

**PUBLIC ACCOUNTS COMMITTEE
(1976-77)**

(FIFTH LOK SABHA)

TWO HUNDRED AND THIRTIETH REPORT

EXPANSION OF MORMUGAO PORT

MINISTRY OF SHIPPING AND TRANSPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

August, 1976/Bhadra, 1898 (Saka)

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PART II**

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PUBLIC ACCOUNTS COMMITTEE
(1976-77)

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Shri H. G. Paranjpe—*Chief Financial Committee Officer.*

Shri N. Sunder Rajan—*Officer on Special Duty.*

INTRODUCTION

I, the Chairman of the Public Accounts Committee as authorised by the Committee do present on their behalf this Two Hundred and Thirtieth Report of the Public Accounts Committee (Fifth Lok Sabha) on Paragraph 36 of the Report of the Comptroller & Auditor General of India for the year 1973-74—Union Government (Civil)—relating to Expansion of Mormugao Port.

2. The Report of the Comptroller and Auditor General of India for the year 1973-74—Union Government (Civil)—was laid on the Table of the House on the 30th April, 1975. The Committee (1975-76) examined paragraph 36 relating to Expansion of Mormugao Port on the 17th and 18th June, 1975. Written information in regard to this Paragraph was also obtained from the Ministry of Shipping & Transport and other Ministries/Departments concerned.

3. The Committee (1976-77) considered and finalised this Report at their sitting held on the 27th August, 1976. Minutes* of the sittings of the Committee form Part II of the Report.

4. A statement showing the main conclusions/recommendations of the Committee is appended to the Report (Appendix VI). For facility of reference these have been printed in thick type in the body of the Report.

5. The Committee place on record their appreciation of the commendable work done by the Chairman and Members of the Public Accounts Committee of 1975-76 in taking evidence and obtaining information for the Report.

6. The Committee place on record their appreciation of the assistance rendered to them in the examination of the subject by the Comptroller and Auditor General of India.

7. The Committee would also like to express their thanks to the Officers of the Ministry of Shipping & Transport, the Mormugao Port Trust, the Ministry of Commerce, the Department of Fertilisers

*Not printed. (One cyclostyled copy laid on the Table of the House and five copies placed in Parliament Library).

(vi)

& Chemicals, the Department of Steel and the Minerals & Metals Trading corporation for the co-operation extended by them in giving information to the Committee.

NEW DELHI;

August, 27, 1976.

Bhadra 5, 1998 (Saka).

H. N. MUKERJEE,

Chairman,

Public Accounts Committee.

REPORT

I

AUDIT PARAGRAPH

After liberation of Goa in 1961, the administration of the West Coast Port of Mormugao was taken over by Government of India. In December 1963, the Indian Ports Act was extended to this Port and a Board of Trustees was constituted with effect from 1st July 1964.

The traffic through Mormugao Port has increased from 65 lakh tonnes in 1961-62 to 143.3 lakh tonnes in 1973-74, of which 131 lakh tonnes were iron ore, exported mainly to Japan (86 per cent). Most of the ore comes from mines in Goa. In 1973-74 only 5.71 lakh tonnes of the ore came for export from the Hospet-Bellary-area by a metre gauge railway line.

The Port has six berths handling about 29.82 lakh tonnes a year (in 1973-74) with the help of a mechanical handling plant of 600 tonnes per hour capacity, belonging to a private firm and other equipment. Ships generally are loaded in mid-stream manually and with ships' equipment, from barge; bringing ore from the mines. In 1973-74 the average detention of ships was 11.64 days.

In 1964, a scheme for development of the Port was taken up mainly to meet anticipated increase in traffic with the expected industrialisation of the Union Territory, viz., setting up of a fertiliser plant oil refinery, shipyard, etc. It was also expected that the metre gauge track would be converted to broad gauge enabling more ore to be moved from Hospet-Bellary region to this Port. The total traffic was expected to be 149 lakh tonnes by 1981-82, of which 120 lakh tonnes were to be iron ore.

In 1965, firm 'A' prepared a master plan of a development scheme. Between September 1964 and May 1965 firm 'B' conducted sub-soil investigations. In May 1966 firm 'C' conducted a design study for the mechanical ore handling plant due to be installed under the scheme. These studies cost Rs. 15.28 lakhs (firm 'A': Rs. 1.69 lakhs; firm 'B': Rs. 11.28 lakhs; firm 'C': Rs. 2.31 lakhs). Firm 'C' is also the consulting engineers of the Port Trust for execution of the scheme.

In November 1966, Government set up a working group to study the development scheme. Its report was submitted in January 1967. The estimate for the scheme prepared in November 1967 on the basis of these reports (estimated cost : Rs. 27.28 crores) was revised in September 1969 (estimated cost : Rs. 28.64 crores). According to this revised Report, the Port was to have a berth to handle ships of 1,00,000 DWT, a mineral oil berth to take large tankers, four barge berths for unloading of barges carrying ore from the mines in Goa and a mechanical ore handling plant of 8,000 tonnes per hour capacity. The dredging was however, to be done initially up to 43/45 feet depth sufficient for ships up to 60,000 DWT.

The estimate was revised several times thereafter; the cost of the scheme according to the revised estimate submitted for approval in June 1974 is Rs. 63.66 crores. The increase in estimated cost was mainly on the following items:—

Main item	Cost as per estimate of		Reasons for increase
	1969 (Crores of rupees)	1974	
(i) Dredging and reclamation . . .	7.22	16.84	Due to increase in cost of dredging.
(ii) Barge berths . . .	0.64	2.27	Due to change in number (from eight to four) and length (from 60M to 122 M each) of barge berths, changes in design after inclusion of Goa in the seismic zone, rise in basic cost of labour and materials etc.
(iii) Ore and oil berths . .	2.76	8.00	Due to higher rate as per tender and redesigning for seismic condition.
(iv) Mechanical ore handling plant	6.72	18.25	Due to higher rate as per tender and escalation on price of steel, materials and labour.
(v) Ancillaries—workshops and equipment, sheds, navigation equipment vehicles, cranes, etc.	7.79	11.90	Actual cost of higher based on tender, basic price of steel and construction materials.

According to the estimate prepared in 1969, the Port was to provide Rs. 7 crores for the scheme from its own resources and the balance Rs. 21.64 crores were to be received as loan from Government. It was estimated that by 1973-74 a traffic of 114.30 lakh tonnes would yield a revenue surplus of Rs. 1.84 crores before charging interest but after providing depreciation. Till March 1974, Government paid Rs. 12.50 crores as loan while the Port spent Rs. 5.81

crores from its own resources. The Port also raised Rs. 3.30 crores by issue of bonds repayable in 12 years. With the increase in the estimated cost to Rs. 63.66 crores (June 1974), the financial projections of 1959 have gone away. The Port will have larger loan liability with no more resources of its own to finance the scheme.

Traffic

A traffic study in October 1972 estimated the iron ore traffic to be around 120 lakh tonnes a year in 1981-82. Other traffic, mainly oil, raw materials for the fertiliser plant and other general cargo, was expected to rise from 16.55 lakh tonnes in 1972-73 to 28.73 lakh tonnes in 1981-82. As against the estimated total traffic of 149 lakh tonnes by 1981-82, the Port handled 143.3 lakh tonnes in 1973-74 of which 131 lakh tonnes were iron ore.

Except a fertiliser plant for urea of about 1,000 tonnes capacity per day, no other major industry has been set up in Goa till now (December 1974). The metre gauge tract for Hospet-Bellary region to the Port has not been converted into broad gauge (December 1974).

The Geological Survey Department of the Government of India is stated to have estimated in 1970 that recoverable iron ore reserves in Goa with iron content of 58 per cent was about 4,114 lakh tonnes. Since about 500 lakh tonnes of iron ore are stated to have been exported by 1973-74. At the present rate of export of iron ore through this Port the balance would not last more than 28 years.

Freight

With the facilities provided under the development scheme enabling it to handle larger ships on a quicker turn-round, rates of freight were expected to be less. For Japan the freight was about Rs. 44.53 per tonne with ships of 18,000 DWT loaded in mid-stream and Rs. 39.13 when loaded mechanically alongside. According to the estimate prepared in 1969, the rates per tonne were expected to be Rs. 25.18 for ships of 35,000 DWT, Rs. 22.03 for ships of 50,000 DWT Rs. 20.02 for ships of 60,000 DWT and Rs. 16.85 for ships of 1,00,000 DWT when loaded by a mechanical handling plant of 6,000 tonnes per hour capacity. The Port handled mixed fleet averaging 25,000 DWT in 1972-73. Under the present scheme the approach channel and the turning circle are to be dredged to a depth of 43 to 45 feet to enable the port to handle ships upto 60,000 DWT. Thus till the approach channel and the turning circle are dredged further to enable ships of 1,00,000 DWT to enter the Port, maximum reduction in freight would not be attainable.

Mechanical Handling Plant

In the master plan firm 'A' had recommended (February 1965) a mechanical handling plant of 6,000 tonnes per hour capacity assuming average DWT of the mixed fleet of ships sailing into the Port as 30,000, installation usage of 40 per cent and total ore handling upto 140 lakh tonnes per year. According to firm 'A', 6,000 tonnes per hour capacity of the mechanical handling plant would be sufficient to turn round a 1,00,000 DWT ship in less than 24 hours. Firm 'C' which conducted the design study for the proposed mechanical ore handling plant accepted the above recommendation in 1966 and stated that there was no benefit in increasing the mechanical handling capacity beyond a point. However, while preparing the detailed designs in 1970 firm 'C' recommended 8,000 tonnes per hour capacity for the mechanical handling plant assuming average DWT of the mixed fleet to be 70,000. As the approach channel and the turning circle are to be dredged to a depth enough to enable ships upto 60,000 DWT to come into the Port, the average DWT would not be 70,000 until more dredging is done to enable ships of 1,00,000 DWT to berth.

On a two-shift working (16 hours) at rated capacity for 300 days in a year the mechanical handling plant of 8,000 tonnes per hour capacity would be able to handle 384 lakh tonnes. For handling maximum estimated traffic of 120 lakh tonnes of iron ore, the plant would have to be used to the extent of about 31 per cent of its rated capacity.

Dredging

The dredging work under this scheme for about 110 lakh cubic metres was awarded, after a global tender to a foreign firm 'D' in December 1969 for Rs. 6.58 crores for completion in 30 months, i.e., by June 1972. A letter of intent to commence work immediately was issued on 30th October 1969 and the formal work order was issued on 17th December 1969. Firm 'D' commenced work in February 1970. In March 1970 it was pointed out to the contractor that the work was not going as per schedule. As the progress was still not satisfactory, firm 'D' was asked (April 1970) to indicate how it proposed to keep to the schedule. In February 1971 firm 'D' asked for extension of time by 29 months on various grounds, viz., delay in issue of import permits for spares, shortage of explosives, delay in issue of work order, labour trouble and inefficiency of the Port's dredger given to it on hire. Extension of 9½ months, recommended by the consulting engineers (firm 'C'), was granted, and liquidated damages (about Rs. 40 lakhs) for non-completion of reclamation

by the scheduled date were not levied. In August 1971 when only about 20 per cent of dredging had been done, firm 'D' complained that the data regarding soil and silt conditions given in the tender was misleading and stopped work from 31st August 1971 on the ground that it was incurring heavy losses. (The data given in the tender was based on the sub-soil investigations conducted by firm 'B'). Firm 'D' also mentioned that for better performance and to deal with difficulties which it could not foresee at the time of tendering it had brought an additional bucket dredger from abroad and had also replaced an existing dredger with a new dredger of larger hopper capacity brought from abroad. The Port Trust then decided to negotiate with firm 'D' presuming litigation might be time consuming and a new contractor might quote higher rates. During negotiations firm 'D' initially demanded Rs. 2.37 crores more than the amount of the contract but subsequently agreed to settle for Rs. 1 crore. A committee constituted (October 1971) by Government to examine the claim found it unacceptable under the contract but recommended payment of Rs. 62.28 lakhs (including Rs. 12 lakhs as refund of customs duty) over and above the amount of the contract. On firm 'D' representation that it had suffered heavy losses and had depleted its resources, the committee also recommended an interest-free advance of Rs. 1 crore not provided in the contract. As firm 'D' did not accept this offer and did not resume work, it was decided on 3rd November 1971 to pay Rs. 83 lakhs (including Rs. 12 lakhs as refund of customs duty) on condition that the contractor would resume work immediately. This amount (Rs. 83 lakhs) was paid to firm 'D' in May-June 1972. Firm 'D' resumed work in November 1971.

A supplementary agreement was executed with firm 'D' in January 1972 providing, amongst other, that the rate for dredging the outer channel (about 35 lakh cubic metres) would be decided on actual cost on a "no profit no loss" basis which would be comparable to rates allowed for similar work in other parts of the world. Within 6 months of this agreement and before the rate for dredging the outer channel was even discussed, firm 'D' put in another claim (June-July 1972) for Rs. 1.18 crores mainly for dredging in harder materials than that it had quoted for. This amount was paid (between January 1973 and August 1973) under protest subject to arbitration. A further sum of Rs. 15.50 lakhs was also paid under protest between May and June 1974. Arbitration proceedings, which can be initiated during execution of work only after obtaining consent of the contractor, have not been initiated (December 1974) as the contractor has not given the consent sought for by the Port Trust.

Under the supplementary agreement of January 1972 the following benefits also accrued to firm 'D':—

- (i) An interest-free advance of Rs. 50 lakhs would be paid to the contractor. The advance was paid in April 1972.
- (ii) Escalation was allowed on the basic price of petroleum products and Rs. 5.04 lakhs were paid upto June 1974.

The Port estimated that together with escalation on iron, steel and labour accepted in November 1973 the additional payment would come to Rs. 3 to 4 crores.

(Under the original agreement escalation was permissible for unforeseen changes in taxes, duties etc. and not for increase in the basic price.)

- (iii) The original contract provided for a composite rate of Rs. 4.10 per cubic metre for dredging and dumping at a distance of 4.5 kilometres. According to that contract, the place for dumping dredged material was in the outer sea at a distance of 4.5 kilometres from the breakwater to prevent silt coming back into the channel and the inner harbour. Under the supplementary agreement, firm 'D' was allowed to dump the dredged material on Baina beach to the south of the port area at an average distance of 2.15 kilometres at Rs. 3.50 per cubic metre for 15 lakh cubic metres and Rs. 3.60 per cubic metre for the balance quantity. For the reduced lead, however, the rate should have been about Rs. 2.50 per cubic metre, if computed in the manner the rate for the contract was worked out, after taking into account that 20 per cent of the dredged material dumped in Baina beach would flow back into the dredged area. The Ministry stated (December 1974) that instead of hopper dredger the contractor used a suction dredger and a pipeline for dumping dredged material on the Baina beach and for such dredging "the question of lead with reference to the rate structure has only a marginal importance and the lead is determined by pump capacity".
- (iv) The supplementary agreement also provided that if firm 'D' was not able to dump the entire dredged material on Baina beach, it would dump 4 lakh cubic metres of dredged material in Vasco Bay on the eastern side of the port area at Rs. 4.10 per cubic metre. For the reduced lead of 1

kilometre the rate should have been Rs. 2.90 per cubic metre if computed on the basis the rate for the contract was worked out.

- (v) The Port Trust agreed to take over dredged areas as and when completed, instead of after completion of the entire dredging as originally stipulated.

After execution of the supplementary agreement in January 1972 allowing firm 'D' to dump dredged material on Baina beach and Vasco Bay, 4.45 lakh cubic metres were dumped in Vasco Bay and 6.73 lakh cubic metres were dumped on Baina beach for which Rs. 12.08 lakhs were paid more to firm 'D' due to higher rates allowed in the supplementary agreement. The Ministry stated (March 1974) that the rates in the supplementary agreement were allowed after hard bargaining and were considered reasonable in the conditions then prevailing.

The rates for the remaining portion of the dredging (save the outer channel) were revised (November 1973) and a supplementary agreement was executed in June 1974 allowing rates between Rs. 3.60 and Rs. 22 per cubic metre for different kinds of materials to be dredged. At these revised rates, the balance of dredging (about 40 lakh cubic metres) would cost about Rs. 3 crores more than what would have been payable under the original contract. This is substantially because of the harder material to be dredged than was envisaged earlier.

Apart from the higher rates allowed in 1973, firm 'D' is to be paid another interest-free advance of Rs. 90 lakhs. This advance has not been paid yet (August 1974).

Reclamation

According to the estimate of September 1969, an area (called zone 'A') of 42.5 acres (later increased to 57.5 acres) was to be reclaimed with the dredged material on the eastern side adjoining the existing port area, after pre-dredging existing soft material in that area. Another area of 53.9 acres (called zone 'B') adjoining zone 'A' was also to be reclaimed after pre-dredging of soft material. The rest of the dredged material was to be dumped in the open sea 4.5 kilometres away from the breakwater to prevent flow back of the dredged material into that area. Reclamation of zone 'B' however, did not form part of the contract executed with firm 'D' except for a small 30 feet wide stretch along the shore. Reclamation of zone 'A' and the 30 feet wide area in zone 'B' has been completed.

As the work was lagging behind, in June 1970 firm 'D' was allowed to dump dredged material temporarily in Vasco Bay on the eastern side of the port area beyond the area of zone 'B' mentioned above at a distance of about one kilometre, so that firm 'D' could keep to the dredging schedule. Firm 'D' was to pay liquidated damages at Rs. 50,000 per week if the dredged material was not removed by December 1970. Between September 1970 and December 1970 firm 'D' dumped 5.30 lakh cubic metres and between January 1973 and September 1973 another 4.45 lakh cubic metres of dredged material in Vasco Bay. The material dumped in Vasco Bay has not been removed so far (December 1974). Liquidated damages have not been recovered for non-removal of 5.30 lakh cubic metres dumped between September 1970 and December 1970. A study made in 1965 and 1966 by the Central Water and Power Research Station, Poona, on experimental model indicated flow back upto 20 per cent of the dredged material dumped at Vasco Bay. If ultimately the Port Trust has to remove the dredged material to prevent flow back into the port area, the cost would be considerable. The Ministry stated (December 1974) that "precautions have been taken to see that the material deposited in Vasco Bay do not flow back in zone 'B'. However, some quantities of materials might have flowed back into zone 'B'". The Ministry also stated that "the material disposed of in Vasco Bay was coarse in nature and had, in fact, created valuable land which was leased out to private parties, whereby the Port had earned substantial revenue by way of lease rent. In view of this, the question of levying liquidated damages for not removing the solid deposited in the Vasco Bay does not arise".

It was mentioned (December 1972) in the draft 5th plan of the Port that out of 9.75 lakh cubic metres of dredged material dumped in Vasco Bay upto September 1973, 4 lakh cubic metres have settled down in the area earmarked for zone 'B'. Reclamation of zone 'B' when taken up, would need pre-dredging of the soft material originally existing there. Before predredging of the soft material, however, removal of 4 lakh cubic metres of dredged material, which as mentioned above, have settled down in Zone 'B', would be necessary; the cost of removing these 4 lakhs cubic metres would be about Rs. 19 lakhs. The Ministry stated (December 1974) that "the extent of pre-dredging to be carried out in zone 'B' has not increased on account of the disposal effected by the contractor in Vasco Bay".

Maintenance Dredging

According to the contract, firm 'D' was responsible for maintenance dredging of the area dredged by it till the whole area was

handed over dredged to final depths (43/45 feet). It was known to the Port Trust in 1965 from the reports given by the Central Water and Power Research Station, Poona, that the rate of siltation in the area was very high. In fact, firm 'D' had this point emphasised (August 1971) by the Government of its country through diplomatic channels in support of its additional claims. It was, however, agreed in January 1972 that the Port Trust would take over the different dredged areas as and when completed without waiting for completion of dredging of the entire area, thus taking upon itself the responsibility of maintenance dredging of the areas taken over. Four such dredged areas were taken over by the Port Trust between March 1972 and September 1973.

Besides, a study (October-November 1971) by the Central Water and Power Research Station, Poona, also indicated a high rate (20 per cent) of flow back of the dredged material dumped in Baina Beach into the port area requiring more maintenance dredging.

Maintenance dredging by the Port Trust increased as follows.—

1970-71	17.60 lakh tonnes.
1971-72	28.22 lakh tonnes.
1972-73	36.23 lakh tonnes.

The Ministry stated (December 1974) that "maintenance dredging has gone up due to number of reasons for instance due to intensive use of the dredger, due to increase of anchorage area, dredging of virgin area for installation of additional mooring buoys and its consequent maintenance and on account of the stabilisation of the side slopes of the virgin area dredged to the required depth".

Dredging of Outer Channel

According to the supplementary agreement of January 1972, firm 'D' was to dredge the outer channel on "no profit no loss" basis. A committee appointed in February 1973 to recommend the best course to get the dredging completed concluded (November 1973) that it would be more economical to do the dredging with the departmental dredgers expected to be available by October 1974 and firm 'D' was absolved of the responsibility of dredging the outer channel. The two departmental dredgers were ordered in 1971 and were due for delivery in June 1974 and October 1974 respectively. The dredgers have not yet been received (January 1975).

Having regard to the reduction in the scope of work being done by firm 'D' and the higher rates allowed after execution of the original contract, the total payment to firm 'D' would now be about 275 per cent of the amount that would have been payable at the rate in the original contract. Only a part of this increase seems to be attributable to the harder rock to be dredged than was contemplated in the first instance.

The total expenditure on the project upto March 1974 was Rs. 2079.29 lakhs. The Port Trust expected (August 1974) that all items of work would be completed by May 1975 except dredging.

Of about 110 lakh cubic metres to be dredged, dredging of about 75 lakh cubic metres in the port area by firm 'D' was expected to be completed by May 1976. Dredging of the outer channel (35 lakh cubic metres) would be taken up after completion of dredging of the port area by firm 'D'. So long as the outer channel is not dredged, ships even upto 60,000 DWT will not be able to come to the port and the benefits of the scheme will not accrue. The World Bank appraisal had estimated (1969) a loss of Rs. 2 lakhs to the Port Trust for each day's delay.

A map of Mormugao port showing the places where the expansion work is being done is given in Appendix VIII*.

[Paragraph 36 of the Report of the Comptroller & Auditor General of India for the year 1973-74—Union Government (Civil)].

*Appendix VIII to Report of the Comptroller & Auditor General of India for the year 1973-74 Union Government (Civil).

II.

QUANTUM OF TRAFFIC AND ECONOMIC VIABILITY

2.1. Mormugao is a spacious natural harbour situated about 400 K.Ms. south of Bombay on the left bank of river Zuari. The economic hinterland of the Port of Mormugao comprises the following districts and States:—

1. The entire territory of Goa;
2. The whole of Kolhapur and Sangli districts, part of Satara district, and most of the Ratnagiri and Sholapur districts in the Maharashtra State; and
3. The districts of Belgaum, Bijapur, Raichur (part), North Kanara, Dharwar, Bellary, Shimoga (part) and Chitaldurg in the Karnataka State.
4. Part of the Anantapur and Karnool districts in the Andhra Pradesh State.

2.2. The present facilities at the Port consist of a natural harbour which can hold about 50 steamers at a time in fair season and 15 steamers at a time during the monsoons, and six berths, including a berth where a privately owned mechanical ore handling plant is located. This berth loads iron ore upto 1000 tonnes per hour and also provides facilities for discharging mineral oils from oil tankers. The other berths are equipped with cranes and other cargo handling equipment, sheds, warehousing with rail siding etc. and handle both ore and general cargo traffic. Vessels can be loaded upto 28 to 30 ft. draught at berths, upto 30 ft. draught at the moorings, anchorages and inside the harbour and upto 45 ft. draught in the sea-anchorages in the outer harbour.

2.3. The need for further development of the facilities at the Port has raised from the increase in traffic at the Port and the imperative requirement of handling iron ore for export at a quicker speed and carrying the same at a lower rate of freight to meet competition in the inter-national market.

2.4. The table on the next page shows the actual commodity-wise traffic handled at the Port during the years 1968-69 to 1974-75 and the latest anticipated projections of traffic for the years 1975-76 to 1978-79, which formed the basis of the Economic Appraisal of the Port Development Project carried out in April, 1975:—

Traffic handled/anticipated at Mormugao Port

(Figures in thousands of tonnes)

Commodities	ACTUALS							ANTICIPATED			
	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79
1. Iron ore including Pellets	7822	8081	9544	10559	11697	13048	12564	13500	13500	14000	15000
2. Manganese ore Group	529	575	999	636	561	502	661	500	500	500	500
3. Bauxite	20	66	76	6	7	..	..	..	..	..	..
4. Oilcakes	31	64	72	63	94	90	94	80	80	80	80
5. Finished Fertilizers	156	51	95	72	52	28	59	122	125	141	201
6. Chemicals & Fertilizer & Raw material	3	..	..	..	..	..	..	25	25	25	25
7. Mineral Oils including Naphta Projection	161	147	234	316	319	548	589	732	782	839	902
8. Liquid Chemicals (Phospheric Acid 52.%) . . . . .	..	..	..	..	..	..	14	75	75	75	75
9. Food Grains & Pulses	35	27	18	32	50	51	37	20	20	20	20
10. Petroleum Coke . . . . .	..	..	..	..	..	..	..	50	75	75	75
11. Other General Cargo	16	18	5	16	6	38	90*	63	67	75	80
	8779	9029	1105	11700	12846	14335	14108**	15167	15329	15830	15958

*Includes sugar export traffic of 88419 tonnes.

**Excludes transhipped cargo (wheat) of 24490 tonnes.

2.5. The Committee also called for figures of traffic actually handled at the Port during 1975-76 and the same are given below:—

Quantum of Iron Ore Traffic and Manganese Ore Traffic and other Traffic handled at Mormugao Port during 1975-76 (Commodity-wise Traffic during 1975-76)

(Figures in Metric Tonnes)

Sr. No.	Commodities	1975-76
1	2	3
<i>Exports</i>		
1.	Iron Ore Excluding Pellets	11020222
2.	Iron Ore Pellets	459641
3.	Total Iron Group (1+2) :	11479863
4.	Black Iron Ore	69325
5.	Ferro Manganese Ore	245560
6.	Manganese Ore	88343
7.	Total Manganese Ore Group (4 to 6) :	403228
8.	Bauxite	1300
9.	Total Ores (3+7+8) :	11884391
<i>Other General Cargo :</i>		
10.	Oil cakes	69875
11.	Sugar	135275
12.	Aluminium Ingots	3207
13.	Miscellaneous	88
14.	Total General Cargo (10 to 13)	208445
15.	Total Exports (9+14) :	12092836
<i>Imports :</i>		
16.	Fertilizers	42738
17.	Foodgrains & Pulses	68502
18.	Other General Cargo :	
	(i) Iron & Steel	..
	(ii) Machinery	521
	(iii) Motorcars & Parts	..

1	2	3
	(iv) Bitumen	19
	(v) Lubricants	264
19.	Mineral Oils	547319
20.	Liquid Chemicals	15693
21.	General Goods	1
22.	Total Imports (16 to 21)	675057
23.	Total Exports & Imports (15+22):	12767893
24.	Transhipped Cargo	..
25.	GRAND TOTAL (23+24):	12767893

The Committee were also informed in a written Note in June, 1976 that—

“At one time, it was expected to have a traffic of 14.00 million tonnes of ores. On account of recession in the international trade the ore exports have fallen during the year 1975-76. In view of the recent trends it was expected to handle 12 million tonnes of ores.”

