of the Salt Board the State Government expect to push through the salt development programme quickly."

1.15. The Committee note that the new Tuticorin Harbour is expected to have traffic of 35.10 lakh tons in 1975-76 and 44.20 tonnes

in 1980-81. However, the actual traffic in the Port will depend upon the setting up of some new industries and increased salt production in the hinterland of the Port. While appreciating the steps taken in the matter like setting up of Salt Board for the development of hinterland, the Committee would like to emphasise that concerted and co-ordinated plan schemes for the development of the hinterland should be taken up for execution early so that the traffic may be available in the port as soon as the port is commissioned. The Committee need hardly point out that in case sufficient traffic does not grow in the Port, the entire investment would go waste. In view of the fact that about 25,000 acres of land is available for being brought under salt cultivation and in view of the vast market for Indian salt, the Committee stress that steps in the direction of increasing salt production as well as improving the quality of salt should be taken without any delay.

D. Project Estimates and execution of the Project

1.16. The decision to develop Tuticorin as a major port was taken by the Government in 1961 as a result of the recommendation of the Intermediate Ports Development Committee and the project was included in the Third Five Year Plan with a financial provision of Rs. 5 crores. In February, 1963 the Development Adviser in the Ministry of Transport prepared a Preliminary Project Report involving an outlay of Rs. 14 crores with a foreign exchange content of Rs. 1.44 crores. The Project Report underwent some changes as a result of model studies conducted by the Central Water and Power Research Station, Poona and the scrutiny made by the Technical Advisory Committee. The major variations between the preliminary project estimate and the approved estimate are as follows:—

	Provision in preliminary estimate	Provision in sanctioned estimate	Variations
	(Rs. in lakhs)		
1. Preliminary works	6.50	11.00	4.50
2. Works			
(i) Breakwaters	657.48	1164.00	506.52
(ii) Filling in with sand for rail and reclamation	101.36	145.00	43.64
(iii) Other works	362.31	718.50	356.19
3. Establishment	40.00	70.00	30.00
4. Tools and Plant			
(i) Construction equipment	21.00	100.00	79.00
(ii) Cranes and equipments for Port operation	69.20	195.00	125.80

1.17. Asked to state the reasons for this heavy increase in cost between the preliminary project estimate and the approved estimate, the Ministry of Shipping and Transport have stated in a written note submitted to the Committee, "The final project report was prepared after detailed investigations and model studies. The total length of the breakwater was increased from 6569 metres to 7931 metres. There was also general increase in cost of labour and material."

1.18. In this connection the Committee would like to invite the attention of the Government to the following observations made by them on the Tuticorin Harbour Project in their 69th Report (Third Lok Sabha) on the Ministry of Transport—Visakhapatnam and Tuticorin Ports:—

"The Committee note that the original estimate of Rs. 10 crores of the Intermediate Ports Development Committee has been revised to Rs. 14 crores in the Preliminary Project Report of the Tuticorin Harbour and then further increased to Rs. 24 crores in the Detailed Project Report. This process of making estimates and revision has consumed as many as four years and even then the Detailed Project Report is yet to be scrutinised by the Technical Advisory Committee to draw up proposals for the sanction of Government. The Committee note that the most important single item which accounts for upward revision is the increased cost of construction of breakwaters including noses which were estimated to cost Rs. 1164.00 lakhs in the Detailed Project Report as compared to Rs. 657.48 lakhs in the Preliminary Project Report. The Committee feel that this wide divergence between the preliminary and final project reports is rather unusual, when it is claimed by the Project authorities that the layout suggested by them in the Detailed Project Report would make for great economy in the cost of construction by reducing the cost of rock cutting and dredging."

1.19. The argument advanced now by the Government that the unusual disparity between the preliminary project estimates of Rs. 14.00 crores and sanctioned estimates of Rs. 24.40 crores, was due to the fact that the final project report was prepared after detailed investigations and model studies has failed to convince the Committee. They are of the view that there is no justification for a difference of almost 100 per cent in preliminary estimates and final provision. The Committee feel that this would upset the premises on which the scheme is sanctioned and included in plan with long-term, financial commitment. They stress that before committing the projects of such dimensions to execution Government should prepare

realistic preliminary estimates and get them critically scrutinised in detail.

Progress of work

1.20. The Tuticorin Harbour Project Scheme was included in the Third Five Year Plan and a provision of Rs. 5.00 crores was made for the project in the Third Plan. Since the allotment in the Third Five Year Plan was restricted to Rs. 5 crores only, much progress in the work could not be made. After the Third Five Year Plan, only annual allotments were made during 1966-67, 67-68 and 68-69. An amount of Rs. 17.00 crores was included in the approved Fourth Plan proposals. The details of expenditure for the years are as follows:—

Year	Allotment including suspense (Rs. in lakhs)	Expenditure including suspense (Rs. in lakhs)
1962-63	2.23	1.99
1963-64	98.00	114.73
1964-65	174.25	194.29
1965-66	195.71	195.88
1966-67	193.00	192.91
1967-68	100.00	100.25
1968-69	170.00	170.02
1969-70	300.00	272.06 (Upto II Supplementary)
1970-71	425.00	..

1.21. The Committee were informed in June, 1970 that "In regard to the physical targets of the project, the preliminary works and land acquisition for the project have been completed. The shore works comprising of staff quarters, roads, railways, water supply, sewerage, drainage and electricity have also been completed. The North Breakwater has been formed upto LS 1775 m out of the total length of 4142 m. The South breakwater has been formed upto a length of 1830 m. out of the total length of 3797 m. The reclamation of works have been completed down to LS 735 m to LS 1321 m. With a view to commence large scale marine works from July, 1970 onward so as to complete and commission the harbour by the end of

1972, tenders have been called for major marine works splitting up the balance works into two parts as under:—

1. Construction of South Breakwater from LS 1830 m. to LS 3797 m by any method including construction of wharf wall on eastern arm, reclamation of wharf area, construction of one pier head, dredging the approach channel and turning circle—Rs. 7.26 crores.
2. Construction of North Breakwater from LS 1775 m to LS 4142 m by any method including construction of 2 nos. pier heads—Rs. 5.60 crores.

1.22. When asked during evidence about the present stage of construction work in Tuticorin Port, the representative of the Ministry of Shipping and Transport stated before the Committee "The construction is now on. 21.76 crores have been sanctioned for the Project. The major component of the work namely the breakwaters is to the tune of 11 crores.....The tenders for both these including the breakwaters accounting for 11 crores have been recently awarded. The contractor has taken action to mobilise resources, men and material on the spot and also on the quarries. I am given to understand by the Chief Engineer that the work is going on and the Budget provision for this year would be fully utilised." Asked if work at the Port was going on according to schedule, he stated "Work is fairly steady. We would be able to complete this by 1973."