Ore traffic

2.6. It would be seen from the above that the bulk of the traffic at the Port pertains to export of iron ore (viz., 12,564,000 tonnes out of a total traffic of 14,108,000 tonnes during 1974-75 and 11,479, 863 Metric Tonnes out of a total traffic of 12,767.893 Metric Tonnes in 1975-76). The Port also handled 6.6 lakh tonnes of Manganese Ore during 1974-75 and 4.03 lakh tonnes in 1975-76. A good part of the ore traffic at the Port is handled at the moorings and anchorages in the harbour where ore brought in by barges from the mines in Goa is directly loaded into steamers by manual operations. About 80 per cent of the traffic at present is handled in the stream, 11 per cent at the mechanical berth and the remaining 9 per cent at other berths.

In order to bring about a radical change in the above mentioned pattern of handling a major share of export in the stream, the Development Project of the Port includes the provision of a new mechanical ore berth with emphasis on high-speed loading.

As stated in the Audit Paragraph, the other items in the Development Project consist of dredging & reclamation, provision of Barge berths for unloading of barges carrying ore from the mines in Goa, construction of oil berth and provision of additional navigational facilities. As per the revised estimates of cost (June, 1974), the provision of mechanical ore handling plant accounts for Rs. 18.25 crores out of the total estimated cost of Rs. 63.66 crores. The system would include facilities for receiving, stockpiling, reclaiming, weighing, sampling and shiploading of 12 million tonnes of iron ore per annum. The rated loading capacity of the ore-handling plant would be of the order of 8,000 tonnes per hour (as against a maximum of 600 tonnes per hour of the existing plant). The equipment is designed to permit initially the loading of 60,000 dwt. ore carriers and subsequently 100,000 dwt. ore carriers. With the installation of the plant, a 60,000 dwt. vessel could be loaded in about one day as against 10—15 days at present.

2.7. Audit has pointed out that on a 2 shift working (16 hours) at rated capacity for 300 days in a year, the mechanical handling plant of 8000 tonnes per hour capacity would be able to handle 384 lakh tonnes. For handling maximum estimated traffic of 120 lakh tonnes of iron ore the plant would have to be used to the extent of about 31 per cent of its rated capacity.

2.8. Besides the waste inherent in under-utilisation of capacity the question was whether there would be sufficient iron ore traffic over a period of years so as to guarantee utilisation of the mechanical ore handling plant being built at a cost of Rs. 18.25 crores as per revised estimates of June, 1974.

2.9. A note furnished by the Ministry of Shipping & Transport in regard to the plans of Government in general, and of the MMTC in particular to make use of the mechanical facilities in Mormugao

to increase the share of the public sector in the export of iron ore is reproduced below:—

"The exports of iron ore through the Port of Mormugao by major exporters during last four years were as under:

(Figures in lakhs tonnes)

Exporters	1971-72	1972-73	1973-74	1974-75	Total
1. M/s Chowgule & Co. Pvt. Ltd.	18.69	16.25	14.01	17.84	66.79
2. M/s V. S. Dempo & Co. Pvt. Ltd.	13.28	16.07	18.38	18.36	66.09
3. M/s. V. M. Salgaokar Bro. Pvt. Ltd.	11.99	14.01	18.23	19.61	63.84
4. M/s Sesa Goa/ Mingao	11.85	13.80	13.67	13.67	52.99
5. M/s Sociedade Formento Industrial	11.71	12.66	16.05	10.67	51.09
6. M/s Shantilal Khushaldas	7.26	10.83	10.33	7.83	36.25
7. M/s M. M. T. C.	6.44	6.98	13.55	11.65	37.62
8. Percentage of MMTC in total iron ore Exports.	6.1	6.0	10.4	9.3	8.1

2. The Mechanical Ore Handling Plant installed at this Port is mainly barge-oriented, being provided with three barge unloaders of a capacity of 150—200 tonnes per hour. Although, the rail-borne ore can also be handled through the plant, such handling is extremely limited as the cargo has to be manually unloaded on to a small rail-served plot from where the reclaimer crane of the Mechanical Ore handling plant has to pick up the Ore and deposit it on the main storage area of the plant. Exports of Ore by MMTC from Mormugao Port are, however, not substantial and range from 1.0 to 1.4 million tonnes per annum at present. A substantial portion of this is rail-borne for which the utility of the present mechanical ore handling plant at berth No. 6 is limited, as stated above. The MMTC thus uses the existing mechanical ore loading facility only occasionally.

3. With the commissioning of the new and bigger ore loading plant under the present development project expected to be completed in 1976, MMTC propose to handle their present exports and such additional exports as may be possible in future, through the new mechanical ore loading facility. MMTC estimate the annual quantum of such exports at about 3 to 4 million tonnes."

2.10. As to the proposal of the Port Trust for utilising the existing ore handling plant, after installation of the new Mechanical ore-loading Plant, the Chairman of the Port Trust stated during evidence:

"Existing port consists of 5 berths. Actually it is 6 berths; but berth Nos. 1 and 2 are considered as one berth. So we may say 5 berths are there. Berth No. 6 is the one where the mechanical ore loading plant is located. Once the new plant goes into operation, because of higher loading rate of new plant, the plant of Chowgules will become obsolete in view of the low loading rate that it would secure. And there are possibilities of using that plant for handling manganese and black iron ore....."

2.11. As stated in the Audit Paragraph, the iron ore reserves in Goa were about 4114 lakh tonnes, out of which 500 lakh tonnes had been exported by 1973-74. At the present rate of export of iron ore through Mormugao, the balance would not last more than 28 years.

During evidence, the Committee desired to know the position in this regard and the representative of the Department of Steel stated in reply:—

"Broadly speaking, whatever has come in the Audit Report with regard to iron ore deposits in Goa is correct. The reserves as per estimation in 1971 totalled to about 4114 lakh tonnes and we have got 80 per cent of these ores in the form of powdery ore or fines and only the remaining 20 per cent is in other form. Taking the present rate of export around 12 million tonnes from this ore mine, I think the estimation of about 28 years is correct."

Asked about the proven iron ore reserves in the country, the witness stated:—

"There are roughly 8640 million tonnes of hematite with plus 58 per cent ferrous content and 1970 million tonnes of

magnetite iron ores. Both these ores total up to about 10,000 million tonnes."

In reply to a question whether the Department of Steel were reconciled to the idea that the iron ore reserves in Goa would be exhausted in about 28 years, the representatives of the Department stated:—

"Yes, Sir. At the moment, this is the position that at the present rate of export, the Goa reserves will last around 28 years. But our efforts are that to the extent possible we may convert the fine and blue dust into pellets whether we are able to do it. That is more important because export from India should be increasing in terms of iron ore derivates. I may mention that there is a pelletisation plant already in Goa whose capacity is 0.5 million tonnes. There is another proposal being considered to put up a pelletisation plant with a capacity of about 1.8 million tonnes. The objective is that it is the processed ore which will fetch a higher price."

Offering some clarification in regard to the figures of iron ore mentioned in the Audit Paragraph, the representatives of the Ministry of Commerce stated in evidence:—

"There is a small point in it and we would like to clarify the position. The figures given in the Audit Paragraph refer to the ore reserves in Goa, but the zoning is slightly on a different basis. The Zone 'C' covers Bellary-Hospet areas and Zone 'B' covers Goa-Ratnagiri areas. In this zone, the total estimated quantity of iron ore is 436 million tonnes. In Zone 'C', the total estimated quantity is 1329 million tonnes because the grouping is on a slightly different basis. Even now, MMTC is exporting from Hospet area about a million tonnes of ore per year and it is anticipated that by 1980-81, the amount to be exported out of the hinterland ore might go to 3 to 4 million tonnes. There is a programme to widen the Railway track upto Goa."

2.12. The Audit Paragraph also mentions about the constraints in movement to Mormugao Port of more ore from Hospet-Bellary region till conversion of the metre gauge railway track to broad-gauge.

In this regard, the representative of the Port Trust has stated in evidence:—

“At the moment Goa is connected with the main-line through a metre-gauge line as you know. The basic constraint of that line is that it restricts the total handling of ore through railways by that line. That may not be more than 0.7 million tonnes of ore every year. That constraint will remain till that line is converted into a broad-gauge line.”

2.13 The Committee have been informed that in September, 1975, the Planning & Research Department of the Mormugao Port Trust conducted a study of the Prospective Development (Industrial, Agricultural etc.) of the entire hinterland of the Port. The study also dealt with the iron reserves in the Bellary & Hospet Region and ore from this region could be exported through the Port of Mormugao came to the conclusion that about 3 million tonnes per year of iron from this region could be exported through the port of Mormugao on conversion of the metre-gauge railway line into broad-gauge from Hospet to Goa. The relevant extracts from the Study are reproduced below:—

“Iron ore production in the Bellary-Hospet Region which started on a moderate scale in 1952 now stands around 3.5 to 4 million tonnes per annum. * * * Out of the total despatches of about 3.5 million tonnes during 1972, 2.1 million tonnes were sent to Madras, 0.4 million tonnes to Mormugao, about 0.6 million tonnes to Karwar and Delikere and balance to minor ports like Cuddalore, Kakinada etc.

* * * * *

The sum up, it would appear that the Bellary-Hospet region has a production capacity of about 20 to 22 million tonnes of iron ore per annum including 4 million tonnes in the private sector.

* * *

At this stage, the requirements of iron ore of the Vijayanagar Steel Plant would be 9.5 million tonnes per annum approximately. In other words, even after meeting the requirements of the Vijayanagar Steel Plant at the second stage of expansion, Bellary-Hospet complex would still have an exportable surplus of about 11 million tonnes of

iron ore per annum, provided it is decided to develop both Kumaraswamy and Ramandurg deposits by that time.

As already stated above, the present production from the Bellary-Hospet complex is about 3.5 million tonnes per annum. In order to achieve the level of production referred to above, it would be necessary to have an integrated development of the region not only in respect of the development of mines and creation of pelletisation facilities but also for creating other infrastructure facilities like the development of the Railways and the Ports. Accordingly, the Government of India *vide* Ministry of Petroleum, Chemicals and Mines & Metals letter No. 5 (83)/70-M IV dated 16th April 1974, formed a Study Group for the integrated development of Bellary-Hospet iron ore deposits. The group were *inter-alia* asked to assess the ore requirements stage by stage taking into consideration the long term export projections and the requirements of the steel plant being set up in the area and suggest the relative pros and cons of the alternative route for the dispersal of the iron ore for export, taking Railways, Ports etc.

* * * *

Some of the main recommendations of the Group are as under:—

* * * *

- (ii) The Bellary-Hospet deposits have predominance of fines and will constitute nearly 60 to 70 per cent of the total production. It may be stated that fines as such cannot be exported particularly in view of the recent trend of very strict environmental pollution control in Japan and other developing countries, and it may be necessary to pelletise the fines * * * * before exporting them abroad. The Group has opined that movement by conveyors will not be operationally economical. As regards movement by rail *vis-a-vis* by Pipeline, the Group has estimated that the cost of transport of fines as pellet-feed in the slurry form through pipelines would be roughly 1/3rd of the Rail transport cost. Accordingly, it may be more economical to transport fines in the slurry form to the nearest port, pelletise them and export the pellets rather than pelletise the

fines at the mine and transport the pellets by rail to the port concerned. However, for the purpose of assessing the actual economics of transport of fines in slurry form, it will be necessary to establish geological characteristics of the fines and conduct aerial surveys for locating the pipeline route to the Port over the heavily forested hilly terrain from Bellary-Hospet to Karwar and work out firm capital and operational costs for the pipeline system. The Group, has therefore, recommended that the NMDC may be authorised to appoint suitable consultants to undertake the above studies. It would require about two years to complete the integrated studies after the date of sanction. A detailed Master Plan can be developed after these studies have been completed.

(iii) In case after conducting the detailed studies as referred to in (ii) above, it is found that the entire product has to be railborne keeping in view the existing facilities and additional capital costs on Railways and Ports and the operational costs thereof, the Group has recommended that the most economical distribution of the 11 million tonnes per year of exportable product would be to export 8 million per year through Madras and 3 million tonnes through Mormugao by providing necessary Railway and port infrastructure. It may be stated that a commitment has already been made for exporting 5 million tonnes of iron ore through Madras and both rail and port facilities for movement of this traffic are already being created. In other words, the balance exportable surplus available would be 6 million tonnes out of which 3 million tonnes would be exported *via* Madras and the other 3 million tonnes *via* Mormugao.

From the above discussions and the statements referred to therein, it will be seen that the Sub-Group has concluded that movement of iron ore *via* Mormugao will be most economical not only from the point of view of the MMTC, as the 'consumers' using Rail and Port facilities but also from the point of view of economy as a whole, taking into account various elements of cost like interest and depreciation on Rail and Port infrastructures, cost of operation etc."

2.14. Since the export of iron ore from Bellary-Hospet region through Mormugao is at the moment less than 1 million tonnes and

the future plans are yet in the womb of uncertainty, the Committee desired to know as to how the Government proposed to utilise the mechanical handling facilities (for export of iron ore) being created at Mormugao Port after the reserve of iron ore in the Goa region are exhausted. The Ministry have informed in a note in September, 1975, as follows:

"The reserves of iron ore in Goa were estimated at about 400 million tonnes in the joint inventory of iron ore reserves of India prepared by the Geological Survey of India and the I.B.M. in 1971. At the present rate of export of about 12/13 million tonnes per annum, the known reserves in Goa are, therefore likely to last for a period of about 30 years. As a result of further investigations by the G.S.I. and other agencies, additional reserves may also be established.

2. The estimated life of the Mechanical Ore Handling Plant being installed at the Port of Mormugao is only 15 years and it has been proposed to amortise the value of the plant as well as other connected structures over the same period of 15 years. Thus, the Port would be able to recover the full value of investment being made on the Mechanical Ore Handling Plant in 15 years. It would be seen from the above that the total available exportable ore would last for longer than the estimated life of the handling plant. Even after the life of plant is over (at the end of 15 years), with adequate maintenance it can continue to handle the export of iron ore through Mormugao for some more time.
3. At this stage it is difficult to assess the position that may obtain in regard to the imports and exports through Mormugao Port after the Goan ore reserves are exhausted. It is possible that with improved technology low grade ore and fines as such or in pelletised form could find use in steel mills and could be taken up for export. Similarly large reserves of hematite ore of the order of 800 million tonnes in the Bellary-Hospet area could also become available for export through Goa depending upon the development of the rail infrastructure, particularly if the existing M.G. line between Hospet and Goa is converted to B.G., increasing its capacity from 0.5 million tonnes to 3 to 4 million tonnes per year. It is understood that at the present stage railways have undertaken a survey for the BG conversion

of existing Hospet-Goa MG line as a part of the through conversion of Miraj-Bangalore trunk route."

2.15. In a further note furnished in October, 1975, the Ministry of Shipping & Transport have *inter alia* stated:—

"There are reports that Geological Survey of India have discovered new iron-ore deposits in the region of Goa and while detailed information is not yet available as Geological Survey of India is still assessing the exact quantity of deposits, these deposits are reported to be as extensive as the earlier resources. This again would be re-assuring for the continued utilisation of the new port facilities that will be available after the present development project at the port is completed."

2.16. On the question of conversion of the Hospet-Mormugao Railway line into broad-gauge, the Ministry of Railways have informed the Committee in July, 1976, that they have decided to pend the whole project of conversion for the present. The note* furnished by them on the subject is reproduced below:—

"Conversion of Goa-Hospet Metre Gauge line into Broad Gauge

Updating of the earlier survey reports for the conversion of Miraj-Londa, Hospet-Mormugao and Alnaver-Dandeli sections has been completed, and the reports have been under examination. The survey for the project was taken up as the capacity of the existing M.G. line would have been inadequate for movement of iron ore from Hospet area to Mormugao Port for export, and for the movement of traffic for Vijayanagar Steel Plant.

The updated reports revealed that the proposed conversion of length 561.94 kms. will cost about Rs. 60.49 crores excluding the cost of rolling stock, and will yield a return of 10.95 per cent by D.C.F. technique.

The financial return worked out by the survey team is based on the movement of 2.5 million tonnes of iron ore from Bellary-Hospet area, *via* Goa port for export and the raw materials and finished products from the Vijayanagar Steel Plant. A study group was set up by the Ministry of Mines to examine the integrated development of iron ore mines

*Not vetted in Audi.

in Bellary-Hospet area. It was found that there are no immediate prospects of movement of iron ore of such magnitude from Bellary-Hospet area through Goa Port. Further, the commissioning of the Vijayanagar Steel Plant is likely to come up only in the 7th Plan. It has therefore, been decided to pend the whole project of conversion for the present."

Non-Ore-Traffic

2.17. It would be seen from the statement of traffic reproduced in para 2.4 above that the traffic in commodities other than iron ore & Manganese ore comprises mainly mineral oils, sugar, oil cakes, food-grains and general items. The quantum of such non-ore traffic was of the order of 883,000 tonnes during 1974-75* and by 1978-79 it was expected to go up to about 1,458,000 tonnes.

2.18. When the Master Plan for the development of the Port was considered in early 1964, it was assumed that a considerable increase in traffic through the Port would develop as a result of the plans for setting up of a fertiliser plant, steel works, oil refinery, ship-yard etc. and the general industrialisation of the area. At that time the following large scale units had been issued letters of intent/licences:—

Name of Industry	No. of Units	Capacity per annum
Goa		
1. Pelletization Plant	1	5 lakh tonnes
2. Textile Mills	3	2500 spindles each
3. Pig Iron Plant	3	8 lakh tonnes pig iron
4. Fertiliser Plant	1	4 lakh tonnes of Ammonium Phosphate
Belgaum		
5. Aluminium Plant	1	1 lakh tonnes of Aluminium Ingots

*In 1975-76 non-ore traffic handled was 883502 tonnes.

2.19. It was assumed at that time that as a result of the above mentioned industries, the non-ore traffic would go up to about 12 million tonnes by 1978-79.

2.20. As stated in the Audit Paragraph, except a Fertiliser Plant (Zuari Agro Chemicals) for Urea of about 1,000 tonnes capacity per day, no other major industry had been set up in Goa till December, 1974.

The Committee also find from the Economic Appraisal (Revised April, 1975) of the Development Project that the expectation of non-ore traffic of 12 million tonnes by 1978-79 was brought down to about 1.5 million tonnes. The following table shows the projections of estimated non-ore traffic at the time of preparation of the Master Plan in 1964 and as per Economic Appraisal (Revised—April, 1975):—

Projections at the time of preparation of Master Plan in 1964	Tonnes	Projections for 1978-79 as per Economic Appraisal (Revised April, 1975)	Tonnes
Petroleum Products (Fuel oil, Kerosene HSD, Petrol, naphtha etc.)	6 lakh	Oilcakes Finished Fertilizers	80,000 2,01,000
Coal for a Steel Plant	6 million	Chemicals & Fertilizers and Raw materials	25,000
Traffic on account of Steel Plant in Goa-Hospet region	4 million	Mineral oil including Naphtha Projections	9,02,000
General cargo including foodgrains and fertilizers	2 million	Liquid Chemicals (Phosphoric Acid 52%) Foodgrains & Pulses Petroleum Coke Other General Cargo	75,000 20,000 75,000 80,000
TOTAL	2.60 million tonnes		1.458 million tonnes

2.21. During evidence, the Committee desired to know whether any other industries (in addition to Zuari Agro Chemicals) were coming up in the area. The representative of the Port Trust stated in reply:—

“There are two more major units coming up in the Goan territory. One is the Goa Carbon which is going to manufacture calcinated petroleum coke (100,000 tonnes per year)

that is coming up in the private sector by a group called DEMPOS. Another is the Madras Rubber Factory, which is part of a chain. That is also in the private sector. The pelletisation plant is also being contemplated; that would also be in the private sector—Chowgule."

Asked whether, in view of congestion at Bombay Port, Government were thinking of ways in which import and export of goods from Bombay could be diverted to Goa, the witness added:—

"There is no conscious effort as such to divert any cargo which is now being handled by Bombay. But there are other economic forces, such as congestion in the railway system and the economic distances which Mormugao offers for the cargo in the North Canara and Southern Maratha regions, i.e. four or five districts of Maharashtra and four or five districts of Karnataka State. In the last two years sugar and in the last four or five years oil cake were being diverted to Mormugao from Bombay which used to be the usual outlet at that time."

2.22. As already mentioned earlier in this Report, the Planning & Research Department of the Mormugao Port Trust conducted a study in September, 1975, of the prospective development (industrial, agricultural etc.) of the hinterland of the Port and the anticipated impact of such development on the traffic through the Port.

This study drew up an outline of the socio-economic situation in the territories of Goa, Maharashtra, Karnataka, and Andhra Pradesh and the plans and prospects of agricultural and industrial development in the hinterland of the Port on the basis of the information collected from the 5th Five Year Plans and the Survey Reports of the District Planning Boards of some of the districts.

2.23. Among the important items of non-ore traffic at the Mormugao Port, special mention may be made of sugar exports and oil cake exports. The Study referred to these items of traffic in the following terms:—

"Sugar Exports

The exports of sugar from this Port commenced in November, 1973 when initially one ship was nominated to load at this Port, on account of abnormal delays experienced by ships loading sugar at the Bombay Port on account of congestion

at that Port. In view of the experience gained in loading of the ships, the Indian Sugar Industry Export Corporation nominated 3 more ships and during 1973-74 a total quantity of 34,671 tonnes was shipped from this Port. The sugar for export originated mainly from the factories in South Maharashtra and North Mysore. During 1974-75 a total quantity of 88,419 tonnes was shipped through this Port. It is to be pointed out, in this connection, that prior to this the exports of sugar from all these factories were being routed through the Port of Bombay. During 1975-76 a programme of shipment of 1,50,000 tonnes from this Port has been indicated by the Indian Sugar Industry Export Corporation. Sugar exports has, thus, emerged as the most important item of export after ores at this Port. It is relevant, in this context, to emphasize the fact that a substantial number of factories in the States of Maharashtra and Karnataka falls within the economic hinterland of the Port. Economic, Agricultural and Industrial development in the Fifth Five Year Plan and thereafter in these regions will have an impact on the traffic flowing through this Port."

"Oil Cake Exports

Oil cakes have emerged during sixties as an important item of exports and source of foreign exchange earnings in India's exports trade. The earnings in foreign exchange on account of exports of oil cakes have now reached over Rs. 100 crores.

Oil cake export traffic commenced at this Port in May 1963 with an initial shipment of 500 tonnes to U.K. There has been thereafter a steady growth in this traffic and traffic during the following years was as under:—

Year	Qty. in M.T.
1963-64	7875
1964-65	31820
1965-66	41112
1966-67	35666
1967-68	32543
1968-69	37231

Year	Qty. in M.T.
1969-70	64396
1970-71	71936
1971-72	63474
1972-73	93669
1973-74	39565
1974-75	93963

Mormugao has emerged as one of the leading outlets of export of this commodity."

2.24. As a result of the above mentioned study of the prospective development of the hinterland of the Mormugao Port, the following projections of non-ore traffic at Mormugao Port were arrived at:—

S.No.	Commodities	Actuals of 1st year of V Plan 1974-75	Anticipa- ted at end of V Plan 1978-79	Projected for the beginning of VII Plan 1984-85
		(In thousand Metric Tonnes)		
1	Mineral Oils (including Naphtha Projections)	589	900	1500*
2	Oilcakes	94	150	200
3	Sugar	88	300	300
4	Foodgrains & Pulses	62	50	50
5	Finished Fertilisers	59	100	..
6	Chemicals & Fertilisers [(Raw material) (Dry)]	..	25	50
7	Liquid Chemicals (Phospheric Acid 52%)	14	75	100 X coastal import expected
8	Petroleum Coke	..	75	100
9	Other miscellaneous general cargo	2	75	150
TOTAL		907	1750	2450

*In case refinery is set up, traffic of crude import would be of the order of 2.5 million tonnes and coastal export of finished product of the order of 10 lakh tonnes.

It would be seen from the above that the Study had placed the projections of non-ore traffic at 1,750,000 Metric Tonnes in 1978-79, and 2,450,000 Metric Tonnes in 1984-85.

2.25. In a note* relating to the abovementioned study, furnished to the Committee by the Ministry of Shipping and Transport, it has been stated :

"Based on the assessment of non-ore cargo that will pass through Mormugao as a result of the study of known Commodities, traffic projections for the beginning of the 7th Plan i.e. 1984-85 would indicate continued use of the facilities which may be rendered idle if and when Goan iron-ore resources get totally depleted. Apart from known commodities which are expected to be handled through this port, industrial and agricultural development of the hinterland of the port as described in several Government documents would throw-up considerable quantities of other items. The quantified projections of these commodities which will be handled through Mormugao will be known clearly after the results of the study entrusted by the Port to the National Council of Applied Economic Research is available.

* * * *

The present study would, however, have limitations due to its having been carried out in a very short time. However, Mormugao Port Trust have recently entrusted the work of estimating the prospective trends of traffic that the port may be expected to handle over the span of next 25 years to the National Council of Applied Economic Research. This report of the study which is likely to be more methodical and scientific is expected to be available in about 12 months' time (from October, 1975). The picture regarding the future traffic projections of the port will then be available in a sharper focus."

2.26. A Working Group of the Committee visited Mormugao in October, 1975 and, in the context of the exhaustion of iron ore reserves in the region in 28 years, desired to have a comprehensive idea of the proposals for establishment of industries in the

*Not vetted in Audit.

Union Territory which could pave the way for a better utilisation of the additional port facilities being provided there. The reply* furnished by the Ministry of Shipping and Transport in February, 1976, is reproduced below :

"It is true that almost four-fifths of the Mormugao Port Trust's total traffic tonnage consisted of the export of iron ore through this port and in view of the estimates made so far, it may be that the present rate of export of Iron Ore through the port, iron ore reserves available in Goa may not last more than 28 years.

2. However, since liberation, the industrial development of Goa has been quite rapid. A number of new industrial units have been set up and more are being set up. The port's general cargo traffic is estimated to increase from 2.5 lakhs tonnes in 1969-70 to about 1.2 million tonnes by 1977-78 mainly because of new items of traffic such as cement and sugar exports, imports of petroleum coke for the Goa Carbon Ltd., import of rock phosphate, sulphur and muriate of potash for the Zuari Agro-Chemicals, export of sugar etc.
3. With the broadening of roads and also the proposed converting of the metre gauge rail line into broad gauge, Mormugao Port will be well connected with the hinterland, the fast developing Rathnagiri-Kolhapur-Belgaum-Dharwar-Karwar regions. This will obviously result in rapid increase in traffic tonnage of Mormugao Port.
4. The Government of Goa has recently set up the Economic Development Corporation to promote rapid industrial development of this territory and a number of industrial projects covering pharmaceuticals, electronics, textiles and engineering units are expected to be set up very shortly. In fact, the Government has already been pressing hard with the Government of India for strengthening the resources of the Corporation.
5. Government of Goa has also sent to the Government of India a proposal for setting up an Export Processing

*Not vetted in Audit.

Zone in this territory. The projects likely to be set up in EPZ will be :

- (a) Manufacture of Jean cloth and readymade garments.
- (b) Tufted carpets.
- (c) Readymade garments.
- (d) Fruits and Fish Canning.
- (e) Essential oils and cosmetics.
- (f) Pharmaceuticals.
- (g) Leather Articles.
- (h) Aluminium conductors.
- (i) Furniture and Joinery.
- (j) Glass bottles.
- (k) Hand Tools and Light Engineering Goods.
- (l) Bakery
- (m) A whole range of electronics.

6. A net export earning of the order of Rs. 56 crores per annum is envisaged as a result of these units coming up. This will mean almost double the present export from Mormugao Port.

7. In fact, the Mormugao Port and Goan economy constitute almost a single economic entity today. Any major industrial development of Goa necessarily hinges on the development of Mormugao Port. The port facilities at Mormugao envisaged may alongside many other factors, trigger off the process of further industrial development of Goa.

8. One of the major reasons why so less trade traffic for items other than iron ore is carried out through this port is lack of suitable facilities in this port and hence quite a number of ships prefer to halt at Bombay Port. Naturally, exporters prefer to export their goods through Bombay because of the early availability of ships there.

9. Although no definite prospective development plan has so far been worked out mainly because the hinterland of Mormugao Port actually covers, in addition to Goa District, the adjacent districts of Maharashtra and Karnataka and to some extent Andhra Pradesh also; there is absolutely no doubt that the impact at Port

development will be all persuasive for the economy of the region served by the Port. For a number of districts in Maharashtra, Karnataka and Andhra Pradesh, Mormugao is the nearest port and with the completion of the expansion programme of the Mormugao Port, the stage will be set for further hastening the process of industrial expansion in Goa. While the districts of Kolhapur, Belgaum and Dharwar are already developing fast, the industrial development of Ratnagiri and Goa is going to hasten fast due to setting up of Konkan development Corporation and Goa Economic Development Corporation respectively. This will have tremendous impact on inward and outward traffic passing through the port. There is no reason why traffic tonnage through the port should not double in the next ten years."

2.27. In the context of the position that Zuari Agro-Chemicals is the only factory that has so far come up in the area, the Committee desired to know during evidence as to what was the envisagement of the future of the Port of Mormugao, the perspective of whose development depended largely upon the development of the economic life of the region. and the Secretary, Transport stated in reply :

"The entire development of Mormugao has been planned around iron ore. I have already said that we will look into this. I would say that we will look into it further and go into it. The point that you have made is very very valid. We will go into it further. More than that, I am unable to say anything else."

Economic Viability of the Project

2.28. The economic viability of the Development Project for the Port of Mormugao is based mainly on the benefits expected to be derived from quicker handling of iron ore for export. According to the Economic Appraisal (revised in April 1975), prepared by the Ministry in the context of the revised (June 1974) estimate of about Rs. 64 crores, the savings/benefits for switching of iron ore loading to the new ore handling facilities from the present stream-loading would consist mainly of (1) savings in shipping costs resulting from the reduced turn-round time and (2) the economy of using large bulk carriers which will become possible with the new fast loading plant and the deeper harbour-channels and berths and the provision of night navigational facilities. In that Appraisal, it was estimated that the transportation per tonne for 60,000

dwt. vessels visiting Mormugao to load at new Mechanical Ore Handling Plant will be about Rs. 66 per tonne as against Rs. 140 per tonne under the present loading conditions in the stream anchorages at Mormugao and Rs. 124 per tonne at the existing Mechanical Plant, on Mormugao/Kawasaki (Japan) voyage. On this basis, the overall annual savings towards shipping costs of iron ore exports were calculated at Rs. 84 crores on 12 million tonnes iron ore traffic per year, as follows :—

Total savings due to the New Ore Handling Facilities :

1. Anticipated iron ore traffic by 1977-78	14.0 million tonnes
2. Likely quantity to be handled at New Ore Handling Facilities	12.0 million tonnes
3. Estimated Ocean freight savings per tonnes by way of using large size ore carriers at new facilities	Rs. 70.00
4. Overall annual savings on account of reduction in Ocean freight.	Rs. 840 million

In addition, it was expected that reduction in the turn-round time of barges due to provision of mechanical unloading facilities as an adjunct to the Mechanical Ore Handling facilities, will bring an additional benefit of Rs. 56 lakhs per annum.

It has thus been presumed that the overall benefit on account of freight savings will be Rs. 84.56 crores as a result of providing Mechanical Ore Handling Plant. It was also presumed that the provision of oil jetty will account for a further gross annual saving of Rs. 192.80 lakhs and modernisation of existing facilities for about Rs. 10 lakhs per year. It was thus presumed that the total gross annual savings as a result of the development of the Port would be of the order of Rs. 8658.80 lakhs.

2.29. For the purposes of economic appraisal, it was presumed that 50 per cent of the above mentioned economic benefits would be passed on to India and the same would result in an internal rate of return, in economic terms, of over 30 per cent on the investment

of Rs. 63.66 crores. No rationale for the above-mentioned presumption of 50 per cent of the economic benefit passing over to India has, however, been furnished to the Committee.

The calculations of the internal rate of return on the basis of the costs and benefits streams over a period of 20 years from the commencement of investment in 1969-70, are given in Appendix I.

2.30. Asked about the sharing of the expected saving of Rs. 84 crores in freight amongst the different interests concerned, the Chairman of the Port Trust has stated in evidence :

"The saving of Rs. 84 crores is the total economic benefit as a result of this investment. It will accrue to all sectors including the transportation sector, that is, the shipping companies for transportation from Mormugao to Japan. We have presumed that out of the total saving which will accrue to the world transportation sector, 50 per cent of it would be passed on to India and, on that basis, we have worked out 30 per cent rate of return according to the appraisal made in April, 1975."

Asked about recovery of a part of this benefit by the Port Trust authorities, the witness added :

"I think, what he (the hon'ble Member) is hinting at is the financial return which the Port Trust will get. We have worked out the financial return after calculating the net operating surplus, after providing for depreciation, after providing for interest and also after providing for repairs and maintenance of these facilities and after providing for operational expenses. We are still getting a net return of 5.87 per cent which is sufficient to enable the Port Trust authorities to pay the entire loan within a period of 20 years. This is based on a traffic projection of 12 million tonnes per year at the rate of Rs. 20 per tonne, that is, Rs. 17 per tonne for purely handling and Rs. 3 as wharfage."

The Secretary, Transport, has clarified :

"We have got powers under the Port Trust Act to fix Port charges. We will fix Port charges in such a manner as to recover a good portion of this investment."

2.31. On the question of economic viability of the expenditure on development in the context of the ore reserves getting exhausted in 28 years, the Secretary (Transport) stated during evidence :

"When the Project was started, an appraisal was made on the basis of which it was estimated that the entire assets would depreciate within about 15 years. The cost of creation of berths, the mechanical handling equipment have all been calculated on the basis of 15 years depreciation and we hope that the project will be viable on the basis of the present rate of export within 15 years. We will be able to recover the cost within 15 years, and then, after 15 years, further developments may take place."

2.32. Asked whether 15 years was not too short a life for multi-million schemes and whether it would not be desirable to ensure development of the area around the port to achieve full utilisation of the facilities being provided, the representative of the Ministry of Shipping and Transport stated during evidence :

"The development of the hinterland is a good point, on which attention has to be paid by everybody concerned. As people responsible for the Port, we have to take things up with the other Ministries. We do not deny it. Whatever has been planned now, is based upon a certain viability; and we have provided for a good pay-off, as far as these facilities are concerned. At the end of this period, with more industries coming in, it would help the economy of the area. A perspective plan for the hinterland is good. I am not aware of any such plan. It is something on which we should make an attempt."

2.33. The Committee are happy at the emergence of Mormugao as one of the country's major ports and are anxious that its great promise of further growth is carefully assisted towards fulfilment. The Development Project of Mormugao Port is based at the moment mainly on the export of iron ore which constitutes about 90 per cent of the total traffic. To facilitate such export the national exchequer has provided, at a cost of Rs. 18.25 crores the new mechanical ore-handling plant (capacity: 12 million tonnes) in the expectation of cheaper and more efficient working. The likelihood of iron ore reserves in accessible regions being exhausted in a matter of twenty-eight years or so, as well as the intrinsic desirability of founding the future of a fine harbour on the diversification of traffic items call urgently, however, for earnest examination of the ways and means of ensuring an integrated development of the hinterland so that the

country's total economy can advance and the national investment in Mormugao produces optimum results.

2.34. From the Economic Appraisal of the Development Scheme (April 1975—Revised & updated) it appears that Manganese ore (4.6 per cent) and Mineral Oils including Naptha Projections (4 per cent) were the only other important components of traffic at the port. The Planning and Research Department of the Port Trust made a later study (September 1975) which envisages the export of 300,000 Metric tonnes of Sugar per annum by 1978-79 and also anticipates by then traffic in finished fertilisers, oil cakes etc. at a somewhat higher level than in the Economic Appraisal. The prospect, thus, of Mormugao being virtually a one-commodity port appeared to the Committee to be disquieting, specially when the availability of iron ore reserves was uncertain after some time. The Secretary, Ministry of Transport, admitted during evidence that "the entire development of Mormugao has been planned around iron ore" (italics added), and when pressed by the Committee to give his views about a planned promotion of the economy of the region, conceded its urgency. Neither from the representatives of the Union Government nor of the Union Territory of Goa did the Committee find itself able to elicit concrete factual information regarding schemes, if any, for the development of the hinterland. Since the Master Plan for the Port was initiated in 1964, the Committee are positive that for such projects of Mormugao, perspective planning is inescapable. In spite of Government's expectation that, in terms of arithmetical calculation based on certain assumptions of estimated iron ore traffic, good returns will be forthcoming from the investment on Mormugao development, the Committee would urgently ask Government not to be complacent to the larger (and also imperative) question of the economy of the hinterland which alone can provide a sustained foundation to the viable working of the port.

2.35. It appears that when the Master Plan was considered in 1964, the non-ore traffic was expected to be in the region of 12 million tonnes, but that the figure had to be brought down to only 1.46 million tonnes when the revised (April 1975) Economic Appraisal of the Development Project was made. In September 1975, the Planning and Research Department of the Port could place the projections of non-ore traffic at no more than 1.75 million tonnes for 1978-79 and 2.45 million tonnes for 1984-85. In the matter of setting up new industries in the region, letters of intent/licences were said to have been issued in early 1964 for one Pelletisation Plant, three Textile Mills, three Pig Iron Plants, one Fertiliser plant and one Aluminium

Plant. However, all that the Committee could be told during evidence (June 1975) was that a Fertiliser Plant (Zuari Agro Chemical) had been set up, that two more major units (Goa Carbon and Madras Rubber Factory) were coming up and that an additional Pelletisation Plant of 1.8 million tonnes was in process of contemplation. There was no authoritative indication either if small scale industrial development with an export orientation was being seriously pursued. The Committee are perturbed that not enough seems to be done to ensure concomitant economic activity to sustain and strengthen a proud, modern port like Mormugao which calls for commensurate construction of various facets of our economy as its essential base.

2.36. Mormugao handled 12.5 million tonnes of iron ore in 1974-75. The anticipation was that the figure would move up to 13.50 million in 1975-76 and to 14 million in 1977-78, out of which 12 million tonnes would be handled by the new mechanised plant installed at a cost of Rs. 18.25 crores. However, recession in international trade is stated to have caused a drop in the port's ore traffic as a result of which the expectations went awry in 1975-76 itself when the Port handled only 11.48 million metric tonnes of iron ore. The latest (June '76) estimate of government is that the port would not handle more than 12 million tonnes as against the earlier expectation of 14 million tonnes of total ore traffic. Since about 1.3 million tonnes are being handled at the existing mechanised plant, no more than 10.7 million tonnes would be left for operation by the new more sophisticated gadgets. The Committee regret that the resultant distortion in the economy of the project could not be prevented by a sufficiently foresighted approach.

2.37. The Committee are perturbed to find that at the present rate of export of about 14 million tonnes the iron ore reserves in Goa are likely to get exhausted in about 28 years. The Committee have been informed in a written note after evidence that some new reserves of iron ore which are equally promising have been recently found by the Geological Survey of India in the Goa area but these have yet to be investigated in detail. The Committee stress that investigation of the new reserves and other promising areas for iron ore should be carried out on a systematic and priority basis so that the total potentiality of Goa for iron ore is assessed more accurately and a firmer basis is provided for export and utilisation of the infrastructure facilities already created.

2.38. Another aspect to which the Committee would like to draw pointed attention is that substantial quantities of iron ore in Goa region are in the form of "fines". Japan has already taken to the

use of "pellets" instead of "fines" in the manufacture of iron and steel to minimise the pollution hazard. The Committee find that facilities for pelletisation have been developed so far in Goa for a mere 0.5 million tonnes. There is however a proposal to instal a pelletisation plant with a capacity of 1.8 million tonnes. The Committee recommend that the economics of setting up the pelletisation plant in the interest of realising higher unit value for export of iron ore derivatives should be examined on priority basis in all its aspects and if found profitable a plant of the requisite capacity should be set up without loss of time.

2.39. The Bellary—Hospet area which is situated close to Mormugao has rich reserves of iron ore exceeding 1200 million tonnes. At present only about 0.5 million tonnes of iron ore are exported by MMTC from Bellary—Hospet area through Mormugao Port because of the constraints of the metre-gauge railway line which connects Bellary—Hospet to Mormugao and cannot handle more than this quantity. The Committee understand from the studies made available to them by Government that there was a projection for export of 3 million tonnes of iron ore from Bellary—Hospet area through Mormugao Port, which could be achieved through an integrated development of the iron ore mines in the area and by converting the Goa—Hospet meter gauge railway into broad-gauge. The Committee have, however, been informed (July, 1976) by the Ministry of Railways that their surveys for conversion of the Miraj-Londa, Hospet-Mormugao and Abnaver-Dandeli sections into broad-gauge were based on the movement of 2.5 million tonnes of iron ore from Bellary-Hospet area, via Goa for export, and the raw materials and finished products from the Vijayanagar Steel Plant. The Railways had, it seems, to keep pending the whole conversion project for the present on account of the following reasons as furnished by the Ministry of Railways:—

"A Study Group was set up by the Ministry of Mines to examine the integrated development of iron ore mines in Bellary-Hospet area. It was found that there are no immediate prospects of movement of iron ore of such magnitude from Bellary-Hospet area through Goa Port. Further, the commissioning of the Vijayanagar Steel Plant is likely to come up only in the 7th Plan."

The Committee also find from the studies made available to them that as an alternative to transportation of iron ore by rail (by converting the meter-gauge into broad-gauge), the carriage of such ore in the form of "slurry" through pipe-line and its conversion at Mormugao into pellets for export was also contemplated, and a

'Study Group' constituted by Government sometime ago had recommended that the National Mineral Development Corporation should be asked to work out the firm capital and operational cost for such pipe-line systems. In the context of the exhaustion of iron ore reserves in the Goa region in the next 28 years or so, the Committee stress the need for export of iron-ore from other regions (like Bellary-Hospet) through Mormugao in order to ensure continued utilisation of the Mechanical ore handling facilities provided there at a huge cost of Rs. 18.25 crores (now Rs. 20.56 crores).

The Committee would suggest that while continuing to explore the possibility of stepping up exports of iron ore from Bellary-Hospet area through Mormugao Port on a long-term basis, the Ministry of Mines should maintain close liaison with the Ministry of Railways and other concerned Ministries/Corporations so as to ensure simultaneous development of the most economic means for transport of such iron-ore to the Port.

2.40. The Committee find that out of the existing export of nearly 12 million tonnes of iron ore per year from Mormugao the share of MMTC is no more than 1.0 to 1.4 million tonnes, viz. about 9 per cent. The Committee are informed that a substantial portion of iron ore for MMTC is rail borne and this cannot be handled by the existing Chowgule's plant which is mainly barge-oriented. The Committee need hardly point out that with the installation of the fully mechanised plant which has adequate facilities for handling rail borne iron ore this constraint would no longer be operative. There is also the very promising prospect of exporting iron ore in the form of pellets.

The Committee would like MMTC, which is the premier public undertaking engaged in the export of iron ore, to take full advantage of the latest infrastructure facilities developed in Mormugao at such larger public expense, so as to increase its share in the export of iron ore and realise higher value per unit of export. The Committee would like to be informed of the measures which are devised in consultation with MMTC, rail, and port authorities to see that MMTC achieves a commanding position in the export of iron ore.

2.41. It has been assumed in the economic benefit analysis of investment that as a result of the expansion of the port facilities, deepening of the approach channels and mechanisation of the iron ore handling facilities, there would be a saving (in loading and freight charges of iron ore) of Rs. 84 crores per annum. It is presumed that out of this saving of Rs. 84 crores, 50 per cent would be passed on to the country. The Committee would like Government

to work out specifically the mechanism by which they would ensure that in fact this sizeable economic benefit accrues to all sectors of the Indian economy, particularly the Port Trust who have invested large amounts for development of the infrastructure facilities. The Committee would like to be informed in detail how Government propose to secure this economic gain so that it is not siphoned off by the foreign shipping Companies, importers etc.

Government should also see that the freight rate for export of iron ore to Japan is in fact greatly reduced in the interest of the stepping up of our exports.

2.42. As pointed out earlier, iron ore constitutes about 90 per cent of the traffic handled at the port. It is appropriate that rates for handling of iron ore are so fixed that they pay for the developmental expenditure incurred on the development of the port as a whole and not only for the direct expenditure which may have been incurred on the iron ore mechanical handling plant.

2.43. The Committee are concerned that at the present rate of export of iron ore (14 million tonnes approximately per year), the capacity of the iron ore mechanical handling plant would be utilised only to the extent of 31 per cent on two-shift basis. The Committee have not been given any convincing explanation about the parameters adopted for the adoption of such a large size for the iron ore mechanical handling plant. It is a moot point whether it was not possible to design a plant with a lower capacity, say of 4-6 thousand tonnes per hour with an in-built provision for increasing to 8,000 tonnes etc. per hour, as might become necessary in the light of the traffic build-up. Now that the plant with 8,000 tonnes capacity per hour is practically in position, the Committee stress that it should be put to the best use by speeding up the handling of iron ore and by effecting economy in its operations so that the "break even" point could be brought down and enough surplus generated to pay back for the cost of the entire development and the expansion project of Mormugao.

2.44. Coming now to the non-ore traffic, the Committee find that the bulk of the non-ore traffic handled at the Port in 1975-76 was contributed by the following commodities:—

		Metric Tonnes	Percen- tage of non- ore traffic
(1) Mineral Oils	.	5,47,319	62%
(2) Sugar	.	1,35,275	15.3%
(3) Oil Cakes	.	69,875	7.9%
(4) Foodgrains	.	68,502	7.7%
(5) Fertilisers (Liquid & Chemicals)	.	58,431	6.6%
(6) Other Commodities	.	4,100	.5%

The Committee find that out of .88 (approx.) million tonnes of non-ore traffic, as much as 5,47,319 tonnes (62 per cent) is accounted for by mineral oils. As mineral oils would be handled at the oil jetty which is being specially constructed, the quantum of traffic other than ores and mineral oils handled in 1975-76, is 3,36,183 tonnes only. Out of this, sugar accounts for the largest single commodity (1,35,275 tonnes), the next being oil cakes (69,875 tonnes) and foodgrain (68,502 tonnes). In this connection it is pertinent to recall that oil cakes and sugar have been attracted to Mormugao Port from the hinterland of Maharashtra and Karnataka in recent years only. The traditional port for handling these commodities in earlier years was Bombay. The Committee would, therefore, like the Port authorities to maintain close liaison with the oil cake and sugar industries and exporters so as to make sure that these commodities continue to be routed through this Port. Adequate facilities for this purpose on a realistic basis should be provided.

2.45. As regards fertilisers including Phospheric Acid, the traffic is dependent on the production established in Zuari Agro Chemical and other petro-chemical based industries which may come up in the area.

The Committee suggest that realistic projections of traffic for the next 10 to 15 years for non-ore and non-oil traffic should be worked out commodity-wise in consultation with the authorities and interests concerned so as to ensure that the requisite infrastructural facilities at the non-ore berths are provided in time in accordance with a well considered programme.

2.46. As regards development of the Goa region for the generation of non-ore traffic for the Mormugao Port, the representative of the Ministry of Transport was candid enough to admit during evidence that they were not aware of a perspective plan for the development of the hinterland and that it was an important point which should receive consideration. The Committee are constrained to point out that mere assumption of 12 million tonnes in 1964 of "non-ore traffic" in 1978-79 at Mormugao Port without any concrete projection was a grave lapse on the part of the authorities concerned. It is only after the Audit paragraph that initiative appears to have been taken in September 1975 to commission the National Council of Applied Economic Research for preparing a 25-year prospective plan for the traffic for the port. The Committee feel that such a study should have been made before incurring the heavy capital expenditure on the development of Mormugao port. In any case, the study has got to be completed at the earliest and concerted measures taken

in the light thereof to develop the traffic from the hinterland so that the existing infrastructure facilities could be put to the best use and further expenditure on development strictly regulated.

2.47. The Committee note from the material furnished to them that there is a proposal for setting up an 'Export Processing Zone' in Goa which would house projects dealing with the manufacture of ready-made-garments, pharmaceuticals, furniture, engineering goods, aluminium conductors, electronics etc. The Committee note that the Konkan and Goa Economic Development Corporations have also been set up to accelerate development. The Committee would like Government to take an early decision on the proposals submitted by the Union Territory of Goa for setting up of the Export Processing Zone. While the larger question of setting up the Export Zone may take time, the Committee urge that no time should be lost in encouraging the establishment of as many industrial units as are found feasible so that they can go into production and generate traffic.

2.48. The Committee note that a number of districts of Maharashtra, Karnataka and Andhra Pradesh (Kohlapur, Sangli, Ratnagiri, Sholapur in Maharashtra, Belgaum, Bijapur, Raichur, Dharwar and Bellary in Karnataka; and Anantpur and Kurnool districts of Andhra Pradesh) constitute the economic hinterland for Mormugao. The Committee would require the Central Government to take the initiative, in conjunction with the port authorities, and contact the State Governments for meaningful development of these highly promising areas in order to ensure the generation of increasing traffic for the port. The Committee urge that a perspective plan for the development of exports from these contiguous areas may be soon evolved and concrete schemes identified for implementation in a concerted manner. The Committee would like to be informed without delay of the concrete action taken in pursuance of this recommendation. All this relates to a matter of national urgency and the duty, which has devolved on the entire country, of espousing the development of Mormugao as an important instrument of our economic advance.

III

VARIATIONS IN ESTIMATED COST OF THE PROJECT

3.1. The original cost estimate of the Mormugao Port Development Project was Rs. 27.28 crores (November 1967). It was later revised in September 1969 to Rs. 28.64 crores. The estimate for the project was revised several times thereafter, the cost of the scheme according to the latest revised estimate submitted for approval in June 1974 being Rs. 63.66 crores.

3.2. According to Audit the increase in estimates was mainly due to—

- (i) Increase in the cost of dredging.
- (ii) Changes in number (from eight to four) and lengths (from 60 M to 122 M each) of barge berths, changes in design after inclusion of Goa in the seismic zone, rise in basic costs of labour and materials etc.
- (iii) Due to higher rate as per tender and re-designing for seismic conditions of ore and oil berths.
- (iv) Due to higher rate as per tender and escalation on price of steel materials and labour in the case of Mechanical Ore handling plant.
- (v) Actual cost based on tender being higher in the case of ancillary workshops and equipment sheds, navigation equipment sheds, navigation equipments, vehicles, crane etc. also on account of higher basic price of steel and construction materials.

3.3. According to the Economic Appraisal of the Mormugao Port Development Project (Revised—April, 1975) the major factors which have contributed to the enhancement in the capital cost of the Mormugao Port Project are stated to be as follows:

“(1) Work of Dredging and Reclamation

During the course of execution of this work, the contractors invoked the provisions of the clause 13(2) of the General Conditions of the contract (Principal Agreement) and put

forth a number of alternatives for the executions of the balance of the work of dredging and reclamation. Clause 13(2) of the General Conditions of contract provided as follows:

'If, however, during the execution of the work, the contractor shall encounter physical conditions (other than weather conditions or conditions due to weather conditions) or artificial obstructions, which conditions or obstructions could not have been reasonably foreseen by an experienced contractor and the contractor is of the opinion that additional work or use of additional dredging and other plant will be necessary which would not have been necessary if the physical conditions or artificial obstructions had not encountered, he shall if he intends to make any claims for the additional payments give notice to the Engineer in writing.....'

On the basis of the above provisions of the general conditions of contract, the contractor submitted various alternatives for the consideration of the Engineer. The Engineer, in order to investigate the claim put forth by the contractor recommended that additional soil investigations be carried out in the areas where the contractor had alleged encountering material harder than specified in the technical specifications attached to his contract. As a result of these investigations the Engineer was of the view that the adverse physical conditions which were encountered were of a nature which could not have been reasonably foreseen by an experienced contractor. The Port, however, held a different view and in terms of the relevant provisions of the Supplemental Agreement all his claims were paid subject to the matter being finally decided on arbitration as provided under the Principal Agreement.

For the execution of the balance work of dredging, negotiations were held with this contractor and it was decided at the highest level of the Government to pay him higher rates for material classified as hard as well as to pay custom duty on plant and equipment to be imported by the contractor for the execution of the balance work as also escalation on labour and materials employed in the execution of this work. In view of the above, the cost of the dredging has increased from Rs. 7 crores to Rs. 17 crores.

* * * * *

(2) Ore and Barge berths foundations for Mechanical Plant etc.

The increase in the cost of the civil works referred to above is mainly on account of the necessity of designing these structures to withstand the earthquake forces as under the project estimate these structures were not contemplated to be designed as earthquake resistant structures since the territory of Goa was not included under the seismic zones and this was done so at the time of the preparation of the final detailed designs *viz.* in 1970. In addition, further subsoil investigations conducted at the site where these structures were to be located revealed different soil characteristics than those assumed during the preparation of the project estimate. The increase in the cost was also due to the increase in the scope of the work *viz.* the Barge berths were initially estimated with a view to enable the berthing of 600 dwt barges only whereas in the final detailing the barge berths were actually designed to take care of 2,000 DWT barges in view of the increased growth in the barge sizes taking place in the territory of Goa. The increase in the cost was also due to general increase in the cost of industrial raw materials all over the world and also increase in the cost of labour.

(3) Mechanical Ore Handling Plant:

The design study conducted by the Consulting Engineers in 1966 on which the project estimates were prepared and got approved was in respect of the installation of a mechanical ore handling plant with a throughput of 8 million tonnes per year initially with provisions for further expansion upto 12 million tonnes per year. However, when the actual detailing and designing of the iron ore handling facility was taken in hand by the Consulting Engineers it was noted that the throughput through the Port had already crossed the 10 million tonnes mark and there were assumed prospects of it reaching 12 million tonnes in the very near future. It was, accordingly proposed and approved by the Board that the facility should initially be designed for a throughput of 12 million tonnes per year. On account of this, the Mechanical Ore Handling Plant had to be redesigned to include:—

- (i) 8 Barge Unloaders with an average capacity of 3,000 TPH.
- (ii) 3 Stackers with a rated capacity of 2,500 TPH.

- (iii) 3 Nos. of Surge Bins.
- (iv) 2 Nos. of Bucket Wheel Reclaimer with a rated capacity of 4,000 TPH.
- (v) 2 Nos. of Shiploaders with a rated capacity of 4,000 TPH.
- (vi) A wagon handling system with 90 seconds cycle to handle 2 million tonnes of railborne ore.
- (vii) 36 Nos. of Conveyors with a sufficient matching capacity.

In short, the Mechanical Ore Handling Plant to be provided and installed at the Port of Mormugao is to be a unique facility as there is no comparable facility of this magnitude elsewhere in the world as it has to cater to the needs of 12 different grades of ore.

- (4) *General increase in prices, increase in the capital cost and delay in the completion of the Project.*

At the time of the formulation of the project estimate for the installation of an iron ore handling facility at the Port of Mormugao, the position in respect of steel in the market was easy and accordingly it was proposed under the tender conditions that the contractors would procure their requirement of steel to be incorporated in the works. However by the time the award of contracts was finalised the steel position in the market was very critical and as such it was decided at the highest level that the requirement of steel of the various contractors would be made by the Port. This can well be appreciated when we look at the growth in the all Indian wholesale price commodity index. This index which stood at 137.5 in 1965-66, and at 180.6 in 1970-71, grew to 238.8 in 1973-74 (61-62 assumed as 100). This inflationary trend coupled with the delays in the progress of some of the contracts under the execution such as the work of Dredging and Reclamation, late award of the contract for the construction of the Ore and Oil berths, delays in the supply of steel of matching sections to the various civil and mechanical contracts have contributed in no lesser measure to the increase in the capital cost of the investment."