1.23. About the scheduled period of completion of the project, the Committee have been informed that "First two berths will be ready by 1972 October and another two berths by 1973 March."

1.24. Asked if it was a fact that the number of trucks and lorries employed for carrying stones from the Railway siding to the far end of breakwaters were insufficient and the progress of work was unsatisfactory, the Ministry of Shipping and Transport have stated in a note submitted to the Committee "The stones for the construction of the breakwaters have to be dumped systematically and as per design in the correct position and hence sometime certain quantities of stone are left behind at the railway siding for a short period. Now that the major tenders have been awarded on contract, the contractor will supplement the departmental cranes with his own cranes, tippers and increase the rate of progress."

1.25. The Committee are glad to note that the funds allotted annually for the Tuticorin Harbour Project are being utilised and the work at the Project is fairly steady. The Committee, however, feel that utilisation of budget grants alone is not sufficient. They, there-

fore, stress that physical targets for the work fixed annually should also be achieved. The Committee note that the progress of work in the breakwater regarding filling up of stones etc. is not quite satisfactory. They, however, hope that with the award of tenders, the rate of progress will increase. The Committee also hope that the target fixed for the completion of the project viz. commissioning of two berths in 1972 and other two berths in 1973 will be achieved and the programme of work will be strictly adhered to. The Committee need hardly emphasise that any delay in the commissioning of the Harbour will lead to unnecessary blocking of huge investment and will affect the export trade of the country.

E. Economics of the working of Tuticorin Port

1.26. The economics of the proposed Tuticorin Harbour Project were worked out by the Government on the basis of an investment of Rs. 24.40 crores and on the basis of the traffic estimates forecast in the report of the Joint Team. According to the estimates anticipated during the first four years of operation of the Port, a deficit of about Rs. 58 lakhs and in the fifth year, a net surplus of Rs. 63.17 lakhs was estimated. In subsequent years of the port's operation allowing for payment of both interest charges and capital loan investments a small deficit of Rs. 31.12 lakhs was estimated during the next three years, which was expected to be wiped out during the following three years. From 1983-84 onwards, the port will, in addition to the regular payment of interest charges and capital loan investments, earn a net return of 1 per cent on investment, the return progressively increasing by 1/4 per cent each year. In the 36th year when the interest and the principal will have been repaid in full, the return on owned assets will be over 10 per cent.

1.27. The Major Ports Commission in their Report submitted in June, 1970 have laid down the following objective for return on capital employed in Tuticorin Port. In the case of ports of Kandla and Paradip and the new major ports of Mangalore and Tuticorin which are under construction, we have taken into account the growth prospects of traffic, their financial picture etc. and recommend three stages for the attainment of the objective of not less than 12 per cent on capital employed as given below:—

Stage	Minimum return on Capital employed	Objective to be achieved by Tuticorin Port
I	6%	Five years from the commissioning of the Port .
II	9%	A further three years.
III	12%	A further two years. "

1.28. Asked by which time the new harbour would be able to give the return recommended by the Major Ports Commission, the Ministry of Shipping and Transport have stated in a note submitted to the Committee, "Since these recommendations are still under examination, the revised economic forecast for the project is yet to be made."

1.29. The Committee note that for the first four years of its operation, the Tuticorin Port is expected to suffer a deficit of Rs. 58 lakhs and it will be only in the twelfth year, that the port will, in addition to the regular payment of interest charges and capital loan investment earn a nett return of 1 per cent on investment. They are surprised to learn that it will be only in the 36th year that the return on owned assets will be over 10 per cent while the Major Ports Commission have recommended that the Port should be able to give a return of 12 per cent on capital employed in the 10th year of the commissioning of the Project. As it is obvious that the investment on the Tuticorn Port would not yield the return recommended by the Major Ports Commission, the Committee are of the view that there is real need for observing utmost economy in working and not committing further resources for development till the return on present investment comes upto the level envisaged by the Major Ports Commission.

F. Sethusamudram Project

1.30. The Sethusamudram Project provides for connecting the Gulf of Mannar and the Palk Bay, by cutting a channel at the approaches to the Adam's Bridge for enabling deep-sea ships to navigate in safety from the West to the East of India. The Government of India set up the Sethusamudram Project Committee in 1955 to examine how far the construction of such a passage would increase the potentiality of the port of Tuticorin, if it is to be developed into a deep-sea port. The Sethusamudram Project Committee, in their Report, expressed the opinion that the two projects are so closely related to one another that they should be regarded as parts of one and the same undertaking—an integrated Sethusamudram Project. The Project Committee expressed the opinion that, "It is feasible and desirable to design an integrated project, which will secure these objectives with assured navigational safety, and at a cost which will be commensurate with the advantages likely to be secured thereby."

1.31. The Estimates Committee in their 69th Report (Third Lok Sabha) presented to Lok Sabha in April, 1965, urged "that the investigation of the Sethusamudram Project should be completed at an early date and if it is found economic and feasible it may be taken up for execution without avoidable delay. The Committee would suggest that the development programme for Sethusamudram Project may be regulated in the light of phased programme to be drawn up by the Central Government for the development of Tuticorin as a major Port."

1.32. In a statement submitted to the Committee in July, 1967, the Ministry of Transport and Shipping stated that "The preliminary investigation and surveys in respect of Sethusamudram Project are being conducted by the Madras State Government on behalf of the Government of India and are expected to be completed by 1967-68. The programme of the project will be determined on receipt of the results of preliminary investigations and surveys."

1.33. Asked about the present position of the Sethusamudram Project, the Ministry of Shipping and Transport have stated in a written note submitted to Committee in October, 1970 "Detailed Project Report and estimate for the Sethusamudram Ship Canal have been prepared. The estimated cost of the proposed canal is Rs. 37.50 crores. The Report is under examination. As regards benefits of the project, it has been estimated by the Consulting Engineer appointed to study the project that, based on a total traffic in 1974 of 155 lakhs N.R.T. and assuming a levy of Rs. 1.50 per N.R.T. as Canal dues the annual estimated receipts will be Rs. 232 lakhs and annual estimated expenditure Rs. 70 lakhs. These estimates are, however, considered by the Director-General, Shipping and the Shipping Corporation of India to be unduly optimistic and are not likely to be realised."

1.34. Asked if any programme for the execution of the project has since been finalised, the Ministry of Shipping and Transport have stated in a note submitted to the Committee in December, 1970 "The investigation Surveys in respect of the preparation of the project report have been completed and the report has been received. So far, no programme has been drawn up and the project is not included in the Fourth Plan. The outlay involved on the project has been estimated at Rs. 37.50 crores, which is a heavy outlay. The Shipping Corporation have raised doubts about the Traffic forecast for this Project. The report is under examinations.