3.4. Justifying the steep increase in estimate during 5 years from 1969 to 1974, the Chairman, Mormugao Port Trust, stated during evidence:

".....The initial cost estimate for this project was Rs. 28 crores, but as a result of a few factors which were not

foreseen at the time of formulation of the estimates, these are now put at Rs. 63.7 crores."

3.5. Referring to the escalation in the cost due to strengthening of the pile foundation to reduce the effect of earthquake, the Committee enquired whether this exercise was carried out because of the fear that the area was vulnerable to earthquake or whether it was done as a measure of extra precaution. The Secretary, Ministry of Shipping and Transport, stated in reply that in the beginning, before the Koyna disaster, that area was supposed to be free of earthquake. After the Koyna disaster, it became necessary for them to take precautions.

Giving the extent of escalation in cost while taking precautions, another representative of the Ministry stated:—

"The escalation took place in a number of structures and with different contractors. Originally, we had taken no account of the earthquake forces. But when the structures were redesigned, for the barge berths founded on piles those piles had to be bigger and they had to be taken to deeper foundations."

3.6. The extent of escalation in the estimated cost of different structures involved in the project due to strengthening of their foundations to safeguard against the force of earthquakes is as under:

S. No.	Name of the work	Increase due to seismic forces (Rs. in lakhs)
1	Dumper house and auxiliary works	4.00
2	Surge bins	2.00
3	Drive houses and sampling plant	6.10
4	Barge berths	10.88
5	Ore and oil berths	46.00
6	Conveying system (foundations)	22.80
TOTAL		91.78

3.7. Asked whether the whole of the Western Coast had been declared as earthquake prone area, the witness explained:

"There is an Indian Standard Code which divides the whole of the country into different seismic zones and the intensity of seismic's effect in each of those areas is specified in that particular specification. Prior to Koyna disaster, seismic forces in and around Goa and other areas of the western coast were taken to be zero. After the Koyna disaster, this area was put under seismic zone No. 3 where the horizontal gravitational forces to the extent of 0.04 g have to be taken into account. This is the revised Indian standard which has been issued and, according to this Indian Standard, we have to provide for seismic forces wherever they are shown in this Indian Standard."

To another question whether foreign experts had been consulted in the matter, the witness replied:—

"If I remember correctly, there is an Earthquake Engineering Institute which keeps in touch with other International Earthquake Institutes. They hold deliberations on problems encountered in the whole world and based on that, they decide upon what should be done about the seismic zones within a country."

3.8. The effect of each of the five main items accounting for increase in the estimated cost of the project, which formed part of the revised estimate of the project amounting to Rs. 63.66 crores pending sanction of Government, along with actual expenditure incurred upto June, 1975, was as follows:—

Main items	Cost as per estimate of		(Rs. in crores)
	1969	1974	
(1) Dredging & Reclamation	7.22	16.84	7.16
(2) Barge Berths	0.64	2.27	1.58
(3) Ore & Oil Berths	2.76	8.00	3.10
(4) Mechanical ore handling plant	6.72	18.25	6.56
(5) Ancillaries workshops and equipment sheds, navigation equipment, vehicles, cranes etc.	7.79	11.90	6.46
	25.13	57.26	24.8

3.9. The Committee desired that the above-mentioned statement should be updated (as in June, 1976) and the latest position as furnished by the Ministry in July, 1976†, is as follows:—

Main items	Cost as per estimate of		Expendi- ture in- curred up- to June, 1976
	1969	1974	
1. Dredging & Reclamation	7.22	16.84	8.56
2. Barge Berths	0.64	2.27	1.95
3. Ore and Oil Berths	2.76	8.00	6.37
4. Mechanical Ore Handling Plant	6.72	18.25 *2.31	20.56 13.32
5. Ancillaries workshops and equipment, sheds navigation equipment vehicles, cranes etc. . .	7.79	11.90	8.58
	25.13	59.57	38.78

*Rs. 2.31 crores represent increase over the estimated cost based on actual contract awarded.)

3.10. The revised estimate of June, 1974 (Rs. 63.66 crores) furnished by Mormugao Port Trust for the development scheme has not yet been sanctioned, and the Committee have been informed (July, 1976)† that:

“.....interest on the loan for the project from the Government of India and market borrowings is being capitalised over the period of construction. The Port has approached the Government for inclusion of Rs. 7.20 crores towards interest charges apart from Rs. 63.66 crores.”

An obvious implication of the above mentioned increase of Rs. 2.31 crores in the estimated cost of the Mechanical Ore Handling Plant would be that the revised (June 1974) total estimate of Rs. 63.66 crores will increase further by Rs. 2.31 crores. There is bound to be increase in expenditure on items other than the aforesaid five items, though according to the Ministry it may not exceed 10 per cent. This means the total project estimate is likely to be much more than Rs. 63.66 crores.

*Not verified in audit.

3.11. Asked to specify a definite date for the completion of the project when the whole money would be spent, the representative of the Ministry explained during evidence in June, 1975:—

“First, I would like to say that there is likely to be some upward change in this revised estimate figure of Rs. 63.66 crores on account of a few electrical items and mechanical equipment items where it is difficult to quantify as to how much will be the escalation. Secondly, assuming Rs. 27.03 crores has been spent so far and another * * * Rs. 37 crores have to be spent before the works can be completed. According to present schedules the dredging will be completed by May 1976 and about the same time mechanical handling equipment will be installed. By December 1976 it should be possible—on the basis of the discussions we have had—to complete all the works and the money would be spent.”

He further stated:

“It would be spent by the end of 1976. MAMC and others are fabricating the equipment. The payment in full will be given only after the equipment has been fabricated and installed. Dredging work, for example, they have started a few days ago and this work will go on. We are feeling confident that it will be spent.”

Giving reasons for the delay, he explained:

“Unless those things are completed, Mormugao equipment cannot be installed. MAMC has to bring those equipments from Durgapur to Mormugao to fix them.”

Assuring the Committee of the completion of the whole project work by December 1976, the witness stated:

“We feel fairly confident that this work will be completed by December 1976 at approximately the expenditure of Rs. 37 crores plus. That plus will be how much I cannot say but it may not be as much as Rs. 40 crores.”

In a note subsequently furnished to the Committee in July 1976*, the Ministry have stated:

“The (dredging) contractor has mobilised three dredgers alongwith ancillary craft. The work is in progress and is scheduled to be completed by April 1977.”

*Not vetted in audit.

3.12. The Committee are unhappy that the estimated cost of the Development Project of the Mormugao Port has gone up from Rs. 28.64 crores (September, 1969) to Rs. 63.66 crores in June, 1974, excluding an amount of Rs. 7.20 crores as interest payable on the loan. The Committee note from the latest information furnished to them (July, 1976) that the cost of providing the Mechanical Ore Handling facilities, estimated at Rs. 18.25 crores in the revised estimates of June 1974, is now expected to increase further by Rs. 2.31 crores. As admitted by the Secretary, Transport, during evidence, there is likely to be a further increase in the revised estimate on account of a few electrical items and mechanical equipment items where it was difficult to quantify the increase. As a result, the total cost of the Project (including interest charges) is now likely to be between Rs. 73 and 76 crores. As already mentioned earlier in this Report, the economic appraisal of the Development Project was based by the Ministry on a total estimated cost of Rs. 63.66 crores (revised estimate of June, 1974). The Committee are concerned to note that within two years there has been a further increase of Rs. 10 to Rs. 13 crores (viz. Interest—Rs. 7.20 crores, increase in cost of ore handling plant—Rs. 2.31 crores, and additional expenditure on electrical items etc.—less than Rs. 3 crores).

The Committee urge that a careful review be made in respect of the economic basis of the Project with particular reference to the latest estimates of expenditure, in order that a suitable charge on ore-handling could be levied and that the heavy investment involved can be expeditiously reimbursed.

3.13. Apart from the changes in the designs or the sizes of the structures, machinery and plants being provided under the Development Project, and escalation in cost due to inflationary trends, it has been admitted by the Ministry that "delays in the progress of the contracts under execution such as the work of dredging and reclamation, late award of the contract for the construction of the ore and old berths, delays in the supply of steel of matching sections to the various civil and mechanical contracts have contributed in no lesser measure to the increase in the capital cost of the investment". Even in the manner of changes in design the Committee are unable to appreciate why the Consulting Engineers in 1966 could not estimate the throughput of the Port more accurately. In the opinion of the Committee, the Project authorities and the Ministry should squarely shoulder the responsibility for the aforesaid delays which have contributed to the massive escalation in the estimated cost of the Project. Responsibility for this predicament requires to

be determined and rectificatory action, if any is now possible, should be taken.

3.14. The cost of dredging and reclamation (which have been discussed in detail elsewhere in this Report) estimated at Rs. 7.22 crores in September, 1969 had to be revised to Rs. 16.84 crores in June, 1974. The cost of providing the Mechanical Ore Handling Plant which was revised during the same period from Rs. 6.72 crores to Rs. 18.25 crores has now (July 1976) undergone a further revision to Rs. 20.56 crores. This clearly indicates that the original estimates were woefully unrealistic. The need for tightening up the machinery for preparation of estimates thus projects itself. The Committee are of the view that this should not be a difficult task since Government has at its elbow a plethora of directorates for planning, development, technical assistance etc. as well as the associated finance wing whose services could be meaningfully utilised to achieve this objective.

IV

CAPITAL DREDGING

4.1. One of the major items of works forming part of the Mor-mugao Port Development Project was the dredging of the Port to enable it to handling 80,000 DWT bulk carriers and simultaneous reclamation of the area needed for the ore berth and the ore handling plant. This work involved dredging amounting to about 10.65 million cubic meters, at the berth, in the turning circle and entrance channel, the reclamation of the area of approximately 70 acres and the construction of reclamation bunds to a length of approximately 1.8 kilometres to contain the reclamation.

In December, 1969, a contract for the work was awarded to M/s. Ivan Milutnoci-PIM, a Yugoslave firm, which was the lowest of the seven tenders received for the work on a global basis. The value of the contract is about Rs. 690 lakhs including a foreign exchange component of about Rs. 181.30 lakhs. The rates were as shown below:—

	<i>Rate</i>
1. Reclamation	Rs. 4.60 per cubic metre
2. Rubble Mound	Rs. 22.00 per cubic metre
3. Dr ging	Rs. 4.10 per cubic metre
	<i>Quantity</i>
Entrance channel	3.5 million cu. metres
Turning Circle	1.5 million cu. metres
Reclamation approaches to berth and barge basin	5.65 million cu. metres
Total :	10.65 million cubic metres.

4.2. The Audit Paragraph mentions that having regard to the reduction in the scope of work being done by the Yugoslave firm and the higher rates allowed after execution of the original con-

tract (which have been dealt with extensively in the succeeding paragraphs) the total payment to the firm would be about 275 per cent of the amount that would have been payable at the rate in the original contract, and the work was expected to be completed by May, 1975.

4.3. The Committee enquired during evidence as to why in spite of engaging three firms—Firm 'A' (M/s. Rendel, Palmer and Tritton) for planning, firm 'B' (M/s. Cementation Ltd.) for conducting sub-soil investigations and firm 'C' (M/s. Howe—India—Private Ltd.) for other works, and having an organisation in the Ministry and a team of technical experts in the Port Trust, there was a wide variation in cost estimates and time schedule for completion of the dredging work. The Development Adviser (Ports), stated:

"When this modernisation scheme was to be taken up, M/s. Rendel Palmer & Tritton, a British firm of consultants, was engaged to advise. We did not have the expertise, with either the Port Trust or the Government, to do a major job like this. They prepared a Master Plan Scheme. In that Master Plan scheme, they indicated the various locations, where the bore-holes should be sunk....This was the firm engaged by the Port Trust for preparation of Master Plan. The Master Plan was accepted by the Port Trust. On the basis of that acceptance, they had given the order. Cementation were to do the boring at particular places."

4.4. Asked about the reasons for the work of the two firms M/s. Rendel, Palmer & Tritton and M/s. Cementation, appointed by the Port Trust, having been done so unsatisfactorily that later on hard rock was found at many places, the witness stated:

"It is a fact that we employed consulting engineers who advised us and prepared a complete scheme for the bore-holes. This was done under contract by Cementation. Consulting Engineers prepared the scheme of the bore-holes and that was approved by the Port Trust Chief Engineer and subsequently by Government. That was according to the usual norms which were laid down for the preparation of the boreholes."

Asked about the correctness of the Master Plan prepared by the Consultants, the witness explained:

"If you could permit me to say there was nothing wrong in the master plan. Master Plan is drawn out with so many requirements. Navigational consideration, wind consideration, handling arrangements, how the ship is to come to the berth etc. have to be kept in view. Within the frame work of the master plan locations of the bore-holes are then fixed. Subsequently, after the bore hole result have been given, if it is found that there are certain points which are wrong and which should be avoided, then the alignments may be changed. With the best of knowledge available to us at that time we had employed this firm knowing fully well that they have been in this country for nearly 100 years. They were our consultants for Bombay, Calcutta and Madras for nearly 100 years. We had no doubts in our mind that they will give us correct expertise and correct opinion."

4.5. After the bore-hole data was taken, the alignment was to be checked with the bore holes. Asked whether the coverage of that alignment was re-checked with the bore-holes, the Development Adviser explained:

"The alignment or rather the master plan for this Port was based upon certain considerations. One was that there was no available land in Mormugao Port. Approximately, 70 acres of land were required for purposes of creation of ore dumps and for laying of machines and equipment etc. That forms the basis for the Master Plan. That area is selected in such a way that it is protected from the elements, that is, from waves, winds etc. and tucked away in an area so that the waves do not disturb the ships which stand inside. This is the first thing that we are selecting. The land has been reclaimed and it is contiguous to the existing Port structure. Naturally, for the ships to come and berth here, we have to give a channel. This channel, which we call as inner channel, is for the ships to approach this berth. From here onwards, is the outer channel. Outer channel alignment is fixed based upon the direction of the winds and waves so that the ships which come to the port are not at an angle to the waves. Either the waves are following the ships or

the waves are in front of them." Exhibiting a map of the area to the Committee, the witness added: "The inner channel is formed by the transitional area which joins the two (berths and out channel) together. After this is finalised, these are the various bore holes which have been done here. You can see the whole area is fully and properly covered with a number of bore holes everywhere, throughout the channel, in the approach areas, in the approach channel and as well as in front of the berths. If the bore holders indicate adverse conditions, then, we can change the alignment. But, these bore holes indicated that rock will not be met upto levels of about 43/45 feet, and therefore, this whole area has been aligned exactly as it was supposed to be. For the outer channels, bore holes have been done. But, the dredging has not been done. There is no difference and there are minor deviations. It is this area where we had the turning circle originally. As a result of finding rock, we changed the turning circle also.

Standards have been laid down. A maximum of one bore hole for a three thousand square metre area is supposed to be sufficient. I do not remember exactly. We have taken the help from World standards from the British, German and Japanese standards and we have devised our own standards."

4.6. Explaining the pattern followed by firm M s. Cementation Ltd. for proceeding with their job of bore-holders the difficulties encountered later on and how these were overcome, the witness deposed:

"The first set of bore-holes, as we call them, were undertaken by Cementation Ltd. according to a certain pattern. The pattern was worked out to cover the approach channel, the areas where construction was to be done and other areas to be dredged, and in this whole area a number of bore holes were sunk. 106 sea bores and 19 land bores were sunk. Unfortunately, we found subsequently that the strata was highly erratic strata wherein bore holes sunk at a distance of a hundred feet of each other showed entirely different results. Subsequently, when there was dispute with the contractor that in certain specified areas the soil conditions were different from what was depicted in the bore hole data furnished we got a number of additional bore holes made in the same location. In all

these bore holes we found different soil conditions. The work was done by a different firm; and not by the same firm. A different firm—Descon—were employed. Even in the bore holes sunk by Descon, harder strata was met at different levels e.g., minus 9 meters, in another at minus 7 metres, in another at minus 11 meters etc. In some bore holes there was the rock at all; in some bore holes rock was met at 7, 8 or 9 meters. The strata where a number of bore holes were sunk were found to be highly erratic. There were intrusions of quartzite rock; there were conditions like solid masses of very stiff compacted clays which cannot be removed with the help of dredgers ordinarily, there were lateritic intrusions all over the place. The conditions turned out to be quite different to what was projected at the time the dredging contract was awarded."

On his attention being drawn to the Report of M/s. Cementation which *inter alia* contained a categorical statement that hard rock was not there, the witness stated:

"The bore holes sunk by Cementation in that particular location, where we subsequently found harder material like laterite, (there was only one bore hole sunk by Cementations) did not show any rock at the depth upto which we had to dredge. We had no reason to doubt the authenticity of that particular bore hole at that time.

In other locations where rock has not been met, the bore holes have given accurate information of the soils there. But in this location, in a very small area where rock and other harder material was met, there was one bore hole which did not show the presence of rock upto the depth of dredging. Therefore, we had no reason at all to doubt the authenticity of the bore hole. But subsequently, when dredging was undertaken, we found ourselves that there were certain areas very close to where the bore hole was sunk, that the contractor was digging out chunks of rocks during dredging, while the bore holes showed only silt and other such substance. Even though they were sunk in the same location within a short distance of each other, the bore holes were not giving similar information."

4.7. During evidence, the Committee were informed that Rs. 11.28 lakhs were paid to M/s. Cementation for 106 bore. Subsequently,

another 32 bores were made. About Rs. 16 lakhs were paid to Descons for that job.

On being asked whether the Ministry at the earlier stage had the desired technical expertise and means for checking up whether the Cementations Report was correct and how the same was ensured, the witness stated that the bore hole information was the only information available for an engineer to know whether he would meet rock or not. That Report was made available to the Yugoslav Company and it was indicated that such and such was the area which had to be dredged. The witness stated that the number of bore holes to be sunk was decided by the consulting engineers and added:

"The bore hole locations were laid down by the consulting engineers. In the total area, 106 more holes were sunk which itself is a fairly large number. But the area being such a large one, 106 bore holes were distributed over the entire area. It so happened that, in that particular location where hard rock was met subsequently, there was only one bore hole. Cementation were to do the work according to the pattern laid down by the consultants for them. They did not choose the bore-hole locations themselves. That was decided by the designer or the consultants and they had done exactly as it was indicated."

Asked as to what action was taken against the firm Cementation Ltd. when their analysis was found defective, the witness deposed:

"We cannot say that their analysis was incorrect. It is not that the bore hole sunk at that location has not given the correct information. The bore holes gave the correct information because in the balance of the areas the information has been very correct. But in that particular location, one bore hole did not show rock, but we met with rock subsequently."

Asked in how many bore holes hard rock was found, the witness replied:

"Hard rock was met in a number of boreholes at lower depth. That means, if we were to dredge upto minus 43 ft., some of the bore holes where rock was struck, it was struck at minus 46 ft., minus 47 ft. and minus 50 ft."

To another question whether the contention of the firm M/s. Ivan Milutionovice-PIM, Yugoslavia, that the soil and silt conditions given in the tender were misleading was correct, the witness replied:—

“The soil conditions were given to them exactly as available for 106 bore holes.”

The witness however, admitted that what actually emerged ultimately was that ‘it was different in certain areas’ and added:

“In the total area of dredging involving 11 million cu. metres, in an area involving 1.7 million cu. metres of dredging rock has been met. The remaining area is generally as per the anticipation. Nobody could foresee all those things.

I would give you an example. In Mangalore port, we have done two bore holes about 350 ft. away from each other. In both these we did not find rock while dredging. In the centre of these bore holes we have found rock subsequently. That bore hole pattern was laid departmentally. Nobody could foresee that within these two boreholes, we will get rock above the level to be dredged.”

Supplementing the above, the Secretary, Ministry of Shipping and Transport stated:

“When the firm found certain different conditions prevailing, they immediately took advantage of it and said that they were suffering from frustrated contract. They wanted to renegotiate it. They would certainly say that it was misleading. As the Development Adviser, Ports has explained, you must take into account the overall percentage.”

4.8. Asked whether any sample survey was made by the contractor when he accepted the contract, the witness replied :

“It is impossible. Such bore holes cost lakhs of rupees. The time given to a contractor is not such that he can in that period mobilise his resources, and come and do the bore-holes himself. He has to base his contract upon the information supplied by the Department. That information was supplied in good faith, furnished to us in good faith by Cementation. But subsequently in certain areas, rock was found.”

As regards development of alternative method of re-check through another contractor to eliminate the kind of difficulty faced in the present case, the witness stated :

"You can have as much investigation as you would like, it would give better information. But there is the time aspect and there is the cost element. The point is, how much of these we can devote on investigation? It takes three, four or five months for one contractor and then you start with another, and so on".

When the attention of the representative of the Ministry of Shipping and Transport was drawn to the original Tender Document which *inter alia* envisaged that the contractor must ascertain all the conditions and should satisfy himself about the different conditions, etc., he clarified :

"That is an omnibus clause put in every contract: That is done to avoid liability and all that. The contract also provides that when there are conditions other than those stipulated, then clause 13 will come in. We are then liable to pay under the contract. There are certain clauses which are generally disputed in every case, which goes to arbitration as they cannot stand in equity and in law".

The Secretary of the Ministry added:

"That particular statement is generally made, but sometimes that is not practicable. Generally where a survey has been made on the basis of feasibility report and data is presented in the name of a well-known company, the contractors always accept that. We do tell them, that if they want, they can have their own survey also. Normally, they do not do that."

4.9. Asked whether there was any penalty clause in the agreement with Firm Cementation Ltd., if the data given by them was found defective subsequently, the Development Adviser stated :

"As I explained yesterday, Cementation were to do boreholes exactly as per the numbers and as per the locations that were given to them, and they did that. Cementation's work was concerned only with having boreholes at definite locations and to certain depths which were specified."

When the Committee desired to know whether the firm had enough knowledge about what exactly was to be done to get representative idea in regard to the nature of the sub-soil, the witness stated :

"I am afraid I have not been able to clarify properly. Cementation have drills and they do bore-holes take out soil samples and give the results. The number and the locations of the bore-holes were laid down by the consulting engineers (Rendel Palmer and Tritton) and they were done by Cementation. As I explained that particular area, where there was one bore-hole, turned out, subsequently, to be a very erratic one; it did not conform to any set pattern. Therefore, this difficulty arose. The other areas have conformed correctly to the bore-hole data supplied."

Asked as to what differences would it have made if tenders for dredging, including investigation and boring, were invited, the witness stated :

"No dredging contractor will come up. Hypothetically I can say suppose we had told this man now that you have met with hard material you do not dredge this and you keep on doing what you are supposed to do and we call for separate tenders. In that case we would have paid much more. In Mangalore when the contractor met with hard material we asked them what will they charge they indicated Rs. 1,000 per cubic metre. We did not agree and asked them to go."

4.10. According to the Audit para, the contract awarded to the Yugoslav Firm in December, 1969 was to be completed in 30 months i.e., by June, 1972. A letter of intent to commence work immediately was issued on 30 October, 1969 and the formal work order was issued on 17 December, 1969. The Firm commenced work in February, 1970. Asked as to why the contractor could not commence work in December, 1969 the Chairman, Port Trust stated during evidence : "There was some delay in the placement of the work order and it took about 1½ or 2 months. He was supposed to work during the fair season starting from 15th September or October and ending in April-May."

In a written note furnished to the Committee subsequently, the Ministry of Shipping and Transport have, however, stated :

"The period stipulated for the completion of the work in accordance with the contract was 30 months. The con-

tractor commenced work on the 16th February, 1970 and was to complete the work by 16th August, 1972."

4.11. According to Audit Para in March 1970 it was pointed out to the Firm that the work was not progressing as per schedule. Asked as to what was the basis for Port's apprehension that the work was not progressing satisfactorily, the witness deposed :

"When the contract was awarded to him in December he had submitted a programme of work. He was not sticking to that programme and the port was somewhat apprehensive. The work on reclamation was to be done first and there was pre-dredging involved. That was going slower than what was actually shown."

In this regard the Ministry in a note have stated :

".....while the reclamation of the area needed for the establishment of the ore handling facility was proceeding more or less according to schedule, the dredging part of the work lagged very much behind schedule."

To a question whether the Port Trust had satisfied itself, before awarding the contract, that the contractor had adequate equipment to go according to the schedule, the Development Adviser (Ports) replied during evidence :

"At the time the tender was given to him, the equipment he had was considered to be sufficient. There were certain deficiencies in the total equipment and it was indicated that the contractor would bring additional equipment. When he did not bring in that additional equipment the schedule was slightly delayed."

He added :

"They brought in additional equipment in May 1971, approximately 15 months after the starting of the work."

4.12. In regard to observation of Audit that in February, 1971 that the Yugoslav Firm had asked for extension of time by 29 months on various grounds, one of them being inefficiency of the Port's dredger given to it on hire, the Committee desired to know whether any dredging equipment was provided to the contractor by the Port Trust and if so, whether it was so provided in the contract. The Chairman, Port Trust stated :

"The contractor was allowed the use of the port dredgers for the purpose of dealing with capital dredging at a certain

rate. The port dredger was handed over to the contractor more or less the same time when work order was issued and the dredger also worked. Subsequently there was a claim by the contractor that the dredger had not given the required output."

In a written Note* furnished after evidence, it has been stated by the Ministry that :

"It was not obligatory on the part of the Port Trust authorities to provide a dredger and/or any other equipment to the Yugoslavian Firm. However, in terms of Clause (4) of the Special Conditions—A—General of the General Conditions of Contract (Principal Agreement) the Departmental Dredger "Zuari" may be made available to the contractor on payment of hire charges."

4.13. The Audit Para states that extension of 9½ months recommended by the consulting engineers [Howe (India) Private Ltd.,] was granted and liquidated damages (about Rs. 40 lakhs) for non-completion of reclamation work by the scheduled date were not levied. In this regard, the Ministry intimated Audit in December, 1974 as under :

"The request for extension of time was based on the relevant provisions of the contract. The extension of time was granted by the Engineer viz. M/s. Howe (India) Private Ltd., as per contract conditions, and as such question of levying liquidated damages did not arise. Therefore no waiver of liquidated damages amounting to Rs. 40 lakhs is involved."

In August 1971, the contract complained that the data regarding soil and silt conditions given in the tender was misleading and stopped work from 31st August, 1971 on the ground that the firm was incurring heavy losses. The contractor initially demanded Rs. 2.37 crores more than the amount of the contract but subsequently agreed to settle for Rs. 1 crore. After examination of the claim and after protracted negotiations to examine the claim of the contractor it was decided on 3rd November, 1971, to pay Rs. 83 lakhs to the Yugoslavian firm. The contractor resumed work in November, 1971.

A Supplemental Agreement was executed with the Yugoslavian firm in January, 1972 and the amount of Rs. 83 lakhs was paid to

*Not vetted in Audit.

the contractor in May-June, 1972. Explaining the rationality of signing the Supplemental Agreement, the Development Adviser (Ports) stated in evidence :

"The Supplementary Agreement was entered into to formalise the agreement reached with the contractor for the payment of Rs. 83 lakhs as an advance and other conditions which he had put in and which were also accepted. All those conditions were embodied in the supplementary agreement. That became binding on both the parties from that date onwards. Though the accord was reached on 8th November, the legal formalities were completed in January, 1972."

4.14. At the instance of the Committee, the Ministry of Shipping and Transport furnished a detailed note indicating, in chronological order, the developments leading to the signing of the supplemental agreement with the Yugoslavia Firm and making additional payments to them.

According to this Note, the demands of the Contractor "arose out of certain claims made by the contractor on the grounds that he had suffered losses owing to unforeseen physical conditions encountered during the dredging work which could not have been anticipated earlier, and other causes like the low out-put of the Port Dredger 'Zuari' made available to the contractor, scarcity of explosives required for the construction of the reclaimed bund, delay in the issue of import licences to the contractor to bring in his dredging equipments, the soil in the dredging area being harder than what was stated to be in the bore-hole data given to him at the time of inviting the tenders, refusal of the Port authorities to permit the dredging contractors to pump the dredged soil direct to Baina Beach and expenditure incurred by the contractor towards the customs duty on extra dredging equipment brought by them. The bore-hole data furnished to the contractor were on the basis of studies made by M/s. Cementation Co. Ltd., who conducted standard tests according to normal specifications prescribed for such work. But the bore-holes which were sunk according to these normal specifications turned out to be not adequate in view of the erratic nature of the sea bed. This could not have been brought out by standard bore holes data which are 'test' or 'sample' bores only and cannot be guaranteed to bring out sub-soil characteristics of the entire region though in normal conditions they are representative enough for work to be undertaken in the area. The significant variations in the sub-soil characteristics even within comparatively compact

areas were brought to light only when actual dredging in this area was taken up. These could not have been accurately and exhaustively brought out by trial boring. As regards the other grounds on which the contractor based his claims also it would be seen that all of them could not have been foreseen at the time the contract was awarded."

4.15. Briefly, the chain of events pertaining to the claim of the Contractor and consideration thereof was as follows :

- (1) On 26th August, 1971, the Contractor firm gave notice to the Port Trust that they no longer considered the contract to be valid and were terminating the same. The stand taken by them was that on account of abnormal siltation in the area (which was not made known to them in the Tender Document), the entire nature of the dredging work in the area had changed.
- (2) On 2nd September, 1971, the Mormugao Port Trust and their Consulting Engineers held discussions with the Contractor at Bombay, wherein it was impressed upon the Contractor that the stoppage of work by them was illegal. However, the contractors did not accept this contention, but agreed to submit their claim unofficially and resume work if they were assured that their claims would be accepted. They were asked to submit their claim with no commitment on the part of the Port Trust.

The Port Trust and Consulting Engineers came to the conclusion that a negotiated settlement with the contractor would be the best possible solution of the problem because if litigation was started, then it might take years for the Court to give their verdict and in the meanwhile the dredging and reclamation work would be completely held up with adverse consequences on the time schedule.

- (3) Negotiations were held by the Port Trust from 13th September, 1971 onwards at New Delhi with the contractor. The Contractor presented a series of claims the value of which was Rs. 2.3 crores.
- (4) As a result of these discussions, in a Joint Report submitted by the Chief Engineer of the Project and the Chairman and Managing Director of the Consulting Engineers, it was *inter alia* recommended that an interest free advance of Rs. one crore may be paid to the firm to

tide over their financial difficulties and in regard to the claim for Rs. 2.3 crores, the contractor will accept the valuation of the demands/claims made by the Port Trust and their Consulting Engineers on the records of work available with them and this amount will be specified in the supplementary agreement and will be in full and final settlement of the contractor's claim for the period upto the date of supplementary agreement. On this basis, the Joint Team expressed the opinion that *prima facie* payment of an amount of Rs. 83 lakhs would seem to be justified.

- (5) The recommendations in the Joint Report mentioned above were referred to an Expert Committee under the Chairmanship of the Development Adviser, Ministry of Shipping and Transport and having a Deputy Secretary of the Ministry of Finance as one of the Members.

The Expert Committee submitted their Report on 16th October, 1971 *inter alia* recommending payment of an advance of Rs. one crore free of interest to the contractors, and reducing the amount payable to the contractor to Rs. 62.2 lakhs as against Rs. 83 lakhs recommended in the Joint Report referred to in (4) above.

This Expert Committee brought out the changes in the conditions of the contract that were necessary and suggested their incorporation in the supplementary agreement.

The Committee, in conclusion, pointed out that cancellation of the contract at this stage would involve a minimum delay of one year in completion of dredging and reclamation, considerable increase in overall cost and additional foreign exchange expenditure.

- (6) On the 28th October, 1971 the matter was again considered by a high level Committee, headed by Joint Secretary, Ministry of Finance and having the Joint Secretary, Ministry of Shipping and Transport, the Development Adviser, Ministry of Shipping and Transport and the Chairman, Mormugao Port Trust as its Members. At this meeting it was made clear to the contractor that it would not be possible for Government to give them anything beyond Rs. 62.27 lakhs as recommended by the

Expert Committee. The contractors did not agree to the same and maintained that on assessment, their claims actually worked out Rs. 1.55 crores.

- (7) In order to resolve the deadlock and to reach a final settlement to enable resumption of dredging work, the Minister (Transport) took a meeting with the contractors on 3rd November, 1971 which was also attended by the Joint Secretary, Finance Ministry, Joint Secretary, Ministry of Transport, Development Adviser, representative of the Port Trust and the dredging contractors. It was decided at this meeting that the contractors will be paid a sum of Rs. 83 lakhs towards full and final settlement of all their claims upto the time of resumption of their work and also an interest free advance of Rs. 50 lakhs. Certain other concessions like payment of customs duty by the Port Trust on any plant and equipment brought into India by the contractors after the resumption of work, were also agreed to.
- (8) The contractor resumed work on 5th November, 1971 and a supplemental agreement embodying the various deviations with reference to the principal agreement was executed on 25th January, 1972.

The details of the original claim of the Contractor for Rs. 2.37 crores, the claim recommended by the Committee of Consultants and the Chief Engineer (Rs. 83 lakhs) and of the claim admitted by the Committee appointed by Government (Rs. 62.2 lakhs) are given at Appendices II, III and V respectively.

4.16. In regard to the claim ultimately admitted, the Chairman, Port Trust stated in evidence:—

“The payment of Rs. 83 lakhs was a package deal. We were in an extraordinary situation when our contractor alleged misrepresentation of data and struck work and it was only on that condition that he was prepared to resume the work. That was a package deal to settle all his claim upto that date. He was insisting that as for future works if he encountered hard rock, he would have to be paid more. That has been put in the supplementary agreement itself.”

In a Note* furnished to the Committee in July, 1976, the position in respect of the details of the ultimate payment of Rs. 83 lakhs made to the Yugoslav firm has been explained as follows:—

“Amount of Rs. 83 lakhs was agreed to at the meeting with the Minister for Parliamentary Affairs and Shipping and Transport held at New Delhi on 3rd November, 1971. The Committee appointed by the Government of India to consider the problems that had arisen as a result of the notice of termination of contract served by the Yugoslav firm had recommended a sum of Rs. 62.27 lakhs which includes Rs. 12.00 lakhs towards Custom Duty on additional equipments brought to site before Supplemental Agreement, as against Rs. 2.37 crores.

They insisted that the minimum amount that was acceptable as a final settlement of all the claims upto the time of resumption should be Rs. 83 lakhs—the amount recommended by the Consultants and Chief Engineer's Committee. Break-up of this amount is at Appendix III. As will be seen, a sum of Rs. 12 lakhs towards re-imbursement of customs duty was not included in this amount of Rs. 83 lakhs. But as in the final settlement this amount of Rs. 12 lakhs was included this sum stands reduced to Rs. 71 lakhs. Break up of this can only be notional. Out of this Rs. 81.32 lakhs (Rs. 71.00 lakhs towards lumpsum amount and Rs. 10.32 lakhs towards Customs Duty) has actually been paid to the firm.”

The statements at Appendices II to IV show that a major portion (about Rs. 42 lakhs) of the additional amount recommended for payment to the contractor was on account of harder strata of soil encountered and on account of loss of production due to damages to the Dredgers caused by such harder strata.

4.17. The Audit Para points out that within 6 months of the Supplemental Agreement the Yugoslav firm put in another claim in June-July, 1972 for Rs. 1.18 crores mainly for dredging in harder material than that it had quoted for. This amount was paid during January—August, 1973 and a further sum of Rs. 15.50 lakhs was paid in May-June, 1974 under protest, subject to arbitration. During evidence, on the Committee pointing out that the

*Not vetted in audit.

manner of making successive extra payments to the contractor gave rise to suspicion, the Chairman Port Trust stated :

'I would like to clarify these two payments. These payments were certified by the engineer under the principal agreement reiterated in the subsequent agreement at the time of making these payments. We actually sought the advice of our solicitor, M/s. Mulla and Mulla Company, Bombay. They advised us that the Engineer under the Principal Agreement does not have the absolute right to certify payments on account of physical conditions having been met, therefore, you have to put up your point of view which the Engineer should consider and it is only on the reiteration of the earlier decision of the Engineer that you would pay under protest as advised by them reserving your right to arbitration on a subsequent date. On the basis of legal advice, the Board took a decision that these payments be made as advised by the solicitor under protest and with our right for going in for arbitration being reserved.'

4.18. The details of the two claims of Rs. 1.18 crores and Rs. 15.50 lakhs, as furnished* by the Ministry, are given below:—

S. No.	Date of claim	Nature and details	Amount	Date of payment
1	30-9-72 & 7-10-72	Claim towards removal of hard material from areas A-3	26,74,610.00	23-1-73
2	6-12-72	Claim towards removal of Medium material from area III B, part of IIIA and Part of IIIC.	56,25,815.20	30.00 lakhs on 25-4-73 and balance on 28-4-73
3	6-12-72	Claim towards removal of medium material from Area part of IIIA and part of IIAN	34,58,769.94	28-8-73
1,17,59,195.14				
OR SAY Rs. 1.18 crores.				
4	22-10-73	Claim towards hard material dredged in area I-a, III-a and II-add	15,49,764.80	12.00 lakhs on 27-5-74 and balance on 19-6-74
OR SAY Rs. 15.50 lakhs.				

The total amount is on account of alleged variation in the soil conditions and payments have been made subject to arbitration.

*Not vetted in audit.

4.19. The Secretary, Ministry of Shipping & Transport stated during evidence:—

“This claim for Rs. 2.37 crores which was subsequently reduced to Rs. 1 crore was for work done upto the time of resumption. It was clearly said ‘up to the time of resumption of work’, that is, till 5th November 1971, whatever work be had done, against that he had claimed an additional amount of Rs. 2.37 crores which he reduced to Rs. 1 crore and it was subsequently settled at Rs. 83 lakhs. Then he resumed the work on 5th November and after having resumed the work he complained of harder strata and he put in a further charge against that in his normal claim under the contract to the Engineer and the Engineer gave the award that this amount is payable. But the Port Trust protested against that award, and legal opinion was sought on that. The legal opinion was that they should make the payment but could reserve the right to go to arbitration.”

4.20. In reply to a question during evidence whether it was customary and a general practice with the contractors, particularly in the case of big contracts, involving large operations and huge money, to quote lower rates in the first instance and after obtaining the contract, create difficulties on the ground that the rates were not commensurate with the work involved during actual execution and threaten with stoppage of work and litigation to extract more and more concessions, the representative of the Ministry stated:—

“My personal opinion on that will be that if we make the contractor responsible for everything, then I am afraid, the rates will go up initially itself and we will probably be spending much more. These contingencies are always allowed for in any contract separately.”

4.21. The Committee enquired as to what was the provision in respect of arbitration in the original contract and the Supplemental Agreement with the contractor and why the consent of the firm was necessary before Government could refer a dispute to arbitration. In a written note the Ministry have stated:

“Clause 67 of the ‘General Conditions of the Contract’ which forms the principal agreement between the contractor and the Port Trust lays down the procedure to be followed in settling of disputes or differences of any kind whatsoever

between the Port Trust or the Consulting Engineer and the contractor, the clause reads as follows:

67. If any dispute or difference of any kind whatsoever shall arise between the Board or the Engineer and the Contractor in connection with or arising out of the Contract or the carrying out of the Works (whether during the progress of the Works or after their completion and whether before or after the termination, abandonment or breach of the Contract) it shall, in the first place, be referred to and settled by the Engineer who, within a period of ninety days after being requested by either party to do so shall give written notice of his decision to the Board and the Contractor. Save as hereinafter provided, such decision in respect of every matter so referred shall be final and binding upon the Board and the Contractor until the completion of the work, and shall forthwith be given effect to by the Contractor who shall proceed with the Works with all due diligence whether he or the Board requires arbitration as herein-after provided or not. If the Engineer has given written notice of his decision to the Board and the Contractor and on claim to arbitration has been communicated to him by either the Board or the Contractor within a period of ninety days from receipt of such notice, the said decision shall remain final and binding upon the Board and the Contractor. If the Engineer shall fail to give notice of his decision as aforesaid within a period of ninety days after being requested as aforesaid or if either the Board or the Contractor be dissatisfied with any such decision then and in any such case either the Board or the Contractor may within ninety days after receiving notice of such decision or within ninety days after the expiration of the first named period of ninety days (as the case may be) required that the matter or matters in dispute be referred to arbitration as hereinabove provided. All disputes or differences in respect of which the decision (if any) of the Engineer has not become final and binding as aforesaid shall be referred to two arbitrators, one to be appointed by the Board and one by the Contractor or in the case of the said arbitrators not agreeing to the award of an umpire to be appointed by the said arbitrators pursuant to and so as with regard to the mode and consequence of the reference and in all other respects to conform to the provisions of the Indian Arbitration Act

1940 (Act No. 10 of 1940) of any re-enactment or statutory modification thereof for the time being in force provided however that the umpire will be appointed in writing before entering on the reference. Such arbitrators shall have full power to open up review and revise any decision opinion direction certificate or valuation of the Engineer and neither party shall be limited in the proceedings before such arbitrators to the evidence or arguments put before the Engineer for the purpose of obtaining his said decision. No decision given by the Engineer in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute or difference referred to the arbitrators as aforesaid. The arbitrator's shall not enter on the reference until after the completion or alleged completion of the Works unless with the written consent of the Board and the Contractor provided always.

- (i) that such reference may be opened before such completion or alleged completion in respect of the withholding by the Engineer of any certificate or the withholding of any portion of the retention money to which the Contractor claim in accordance with the conditions set out in the Clause numbered 62 to be entitled or in respect of the exercise of the Engineer's power to give a certificate under Clause 63(1) hereof or in respect of a dispute arising under Clause 70 hereof.
- (ii) that the giving of a certificate of completion under Clause 49 hereof shall not be a condition precedent to the opening of any such reference.
- (iii) that the decision of the arbitrator(s) or in the event of their not agreeing of the umpire appointed by them shall be final and binding on all parties to dispute.

It would be seen that the arbitrators are debarred from entering into a reference made to them under this clause except after the completion or alleged completion of the works unless with the written consent of the Port and the contractor.

Clause 26(a) of the supplemental agreement stipulates that 'all matters of dispute between the Parties to the agree-

ment arising out of the principal agreement and/or these presents shall be dealt with in accordance with the relevant provisions of the principal agreement'."

4.22. At the instance of the Committee, the Ministry of Shipping and Transport have also furnished copies of the 'legal opinion' dated 29th December, 1972 given by the Solicitors and Notarists (M/s. Mulla & Mulla and Craigie Blunt & Caroe), and the 'opinion' given by the Additional Solicitor General of India dated 3rd March 1973 in regard to payment of Rs. 1.18 crores and Rs. 15.50 lakhs. Relevant extracts from these opinion are reproduced below:—

"(1) Legal opinion given by Solicitors and Notarists:

* * * * *

The Board wishes to be advised whether:

- (a) the Board is bound to immediately pay to PIM the sum of Rs. 27,98,250/- as certified by the Resident Engineer;
- (b) if the answer to (a) is in the negative, what steps the Board should take.

In this connection our special attention was drawn to the provisions of Clause 26(b) of the Supplemental Agreement. We were informed by the Chief Engineer in the course of our discussions on the 26th and 27th December 1972 that the basis upon which the Central Government had been able to resolve the disputes between the Board and PIM in 1971 was that it had been agreed by PIM that if and when a decision was given by the Engineer, PIM would implement that decision and continue to do the work, even if they felt that the decision was incorrect and that similarly the Board would make payment as required by any decision of the Engineer even if the Board did not agree with such decision. We were further informed by the Chief Engineer that, although the foregoing understanding is not minuted, it was on the basis thereof that the Supplemental Agreement was entered into.

We are of the opinion that reading Clauses 13 and 67 of the General Conditions of Contract together with Clauses 21 and 26 of the Supplemental Agreement, the "decision" which the Board and PIM are bound to implement is one given by the Engineer on a dispute being referred to him under Clause 67 of the Chief Conditions of contract. In the present case, no such dispute was referred to the Engineer inasmuch as all that he had before him was a claim made by PIM. As mentioned above, we have been informed that the Engineer did not

even have before him the comments of the Board on PIM's claim nor even a statement by the Board or on its behalf that the Contractor's claim was disputed. We are therefore of the view that the assessment made by the Engineer and the Certificate issued by the Resident Engineer are only administrative in nature and do not fall within the meaning of the word "decision" in Clause 67 of the General Conditions of Contract and Clause 26 of the Supplemental Agreement.

We are also of the opinion if the Board specifically disputes the claim made by PIM and if it does not then pay the amount certified by the Resident Engineer, PIM would not be entitled to terminate the Agreement under Clause 70 of the General Conditions of Contract since the Board is required to make payment within thirty days from the receipt of only an undisputed bill and not one which the Board disputes.

We would advise that the Chief Engineer should immediately address a letter to the Engineer stating that the Board disputes the correctness of the bills for Rs. 56,37,210/- and Rs. 20,55,265/- which were sent by PIM to the Engineer with their letters of the 24th June 1972 and the 17th July 1972 respectively. The said letter should further state that the grounds on which the said bills are disputed will be set out in a separate letter. A detailed letter should immediately thereafter be addressed by the Chief Engineer to the Engineer setting out all the reasons for which it is contended by the Board (a) that payment is receivable by PIM only at the rate of 4.70 per cu.m. and (b) alternatively, the ground on which the Board contends that, if payment is to be made on a day-work basis, payment should be made only for the period during which the dredger actually worked in the harbour and not for idle time.

We would also invite attention to the fact that the Engineer's letter of the 11th November 1972 states that only the first part of PIM's claim has been assessed. This would indicate that the second part of PIM's claims, *viz* the cost of repairs to the dredger will also be assessed. It may be prudent for the Chief Engineer at this stage to state that, either in the first letter referred to above, or in a separate letter altogether, that the Board disputes the right of PIM to receive any payment for the costs incurred by them for repairing the dredger. The Board's objection to payment being made on this account should also be explained in the same manner as its objection to payment being made on a basis higher than 4.70 per cu.m.

If after the Chief Engineer has written to the Engineer as indicated above, the latter gives a decision identical with or substantially

similar to that contained in the above mentioned letters of the 11th November, 1972 and the 6th December 1972, notice must be given to the Engineer on behalf of the Board within 90 days of the receipt of such decision of the matters in dispute to be referred to arbitration as required by Clause 67 of the General Conditions of Contract.

Mulla & Mulla & Craigie Blunt & Caroe
Sd/-
Partner
Solicitors, High Court, Bombay.

(2) Opinion given by the Additional Solicitor General of India:

6. The Querists now desire to be advised as to whether claims in respect of extra work involved on account of rock/and/or hard material being encountered during the progress of the work would fall within the purview of clause 13 of the Principal Agreement and clause 21 of the Supplemental Agreement. In my opinion they would not.

* * * * *

I answer the queries raised in the Case for Opinion as follows:

(1) Whether on a true construction of the contract between the parties the Querists were bound and liable to make payment of the amounts of certified claims made by the contractors. (1 June and July, 1972). (1) No.

(2) Whether the Querists are entitled to recover the sum of Rs. 31,02,060 paid to the dredging contractors in pursuance of the so-called decision of the Engineer. (2) Yes, to the extent of the additional amount required to be paid and paid by reason of the certification of the Engineer. Such amount however cannot be recovered by deducting amounts that may become due to the contractor but would have to be recovered by recourse to arbitration under CL-67 of the General Conditions of Contract. The dispute in respect of which arbitration should be claimed for recovery of the additional amount (required to be paid) and which has been paid would be that the Engineer had no right to certify payment of any amount either under cl. 13(2) of the Principal Agreement or cl. 21 of the Supplemental Agreement as the conditions alleged to have been encountered by the contractor were not "physical conditions" or "artificial obstructions" within the true meaning of those words as used in the said clauses; and that (without prejudice to this contention) and in the alternative that in any case the decision of the Engineer apart from being not a valid decision at all as contemplated by the clauses was erroneous.

(3) Whether on a true construction of the contract the Querists are bound to pay any amount that may be certified by the Engineer for additional work in respect of the contractors encountering rock and/or hard material during the dredging operations

(3) Yes, Although the claims for such additional work would not, on a true construction of the contract, fall under clause 13(2) of the Principal Agreement or Clause 21 of the Supplemental Agreement, the decision on this question has been left by the parties to the Engineer in the first instance and then to the arbitrator. (Clause 67 of the Principal Agreement) Moreover under the Supplemental Agreement the decision of the Engineer though provisional and though subject to arbitration is declared to be binding on the parties and is required to be implemented by them till the decision is altered by the decision of the arbitrators.

(4) What is the remedy for the Querists ?

(4) The querists should make a very serious attempt to obtain the consent of the contractor to the arbitrator proceeding with the reference on the question relating to the certification of the claims under clause 13 (2) of the principal Agreement and Clause 21 of the Supplemental Agreement. If however the contractors refuse the arbitrators will have no jurisdiction to proceed with the reference and the same would have to remain pending till the works are completed. Unless and until the agreement between the parties is again modified by mutual consent the Querists would be bound to make payments under certificates issued by the Engineer and pursuant to decisions of the Engineer made under clause 67 read with clause 13 of the Principal Agreement and clauses 21 and 26 of the Supplemental Agreement."

4.23. In regard to the sanction under which the payments were made, the Chairman, Port Trust stated during evidence:

"Under the contract, if the contractor puts in a claim alleging adverse physical conditions and if that claim after the point of view of port Trust has been considered by the Engineer, in that case, that amount becomes payable without prejudicing the right of the Port Trust to go for arbitration. After making the payment within 90 days, we have to give a notice to the Engineer of our intention to go in for arbitration. This notice has been given in respect of both these payments."

In regard to right of arbitration, the witness stated:

"Arbitration can be resorted during the pendency of the contract only with the concurrence of the contractor. This concurrence has been sought."

4.24. The Audit Para points out that the rates for the remaining portion of the dredging (save the outer channel)—about 40 lakh cubic metres—were revised in November 1973 and a (further) supplemental agreement was executed in June, 1974 allowing rates between Rs. 3.60 and Rs. 22 per cubic metre for different kinds of materials to be dredged, the estimated cost being about Rs. 3 crores more than what would have been paid under the original contract. The Committee enquired why, before making the second extra payment (of Rs. 1.18 crores and Rs. 15.50 lakhs) to the contractor, the firm was not told to check the remaining area involving dredging once for all and come to a final conclusion in respect of his claim for the hard soil encountered. The Development Adviser (Ports) stated in evidence:

"In fact, that was what was done in the second Supplementary agreement. He put in his claim and the Government considered and came to a final conclusion as to what is the extent of the hard material and negotiated and fixed the rate with him. That has been done already in the second Supplementary Agreement."

4.25. The Committee enquired about the rationale laying down the rate of Rs. 22 per cubic metre for hard soil. The witness explained:

"In the contract there were two rates, one for ordinary soil Rs. 4.10 cu. metre or so and the other is for hard rock Rs. 135/- per cu. metre. A view could be taken according to the contract, wherever the contractor met with material other than soil, it is to be paid at that rate. We have always disputed and said that this was not hard rock; this is something in between hard rock and soft material. We were, therefore, able to reduce his rates considerably. Instead of paying Rs. 135/-, we brought him to Rs. 14/- and Rs. 22/-."

The witness added:

"In that particular area, the dredging to be done is 1.7 million cu. metres. It is partly rock, partly hard material and partly soil. If I remember correctly, 1,85,000 c.m. was rock and 6,30,000 c.m. was hard material, with penetration values of more than 40 and the balance was material with penetration more than 30 and soft soil. We worked out an average rate. It was done on the basis of Rs. 135/- for hard rock and Rs. 14/- for combined material. It came to about Rs. 28/- per c.m. as a combined rate for that area. We negotiated and brought it down to Rs. 22/-."

4.26. The original contracted cost of dredging including reclamation was Rs. 6.58 crores which was revised to Rs. 7.22 crores with contingencies in September 1969 (Rs. 6.5 crores without contingencies). It was stated that the total cost on this account including extra for deviations was Rs. 16.6 crores. On being pointed out that the additional amount being more than double the original estimate indicated a major deviation, the Secretary, Ministry of Shipping and Transport stated:

"We have not said it is marginal. The (Development Adviser) will explain the details. I would like only to submit that had we known it is hard material we must recognise the fact that we would have gone at the tendered rate and settled at a higher figure. But how much higher it would have been is a matter that cannot be discussed now".

The Development Adviser added:

"The difference is 10 crores. Rs. 6 crores is due to the presence of material other than what he had contracted for Rs. 0.5 crore is for additional work which we want to do in zone 'B' reclamation. This is pre-dredging work which he has to do so that the hard material which we are going to get is used for better purpose. Rs. 1.5 crore is the difference of cost of POL and dredging of outer channel which has been removed from the original contractor. Rs. 0.8 crores for contingency work and Rs. 1.2 crores for escalation in price of steel. This totals up to Rs. 10 crores.

Even if we had known presence of this hard material at the time of tender nobody would have done it for us at Rs. 4.80 paise per cubic metre. What we would have paid, viz., Rs. 20 or Rs. 14 or Rs. 15 is a matter which we cannot say at this stage".

4.27. The Committee desired to know the time fixed to complete the dredging work, the portion of dredging completed till date and how much remained to be done. The Development Adviser (Ports) stated (June 1975) in evidence:

"The present time fixed for the completion of dredging works is May, 1976. Out of the work of the contractor which is now left to be done by him, 3.5 million cubic metres remain, and he has completed approximately 5 million cubic metres".

Asked to clarify whether by May, 1976 what he meant was that the entire dredging operations would be completed including the dredging near the river estuary, the outer channel etc., the witness replied in the affirmative and added:

"That has been planned because as I mentioned yesterday, the outer channel which has been taken out of his work, has to be done departmentally and we have planned to employ two dredgers for the outer channel, and the contractor is supposed to complete all his dredging by May, 1976".

Assuring the Committee of the practicability of this proposition the witness added:

"This has been arrived at taking into account all the output of the dredgers and we are reasonably certain that unless something completely adverse happens, we will meet the target".

On his attention being drawn to the fact that the port dredgers were on order and the Port Trust was entirely depending on Mazgaon Docks for their dredger requirements, the witness stated:

"Only one dredger is on order with the Mazgaon Docks. Six dredgers are already with us and they are at present being deployed at different ports. In addition, the Port Trust dredger has also been delivered and is now being tried out and that will also start work in the outer channel immediately after the monsoon".