1.35. Regarding the benefits of the Sethusamudram Project, the Committee have been informed by the Government that "The benefits to Shipping have been calculated as below:—

Serial No. and Voyage	West Coast/ Arabian Sea to Madras	West Coast/ Arabian Sea to Calcutta	West Coast/ Arabian Sea to Burma
	miles	miles	miles
1. Distance via Canal	377	969	1,062
2. Distance via South of Ceylon	721	1,225	1,198
3. Distance saved	344	256	136

1.36. Asked if the advantages likely to be secured from the Project would be commensurate with the expenditure involved, the Committee have been informed in a written note that "The impact of the Sethusamudram Canal Project Scheme can be considered in two parts *viz.*, (a) effect on coastal shipping and (b) effect on overseas shipping. As regards coastal shipping, as envisaged at present, there is a possibility that coal cargo may not be available to coastal vessels beyond March, 1972. Efforts made to secure cargo on a long-term basis have not proved fruitful. If no coal is available, coasters will not be able to cater to the salt traffic in the reverse direction from Saurashtra/Tuticorin to Calcutta, and with lack of adequate cargo and no replacements of aged ships, coastal dry cargo tonnage is likely to go down below 1.00 lakhs g.r.t. With the establishment of a chain of refineries, the traffic in oil cargo is likely to go down to about 12.00 lakhs tonnes. However, even if our proposals for sustaining coastal shipping are finally accepted, the coastal shipping dry cargo is expected to be maintained at about 3.00 lakhs g.r.t. Out of this, only ships plying from West Coast to ports upto Madras are likely to be attracted to take advantage of the scheme. This traffic is not likely to be much since (i) there are alternative rail/road facilities and (ii) a major part of the anticipated traffic is expected to be on the Calcutta/Madras, Calcutta/Tuticorin, Calcutta/West Coast range."

"In respect of overseas trade, the Shipping Corporation of India is of the view that the emphasis in the Fourth Plan for the development of Indian Shipping is more on acquisition of bulk carriers and tankers which cannot use the proposed canal having regard to the draft requirements

of such large sized vessels. As regards other vessels viz., liners and smaller vessels, the saving in time may not be much against overall voyage time. The additional time required for transit through the canal has also to be taken into account. The Shipping Corporation of India is of the view that if a transit charge of Rs. 1.50 N.R.T. is levied as canal dues, ships bound for Calcutta, even with a speed of 14—17 knots and a N.R.T. of 5800 would find it uneconomic to use the canal."

1.37. The Committee note that the Sethusamudram Project has been under the consideration of Government for a number of years and that the estimated cost of the Project has already increased from Rs. 15.50 crores in 1963 to Rs. 37.50 crores. From the facts stated by the Government it is evident that the Canal Project will not be economically viable. The Committee would, therefore, like the Government to take a decision in due course on the Project keeping in view the heavy capital investment, the anticipated traffic through the Canal and the strategic importance of providing a direct channel for ships to go through shortest route from Bay of Bengal to Arabian sea.

CHAPTER II

MANGALORE PORT

A. Historical Background

The existing port of Mangalore (Lat. 12°52N, Long. 73°50' E) is situated on the Arabian Sea Coast of India in the State of Mysore. The Port is roughly 322 Kilometres (200 miles) North of Cochin and 322 Kilometres (200 miles) South of Mormugao. Two rivers, the Nethravathi and the Gurpur, meet and flow into the sea near the Port. The Port is located on the left bank of the Gurpur river and is about 1.60 Kilometres (a mile) from the combined confluence of the two rivers with the sea. Ships lie in the roadstead about 8 Kilometres (5 miles) from the Port and lighters carry the cargo between the Port and the Ships. The Port is open for a period of 8 months from the 16th September, to 15th of May in a year and is closed for 4 months from 16th May to 15th of September, when the bar at the combined confluence of the two rivers with the sea becomes too rough for any boats or lighters to cross.

2.2. The development of all-weather major port on the stretch of coastline between Mormugao and Cochin Port has been a long felt need, engaging the attention of the Government of India for a long time past. The Government of India appointed a number of technical Committees from time to time to study the feasibility of developing one of the ports on the Konkan Coast. The important ones are the Ports Technical Committee (1946), the West Coast Major Ports Development Committee (1948) and the Intermediate Ports Development Committee (1958). The Intermediate Ports Development Committee, after making detailed studies of the various sites and taking into consideration the economic, technical, navigational and traffic aspects and all other relevant factors, recommended Mangalore for the location of an all-weather deep-sea Major Port. Further on the basis of the detailed surveys and investigations conducted by the Mangalore Harbour Project authorities and the results of the model studies carried out by the Central Water and Power Research Station, Poona, the present site for the major harbour at Panambur, about 9 Kilometres north of the existing minor port of Mangalore, has been finally selected. The work on the construction of the major harbour is in progress at present.

B. Detailed Project and proposed facilities

2.3. Primarily the Major Port at Mangalore is intended for export of iron ore and to cater to the needs of the proposed fertiliser factory and other industries like an oil refinery etc., expected to come up at Mangalore.

2.4. In the first stage, the major port at Mangalore, as now planned, will provide for (a) three alongside berths, one each to cater to general cargo, iron ore and manganese ore, and raw material imports for the fertiliser factory, (b) one shallow draft berth for export of finished fertilisers, and (c) two mooring berths, one for general cargo and another for naphtha and petroleum products. With these facilities, in the first stage of its construction, the harbour will cater to 30 ft. (9.15 m.) draft loaded ships during high tides. The estimated cost of the scheme as sanctioned is Rs. 2,190 lakhs. This stage of the Project is expected to be completed during 1971-72.

2.5. At the second stage, the harbour will be expanded to cater to 60,000 D.W.T. Bulk Ore carriers of 40 ft. (12.20 m.) draft for handling large quantities of iron ore export when needed. A separate iron ore berth with mechanised loading facilities capable of handling 4,000 tonnes per hour will be provided at that time. Adequate space has been provided in the Port's Master Plan for additional berths to cater to general cargo, bulk cargo, petroleum products, containerised cargo and fishers dock. The layout plan has been so drawn up that facilities can be created at the port to handle even one lakh tonners at a future date.

2.6. Regarding the details of handling and storage facilities proposed to be provided at the new Mangalore Port, the Committee have been informed by the Ministry in a written note that "The handling and storage facilities proposed to be provided in the 30 ft. draft port at Mangalore under construction are as follows:—

Handling Equipment

- | | |
|---|--------|
| (1) Grabbing cranes of 4 tonnes net capacity for handling ore and raw material imports for fertiliser factory | 8 nos. |
| (2) Wharf Crane capable of handling 3 tonnes at 23 metres radius | 4 nos. |
| (3) Wharf Crane capable of handling 6 tonnes at 23 metres radius | 1 no. |
| (4) Heavy Lift derrick of handling 50 tonnes | 1 no. |
| (5) Mobile Crane of 6 tonnes capacity | 1 no. |
| (6) Forklift Derrick | 6 nos. |
| (7) Jib Cranes for loading moorings | 2 nos. |
| (8) Tugs 15 tonnes bollard pull | 2 nos. |

Storage facilities for General Cargo

- | | |
|--------------------------|-------------------|
| (1) One No. Transit Shed | 120 ft. × 500 ft. |
| (2) One No. Warehouse | 120 ft. × 200 ft. |

2.7. Asked if with the proposed number of berths, quays, jetties and other mechanical loading facilities, it would be possible to cope with the growth of traffic in the next fifteen years and if any long term planning has been done in this regard, the representative of the Mangalore Port has stated "No. It will not be possible with these facilities to cope up with the growth of traffic in the next fifteen years. The trend in the building of ore carriers has been to provide not less than 60,000 D.W.T. and go upto 1,00,000 tonnes. If our country is to maintain its position as one of the loading exporters of iron ore, it is necessary that ports near to iron ore mining centres are developed with drafts of not less than 12 metres and with provision of iron ore handling equipment. The traffic projections for the next 10 years for the new all-weather major port at Mangalore should take cognizance of the possibility of exporting lump hemanite ore (2 million tonnes) from the Bellary-Hospet area by constructing the missing Kottur-Harihar railway link and expanding the harbour to cater to vessels with 40 ft. (12.2 mts.) draft."

2.8. Asked if sufficient provision had been made for mechanical loading and unloading facilities at the port in view of the fact that bulk carriers would be used on an increasing scale, the Ministry of Shipping and Transport have informed the Committee in a written note that "The new major port sanctioned at present for a 30' draft does not admit of catering to the needs of bulk carries and therefore only semi-mechanical handling has been contemplated at present. When the expansion of the port by increasing the draft to 40'/50' is taken up, the mechanisation facilities will have to be reviewed and adequate provision therefore made in the expansion programme."

2.9. In view of the fact that the new major Port at Mangalore is expected primarily to cater to exports of iron ore, the Committee are surprised to note that with the depth of the draft of the port as sanctioned, it would not be possible to handle bulk carriers at the Port and that only semi-mechanical handling facilities are contemplated to be provided at the Port. The present world trend in the iron ore export trade is admittedly for the increasing use of bulk carriers of bigger size requiring deeper berths and most modern and efficient handling facilities. Countries like Australia have already developed these modern facilities for export of iron ore. The Committee

are unable to appreciate why the new Port being developed at a heavy cost of 2,190 lakhs should not have been equipped ab initio to cater to these bulk carriers.

The Committee would like Government to examine the matter urgently and take necessary remedial measures in the interest of maximising iron ore exports from the hinterland through this Port.

C. Hinterland and Traffic Projections of the Port

2.10. Keeping in view the existence of inland transport facilities and also the major ports of Madras, Cochin and Mormugao in the region, the hinterland of the major port of Mangalore would consist of the districts of South Kanara, Coorg, Chickmagalur, Shimoga, Hussan, Mysore, Chitradurga, Tumkur, Bellary and Mandya in Mysore. It will also include portions of the North Kanara, Bangalore and Raichur districts. The Port would also serve the Cannanore District and the northern portion of Calicut District of Kerala. It has been stated in the report of the Joint Committee that "The hinterland of Mangalore is rich in mineral deposit such as iron ore and Manganese ore, Large deposits of magnetite from ore have been located at Kudremukh about 30 to 40 miles from Mangalore Port. It has very rich forests. The Mysore Iron and Steel Works at Bhadravati lies within the hinterland of Mangalore. Besides, there are a number of factories in the region producing sugar, paper, cement, tile and superphosphate. About 80% of the coffee produced in the country is from Mysore and the area has rich cashewnut plantations. In the absence of an all-weather port, the import and export traffic from the hinterland of Mangalore is routed, mainly through Madras, Cochin and Mormugao ports.

In addition to the expansion of the existing industries the region has potential for development of a number of new industries."

2.11. Asked if any plan had been drawn up for the development of hinterland of Mangalore Port, the Committee have been informed by the Mangalore Port authorities that "steps have been taken by the State Government of Mysore to develop the hinterland by establishing industries, trade and commerce to augment traffic to the Mangalore Port. The Government of India have also constituted an official Committee of the officers of the Government of India, the Government of Mysore and Mangalore Harbour Project to review the pace of development of hinterland. Two fertiliser factories, one at Munirabad in Raichur District and the other at Belagola in Mandya District are engaged in the manufacture of

superphosphate and their rated capacity is 74,000 tonnes of superphosphate and 41,000 tonnes of sulphuric acid per annum. These factories are expected to import 48,000 of rock phosphate and sulphur through Mangalore. The Malabar Chemicals and Fertiliser Ltd. have been issued a licence for setting up of a fertiliser factory at Mangalore. It is expected that the factory would go into production by the end of 1972 and the port is expected to handle a considerable amount of fertiliser requirements. The Mysore Iron and Steel Ltd., Bhadravathi are producing at present about 20,000 tonnes of ferro silicon out of which a quantity of about 5,000 tonnes is being exported. They are further expanding their production by 30,000 tonnes and the entire quantity of 30,000 tonnes is expected to be exported. The four cement factories at Bhadravathi, Ammasandra, Shahabad and Bagalkot having a total installed capacity of 11,00,000 tonnes per annum are under production to the full capacity. Recently a new factory at Wadi with an installed capacity of 4,00,000 tonnes has gone into production. The Cement Corporation of India has taken up the construction of another factory at Sadam which is nearing completion. The polyester fibre factory at Harihar is expected to go into production very shortly."

2.12. The Committee have been further informed that the "Results of the detailed geological and exploration work carried out at Kudremukh region indicate that the deposit contains over 1,100 million Metric tonnes. Based on the pilot plant studies done, it is possible to produce 5 million M.T. of concentrate per year in the form of pellet feed with possibilities for expansion upto 10 million tonnes per year. The concentrate thus obtained may have to be transported by hydraulic means in the form of slurry through pipe lines from the mine site to the port. Even for this, substantial facilities may have to be made available at the Port. The possibilities of palletising the concentrate is not ruled out. This would be an important supplementary possibility when the new harbour develops to receive ships of size one lakh DWT or larger. It may thus be noted that the prospects of exporting iron ore from Kudremukh deposits are very bright and it is likely that the ore from these deposits will be shipped within two years of the Government of India approving the final scheme for the Kudremukh Iron Ore Project. The export target is likely to be of the order of 10 million tonnes per annum."