4.28. In a note* furnished to the Committee subsequently (March 1976), the Ministry of Shipping and Transport have stated:

"The Further Supplemental Agreement was signed on 8-6-74. According to this Agreement, the area coming under the dredging contract was divided into various parts and each part had to be completed by a specified time and the whole work was to be completed by May, 1976. The Agreement also provided for certain obligations on the part of the Port Trust, such as payment of Rs. 90 lakhs as advance, obtaining of CCP's on behalf of the dredging contractors, securing continuous supply of POL products etc. The amount of Rs. 90 lakhs included an amount of Rs. 25

*Not vetted in audit.

lakhs in Foreign Exchange, and as the contractor did not indicate the currency in which the amount was to be made available to him at the time of execution of the Supplemental Agreement, there was delay in meeting with this requirement on account of procedural formalities. The amount in foreign exchange was finally remitted to the contractors in May, 1975. The dredging contractor brought a cutter suction dredger 'Sindjelic' on 15th May, 1975 and the actual work of predredging in Zone 'B' started in the month of July, 1975, after laying the necessary pipelines required for the purpose. In terms of the programme given by the dredging contractors in December, 1974, dredger 'BOR', which was originally imported for the work at Mormugao, which was taken away to Bombay by the dredging contractors in the month of April, 1973, was to be brought by February, 1975. This dredger which was taken with the intention of carrying out repairs was put to use at the Naval Dockyard, Bombay, in this period and during the month of May, 1975, and dredging contractors wrote to the Ministry of Transport asking their permission to use this dredger at Naval Dockyard, Bombay, upto September, 1975. Subsequent to this, during the progress meetings held at Mormugao in the first week of October, 1975, the dredging contractors gave a programme of completing the work by February, 1977. They also applied for extension of time as well as waiver of obligations on the part of the dredging contractors in accordance with the Further Supplemental Agreement to the Engineer, namely M/s. HIPL, alleging that the delay was mainly on account of delay by Mormugao Port in releasing Rs. 25 lakhs in foreign exchange. The Consulting Engineers, M/s. HIPL after taking all factors into consideration, have recommended that extension of time be granted to the dredging contractors upto the end of 1976. At the review in the Ministry on 26-11-75, the contractor agreed to complete the work by December, 1976 with a month's grace period if absolutely necessary".

A copy of the letter, dated 10th June, 1976, granting extension of time upto 27-12-76, to the Yugoslav Firm is given at Appendix V.

4.29. Referring to the numerous reasons enumerated for the inordinate delay in the execution of the Project, the Committee enquired whether importing of machinery and other equipment which

were not available within the country, was also one of the factors which contributed towards delay, and the Secretary Transport stated in reply:—

"I will explain this. Take for example dredgers. The main factor here was that we had no dredgers of our own. We had to go out and get an international contractor to do this work for us. There has been a certain difficulty. The consequence of that is, that we have taken a decision that we must possess dredgers ourselves; we must import them. We have, in fact, imported certain dredgers during the last few years in order to build up our own dredgers organisation. This is one thing. The second point is that we have taken a decision that we must develop capacity in our own country for handling equipment for ore in different parts. We have taken a decision to build up that expertise in the MAMC. They have been given a contract for Haldia, Visakhapatnam, Madras, etc. When they complete these works, they would have become fairly efficient in producing the kind of equipment we require. In the process of port development, we have been able to build expertise in the country".

4.30. Asked as to what was the lesson learnt by Government by the delay and by the escalation of cost in this particular project, the witness stated:

"The experience we have gained has enabled us to anticipate the slacks better and improve our CPM (Critical part method) on the basis of which every stage is marked and synchronisation is assumed. This has enabled us to introduce more and more accuracy in synchronising and watching the monitoring work. Normally in regard to dredging and soon, we should really have our own expertise and set up our own organisation which will put us in a better position to deal with international contracts. Unless you have some physical strength in yourself, you are really unable to compete in this kind of thing, and it is out of these lessons that the Government have decided to set up not only the Central Dredging Organisation and convert it into a regular corporation with its own staff etc.

The third point is that the legal aspects can be better framed. These aspects have been taken note of and when future contracts are to be settled, we will take into account and

see whether we can protect ourselves better in consultation with our legal advisers."

4.31. To recapitulate the position, as a result of acceding to the various demands of the dredging contractors, the following concessions in monetary and other forms accrued to them in respect of work under capital dredging, apart from the delay in completion of work of four and a half years from June, 1972 to December, 1976.

(1) Grant of extension of 9 1/2 months for completion of the work, on the recommendation of the Consulting Engineers (Firm 'C'), in February, 1971, on various grounds put forward by the contractors viz. delay in this issue of import permits for spares, shortage of explosives, delay in issue of work order, labour trouble and inefficiency of the Port's dredger given to them on hire.

Under Supplementary Agreement entered into with the contractors in January, 1972 with the concurrence of the Minister of Transport.

(2) Payment of Rs. 83 lakhs (including Rs. 12 lakhs as refund of customs duty) towards full and final settlement of all the claims of the contractors upto the time of resumption of work on 5-11-1971 against his initial claim of Rs. 2.37 crores, subsequently reduced to Rs. 1 crore, on the ground that the firm was incurring heavy losses due to misleading data given in the tender, low output of the port dredger made available to the contractor, delay in issue of import licences, scarcity of explosives, etc.

(3) An interest-free advance of Rs. 50 lakhs paid to the contractor in April, 1972.

(4) Escalation allowed on the basic price of petroleum products and Rs. 5.04 lakhs were paid upto June, 1974.

(Under the original agreement escalation was permissible for unforeseen changes in taxes, duties etc. and not for increase in the basic price.)

(5) Customs duty on any plant or equipment brought into India after the resumption of work (5-11-1971) will be paid by the Port Trust.

(6) Payment of Rs. 1.18 crores (between January—August, 1973) mainly for dredging in harder materials than that the firm had quoted for, made under protest subject to arbitration against contractors claim of equal amount put in by them in June-July, 1972 and agreed to by the Consulting Engineers (Firm 'C').

(7) Payment of Rs. 15.50 lakhs made under protest between May-June, 1974 for the same reasons as stated at (6) above. This was also agreed to by the Engineer.

Under (further) Supplementary Agreement executed on 8th June, 1974.

(8) Decision to revise rates for the remaining portion of dredging (save the outer channel) allowing rates between Rs. 3.60 and Rs. 22 per c.m. for different kinds of materials to be dredged. At these rates the balance of dredging (about 40 lakh cubic metres) would cost about Rs. 3 crores more than what would have been payable under the original contract.

(9) Absolving the contractor of the responsibility of dredging the outer channel.

(10) Grant of extension of time for completion of the whole dredging and reclamation work by May, 1976.

(11) Payment of Rs. 90 lakhs as advance including an amount of Rs. 25 lakhs in foreign exchange.

(12) Obtaining of customers clearance permits on behalf of the dredging contractor.

(13) Grant of further extension of time to the dredging contractors upto the end of 1976 for completion of work with a month's grace period, if absolutely necessary.

4.32. The Committee have been gravely disturbed by excessive delay and escalation in costs in the execution of the project for a fully mechanised iron ore berth in Mormugao. Dredging of the area for deepening the approaches and for reclamation of additional headland to locate the mechanised iron ore plant and ancillary facilities constitutes a very vital component of the Project. The Committee find that there has been a delay of over four years and an increased cost of Rs. 10 crores in the execution of dredging operations.

4.33. The contract for dredging was given to a Yugoslav firm (M/s. Ivan Milutinovic-PIM) in December, 1969 and the agreement provided that the dredging would be completed by June, 1972. The position three years later, in June, 1975, however, was that dredging had only been completed by the firm for only 5 million Cubic Metres out of 11 Million Cubic Metres initially entrusted to them, and that dredging for the outer channel as well as for maintenance had been taken away from the contracting firm so that it could be done department-

tally. Apart from the fact that there was an initial delay of three months by the Yugoslav firm in starting the work, the work has been hampered repeatedly by disputes over the nature of the soil to be dredged, as specified in the contractual agreement and as actually found on the sea bed. In this context, it is pertinent to recall that the soil conditions as specified in the tender documents and later in the Agreement were based on the Master Plan prepared in 1965 by Randel Palmer and Tritton and the bore-hole data which was furnished by M/s. Cementation as a result of 106 bore-holes carried out in the specified area as per plans given to them by the consultants and the Port Authorities. The Committee find that the soil analysis done subsequently by M/s. Descon, to resolve disputes about the actual soil conditions, showed the existence of soil conditions different from what had been given out by Cementation.

4.34. This controversy over soil conditions has been responsible for protracted delays, lingering negotiations and additional payment of heavy amounts of money over and above the rate provided for in the contractual agreement.

The Committee are unable to accept the plea of the Port Authorities and the representatives of the Ministry of Shipping and Transport that the number and location of bore-holes was furnished by the consultants in conformity with international standards and, therefore, adequate for the purpose. The Committee feel that the Consultants were expected to be able to anticipate, on the basis of their experience as well as well-known laterite character of the area, that soil investigations needed very special care. It should have been possible for them to suggest ab initio more extensive analysis through a larger number of bore-holes. The Committee feel that M/s. Cementation should in time have drawn the notice of the Port authorities to their view that the number of bore-holes and the data they could gather therefrom was not adequate for the purpose and that more extensive boring and analysis was required. It is pertinent to recall that M/s. Cementation have come in for adverse notice of the Committee in the cases of Naval Dockyard, Bombay, as well as the Haldia Dock Project, on account of alleged inadequacy of soil analysis undertaken by them.

The Committee would like Government to constitute an expert Group to go into the entire matter of soil specifications for this Project and learn the requisite lessons in order to prevent recurrence of such happenings. The group should particularly investigate whether the location of bore holes as given out originally by the consultants (Messrs. Randel, Palmer and Tritton) and the execution

thereof and compilation of data and analysis by M/s. Cementation were really adequate. In case of an adverse finding in either case, responsibility should be fixed and damages recovered.

4.35. In regard to the claims of the Yugoslav firm and the payments made to them on account of variation in soil conditions, what the Committee have unravelled makes an unsavoury story. The original agreement with the firm provided for only three types of rates for dredging, namely Rs. 4.10 per c.u.m. for dredging under 'all kinds of soil including soft soil' and disposing of the soil at point 'Y' marked on the Plan, Rs. 4.70 per c.u.m. for dredging the outer channel and the basin areas in 'all kinds of soil including sandy soil' and repumping the same through hopper to the area demarcated by zone 'A', and Rs. 135/- per cu.m for dredging to the required depth in hard rock if met with. As against these contract rates, the Yugoslav firm made additional claims. The first claim was made in September, 1971 and was for as much as Rs. 2.37 crores as per details given in Appendix II. The Committee appointed by Government came to the conclusion that Rs. 62.27 lakhs only should be paid on this account. Ultimately however, a high level settlement was made at Rs. 83 lakhs at a meeting with the Yugoslav firm held by the Minister of Shipping & Transport in November, 1971. It appears that the said amount of Rs. 83 lakhs had also been recommended earlier both by the Consultant's and the Chief Engineer's Committee but unhappily the chain of events and the reasoning behind them is not very clear. Out of this sum a major portion (over Rs. 42 lakhs) was said to have been on account of the harder strata of soil encountered and on account of loss of production due to breakage of cutter axle and bearings of the Dredger in the aforesaid soil conditions.

4.36. In spite of such experience, however the Ministry did not make any specific provision in the supplemental agreement signed with the Yugoslav firm in February, 1972 about the rates to be paid in case harder soil was met with, as distinct from the ordinary soil and rock formation. In the Committee's view, it was this ambiguity which resulted in two further claims of Rs. 1.18 crores and Rs. 15.50 lakhs being preferred by the contractor in September-December, 1972 and October, 1973, respectively, which were paid by the Port authorities under protest since the "Engineer" who, under the terms of the original and supplemental agreements, had the power to settle the claims, had for some reason which is not clear to the Committee, upheld the claims of the Yugoslav firm. The Committee however, have learnt that Government would contest

these claims before an Arbitrator to be appointed after completion of the work. Whether it would be worth while remains of course, in the womb of the future.

The Committee are of the view that if the authorities had shown same foresight and sought to profit from the earlier experience of the difficulties posed by the soil conditions in setting the claims of the Yugoslav firm, they would have utilised the Supplemental Agreement as an opportunity of settling these rates in more specific terms to obviate any ambiguity and odium of overpayment. Government had also about the same time, already engaged another firm, M/s Descons, to undertake additional bore holes in the area to get more extensive and reliable information about soil conditions. The Committee therefore, are unhappy over peculiar default which could and should have been avoided by intelligent planning. The Committee reiterate that Government must learn from experience and lay down detailed gide-lines to prevent ambiguities of this nature creeping into dredging agreements, particularly with foreign firms.

4.37. The Committee find that in terms of Clause 13(2) of the Principal Agreement read with Clause 21 of the Supplemental Agreement it was possible with consent of the Contractor to approach arbitrators even before completion of the work and that as stated during evidence by the representative of the Ministry, the Contractor was being approached in that behalf. The Committee trust that the authorities would succeed in persuading the Contractor to agree to refer the matter to arbitration at the earliest so that finality is reached about these heavy amounts which have been paid "under protest", and the public interest is safeguarded.

4.38. An important factor which emerges out of the present study is that in the crucial sector of capital dredging Government did not take action well in time in the direction of self-reliance. The Committee feel that if the decision to have a Dredger Corporation had been taken at least a decade earlier when extensive capital dredging works had still to be undertaken for the enlargement of facilities at several major Ports in the country, it would have provided first-hand experience in a very crucial field and saved Government the cost not only of heavy delays but also of a lot of avoidable foreign exchange on this account.

4.39. The Committee are greatly concerned at the unconscionable delays on the part of the Ministry and the Port Authorities in taking timely action to provide the facilities which were obligatory in terms of the contract or which were subsequently agreed to as a result of supplemental Agreement. There was a delay of several

months in issuing orders for commencement of work and in arranging issue of import licences to the Contractor. It is pertinent to recall that out of the first claim of Rs. 2.37 crores preferred by the Yugoslav firm in September, 1971, as much as Rs. 1 crore was on account of such unfortunate and entirely unwarranted delay.

4.40 The Committee note also a serious short-fall in arranging supply of explosives with the result that the Contractor preferred a claim of as much as Rs. 50. lakhs on this account. (This was included by the Contractor in the claim of Rs. 2.37 crores).

The latest instance of similar default is the delay of 170 days in the matter of giving advance of Rs. 90 lakhs (including Rs. 25 lakhs in foreign currency of the choice of the Contractor) as per further Supplemental Agreement executed in June, 1974, with the result that the Engineer has directed in terms of the Agreement that the date for completion of the balance of the work would accordingly be extended by corresponding period.

4.41. Apart from the monetary claims referred to above, which had to be settled by cash payment, the authorities did not choose to impose the penalty of Rs. 40 lakhs to which the Contractor appears to have been liable for non-completion of the work in time.

The Committee consider that these delays were uncalled for and urge Government to hold a strict investigation in the matter and sternly call to account whoever are found responsible for such dereliction of duty which should not recur.

4.42. The Committee would also stress that the procedure and formalities for complying with the obligations undertaken vis-a-vis the contractor by Government, should be precisely implemented in accordance with the agreed time schedule so that the Contractor does not have any further alibi or excuse for non-completion of the work in time.

4.43. The Committee require that Government authorities and agencies charged with the responsibility of making available the materials, advances, permits, facilities, etc. should act in a responsible, coordinated and effective manner and ensure strict compliance with the time schedule prescribed in the agreement. This alone can bring about principled and disciplined functioning and guarantee proper performance by the contractors, foreign as well as indigenous, who would know in that case that non-performance would entail the application of the appropriate sanctions against their default.

V
MAINTENANCE DREDGING

5.1. Clause 14 of the special conditions attached to the original contract which deals with the method of measurement and payment, stipulated that—

“Payment for dredging in this contract shall be based on the quantity ‘in situ’ removed from the bed of the harbour, as shall be ascertained from the soundings taken immediately before commencement and after completion of the dredging. The programme of dredging as approved by the Engineer will be followed for the work. After the completion of the work any siltation that may have occurred in the areas dredged during the period of the contract will have to be removed and the whole area handed over to the “Engineer” duly dredged to final depths at the end of the job before a certificate of completion for the job can be issued by the Engineer. The final bill will be paid on the basis of the quantities as calculated from the difference between the original soundings and the soundings at the time of taking over the completed work.”

5.2. The above mentioned position regarding handing over of dredged areas to the Contractor was, however, altered to the benefit of the Contractor through provisions in the supplemental Agreement of January, 1972, and the further Supplemental Agreement of June, 1974. Under the latter, the balance of the work of dredging left undone by that time, was divided into 13 zones and dates of completion prescribed for each zone. It was specifically provided therein that—

“13(ii) Each of the Zones as designated above shall be handed over to the Board immediately when completed and certified as such by the Engineer and the maintenance thereafter shall devolve on the Board.”

5.3. Giving reasons for agreeing to take over the dredged areas in piecemeal instead of taking over after completion of the entire dredging work the Development Adviser stated in evidence:—

“The original contract provides for the whole area to be taken over simultaneously. The reason for that was that we ex-

pected that the whole project will be ready approximately at the same time and there would not be that much delay in dredging as has actually happened. Thereafter the maintenance is the responsibility of the Port Trust. Subsequently, because of the delay caused by the continuance of dredging over a longer period, at the stage of first supplementary agreement the contractor had put this as one of his conditions. His contention was that he had not anticipated this hard material and therefore he had spent much longer time to dredge; and he could not keep maintaining the area indefinitely. The Port Trust had agreed to take over those areas required by them for their own use. In fact out of total areas divided into various sectors we have only taken over 4 areas so far. One is in front of the area where barge berths have to be constructed. When dredged, it has to be handed over to another contractor for barge-berth construction. That was taken over and handed over to the contractor. The other area is in front of the oil and ore berth, when dredged to required depth it has to be taken over for construction of ore and oil berth. Third area is the new inner circle which is an operational area for the Port Trust and they will continue using that for the present traffic which is at present there in the port. The responsibility for maintaining this during the execution of the contract under the original agreement was naturally that of the contractor but having taken over, the responsibility falls on the Port Trust. It is not correct that 20 per cent of the total dredged depth is reduced every year. Whatever material is dumped to Biana beach upto 20 per cent comes back into the estuary of the river. It is a very large area larger than the area which is being dredged. Total siltation expected in this harbour has been achieved over the entire area of the approach channel and inner channel and it is of the order of 2.1 million cubic metres per annum. That is our responsibility which we will be doing after the work is over. At present it is less than one million cubic metres but when the whole area is finished it will be more than that. Summarising, the reasons for taking over are: one, as per the supplementary agreement. Second requirements of certain areas to be taken over and turned over the other contractors who have to work in those areas: third, areas of an operational nature where we will have to operate for the present traffic. Those are the areas taken over so far. We have not taken rest of the areas."

5.4. The Committee desired to know the details of the areas handed over for maintenance dredging to the Port Authorities. In a note* furnished to the Committee after a visit to the Port by a Study Group of the Public Account Committee in October, 1975. the Ministry have stated:—

"It may please be noted that the area East of the Rock Buoy (Contractor's area) is presently divided altogether into 16 small areas for piece-meal handing over to the Port. Of these 16 areas, only 3 areas have been handed over to the Port for maintenance dredging as of today. Of these three areas, the two areas i.e., area IV and V are situated in the barge basin and no maintenance dredging by the port's Trial Suction Dredger is physically possible because in area V barge berths have already been constructed whereby it is not possible for a Trial Suction Dredger to operate in the area. Hence this area will have to be tackled only by the Grab Dredger, as and when required in future. Area IV which actually is the approach area to these barge berths is presently extensively used by the various contractors including the Dredging Contractors for their craft as also by other small craft like launches and barges for their activity and thus it is not possible for the port's Trail Suction Dredgers to dredge even in these areas. The third area which has been handed over, is dislocated from the previous two areas and forms a part of the turning circle and is referred to as area IIIB. This area is an isolated area and in addition is extensively being used for the purpose of present day shipping by way of buoy mooring berths. The Dredging Contractors have also undertaken dredging in the area adjacent to this area and are also halfway through the salvaging of a sunken ship next to it. With these constraints it is not possible for the port's Trail Suction Dredgers to do much of the dredging in this area also.

In any case dredging of small isolated pockets by a good sized Trial Suction Dredger is neither practical nor economical."

5.5. The Committee had desired during evidence to know whether any maintenance dredging had been done by the Port

*Not vetted in audit.

Trust in the dredged areas which they had taken over and what was the expenditure on that account. The Secretary, Transport, stated in reply—

“I was saying that in the areas that we took over, no maintenance dredging was done.”

5.6. Audit have observed that maintenance dredging by the Port Trust increased from 17.6 lakh tonnes in 1971-72 to 36.23 lakhs tonnes in 1972-73. The Committee wanted to know the reasons for this abnormal increase of more than 100 per cent in a period of two years only. The Chairman, Port Trust stated in evidence:—

“There are two factors namely, intensive utilisation of our existing dredgers for improving draughts in the harbour. During the last few years this has improved. Second is creation of additional buoy anchorages. We have done some *in situ* dredging also for the area which is outside the area of the contractor.”

The Secretary, Transport stated:—

“This is a question on which I shall give answers in some detail. The Chairman, Port Trust tells me—as he has explained earlier—that this increase is not on account of this flowback or siltation that is taking place but on account of special items of work that they have undertaken in regard to the utility or usability of the Port, particularly, because of the new anchorage that is created with moorings”

Explaining the present position in this regard, another representative of the Ministry stated:—

“In barge berth ~~and~~ some areas which are in front of the barge berth there is no siltation so far. In the area of the new turning circle there is some siltation but we have to remove it because it is required for our shipping. There is some siltation there, but it is not as much as 20 per cent, it is hardly $\frac{1}{2}$ a metre or upto half a metre; that is the maximum.”

The Committee enquired whether it had been ensured that the siltation in the river estuary would not become a menace later on

and jeopardise the entry of the ships into the harbour. The witness stated:—

“Entry to our port is through the channels which are maintained. Ships come to port through these dredged areas. The rest of the area is very shallow.”

He added—

“Except for the normal dredging which will be continued to be done by us, we have calculated the requirements and provided for maintenance dredger in the Port itself. This will be available to meet with the requirements subsequently.”

5.7. In a note furnished to the Committee, the Ministry of Shipping & Transport have listed various factors which contributed towards increase in the maintenance dredging of the Port and the present position in the matter of maintenance dredging of areas that were taken over by the Port. The same is reproduced below:—

“(a) The actual quantity of maintenance dredging carried out in the year 1969-70 was 23.78 lakh tonnes and this declined to 17.60 lakh tonnes since no intensive dredging work was undertaken. It rose to 28.22 lakh tonnes during 1971-72 i.e. almost to its original level. In 1972-73 the dredging quantity was 36.23 lakh tonnes.

The main reasons for increase in the maintenance dredging are as follows:—

- (i) *Increase of the anchorage area for installing additional mooring buoys and the consequent need to maintain depths in these newly dredged areas;
- (ii) *Clearance of siltation during the process of stabilisation of the side slopes of the freshly dredged virgin area.
- (b) Of the four areas which, after having been dredged to the required depths, have been taken over by the Port, areas designated as IV and V, situated in front of the Barge Berths, have, since they have been dredged and taken over, maintained more or less the same depths; in other words, there has been no appreciable siltation

*Not susceptible of verification in Audit as the Log Book of Dredger did not indicate the areas dredged.

in these areas even though no maintenance dredging has thus far been carried out in these areas.

The area designated in IIb Primary, which is situated in front of the Ore and Oil Berths, has experienced marginal siltation which in no way is going to increase the maintenance dredging burden of the Port.

It is only in respect of area IIIb, which forms part of the turning circle, that there has been some siltation since it has been dredged and taken over. Since this area falls within the operational activities of the Port and in view of its limited size, it has not been possible to carry out any maintenance dredging in this area. This, however, does not mean that the siltation in this area will cause the levels in this area to rise above the levels which were prevailing before the area was taken up for dredging. However, now that the dredging contractor is in the process of dredging areas in the vicinity of the area IIIb, the quantum of siltation in this area not only will decrease, as it will get spread over a much wider area, but also it will be possible for the port to undertake maintenance dredging in this area in view of the larger areas now being handed over by the contractor.

Since the Port has already acquired a trailing Suction Dredger of a sufficient hopper capacity, it will be possible to undertake maintenance of the whole of the inner harbour after it is handed over by the contractor after finishing capital dredging. This will be synchronised with the deepening of the entrance channel being carried out departmentally thereby enabling bigger ships to be loaded alongside the new Ore Berth."

5.8. The Committee note that the supplemental Agreement of January, 1972 with the Dredging Contractor (Yugoslav Firm) inter alia provided that the Port Trust would take over the dredged areas as and when completed in parts, instead of after completion of the entire dredging as originally stipulated. With this, the Port Trust had taken upon themselves the responsibility of maintenance dredging of the areas so taken over by them in advance of the completion of the entire work of dredging. The rates for dredging and dumping agreed upon at the time of executing the original agreement no doubt included the cost of maintenance by the contractor of the dredged areas till the entire area was dredged and handed over to the Port Trust. Thus, absolving the contractor of the responsibility

of maintenance of the areas handed over in advance of completion of the entire work, has given him an unearned benefit over and above the additional payments made and other concessions given to him under the Supplemental Agreement.

5.9. The areas so handed over in advance of completion of the entire work of dredging are stated not to have been dredged again so far by the Port Trust. In view of this position, it has not been possible for the Committee to obtain a quantified idea of the value of this benefit given to the Contractor. The Committee have, however, been informed that according to studies made by the Central Water and Power Research Station, Poona, 18 per cent to 19 per cent of the spoil deposited at the Biana Beach was flowing back into the harbour area, the obvious implication being that at least a part of this flow-back would also get deposited in the areas already taken over by the Port Trust and the dredging of this accumulated silt would have to be done by the Port Trust at a future date.

5.10. Normally, business prudence would have demanded that in exchange for this benefit to the contractor, a demand for scaling down the concessions on other accounts granted to the Contractor should have been put forward and pressed by the Port Trust at the time of executing the Supplemental Agreement in January, 1972. The Committee, however, find that on the contrary, the Contractor even succeeded in getting rid of the liability of maintaining those areas on the ground that he could not saddle himself with the responsibility of maintaining them for an indefinitely long period resulting from the delay in the original schedule of dredging.

5.11. Now that the harm has been done and the Contractor has undertaken to complete the entire dredging work by December, 1976, the Committee express their displeasure over the entire business and require that in case of any request from the contractor for further extension of time, he must be asked to meet the cost of maintenance (to be calculated and specified) beyond December, 1976, of the areas already handed over by him.

VI

RECLAMATION

6.1. As stated in the Audit Paragraph, the dredged material, other than that dumped in zone 'A' for reclamation of that Zone, was normally required to be dumped in the open sea at a distance of 4.5 K.Ms. from the breakwater, in order to prevent its flow-back into the dredged area. The Contractor was, however, allowed to dump the material at different times at two places, *viz.*, the Vasco Bay and the Bainha Beach, the details of which are given below:—

(1) *Dumping at Vasco Bay (lead 1 K.M.):*

(a) In June, 1970, dumping was temporarily allowed on the condition that the dumped material would be removed by December, 1970, and dumped in open sea (lead 4.5 K.Ms.) failing which liquidated damages of Rs. 50,000 per week would be paid by the Contractor. A total quantity of 5.30 lakh cubic meters was dumped at Vasco Bay under this arrangement between September 1970 and December, 1970.

For this dredging, payment was made at half of the contracted rate of dredging of Rs. 4.10 per cubic meter and the remaining half was to be paid after actual removal of the dumped material.

The material was ultimately not required to be removed and the payment made at half the contracted rate was considered as final. The prescribed liquidated damages were also not claimed from the Contractor.

(b) Under the Supplemental Agreement of January, 1972, a quantity of 4.45 lakh cubic meters was allowed to be dumped at Vasco Bay between January and September, 1973 without making any reduction in the rate of dredging *viz.*, Rs. 4.10 per cubic meter.

Apart from the question of rates of dredging (which on lead basis should have been reduced to Rs. 2.90 per cubic meter), Audit has mentioned of a Study made in 1965 and 1966 by the Central Water and Power Research Station, Poona, on experimental model which indicated flow back upto 20 per cent of the dumped material at Vasco Bay.