2.13. It has further been claimed by the Government that "Studies by Marcona and M.O.N. indicate that both Japan and Europe provide attractive markets for Kudremukh products in the form of pellet feed with substantial extended sales potential in the near future."

The volume of traffic being handled at the existing port of Mangalore currently is of the order of 6 lakh tonnes per annum. The main items of cargo are tiles, timber, coffee, foodgrains, salt, iron-ore and manganese ore.

2.14. As regards the traffic Projections of the new Port, an *ad hoc* Committee comprising the Secretary to the Government of Mysore (P.W.&E. Department) and Chief, Transport Division, Planning Commission conducted a study of the traffic projections in the new Port and submitted their report in November, 1967. According to the Report of the Study Team, the new Mangalore Port would be handling a traffic of 29.60 lakh tonnes in 1971-72 and 34.24 lakh tonnes in 1975-76. The detailed projections of traffic are set out in the table below:—

	(Lakh tonnes)	
	1971-72	1975-76
1. Haematite iron ore	5.00	5.00
2. Fertilisers and raw-materials for fertiliser plants	11.88	12.14
3. Coal and coke	0.75	0.75
4. Manganese ore	2.00	2.50
5. Ferro Silicon and ferro chrome	0.50	1.60
6. Tiles	2.50	2.50
7. Salt	0.50	0.60
8. Cement	1.00	1.50
9. Petroleum products	1.75	2.75
10. Forest products	0.65	0.80
11. Foodgrains and pulses	0.50	
12. Coffee	0.25	0.30
13. Fishery product	0.07	0.30
14. Other commodities	2.00	3.00
15. Bunkering	0.25	0.50
TOTAL	29.60	34.24

2.15. The Committee note that the port of Mangalore is at present handling 6 lakh tonnes of traffic and with the commissioning of new port, it is expected to handle about 29.60 lakh tonnes of traffic in 1971-72 and 34.24 lakh tonnes by 1975-76. The Committee feel that increase in traffic from the existing 6 lakh tonnes to 29.60 lakh tonnes is a big and ambitious jump, which may be difficult to realise. There is obvious need for coordinated action if an increase in traffic of this order is to be realised in the interest of ensuring gainful usage of the infrastructure created at appreciable capital investment at this port.

2.16. The Committee note that with the completion of Kudremukh Iron Ore Project and provision of substantial facilities at Mangalore Port, it may be possible to export iron ores to the extent of 8 million tonnes per annum from the Port. The Committee recommend that the feasibility and economics of the project should be thoroughly investigated before capital investments are made in the development of the Ore Project and further expansion of the port facilities.

Γ. Project Estimates and Expenditure Programme

2.17. The Mangalore Harbour Scheme sanctioned by the Government of India comprises of construction of a 9.15 metre (30 ft.) draft deep sea all-weather lagoon harbour at Mangalore (Parambur) about 9 K.M. north of the existing minor port. This scheme was approved by the Government on 6-6-1968 for Rs. 2430 lakhs with a foreign exchange component of Rs. 206.52 lakhs. The approved project provides for three alongside berths to be provided by 1971-72 at an estimated cost of Rs. 2190 lakhs and an additional alongside berth at an estimated cost of Rs. 240 lakhs to be provided later to cater to traffic anticipated by 1975-76. Expenditure sanction was accorded by Government on 22-4-1969 to the detailed Project estimate for Rs. 2190 lakhs for the portion to be completed by 1971-72. The break-up of the sanctioned estimate of Rs. 2190.00 lakh is given at Appendix I.

2.18. The following table gives the provision made for Mangalore Port in the Third Five Year Plan and the Annual Plans for 1967-68, 1968-69 and 1969-70 and the actual expenditure incurred:—

Plant Outlay	(In lakhs of rupees)	
	Final Grants made	Actual Outlay
Third Five-year Plan	575.74	575.08
Annual Plan—1967-68	100.00	100.26
Annual Plan—1968-69	170.00	170.68
Annual Plan—1969-70	300.00	297.35

2.19. The Committee have been informed by the Ministry of Shipping and Transport in a written note that "The slight shortfall in expenditure in 1969-70 is on account of the saving under charged section of the account (court awards fell short of expectations) which is not permissible to be utilised for other purposes by reappropriation."

The net expenditure incurred on the project from inception to end of September, 1970 is Rs. 878.32 lakhs.

2.20. The total physical progress achieved in respect of the various sub-heads of works upto end of April, 1970 is as follows:—

Physical Progress made

I. Preliminary Expenses :

(a) Foundation investigation for breakwaters Berth, jetties etc.	}
(b) Hydrographic Survey of the sea bed level, study of movement of the coast line and silt and littoral drift investigations	}
(c) Hydraulic model studies	} 98%
(d) Hydrological & Meteorological studies	}
(e) Land Surveys	}
(f) Quality Control Laboratory	}

II. Land Acquisition for Harbour Estate Marshalling yard, Staff colony, Stone Magazine etc.	95%
(a) Buildings (Permanent & Temporary)	66%
(b) Roads (Permanent & Temporary)	91%
(c) Temporary Jetty for Department Craft for the construction period	0
(d) Drainage & Sewerage	41%
(e) Dredging & reclamation of the Harbour Estate	2%
(f) Excavation of highgrounds in the Harbour Estate lying above +3.66M and utilising the excavated stuff for low-lying area	90%
(g) Manual excavation of turning basin upto ground water table level	89%
(h) Breakwaters	80%
(i) (a) Alongside wharf	18%
(b) Mooring berths	0%
(j) Water Supply	40%
(k) Electricity	41%
(l) Marshalling yard, Railway lines etc.	13%

III. Tools & Plant :

(i) Harbour Tugs	0%
(ii) Other Harbour Crafts	} 85%
(iii) Construction equipment	
(iv) Equipment for Port operation	0.74%
(v) Navigation aids	0%

2.21. The Committee have been informed by the Ministry of Shipping and Transport that "The work on Mangalore Harbour Project is being progressed on the basis of annual allocations made on an year to year basis in consultation with the Planning Commission at the time of formation of Annual Plans. The programme has been so drawn up that the different works are taken in a proper sequence so that there is no idle investment by execution of works required at a far later date. The dredging and reclamation of the harbour estate has been taken up now. The mooring berths, the marshalling yard etc. are required to be ready only by the time of the commissioning of the harbour and there is sufficient time available for completion of these works. Steps have already been taken to have these works completed by the target date. Similar is the case with the harbour tugs, equipment for port operation and navigational aids. The Director General, Supplies has already received and scrutinized tenders for procurement of the equipments and tugs. He has been requested to place firm orders. The Director General of Lighthouses who has been entrusted with the work of providing navigational aids has already initiated the proceedings. The Railways who have been entrusted with the work of laying railway track, are finalising the estimate of and designs for the marshalling yard and the work is expected to be commenced soon. The target date for completion of the laying of the railway tracks is the end of 1971. The Port is expected to be thrown open to shipping by the end of 1972."

2.22. The Committee have further been informed that "The estimated dredging work in the Mangalore Harbour Project for a 30 ft. draft Harbour would be of the order of 11.385 million cubic m. of which about 9.0 million cubic m. would be reclamation dredging in the lagoon, the balance quantity being the dredging of the channel by means of hopper dredgers. The Project estimate envisages foreign exchange commitment of Rs. 170 lakhs for this purpose for, even at present the dredging work cannot be undertaken by any Indian firm and the contents of the foreign exchange asked

for by the foreign contractors is of the order of 40 to 60 per cent of the total cost. With the placement of orders for two more dredgers by the Government of India the programme of work of dredging in the Mangalore Harbour has been re-scheduled so as to utilise to the maximum extent these two dredgers and also one of the available MOT Dredgers for this purpose reducing thereby the necessity and extent of dredging by foreign contractors. With this end in view, the programme of dredging work was drawn up and the MOT Dredger II was detailed in April, 1970 for commencement of the dredging work. According to the programme, the entire dredging work was to be completed by November, 1972. The revised programme is also dependent on the availability of the two new dredgers on the expected dates viz. September, 1971 and November, 1971. Even the revised programme of work contemplates a part of the work being done by awarding of contracts. Should that not be possible, the alternative would be to commission the harbour with a lesser draft in November, 1972 and to continue the balance dredging work concurrently with the operation of the Port."

2.23. The Committee note that the allocations made for the Mangalore Project in the Third Five Year Plan and Annual Plans for 1967-68, 1968-69 and 1969-70 have been fully utilised. The Committee, however, note with concern that the dredging work in the port is not progressing according to schedule and that a revised programme has been drawn up with the result that the port which was expected to be commissioned by the end of the year 1971-72 is now expected to be completed by the end of 1972 only. Even this revised programme of dredging is dependent on availability of dredgers and award of a part of dredging to contractors. The Committee regret that all these difficulties had not been foreseen by the Government and remedial measures taken in time. The Committee stress that concerted efforts should be made by the authorities to ensure that dredging work in the port is completed in time and the port is commissioned not later than 1972 with at least 30' draft.

2.24. The Committee note that action has been initiated by the Director General, Supplies and Disposals, Director General of Lighthouses and Railway authorities for procurement of equipment and tugs, navigational aids and provision of marshalling yard respectively. The Committee hope that close liaison with these authorities is maintained and progress of the respective works watched to ensure that the equipment, tugs, navigational aids etc. become available well in time to facilitate operations at the Port.

E. Financial Returns from the new Port

2.25. It has been stated by Government that the financial returns expected from the new Mangalore Harbour will be as follows:—

Sl. No.	Year	Revenue	Expenditure	Surplus	Return of capital	Interest on capital at 5½%	Profit or loss
1	2	3	4	5	6	7	8
1.	1972-73	257.40	97.41	159.99		125.93	(+)34.06
2.	1973-74	259.97	97.90	162.07		125.93	(+)36.14
3.	1974-75	262.57	98.39	164.18		125.93	(+)38.25
4.	1975-76	265.20	98.88	168.32		125.93	(+)40.39
5.	1976-77	267.85	99.37	168.48		125.93	(+)42.25
6.	1977-78	270.53	99.87	170.66	73.00	125.93	(-)28.27
7.	1978-79	273.24	100.37	172.87	73.00	121.73½	(-)21.86
8.	1979-80	275.97	100.87	175.10	73.00	117.53	(-)15.43
9.	1980-81	278.73	101.37	177.38	73.00	113.33	(-)8.95
10.	1981-82	281.57	101.88	179.69	73.00	109.13	(-)2.44
11.	1982-83	284.39	102.39	182.00	73.00	104.93	(+)4.07
12.	1983-84	287.23	102.90	184.33	73.00	100.73	(+)11.00
13.	1984-85	290.10	103.41	186.69	73.00	96.53	(+)17.16

2.26. The above financial return is worked out on the assumption that the entire outlay made on the construction of a Major Harbour will be treated as returnable loans and the repayment of loans in 30 equal instalments will commence from the 6th year of its operation. From the very first year of its operation, the project is expected to give a financial return of about 7 per cent of which 5½ per cent will be apportionable towards interest on Capital. Between the 6th year and 10th year of its operation, since provision has been made for repayment of the instalments of capital, the return shows a marginal loss ranging from 1 per cent to 0.1 per cent. Thereafter from the 11th year of its operation, the Project would be able to allow for interest on capital, re-payment of capital loans and also make profit.

227. Asked by what time Mangalore Port would be in a position to give 12 per cent return as recommended by Major Ports Commission, the Committee have been informed by the Ministry that "while it is true that the Major Ports Commission have recommended 12 per cent return in respect of the Major Port it is also understood that the anomaly of the cost of projects constructed at a comparatively cheaper cost in the earlier years and the new projects which have been recently constructed had also engaged the attention of the Commission. It is understood that the Commission had thereupon recommended treatment of part of the capital expenditure incurred in the new major ports as equity capital for the purpose of evaluating the 12 per cent return recommended by them. Should such a procedure be followed, this port will be able to give and maintain the 12 per cent return on capital investment. It has been further stated by the Ministry that a financial policy in this regard would be taken only at the time of the formation of the Port Trust, after commissioning of the major harbour. It is quite possible that a part of the expenditure during construction which has not created any tangible assets may be reckoned as Deferred Revenue Expenditure in which case the capital investment on the Project will be less than what is assumed now, increasing thereby a percentage of return the port would be giving."