Another aspect of dumping in Vasco Bay is that this Bay is close to an area known as Zone 'B' which is marked for reclamation after pre-dredging of the soft material in the zone. Some of the material dumped in Vasco Bay might have flown over to zone 'B' which would ultimately have to be removed first before being able to pre-dredge the soft material underneath for purposes of reclamation. Audit has drawn attention to the fact that the draft Fifth Plan of the Port (December, 1972) had mentioned that out of the total material of 9.75 lakh cubic meters dumped in Vasco Bay upto September, 1973, four lakh cubic meters had settled down in zone 'B'. According to Audit, the cost of removal of this material would be Rs. 19 lakhs.

(2) *Dumping at Baina (lead 2.15 K.Ms.):*

Dumping at Baina Beach was allowed only under the supplemental Agreement of 1972. As against the contracted rate of Rs. 4.10 per cubic meter (for dredging and dumping at a distance of 4.5 K.Ms. in open sea), the reduced rate for dredging and dumping at Baina Beach was fixed at Rs. 3.50 per c.m. for first 15 lakh cubic meters and Rs. 3.00 per cubic meter for the rest. According to Audit, the reduced rate, on the basis of 20 per cent flow-back and the reduction in lead, should have been fixed at Rs. 2.50 per cubic meter.

6.2. The total over-payment thus made to the dredging contractor (Yugoslav Firm) both in respect of Vasco Bay and Baina Beach dumping, has been assessed by Audit at Rs. 12.08 lakhs.

6.3. The relevant provisions in the Supplemental Agreement with the Dredging Contractor (Yugoslav Firm) read as follows:—

"12(a) The Contractor will be allowed to dispose of the dredged spoil from the areas of the harbour designated by the 'Engineer' according to the programme approved by the 'Engineer' to Baina Beach from the date permission is granted by the Government of Goa and/or other local authority concerned to the Contractor for such disposal. The Board will try to secure permission for this operation from the Government of Goa and/or any other local authority, concerned. The discharge point for this purpose shall be as directed by the 'Engineer' or his representative in writing from time to time but not farther than 1500 metres from the Rebello Point and also not more than 600 ft. away from the existing shore line towards the sea.

(b) At the same time, the problem of the ultimate movement of this material will be referred to the C.W.P.R.S., Khadakwasla for carrying out further model as well field studies. If at any time during the operation of direct pumping to Baina Beach, it is reported by the Research Station that more than 20 per cent (Twenty per cent) of the material so disposed at Baina Beach is likely to return into the areas of the harbour to be dredged by the contractor under the Principal Agreement, the operation of pumping to Baina Beach will immediately be discontinued and the alternative proposal outlined in para 2(d) below will be adopted by the Contractor.

(c) (i) For the operation of pumping dredged spoil as aforesaid the Board will pay to the Contractor a sum of Rs. 3.40 (Rupees three and paise fifty only) per Cubic metre for the first one and a half million cubic metres and Rs. 3.60 (Rupees three and paise sixty only) per cubic metre for all quantities over and above the first one and a half million cubic metres.

(ii) Good material as per the specifications and as approved by the Engineer or his representative will be pumped by means of a suitable by-pass arrangement into the reclamation areas designated by the 'Engineer' for which work the Board will pay to the Contractor at the rate of Rs. 4.70 (Rupees four and paise seventy only) per Cubic Metre.

(d) If for any reasons whatsoever whether these are technical, administrative or otherwise, the contractor is unable to or is not permitted to proceed with the work of disposal of dredged spoil by direct pumping into Baina Beach, it shall resort to disposal of the dredged material in accordance with the alternative given below:—

(i) The Contractor will be permitted to pump into Vasco Bay dredged spoil from certain areas of the inner harbour to be approved by the 'Engineer' or his representative. The quantity of material to be so disposed of will be approximately 400,000 (four lakhs only) Cubic Metres in the aggregate. Any good material as per the specifications laid down in the Principal Agreement and approved by the 'Engineer' or his representative obtained during the process of pumping to Vasco Bay will

be utilised for the purpose of reclamation for which the Board will pay to the Contractor at the rate of Rs. 4.70 (Rupees four and paise seventy only) per Cubic metre. The rate for the disposal of dredged spoil in Vasco Bay will be Rs. 4.10 (Rupees four and paise ten only) per Cubic metre.

- (ii) The balance of the soft material from the inner harbour (except a quantity of approximately 1.8 (one point eight) cubic metres referred to hereinafter) will be hopped out to the Principal Agreement and paid for at the rate quoted by the Contractor in his tender dated 16-4-1969.
- (iii) The material from the areas to be dredged and suitable for reclamation purpose will be utilised for reclaiming the areas in accordance with Clause 7(a) of Special Conditions (b) 'Specifications' of the Principal Agreement. Any good material found surplus after completion of the reclamation shall be disposed of in such a manner as may be directed by the 'Engineer'.
- (iv) The quantity of approximately 1.8 (one point eight) million cubic metres of soft material referred to in the sub-para (ii) above will be dredged by the Contractor along with the dredging of the outer entrance channel for which the dredging of the outer entrance channel for which new rates will be negotiated as per Clause 15, hereof.
- (e) It is further agreed that in case of the necessity of resorting to the alternative method of disposal detailed above, the Contractor shall not be entitled to any claim or compensation or reimbursement of the expenditure he might have incurred in connection with the intended direct pumping to Baina Beach or for the purpose of resorting to the said alternative method."

6.4. During evidence, the Committee desider to know as to what were the implications of the Supplemental Agreement in regard to the changes allowed in the places of dumping. The Development Adviser, Ports, stated in reply:—

"There have been two changes in the dumping. As rightly pointed out by the hon. Member, the contractor was allowed to dump a part of the material—about 4 or 5 lakh

cubic metres in Vasco Bay during the nonsoon of 1970; then he has been allowed to pump the material into Baina Beach, during the monsoon period only, instead of taking it to a designated dumping place which is five kilometres away. The reason for this change is that the Port Trust agreed to give him permission for dumping at Vasco Bay. At that time dredging for formation of banks used for reclamation was going on. That was fairly a deep dredging because the banks that have to be made are out of very deep and made out of stones. The monsoon season had already set in or was about to set in and there was a possibility that the contractor did not have the type of equipment which could be used for dumping this material outside during the monsoon. So, as an interim measure, he was allowed to dump, about 4 to 5 lakh cubic metres to Vasco Bay at half the original rates. That is, instead of 4.10, he was paid 2.05 with that condition that after the monsoon is over, he will re-dredge this material and dump it into the designated ground. The balance of Rs. 2.05 will be paid to him at that stage, that is, subsequently, after the monsoon. But, immediately after the monsoon, he stopped the work, that was on 31-8-1971. He had put in as a part of his conditions that this material which was dumped at Vasco Bay and which had been found to be useful by the Port Trust since land had been formed on the existing beach, he should not be asked to remove. The Port Trust found that this land which was formed was useful to them, and on which foundations were laid and, ultimately, tanks were built by Zuari Agro Chemicals. They agreed for the non-removal of this material from the Vasco Bay and payment of Rs. 2.05 was made as final payment and no further payment was made. So, they got that work done at Rs. 2.05 that was first allowed to him.

Secondly dumping at Baina Beach—this was a change and was allowed to him. Pumping the material to Baina Beach was allowed during the monsoon of 1972.

After he had resumed the work, in his supplementary agreement, there was a condition that during the monsoon period he cannot go and dump his material outside with the type of equipment that he has got and so he may be allowed to dump that with the help of the cutter dredger to Baina Beach. In that connection we got the C.W.P.R.S. to prepare a Report for us and tell us whether we should

allow him to do so. The C.W.P.R.S. told us that upto 20 per cent of the material was likely to come back because the other 80 per cent could be dissipated into the sea. The Port Trust insisted and told the contractor that they would agree to this provided his rates were reduced by 20 per cent so that we might be sure at least that even if the 20 per cent of the material comes back, and is dredged, the contractor will not get an advantage. So, the existing rates were reduced by 20 per cent from the normal rate of Rs. 4.10 to Rs. 3.50 and he was allowed to dump approximately 6 lakh cubic metres during the monsoon of 1972 to Baina Beach. These are two deviations that were allowed. This was accepted because it was in the interest of the work. Subsequent non-removal from the Vasco Bay was because we found that material was suitable and since the land which has been formed could be used as such, there was no use of removing it."

6.5. The Committee also enquired during evidence as to why the liquidated damages were not levied on the contractor particularly when the flow back of material to the port area was likely to increase the cost of maintenance dredging and cost of removal of material flowing to Zone 'B' was likely to be considerable. The Development Adviser stated:—

"For the removal of material from Vasco Bay very high liquidated damages were originally planned to be levied. If the contractor does not remove all the material within the stipulated time, he would be paying liquidated damages, but as a part of the overall agreement with him which was entered into in November, 1971 this was one of the conditions that he will not remove that material because we had found that it was useful also, and that the liquidated damages, therefore, will not be leviable."

Explaining the present position in this regard, the witness added:—

"That area has become land in Vasco Bay and it has been leased out by the Port Trust to Zuari Agros at the rate of Rs. 50,000 per annum."

6.6. Asked how Government arrived at the two reduced rates in respect of dredging and dumping in Baina Beach in 1973 (viz., Rs. 3.50/3.60 as against Rs. 4.10 per cubic metre), the Development Adviser, Ports, stated during evidence:—

"There are two different modes of disposal of the material which is dredged beyond a particular area. One is to use

a trailer suction dredger or hopper barge which is loaded at the position where dredging is done. It then sails out to the designated area and there it opens its doors and dumps the material.

The other system is to dump the material through pipelines. The dredger dredges the material; it sucks up the material along with water through a very powerful pump and then dumps the material through a pipeline. The pipeline opens up in a certain area; there the slurry is dumped, the water flows back to the sea and the material is left behind as deposit in that area.

So, the methods of dumping are (a) at a designated location with the help of barges and (b) the method of pumping it through a suction dredger. The method adopted for dumping on the Baina Beach was the second method. There are two different rates, also, for these. For dumping by the first method it is Rs. 4.10 for dumping up to a distance of four and a half kilometres and another 10 paise for every additional kilometre—that is Rs. 4.10, 4.20, 4.30, 4.40 etc. The rate for pumping was Rs. 4.70 for pumping into the area which is to be reclaimed. When this method of dumping on Baina Beach was adopted, this was in lieu of the dumping which the contractor was supposed to do at the designated area. The method of dumping was conditional. He was to dump with the help of trailer dredgers or barges but, it was agreed that they could dump on Baina Beach by the second type of dredger.

The rate was the same, i.e. Rs. 4.10 and this was reduced by approximately 20 per cent which was the expected flow-back. This was accepted, and that is how this Rs. 3.50 was arrived at. Then there was an increase of 10 paise for dumping beyond one million, because he had to dredge from a deeper depth and from there dumping was done."

6.7. To a question whether there were different rates for the two modes of disposal of the dredged material explained by him above, the witness stated:—

"From the quotations of the contractor themselves you can make out that the pumping rate was higher. It was Rs. 4.70 per cubic meter while for dumping it was Rs. 4.10. But the dumping rate also varies where the dumping

distance is very long, may be 20 kilometres, the rate may be as high as Rs. 10 or Rs. 15 per cubic metre. It depends on the distance. In the case of pumping up to a specified distance, the pump of the dredger itself can dump. If the distance is more, it is to be used along with the booster pump, then the rates become further higher. So, there are different rates depending upon the distance of dumping, the type of soil or material to be pumped and the lead which is involved in pumping and in dumping."

6.8. In respect of rates of dredging settled with the contractor in the Supplemental Agreement, the Committee find that in a clarification furnished to Audit in the matter in December, 1974, the Ministry of Shipping and Transport had stated:—

"During negotiations that preceded the resumption of work by the contractor the contractor had made it a precondition that he should be allowed uninterrupted disposal of soft material to Baina Beach. However, the port only allowed pumping of material during the monsoon and as such the contractor had to resort to disposing some of the material in Vasco Bay..... the question of evaluating the rate on the basis of reduction in the lead will not arise..... as the question of lead with reference to the rate structure has only a marginal importance and the lead is determined by pump capacity."

6.9. The Committee enquired during evidence whether in Zone 'B' where dumping has been done pre-dredging was still necessary for the purpose of reclamation. The Development Adviser stated:

"If this is to be reclaimed, then pre-dredging is necessary. In Zone B, material has not been directly dumped. But, some material from Vasco Bay has flown there."

Asked how Government proposed to meet that contingency, when material is getting collected in Zone B, the witness had the following to state in reply:—

"It had got collected. We found at the time when the first dumping was done, that a certain per cent of material did flow into Zone B. This material has stayed stationary and no further siltation takes place there."

6.10. The Committee wanted to know what precautions had been taken by the Port authorities to prevent flowing back of the dump-

ed material, which might result in additional expenditure on maintenance dredging. The Ministry have stated in reply*:-

"So far no maintenance dredging has been carried out in the areas already taken over from the dredging contractors. The material dumped in Vasco Bay has taken a very gradual slope and with low depths and slackness of currents, there is very little chance of any material finding its way to the dredged areas. Though it is very difficult to quantify the material that is likely to come in the dredged area, it can be safely stated that it will be more than taken care of by the reduced rate paid to the dredging contractors for a quantity of 4.84 lakhs cu.m.

Care was also taken while dumping the material in Vasco Bay by trailing the mouth of the dredging pipeline away from the area so called Zone 'B' so that the material could flow away from this area where pre-dredging was required to be done than towards it. As a matter of fact, the actual quantity of pre-dredging done in the Zone 'B' area was only 6.24 lakhs cu.m. as compared to 1-million cu.m. assumed at the stage of preparation of programme."

6.11. During evidence, the Development Adviser stated:-

"The clayey and harder materials were to be dumped in the form of two groins running from the beach towards the sea. These two groins would act as the restraining barriers for the flow of softer material into the other areas but we had also explained this morning that in spite of these barriers which had been put in, certain softer material did flow into Zone 'B' reclamation area."

6.12. The Committee also desired to know whether the representative of the Navy on Mormugao Board of Trustees was opposed to the idea of dumping the dredged material in Baina Beach and he gave a note of dissent on that point. The Development Adviser explained:-

"Commodore Sanjana was the Naval Officer Incharge, Goa. He was one of the trustees of the Board. He had objected to the dumping of the material at Vasco Bay and not at Baina Beach. His objection was that the naval area

*Not vetted in audit.

is very close to the Vasco Bay. This was gone into by the Port Trust and they found that sufficient precautionary measures had been taken to prevent inflow of material into the naval area."

6.13. The Committee note that in respect of the stipulation in the original contract with the Yugoslav Firm for dumping of the dredged material at a distance of 4.5 kilometres, three departures were made at different times. Between September and December, 1970, the dredging contractor was allowed to dump 4.84 lakh cubic metres* in Vasco Bay at a distance of about one Kilometre on the condition that it would be subsequently removed from there. This was, however, not insisted upon as the spoil had formed useful land for Port authorities, which fetched them considerable amounts of lease money. However, 50 per cent reduction in the contracted rate for dredging (viz. Rs. 4.10 per cubic metre) was made in the payments for this dredging

6.14. Again, according to the Supplemental Agreement of January, 1972, the contractor was allowed to dump between January and September, 1973, 6.73 lakh cubic metres of spoil in Baina Beach at an average distance of 2.15 kilometres with some reduction in rate, and another 4.5 lakh cubic metres of spoil in Vasco Bay at a distance of 1 Kilometre without any reduction in the rate of Rs. 4.10 per cubic metre.

6.15. According to Audit, it was on account of no reduction in rate having been made in respect of the dumping at Vasco Bay and inadequate reduction in respect of dumping at Baina Beach that the Yugoslav Firm was paid an excess amount of Rs. 12.08 lakhs.

6.16. It has been pointed out by Audit that if the rates were calculated strictly with regard to the distance for which the contractor was obliged under the original agreement to dump the dredged material, the rate in respect of Vasco Bay would have worked out to Rs. 2.90 per cubic metre as compared to Rs. 4.10 per cubic metre provided in the Supplemental Agreement. The Ministry have however, taken the stand that the rates mentioned in the Supplemental Agreement were only allowed after hard bargaining and were reasonable under the conditions then prevailing. What causes the Committee greater concern is the fact that some of the material dumped in Vasco Bay admittedly settled down in Zone 'B' and, according to Audit, the removal of 4 lakh cubic metres of this material would cost Rs. 19 lakhs. The Committee feel that the

*According to Audit, this figure is 5.30 lakh cubic metres.

'least that the Ministry and the authorities could do was to make sure that in finalising the rate under the Supplemental Agreement this contingency was fully taken into account. The Committee cannot, therefore, see the rationale as to why in the Supplemental Agreement the rate for dredging and dumping at Vasco Bay in 1973 was kept at Rs. 4.10 per cubic metre as in the original contract even when the distance was reduced from 4.5 kilometres to about one kilometre which would have warranted reduction of rate to Rs. 2.90 per cubic metre.

As regards the dumping at Baina Beach in 1973, the Committee note that reduction of 20 per cent in rate was obtained from the contractor on account of what is termed a flow back of that order. The Committee, however, find that even if the rate was not calculated in terms of distance for the material dumped in Baina Beach, the reduced rate on the basis of 20 per cent flow-back would work out as rightly stressed by Audit, to Rs. 3.28 per cubic metre and not Rs. 3.50 per cubic metre settled for the first 15 lakh cubic metres and Rs. 3.60 per c.m. for the rest.

The Committee would like these aspects to be fully gone into and responsibility fixed for any omission to safeguard Government interest.

6.17. Again, in respect of the dumping at Vasco Bay, the Committee find that objection to this dumping was taken by the representative of the Indian Navy on the Board of Trustees of the Mormugao Port on the ground that the Naval area was very close to Vasco Bay. The representative of the Ministry stated during evidence that "this was gone into by the Port Trust and they found that sufficient precautionary measures had been taken to prevent inflow of material into the naval area". The Committee would like the Ministry to examine this matter very seriously, in consultation with the Naval authorities and the Ministry of Defence, to make sure that adequate measures have actually been taken to prevent any inflow of material into the naval area. . .

VII

CONCESSIONS TO PRIVATE PARTIES

7.1. One of the berths (berth No. 6) at the port of Mormugao is being exclusively used by private exporter of iron ore (M/s. Chowgule & Company) who are also owners of the mechanical ore handling plant installed at that berth. The Chairman, Mormugao Port Trust stated during evidence that the berth (No. 6) which belonged to the port had been leased out to Chowgule and Company for the construction of the mechanical ore handling plant, and this arrangement was based on a Portuguese decree which had the force of law.

7.2. During evidence, the Committee desired to know as to how the Portuguese law still continued to be enforceable in Indian Courts. The Chairman, Port Trust, stated that that had been protected by an Act of Parliament.

The Committee desired to be furnished with particulars of the Indian Law under which M/s. Chowgule & Co. continued to enjoy the concessions given by the Portuguese Government. The reply* furnished by the Ministry is reproduced below:—

"M/s. Chowgule & Co. are given concessions by the Portuguese Government under the Decree Law No. 41816 of 9th August, 1958 published in the Gazette I—Series of 4th September, 1958.

The Decree Law No. 41816 granting concession to M/s. Chowgule & Co. Pvt. Ltd. is still valid in view of the provisions contained in the regulation 4 of the Mormugao Port Trust (Adaptation of Rules) Regulations, 1964. Moreover, under Section 5 of the Goa, Daman & Diu (Administration) Act, 1962, all laws in force immediately before the appointed day in Goa, Daman & Diu or any part thereof are to continue in force until amended or repealed by a competent legislature or other competent authority. This decree Law has not been amended or repealed so far. Moreover, it is observed that this Decree Law was an enabling Act authorising the then

*Not vetted in audit.

Portuguese Government to enter into contract with the W.I.P. Rly. Co. and with M/s. Chowgules for the purpose of Mechanical Ore Handling Plant."

Giving details of the lease, the Chairman, Port Trust, stated during evidence:—

"The lease of berth No. 6 for installation of this facility is for 36 years and after 36 years, Government has the option to take it over."

Asked as to how many years had since passed, the witness stated that it was the sixteenth year and in 1977 the first option could be exercised. To a question whether any negotiations were over carried out with M/s. Chowgule & Company in this connection, the witness replied in the negative and stated:—

"I may mention that under the decree, the entire equipment which is known as mechanical re-loading plant reverts to the Port Trust after a period of lease. The matter would be considered in 1977 and Government will be approached for taking over these facilities."

The Secretary, Ministry of Shipping & Transport added:

· "This is continued under a certain legal right. Even the question of paying compensation and taking over the facilities has to be considered so that much more export is possible. This is a matter which we can think of. We have a legal right to consider the question of continuing the lease beyond 1977 in the light of further development that has since taken place."

7.3. In regard to background of giving lease rights to M/s. Chowgule & Company, the Committee have been informed that the company have got mines in that area and are interested in shipping the material. They have also got a shipping company. Asked whether this kind of special right is given to the private companies in any other major port in the country, the Secretary, Transport, stated in evidence:—

"I will recall that in one other port—Visakhapatnam port—certain areas have been leased to a Fertiliser Company for operating the rock phosphate berthing facility. There the rock phosphate loadings are only meant for that company. They erected the machine and in fact the lease

right is given by the Port Trust. So, this is one other case which I could recall at this moment."

7.4. Having regard to the fact that M/s. Chowgule & Co. figure in the Monopoly list, the Committee desired to know whether any economic exercise was ever done in the Ministry of Shipping & Transport in regard to the benefits accruing to such private parties. In reply the witness stated:—

"The expertise regarding monopolies and the measures required to meet the growth of monopolies as we know is concentrated in the Department of Company Law. We come into the picture to the extent whenever Chowgule organisation comes up for a facility, for example, as ship-owner he comes for the acquisition of ships. We scrutinise it from the point of view of MRTP and appropriate decision is taken in consultation with the various ministries concerned. There is no special expertise built up in this Ministry for Chowgules. We provide service organisation in order to enable the exports of the country to move as smoothly as possible."

Asked whether there were any inter-ministerial communications in this regard, the witness stated:—

"We do. When Chowgule as ship-owner comes to this Ministry for acquisition of ships we do sit and go into the questions and consult various Ministries and take appropriate decision. As far as Port Trust is concerned we have been discussing. He has lease-hold right and operating mechanical loading system under legal right. Option is available in 1977 for taking over. Then we will take whatever steps are necessary in consultation with other departments."

The Committee also wanted to know whether Government proposed to review this practice in the light of the country's present economic policy, particularly in regard to monopoly interests. The Secretary, Transport, stated in reply:—

"There are two different aspects. If a factory is set-up near the port and certain facilities are exclusively required there is nothing wrong to give a lease on specific terms. On the other hand, if it is a question of export then it attains different complexion."

7.5. The Committee desired to know whether there were other interests, apart from M/s. Chowgule & Company, who had also their own premises on hire or lease inside the precincts of the Mormugao Port and the capacity of berth No. 6 shared by each. The Chairman, Port Trust stated in evidence:

“Of berth No. 6 and stack-yard, 60 per cent of the capacity is exclusively reserved for Chowgules and the rest of the 40 per cent of the stack-yard and loading facility is shared by two other houses which are also major exporters, namely, Dempos and Salgaokars.”

7.6. In the terms of the Contract with M/s. Chowgule & Co., the provisions relating to charges payable for utilisation of the ore-handling plant belonging to M/s. Chowgule & Co. read as follows:—

“CLAUSE TEN:

For each ton of 1,016 Kg. of ore which passes through the installation a single charges will be paid of four Rupees for all the operations carried out thereon in accordance with the description given in Clause Fourteen and including the harbour dues.

Sub-paragraph 1: Out of this charge—

- (a) Rs. 2/10/- will go to the Contracting Party of the second part; (M/s. Chowgule & Co.)
- (b) Rs. 1/6/- will go to the W.I.P.
(now Mormugao Port Trust)

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Sub-paragraph 4: The sums referred to in the main body of the present article and in the sub-paragraphs thereof will be brought up to date in the same proportion as may be done after 1st January 1960, in the wharf dues collected on the other quays of the harbour in respect of iron ore exported through them.”

7.7. The Committee note that the existing mechanised plant at Berth 6 of the Port Trust has been established by M/s. Chowgule & Co. under Decree Law No. 41816 of 9 August 1958 issued by the former Portuguese Government which continues to remain valid in terms of Goa, Diu and Daman (Administration) Act, 1962 and Regulation 4 of the Mormugao Port Trust (Adaptation of rules)

Regulations, 1964. This anomaly, namely, the continuation of the erstwhile colonial law in that part of India should, in the Committee's view, be removed without delay. However, the facilities provided at the mechanised plant are being utilised not only by Chowgules but also by some other exporters. As per the contract, out of Rs. 4 recovered per ton on iron ore handled at the plant, Rs. 1.37 would be paid to the Port Trust authorities as their share and the remaining amount of Rs. 2.63 would accrue to Chowgules who are responsible for the operation, maintenance etc. of the Plant.

The Committee are informed that in terms of the contract and the Decree referred to above, the first option to acquire the mechanised plant on payment of compensation would occur in 1977.

7.8. The Committee are not satisfied with the complacent attitude of the authorities for the following reasons:

- (i) The mechanised plant is being used by a number of exporters and not by Chowgules exclusively;
- (ii) Chowgules is a monopoly house and the ownership and operation of a mechanised plant at a major port has to be viewed as a chain in this bigger monopoly operation. In accordance with Government's policy to contain the monopoly houses, an integrated and more comprehensive view should have been taken.
- (iii) Infrastructural facilities at ports are normally owned and operated by Port authorities.

The Committee are of the view that if this mechanised plant had been brought under the effective control of the Port authorities several years earlier, they would have gained valuable first hand experience and insight into its working and economics, and would also have been enabled to settle on a more realistic basis the capacity and design of the new mechanised plant which is being installed at an enormous cost and which would on present showing, be utilised only to the extent of 31 per cent of its capacity.

7.9. The Committee stress that Government should lose no further time in appointing an expert group which should go into all aspects of the working of this privately owned mechanised plant in the context of the new Government owned mechanised plant with a larger capacity for handling of iron ore, the prospects of export of ore including manganese ore, the financial implications of

having to pay compensation for a plant which has already done eighteen years of service etc.

The Committee would like to be informed in detail of the findings of the expert group and the decision taken by Government in the matter.

NEW DELHI;
August 27, 1976.

H. N. MUKERJEE,
Chairman,

Bhadra 5, 1898 (Saka).

Public Accounts Committee.

APPENDICES

APPENDIX I

(Vide Para 2-29)

MORMUGAO PORT TRUST

Working details of the Internal Rate of return from the Investments on the Mormugao Port Development Project, assuming only 50% plough back of the Ocean freight Savings to India.

Year	Benefits	Investment	F.E. Component	Additional for shadow price of F.E. 50% (4)	Additional operating cost	Total cost (3+5+6)	Benefits minus total cost (2-7)	Discounting factor 30%	Discounted value 30% P.a. (8x9)		
										1	2
1969-70	69.16	195.00	97.50	166.66	-166.66	1.0000	-166.66	115	
1970-71	129.39	2.30	1.15	130.54	-130.54	0.7692	-100.41		
1971-72	615.05	336.36	168.18	783.23	-783.23	0.5917	-463.44		
1972-73	671.25	83.87	41.94	713.19	-713.19	0.4551	-324.57		
1973-74	588.27	38.67	19.34	607.71	-607.71	0.3501	-212.72		
1974-75	811.16	260.37	130.19	941.35	-941.35	0.2693	-253.51		
1975-1976	2000.00	200.00	100.00	2100.00	-2100.00	0.2071	-434.91		

	1	2	3	4	5	6	7	8	9	10
1976-1977	•	•	1082.35	1482.06	5.33	2.67	30.13	1514.86	-432.51	0.1593
1977-1978	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.1225
1978-1979	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0942
1979-1980	•	•	4329.40	..	..	..	120.50	1205.0	+4208.90	0.0725
1980-1981	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0558
1981-1982	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0429
1982-1983	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0330
1983-1984	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0253
1984-1985	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0195
1985-1986	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0150
1986-1987	•	•	4329.40	..	..	..	120.50	120.50	+4208.90	0.0115
1987-1988	•	•	4329.40	120.50	120.50	+4208.90	0.0088
1988-1989	•	•	4329.40	120.50	120.50	+4208.90	0.0068

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Note :—(i) For computation of costs, a shadow price adjustment of 50% is added to the foreign exchange component in view of the Foreign Exchange scarcity in the country.