228. The Commission on Major Ports in their report submitted in June, 1970 have recommended in respect of "comparatively weaker and newer ports of Kandla, Paradip, Mangalore and Tuticorin" that the Government of India should—

- (i) provide an outright grant to the extent of 20 per cent of the capital cost of civil works, including berths, breakwaters, reclamation, capital dredging, etc. but exclusive of the expenditure on mechanical handling plants and equipment;
- (ii) limit the obligation of these ports to the payment of interest and repayment of the principal to only 50 per cent of the capital outlay after deducting the cash grant. These ports would be required to pay the appropriate rate of interest as applicable to all long term loans advanced by Government during that year;
- (iii) permit the interest to be capitalised during the construction stage of the project;
- (iv) apply a repayment schedule for the loan during a period of 30 years. The first instalment of repayment to commence from the eleventh year of the commissioning of the projects;

- (v) treat the balance of 50 per cent of the capital outlay after deducting the cash grant as "deferred redeemable" capital which will carry no obligation to the payment of interest nor have any regulated schedule of repayment. The ports, would, however, be required to pay Government the reasonable return if there is a surplus in the ports' financial working after meeting the obligations of the working expenses, depreciation, and a return of six per cent on the capital employed. The "deferred redeemable" capital would also be eligible for redemption after the loan capital portion is repaid. We visualize the repayment period as 20 equal annual instalments but this would be subject to a review by Government in consultation with the Port Authorities;
- (vi) review the general financial and traffic situation at these four ports at intervals of 10 years with a view to making such adjustments as may be necessary in the circumstances then prevailing.

2.29. The Committee note that in respect of new ports like Mangalore Port, the Major Ports Commission have recommended that the Government should provide an outright grant to the extent of 20 per cent. of the capital cost of civil works including berths, breakwaters, reclamation, capital dredging etc. but exclusive of the expenditure on mechanical handling plants and equipment and treat the balance of 50 per cent. of the capital outlay after deducting the cash grant as "deferred redeemable" capital which will carry no obligation to the payment of interest nor have any regulated schedule of repayment. The Committee urge that a decision on this recommendation of the Major Ports Commission should be taken at an early date. The Ports Commission have also recommended that the ports should necessarily aim at raising sufficient surpluses to finance a part of their development programme while keeping in view the public interest. As Mangalore Port may have to undertake the second stage of expansion in the near future, the Committee stress that the port should try to achieve adequate return by effecting economy and maximising efficiency in the interest of making the Port financially viable at the earliest.

NEW DELHI;

KAMAL NATH TEWARI,

July 15, 1971.

Chairman,

Asadha 24, 1893 (Saka).

Estimates Committee.

APPENDIX I

Statement giving the break-up of the sanctioned estimate of Mangalore Port

	(Rupees in lakhs)
1. Preliminary Expenses including investigations, etc.	62.04
2. Land Acquisition	240.00
3. Works—	
(i) Permanent and temporary buildings	102.00
(ii) Permanent and temporary roads	37.20
(iii) Temporary jetty during construction	1.00
(iv) Drainage and Sewerage	33.45
(v) Manual excavation of turning basin and high grounds	88.80
(vi) Dredging and reclamation of the Harbur Estate	498.85
(vii) Construction of breakwaters	88.65
(viii) Construction of alongside wharf having 3 berths (one for general cargo, one for haemitite and manganese ore, and one for fertilisers) and two mooring berths	542.00
(ix) Water supply	17.50
(x) Electricity	20.40
(xi) Marshalling yard, railway line, etc.	35.00
4. Pay of officers and establishment	88.00
5. Tools and Plant :—	
(a) Harbour Tugs	60.00
(b) Other Harbour Craft	18.50
(c) Construction equipment	69.00
(d) Equipment for Port operation	170.00
(e) Navigational aids	10.00
(f) Credit for construction equipment	(—)20.00
6. Miscellaneous	19.00
7. Project contingencies	8.61
TOTAL	2190.00

APPENDIX II

Statement showing Summary of Recommendations/Conclusions

S. No.	Reference to Para No. of the Report	Summary of Recommendations/Conclusions
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I	2	3
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I	1.5	<p>The Committee are constrained to note that with the completion of Tuticorin and Mangalore as major ports, there should be considerable overlapping of the hinterland of the ten major ports in the country. In this connection, the Committee would also like to invite the attention of the Government to the very pertinent observation made by the Major Ports Commission in their Report (1970): "The Commission notes that with the existing eight major ports and the two new under construction, there is a considerable overlapping of the hinterland of these ports The Commission has reached the conclusion that there is no need for any major port in the foreseeable future." The Committee, consider that justification for the construction/expansion of a new major/intermediate port should be examined most carefully by the Government with particular reference to its financial viability, state of development of hinterland, the nature of traffic expected to be generated etc. so that in the name of development of infra-structure facilities the country is not saddled with overambitious projects which are economically not viable.</p>
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The Committee note that the sanctioned Tuticorin Harbour Project provides for a number of facilities like cranes and other mechanical handling equipment for Salt, Cement and General Cargo berths and the mechanised facilities for Coal, and Fertilizer berths. They also note that other mechanised facilities for the berths will be decided after knowing the exact demand. In this connection, the Committee would like to emphasise that as the Tuticorin Port will cater mostly to the export of Salt and Cement and import of raw-materials for fertiliser plant which would be bulky commodities, steps should be taken to ensure that up-to-date mechanised handling facilities are provided at the Port in time for minimising the handling charges.

The Committee note that the new Tuticorin Harbour is expected to have traffic of 35.10 lakh tons in 1975-76 and 44.20 tonnes in 1980-81. However, the actual traffic in the Port will depend upon the setting up of some new industries and increased salt production in the hinterland of the Port. While appreciating the steps taken in the matter like setting up of Salt Board for the development of hinterland, the Committee would like to emphasise that concerted and coordinated plan schemes for the development of the hinterland should be taken up for execution early so that the traffic may be available in the port as soon as the port is commissioned. The Committee need hardly point out that in case sufficient traffic does not grow in the port, the entire investment would go waste. In view of the fact that about 25,000 acres of land is available for being

brought under salt cultivation and in view of the vast market for Indian salt, the Committee stress that steps in the direction of increasing salt production as well as improving the quality of salt should be taken without any delay.

I.18

In this connection the Committee would like to invite the attention of the Government to the following observations made by them on the Tuticorin Harbour Project in their 69th Report (Third Lok Sabha) on the Ministry of Transport—Visakhapatnam and Tuticorin Ports:—

“The Committee note that the original estimate of Rs. 10 crores of the Intermediate Ports Development Committee has been revised to Rs. 14 crores in the Preliminary Project Report of the Tuticorin Harbour and then further increased to Rs. 24 crores in the Detailed Project Report. This process of making estimates and revision has consumed as many as four years and even then the Detailed Project Report is yet to be scrutinised by the Technical Advisory Committee to draw up proposals for the sanction of Government. The Committee note that the most important single item which accounts for upward revision is the increased cost of construction of breakwaters including noses which were estimated to cost Rs. 1164.00 lakhs in the Detailed Project Report as compared to Rs. 657.48 lakhs in the Preliminary Project Report. The Committee feel that this wide

divergence between the preliminary and final project reports is rather unusual, when it is claimed by the Project authorities that the layout suggested by them in the Detailed Project Report would make for great economy in the cost of construction by reducing the cost of rock cutting and dredging."

5

1.19

The argument advanced now by the Government that the unusual disparity between the preliminary project estimates of Rs. 14.00 crores and sanctioned estimates of Rs. 24.40 crores, was due to the fact that the final project report was prepared after detailed investigations and model studies has failed to convince the Committee. They are of the view that there is no justification for a difference of almost 100 per cent in preliminary estimates and final provision. The Committee feel that this would upset the premises on which the scheme is sanctioned and included in plan with long-term, financial commitment. They stress that before committing the projects of such dimensions to execution Government should prepare realistic preliminary estimates and get them critically scrutinised in detail.

6

1.25

The Committee are glad to note that the funds allotted annually for the Tuticorin Harbour Project are being utilised and the work at the Project is fairly steady. The Committee, however, feel that utilisation of budget grants alone is not sufficient. They, therefore, stress that physical targets for the work fixed annually should also be achieved. The Committee note that the progress of work in the breakwater regarding filling up of stones etc. is not quite satisfactory. They, however, hope that with the award of tenders the

rate of progress will increase. The Committee also hope that the target fixed for the completion of the project viz. commissioning of two berths in 1972 and other two berths in 1973 will be achieved and the programme of work will be strictly adhered to. The Committee need hardly emphasise that any delay in the commissioning of the Harbour will lead to unnecessary blocking of huge investment and will affect the export trade of the country.

1.29

The Committee note that for the first four years of its operation, the Tuticorin Port is expected to suffer a deficit of Rs. 58 lakhs and it will be only in the twelfth year, that the port will, in addition to the regular payment of interest charges and capital loan investment earn a net return of 1 per cent on investment. They are surprised to learn that it will be only in the 36th year that the return on owned assets will be over 10 per cent while the Major Ports Commission have recommended that the Port should be able to give a return of 12 per cent on capital employed in the 10th year of the commissioning of the Project. As it is obvious that the investment on the Tuticorin Port would not yield the return recommended by the Major Ports Commission, the Committee are of the view that there is real need for observing utmost economy in working and not committing further resources for development till the return on present investment comes upto the level envisaged by the Major Ports Commission.

The Committee note that the Sethusamudram Project has been under the consideration of Government for a number of years and that the estimated cost of the Project has already increased from Rs. 15.50 crores in 1963 to Rs. 37.50 crores. From the facts stated by the Government it is evident that the Canal Project will not be economically viable. The Committee would, therefore, like the Government to take a decision in due course on the Project keeping in view the heavy capital investment, the anticipated traffic through the Canal and the strategic importance of providing a direct channel for ships to go through shortest route from Bay of Bengal to Arabian sea.

In view of the fact that the new major port at Mangalore is expected primarily to cater to exports of iron ore, the Committee are surprised to note that with the depth of the draft of the port as sanctioned, it would not be possible to handle bulk carriers at the port and that only semi-mechanical handling facilities are contemplated to be provided at the port. The present world trend in the iron ore export trade is admittedly for the increasing use of bulk carriers of bigger size requiring deeper berths and most modern and efficient handling facilities. Countries like Australia have already developed these modern facilities for export of iron ore. The Committee are unable to appreciate why the new port being developed at a heavy cost of 2190 lakhs should not have been equipped ab initio to cater to these bulk carriers.

The Committee would like Government to examine the matter **urgently and take necessary remedial measures in the interest of** maximising iron ore exports from the hinterland through this port.

10

2.15

The Committee note that the report of Mangalore is at present handling **6 lakh tonnes of traffic and with the commissioning of new** port, it is expected to handle about 29.60 lakh tonnes of traffic in 1971-72 and 34.24 lakh tonnes by 1975-76. The Committee feel that increase in traffic from the existing 6 lakh tonnes to 29.60 lakh tonnes is a big and ambitious jump, which may be difficult to realise. There is obvious need for coordinated action if an increase in traffic of this order is to be realised in the interest of ensuring gainful usage of the infrastructure created at appreciable capital investment at this port.

11

2.16

The Committee note that with the completion of Kudremukh Iron Ore Project and provision of substantial facilities at Mangalore Port, it may be possible to export iron ores to the extent of 8 million tonnes per annum from the Port. The Committee recommend that the feasibility and economics of the project should be thoroughly investigated before capital investments are made in the development of the Ore Project and further expansion of the port facilities.

2.23

The Committee note that the allocations made for the Mangalore Project in the Third Five Year Plan and Annual Plans for 1967-68, 1968-69 and 1969-70 have been fully utilised. The Committee, however, note with concern that the dredging work in the port is not progressing according to schedule and that a revised programme has been drawn up with the result that the port which was expected to be commissioned by the end of the year 1971-72 is now expected to be completed by the end of 1972 only. Even this revised programme of dredging is dependent on availability of dredgers and award of a part of dredging to contractors. The Committee regret that all these difficulties had not been foreseen by the Government and remedial measures taken in time. The Committee stress that concerted efforts should be made by the authorities to ensure that dredging work in the port is completed in time and the port is commissioned not later than 1972 with at least 30' draft.

2.24

The Committee note that action has been initiated by the Director General. Supplies and Disposals, Director General of Lighthouses and Railway authorities for procurement of equipment and tugs, navigational aids and provision of marshalling yard respectively. The Committee hope that close liaison with these authorities is maintained and progress of the respective works watched to ensure that the equipment, tugs navigational aids etc. become available well in time to facilitate operations at the Port.

The Committee note that in respect of new ports like Mangalore Port, the Major Ports Commission have recommended that the Government should provide an outright grant to the extent of 20 per cent of the capital cost of civil works including berths, breakwaters, reclamation, capital dredging etc. but exclusive of the expenditure on mechanical handling plants and equipment and treat the balance of 50 per cent of the capital outlay after deducting the cash grant as "deferred redeemable" capital which will carry no obligation to the payment of interest nor have any regulated schedule of repayment. The Committee urge that a decision on this recommendation of the Major Ports Commission should be taken at an early date. The Ports Commission have also recommended that the ports should necessarily aim at raising sufficient surpluses to finance a part of their development programme while keeping in view the public interest. As Mangalore Port may have to undertake the second stage of expansion in the near future, the Committee stress that the port should try to achieve adequate return by effecting economy and maximising efficiency in the interest of making the Port financially viable at the earliest.

APPENDIX III

Analysis of recommendations contained in the Report

Classification of Recommendations

A. RECOMMENDATIONS FOR IMPROVING THE ORGANISATION AND WORKING

Serial Nos. 2, 3, 7, 9, 10, 12, 13

B. RECOMMENDATIONS FOR EFFECTING ECONOMY

Serial Nos. 4, 5, 14.

C. MISCELLANEOUS RECOMMENDATIONS

Serial Nos. 1, 6, 8, 11.