(ii) Additional operation costs indicated is computed as follows :—

	Rs. lakhs.
As per latest estimate operating cost to handle 12 million tonnes Ores at New M.O.H.P.	949.49
Less present operational cost to handle 12 million tonnes ores in stream assuming Rs. 7/- per tonne	840.00
Additional operating cost for handling 12 million tonnes Ores at New M.O.H.P.	108.49
<i>Add:—</i> Operational costs of Oil Berth	3.00
<i>Add :—</i> Operational costs of modernisation of existing facilities	0.90
	<hr/> 120.49
	Say
	<hr/> 120.50

APPENDIX II

(Vide Para 4.15)

Details of Original Claim of Rs. 2.37 crores made by the Yugoslavian Firm

Sr. No.	Particulars	Amount Claimed Rs.
1	(a) Shortfall in Zuari's performance	7,63,051
	(b) Difference between charges recovered from M/s. PIM for Zuari and amount paid to M/s. PIM for dredging work got done by Zuari	9,72,400
2	Loss of production of rubbles due to shortage of explosives	50,99,500
3	(a) Loss of output due to delay in issue of import licence and harder strata met with (Rs. 50,22,000 + Rs. 36,45,000)	86,67,000
	(b) Loss of production on account of breakage of Vlasina's Cutter, Axle and Bearings	11,25,000
4	Loss of production due to breakage of ladder of dredger "Foremost Prince"	4,50,000
5	Difference in quantities between measurement of Reclamation and Dredging	5,79,600
6	Difference in quantities working in Zone A3 with "Foremost Prince"	9,95,610
7	Late issue of orders for commencement of work	<u>50,99,500</u>
		<u>2,37,51,661</u>

APPENDIX III

(Vide Para 2.15)

Breakup of Rs. 83.00 lakhs Recommended by the Consultants and Chief Engineers' Committee

S. No.	Particulars of Demands	Rs.
1.	(a) Shortfall in Zuari's performance	2,29,687
	(b) Difference between charges recovered from M/s. PIM for Zuari and amount paid to M/s PIM for dredging work got done by Zuari.	
2.	Loss of production of rubbles due to shortage of explosives.	7,20,000
3.	(a) Loss of output due to delay in issue of import licence and harder strata met with (Rs. 50,22,000 + Rs. 36,45,000).	36,85,500
	(b) Loss of production on account of breakage of Vlasina's Cutter, Axle and Bearings.	10,35,000
4.	Loss of production due to breakage of Ladder of dredger "Foremost Prince".	4,00,000
5.	Difference in quantities between measurement of Reclamation and dredging.	Nil.
6.	Difference in quantities working in Zone A3 with "Foremost Prince"	Nil.
7.	Late issue of orders for commencement of work.	22,62,000
		83,32,187 or say Rs. 83 lakhs.

APPENDIX IV

(*Vide Para 4·15*)

Nature and details of Claims admitted by the Committee appointed by the Government

S.No.	Particulars	Amount Rs.
1.	Shortfall in Zuari's performance.	2,29,687
2.	Loss of production of rubbles due to shortage of explosives.	7,38,185
3.	Loss of output due to harder strata met with and loss of production on account of breakage of Vlasina's Cutter, Axle and Bearings.	39,05,700
4.	Loss of production due to breakage of Ladder of dredger "Foremost Prince"	1,54,000
5.	Reimbursement of customs duty on additional dredger already imported.	12,00,000
TOTAL		62,27,572

APPENDIX V

(Vide Para 4.28)

Copy of letter No. L-1|09|C-1|1|101 dated 10th June 1976 from M/s. Howe (India) Pvt. Ltd., New Delhi addressed to M/s. Ivan Milutinovic-PIM, Bombay and copied to CE (P)|MPT.

"SUB:—Dredging and Reclamation at the port of Mormugao.

This is to inform you that as the complete advance envisaged under the further supplemental agreement was received by you 170 days after the stipulated date as per the agreement, the various dates under the agreement stand advanced as follows:—

- (i) Date of Repayment of Advance [Clause 4(i)] becomes August 17, 1976.
- (ii) Date of levying of 10 per cent interest [Clause 4(iii)] becomes November 17, 1975.
- (iii) Date of completion for the balance of the works [Clause 12(i)] becomes December 27, 1976.

You are now required to submit your latest programme of works based upon the above mentioned completion date so that the areawise completion dates and liquidated damages can be fixed subsequent to our approval of your programme".

APPENDIX VI

Statement of main Conclusions|Recommendations

S. No.	Para No.	Ministry/ Department	Conclusion/Recommendation
1	2	3	4
1.	2.33, 2.34 & 2.48	Ministry of Shipping & Transport/Depart- ment of Industrial Development	<p>The Committee are happy at the emergence of Mormugao as one of the country's major ports and are anxious that its great promise of further growth is carefully assisted towards fulfilment. The Development Project of Mormugao Port is based at the moment mainly on the export of iron ore which constitutes about 90 per cent of the total traffic. To facilitate such export the national exchequer has provided, at a cost of Rs. 18.25 crores the new mechanical ore-handling plant (capacity: 12 million tonnes) in the expectation of cheaper and more efficient working. The likelihood of iron ore reserves in accessible regions being exhausted in a matter of twentyeight years or so, as well as the intrinsic desirability of founding the future of a fine harbour on the diversification of traffic items call urgently, however, for earnest examination of the ways and means of ensuring an integrated development of the hinterland so that the country's total economy can advance and the national investment in Mormugao produces optimum results.</p>

From the Economic Appraisal of the Development Scheme (April 1975—Revised & updated) it appears that Manganese ore (4.6 per cent) and Mineral Oils including Naptha Projections (4 per cent) were the only other important components of traffic at the port. The Planning and Research Department of the Port Trust made a later study (September 1975) which envisages the export of 300,000 Metric tonnes of Sugar per annum by 1978-79 and also anticipates by then traffic in finished fertilisers, oil cakes etc. at a somewhat higher level than in the Economic Appraisal. The prospect, thus, of Mormugao being virtually a one-commodity port appeared to the Committee to be disquieting, specially when the availability of iron ore reserves was uncertain after some time. The Secretary, Ministry of Transport, admitted during evidence that "*the entire development of Mormugao has been planned around iron ore*" (italics added), and when pressed by the Committee to give his views about a planned promotion of the economy of the region, conceded its urgency. Neither from the representatives of the Union Government nor of the Union Territory of Goa did the Committee find itself able to elicit concrete factual information regarding schemes, if any, for the development of the hinterland. Since the Master Plan for the Port was initiated in 1964, the Committee are positive that for such projects of Mormugao, perspective planning is inescapable. In spite of Government's expectation that, in terms of arithmetical calculation based on certain assumptions of estimated iron ore traffic, good returns will be forthcoming from the investment on Mormugao development, the

Committee would urgently ask Government not to be complacent to the larger (and also imperative) question of the economy of the hinterland which alone can provide a sustained foundation to the viable working of the port.

The Committee note that a number of districts of Maharashtra, Karnataka and Andhra Pradesh (Kohlapur, Sangli, Ratnagiri, Sholapur in Maharashtra; Belgaum, Bijapur, Raichur, Dharwar and Bellary in Karnataka; and Anantapur and Kurnool districts of Andhra Pradesh) constitute the economic hinterland for Mormugao. The Committee would require the Central Government to take the initiative, in conjunction with the port authorities, and contact the State Governments for meaningful development of these highly promising areas in order to ensure the generation of increasing traffic for the port. The Committee urge that a perspective plan for the development of exports from these contiguous areas may be soon evolved and concrete schemes identified for implementation in a concerted manner. The Committee would like to be informed without delay of the concrete action taken in pursuance of this recommendation. All this relates to a matter of national urgency and the duty, which has devolved on the entire country, of espousing the development of Mormugao as an important instrument of our economic advance.

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2. **2.25**
to
2.36

**Min. of Shipping
& Transport**

It appears that when the Master Plan was considered in 1964, the non-ore traffic was expected to be in the region of 12 million tonnes, but that the figure had to be brought down to only 1.46 million tonnes when the revised (April 1975) Economic Appraisal of the Development Project was made. In September 1975, the Planning and Research Department of the Port could place the projections of non-ore traffic at no more than 1.75 million tonnes for 1978-79 and 2.45 million tonnes for 1984-85. In the matter of setting up new industries in the region, letters of intent/licences were said to have been issued in early 1964 for one Pelletisation Plant, three textile Mills, three Pig Iron Plants, one Fertiliser plant and one Aluminium Plant. However, all that the Committee could be told during evidence (June, 1975) was that a Fertiliser Plant (Zuari Agro Chemical) had been set up, that two more major units (Goa Carbon and Madras Rubber Factory) were coming up and that an additional Pelletisation Plant of 1.8 million tonnes was in process of contemplation. There was no authoritative indication either if small scale industrial development with an export orientation was being seriously pursued. The Committee are perturbed that not enough seems to be done to ensure concomitant economic activity to sustain and strengthen a proud, modern port like Mormugao which calls for commensurate construction of various facets of our economy as its essential base.

Mormugao handled 12.5 million tonnes of iron ore in 1974-75. The anticipation was that the figure would move up to 13.50 million in 1975-76 and to 14 million in 1977-78, out of which 12 million

tonnes would be handled by the new mechanised plant installed at a cost of Rs. 18.25 crores. However, recession in international trade is stated to have caused a drop in the port's ore traffic as a result of which the expectations went away in 1975-76 itself when the Port handled only 11.48 million metric tonnes of iron ore. The latest (June '76) estimate of government is that the port would not handle more than 12 million tonnes as against the earlier expectation of 14 millions tonnes of total ore traffic. Since about 1.3 million tonnes are being handled at the existing mechanised plant, no more than 10.7 million tonnes would be left for operation by the new more sophisticated gadgets. The Committee regret that the resultant distortion in the economy of the project could not be prevented by a sufficiently foresighted approach.

3. 2.37

Dept. of Mines

The Committee are perturbed to find that at the present rate of export of about 14 million tonnes the iron ore reserves in Goa are likely to get exhausted in about 28 years. The Committee have been informed in a written note after evidence that some new reserves of iron ore which are equally promising have been recently found by the Geological Survey of India in the Goa area but these have yet to be investigated of the new reserves and other promising areas for iron ore should be carried out on a systematic and priority basis so that the total potentiality of Goa of

4. 2.38

Dept. of Steel/
Dept. of Mines

iron ore is assessed more accurately and a firmer basis is provided for export and utilisation of the infrastructure facilities already created.

Another aspect to which the Committee would like to draw pointed attention is that substantial quantities of iron ore in Goa region are in the form of "fines". Japan has already taken to the use of "pellets" instead of "fines". in the manufacture of iron and steel to minimise the pollution hazard. The Committee find that facilities for pelletisation have been developed so far in Goa for a mere 0.5 million tonnes. There is however a proposal to instal a pelletisation plant with a capacity of 1.8 million tonnes. The Committee recommend that the economics of setting up the pelletisation plant in the interest of realising higher unit value for export of iron ore derivatives should be examined on priority basis in all its aspects and if found profitable a plant of the requisite capacity should be set up without loss of time.

5. 2.39

Min. of Commerce/
Min. of Steel &
Mines/Min. of Rail-
ways/Ministry of
Shipping & Trans-
port

The Bellary Hospet area which is situated close to Mormugao has rich reserves of iron ore exceeding 1300 million tonnes. At present only about 0.5 million tonnes of iron ore are exported by MMTC from Bellary Hospet area through Mormugao Port because of the constraints of the metre-gauge railway line which connects Bellary Hospet to Mormugao and cannot handle more than this quantity. The Committee understand from the studies made available to them by Government that there was a projection

5. (Contd.)

for export of 3 million tonnes of iron ore from Bellary-Hospet area through Mormugao Port, which could be achieved through an integrated development of the iron ore mines in the area and by converting the Goa Hospet meter gauge railway into broad-gauge. The Committee have, however, been informed (July, 1976) by the Ministry of Railways that their surveys for conversion of the Miraj-Londa, Hospet-Mormugao and Abnaver-Dandeli sections into broad-gauge were based on the movement of 2.5 million tonnes of iron ore from Bellary-Hospet area, via Goa for export, and the raw materials and finished products from the Vijayanagar Steel Plant. The Railways had, it seems, to keep pending the whole conversion project for the present on account of the following reasons as furnished by the Ministry of Railways:—

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“A Study Group was set up by the Ministry of Mines to examine the integrated development of iron ore mines in Bellary-Hospet area. It was found that there are no immediate prospects of movement of iron ore of such magnitude from Bellary-Hospet area through Goa Port. Further, the commissioning of the Vijayanagar Steel Plant is likely to come up only in the 7th Plan”.

The Committee also find from the studies made available to them that as an alternative to transportation of iron ore by rail (by

converting the meter-gauge into broad-gauge), the carriage of such ore in the form of "slurry" through pipe-line and its conversion at Mormugao into pellets for export was also contemplated, and a 'Study Group' constituted by Government sometime ago had recommended that the National Mineral Development Corporation should be asked to work out the firm capital and operational cost for such pipe-line systems. In the context of the exhaustion of iron ore reserves in the Goa region in the next 28 years or so, the Committee stress the need for export of iron-ore from other regions (like Bellary-Hospet) through Mormugao in order to ensure continued utilisation of the Mechanical ore handling facilities provided there at a huge cost of Rs. 18.25 crores (now Rs. 20.56 crores).

The Committee would suggest that while continuing to explore the possibility of stepping up exports of iron ore from Bellary-Hospet area through Mormugao Port on a long-term basis, the Ministry of Mines should maintain close liaison with the Ministry of Railways and other concerned Ministries|Corporations so as to ensure simultaneous development of the most economic means for transport of such iron-ore to the Port.

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6. 2.40

Min. of Commerce/
Min. of Shipping
& Transport/Min.
of Railways

The Committee find that out of the existing export of nearly 12 million tonnes of iron ore per year from Mormugao the share of MMTC is no more than 1.0 to 1.4 million tonnes, viz. about 9 per cent. The Committee are informed that a substantial portion of iron ore for MMTC is rail borne and this cannot be handled by the existing Chowgule's plant which is mainly barge-oriented. The

6. (Contd.)

Committee need hardly point out that with the installation of the fully mechanised plant which has adequate facilities for handling rail borne iron ore this constraint would no longer be operative. There is also the very promising prospect of exporting iron ore in the form of pellets.

The Committee would like MMTC, which is the premier public undertaking engaged in the export of iron ore, to take full advantage of the latest infrastructure facilities developed in Mormugao at such large public expense, so as to increase its share in the export of iron ore and realise higher value per unit of export. The Committee would like to be informed of the measures which are devised in consultation with MMTC, rail, and port authorities to see that MMTC achieves a commanding position in the export of iron ore.

7. 2.41

Min. of Shipping
& Transport

It has been assumed in the economic benefit analysis of investment that as a result of the expansion of the port facilities, deepening of the approach channels and mechanisation of the iron ore handling facilities, there would be a saving (in loading and freight charges of iron ore) of Rs. 84 crores per annum. It is presumed that out of this saving of Rs. 84 crores, 50 per cent would be passed on to the country. The Committee would like Government to work out specifically the mechanism by which they would ensure that in fact this sizeable economic benefit accrues to all sectors of the

Indian economy, particularly the Port Trust who have invested large amounts for development of the infrastructure facilities. The Committee would like to be informed in detail how Government propose to secure this economic gain so that it is not siphoned off by the foreign shipping Companies, importers etc.

Government should also see that the freight rate for export of iron ore to Japan is in fact greatly reduced in the interest of the stepping up of our exports.

8. 2.42 Min. of Shipping & Transport

Iron ore constitutes about 90 per cent of the traffic handled at Mormugao port. It is appropriate that rates for handling of iron ore are so fixed that they pay for the developmental expenditure incurred on the development of the port as a whole and not only for the direct expenditure which may have been incurred on the iron ore mechanical handling plant.

9. 2.43 Min. of Shipping & Transport

The Committee are concerned that at the present rate of export of iron ore (14 million tonnes approximately per year), the capacity of the iron ore mechanical handling plant would be utilised only to the extent of 31 per cent on two-shift basis. The Committee have not been given any convincing explanation about the parameters adopted for the adoption of such a large size for the iron ore mechanical handling plant. It is a moot point whether it was not possible to design a plant with a lower capacity, say, of 4—6 thousand tonnes per hour with an in-built provision for increasing to 8,000 tonnes etc. per hour, as might become necessary in the light

of the traffic build-up. Now that the plant with 8,000 tonnes capacity per hour is practically in position, the Committee stress that it should be put to the best use by speeding up the handling of iron ore and by effecting economy in its operations so that the "break even" point could be brought down and enough surplus generated to pay back for the cost of the entire development and the expansion project of Mormugao.

10. 2.44

Min. of Shipping
& Transport

The Committee find that the bulk of the non-ore traffic handled at Mormugao Port in 1975-76 was contributed by the following commodities:—

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		Metric Tonnes	Percentage of non-ore traffic
(1)	Mineral Oils	5,47,319	62%
(2)	Sugar	1,35,275	15.3%
(3)	Oil Cakes	69,875	7.9%
(4)	Food-grains	68,502	7.7%
(5)	Fertilisers (Liquid & Chemicals)	58,431	6.6%
(6)	Other Commodities	4,100	5%

The Committee find that out of 88 (approx.) million tonnes of non-ore traffic, as much as 5,47,319 tonnes (62%) is accounted for by mineral oils. As mineral oils would be handled at the oil jetty which is being specially constructed, the quantum of traffic other than ores and minerals oils handled in 1975-76, is 3,36,183 tonnes only. Out of this, sugar accounts for the largest single commodity (1,35,275 tonnes), the next being oil cakes (69,875 tonnes) and food-grains (68,502 tonnes). In this connection, it is pertinent to recall that oil cakes and sugar have been attracted to Mormugao Port from the hinterland of Maharashtra and Karnataka in recent years only. The traditional port for handling these commodities in earlier years was Bombay. The Committee would, therefore, like the Port authorities to maintain close liaison with the oil cake and sugar industries and exporters so as to make sure that these commodities continue to be routed through this Port. Adequate facilities for this purpose on a realistic basis should be provided.

II. 2.45

**Min. of Chemicals
& Fertilizers/Min.
of Shipping & Trans-
port**

As regards fertilisers including Phosphoric Acid, the traffic is dependent on the production established in Zuari Agro Chemical and other petro-chemical based industries which may come up in the area.

The Committee suggest that realistic projections of traffic for the next 10 to 15 years for non-ore and non-oil traffic should be worked out commodity-wise in consultation with the authorities and interests concerned so as to ensure that the requisite infrastructural

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facilities at the non-ore berths are provided in time in accordance with a well considered programme.

12. 2.46

Min. of Shipping
& Transport

As regards development of the Goa region for the generation of non-ore traffic for the Mormugao Port, the representative of the Ministry of Transport was candid enough to admit during evidence that they were not aware of a perspective plan for the development of the hinterland and that it was an important point which should receive consideration. The Committee are constrained to point out that mere assumption of 12 million tonnes in 1964 of "non-ore traffic" in 1978-79 at Mormugao Port without any concrete projection was a grave lapse on the part of the authorities concerned. It is only after the Audit paragraph that initiative appears to have been taken in September 1975 to commission the National Council of Applied Economic Research for preparing a 25-year prospective plan for the traffic for the port. The Committee feel that such a study should have been made before incurring the heavy capital expenditure on the development of Mormugao port. In any case, the study has got to be completed at the earliest and concerted measures taken in the light thereof to develop the traffic from the hinterland so that the existing infrastructure facilities could be put to the best use and further expenditure on development strictly regulated.

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13. 2.47

Min. of Shipping
& Transport/Min.
of Home Affairs/
Min. of Commerce/
Dept. of Industrial
Development

The Committee note from the material furnished to them that there is a proposal for setting up an 'Export Processing Zone' in Goa which would house projects dealing with the manufacture of ready-made garments, pharmaceuticals, furniture, engineering goods, aluminium conductors, electronics etc. The Committee note that the Konkan and Goa Economic Development Corporations have also been set up to accelerate development. The Committee would like Government to take an early decision on the proposals submitted by the Union Territory of Goa for setting up of the Export Processing Zone. While the larger question of setting up the Export Zone may take time, the Committee urge that no time should be lost in encouraging the establishment of as many industrial units as are found feasible so that they can go into production and generate traffic.

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14. 3.12

Min. of Shipping
& Transport

The Committee are unhappy that the estimated cost of the Development Project of the Mormugao Port has gone up from Rs. 28.64 crores (September, 1969) to Rs. 63.66 crores in June, 1974, excluding an amount of Rs. 7.20 crores as interest payable on the loan. The Committee note from the latest information furnished to them (July, 1976) that the cost of providing the Mechanical Ore Handling facilities, estimated at Rs. 18.25 crores in the revised estimates of June 1974, is now expected to increase further by Rs. 2.31 crores. As admitted by the Secretary, Transport, during evidence, there is likely to be a further increase in the revised estimate on account of a few electrical items and mechanical equipment items where it was difficult to quantify the increase. As a result,

the total cost of the Project (including interest charges) is now likely to be between Rs. 73 and 76 crores. As already mentioned earlier in this Report, the economic appraisal of the Development Project was based by the Ministry on a total estimated cost of Rs. 63.66 crores (revised estimate of June, 1974). The Committee are concerned to note that within two years there has been a further increase of Rs. 10 to Rs. 13 crores (viz. Interest—Rs. 7.20 crores increase in cost of ore handling plant—Rs. 2.31 crores, and additional expenditure on electrical items etc.—less than Rs. 3 crores).

The Committee urge that a careful review be made in respect of the economic basis of the Project with particular reference to the latest estimates of expenditure, in order that a suitable charge on ore-handling could be levied and that the heavy investment involved can be expeditiously reimbursed.

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3.13

Min. of Shipping
& Transport

Apart from the changes in the designs or the sizes of the structures, machinery and plants being provided under the Development Project, and escalation in cost due to inflationary trends, it has been admitted by the Ministry that "delays in the progress of some of the contracts under execution such as the work of dredging and reclamation, late award of the contract for the construction of the ore and oil berths, delays in the supply of steel of matching sections to the various civil and mechanical contracts have contributed in no

lesser measure to the increase in the capital cost of the investment." Even in the manner of changes in design the Committee are unable to appreciate why the Consulting Engineers in 1966 could not estimate the throughput of the Port more accurately. In the opinion of the Committee, the Project authorities and the Ministry should squarely shoulder the responsibility for the aforesaid delays which have contributed to the massive escalation in the estimated cost of the Project. Responsibility for this predicament requires to be determined and rectificatory action, if any is now possible, should be taken.

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3.14

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The Cost of dredging and reclamation (which have been discussed in detail elsewhere in this Report) estimated at Rs. 7.22 crores in September, 1969 had to be revised to Rs. 16.84 crores in June, 1974. The cost of providing the Mechanical Ore Handling Plant which was revised during the same period from Rs. 6.72 crores to Rs. 18.25 crores has now (July 1976) undergone a further revision to Rs. 20.56 crores. This clearly indicates that the original estimates were woefully unrealistic. The need for tightening up the machinery for preparation of estimates thus projects itself. The Committee are of the view that this should not be a difficult task since Government has at its elbow a plethora of directorates planning, development, technical assistance etc. as well as the associated finance wing whose services could be meaningfully utilised to achieve this objective.

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17 4.32
 to
 4.34

Min. of Shipping
& Transport

The Committee have been gravely disturbed by excessive delay and escalation in costs in the execution of the project for a fully mechanised iron ore berth in Mormugao. Dredging of the area for deepening the approaches and for reclamation of additional headland to locate the mechanised iron ore plant and ancillary facilities constitutes a very vital component of the Project. The Committee find that there has been a delay of over four years and an increased cost of Rs. 10 crores in the execution of dredging operations.

The contract for dredging was given to a Yugoslav firm (M/s. Ivan Milutinovic-PIM) in December, 1969 and the agreement provided that the dredging would be completed by June, 1972. The position three years later, in June, 1975, however, was that dredging had only been completed by the firm for only 5 million Cubic Metres out of 11 Million Cubic Metres initially entrusted to them, and that dredging for the outer channel as well as for maintenance had been taken away from the contracting firm so that it could be done departmentally. Apart from the fact that there was an initial delay of three months by the Yugoslav firm in starting the work, the work has been hampered repeatedly by disputes over the nature of the soil to be dredged, as specified in the contractual agreement and as actually found on the sea bed. In this context, it is pertinent to recall that the soil conditions as specified in the tender documents and later in the Agreement were based on the Master Plan prepared

in 1965 by Randel, Palmer and Tritton and the bore-hole data which was furnished by M/s. Cementation as a result of 106 bore-holes carried out in the specified area as per plans given to them by the consultants and the Port authorities. The Committee find that the soil analysis done subsequently by M/s. Descon, to resolve disputes about the actual soil conditions, showed the existence of soil conditions different from what had been given out by Cementation.

This controversy over soil conditions has been responsible for protracted delays, lingering negotiations and additional payment of heavy amounts of money over and above the rates provided for in the contractual agreement.

The Committee are unable to accept the plea of the Port authorities and the representatives of the Ministry of Shipping and Transport that the number and location of bore holes was furnished by the consultants in conformity with international standards and, therefore, adequate for the purpose. The Committee feel that the Consultants were expected to be able to anticipate, on the basis of their experience as well as well-known laterite character of the area, that soil investigations needed very special care. It should have been possible for them to suggest *ab initio* more extensive analysis through a larger number of bore holes. The Committee feel that M/s. Cementation should in time have drawn the notice of the Port authorities to their view that the number of bore holes and the data they could gather therefrom was not adequate for the purpose and that more extensive boring and analysis was required. It is pertinent to recall that M/s. Cementation have come in for adverse no-
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tice of the Committee in the cases of Naval Dockyard, Bombay, as well as the Haldia Dock Project, on account of alleged inadequacy of soil analysis undertaken by them.

The Committee would like Government to constitute an expert Group to go into the entire matter of soil specifications for this Project and learn the requisite lessons in order to prevent recurrence of such happenings. The group should particularly investigate whether the location of bore holes as given out originally by the consultants (Messers—Randel, Palmar and Tritton) and the execution thereof and compilation of data and analysis by M/s. Cementation were really adequate. In case of an adverse finding in either case, responsibility should be fixed and damages recovered.

104

18. 4.35
&
4.36

Min. of Shipping
& Transport

In regard to the claims of the Yugoslav firm and the payments made to them on account of variation in soil conditions, what the Committee have unravelled makes an unsavoury story. The original agreement with the firm provided for only three types of rates for dredging, namely Rs. 4.10 per cu.m. for dredging under 'all kinds of soil including soft soil' and disposing of the soil at point 'Y' marked on the Plan, Rs. 4.70 per cu.m. for dredging the outer channel and the basin areas in 'all kinds of soil including sandy soil' and repumping the same through hopper to the area demarcated by zone 'A', and Rs. 135/- per cu.m. for dredging to the required

depth in hard rock if met with. As against these contract rates, the Yugoslav firm made additional claims. The first claim was made in September, 1971 and was for as much as Rs. 2.37 crores as per details given in Appendix II. The Committee appointed by Government came to the conclusion that Rs. 62.27 lakhs only should be paid on this account. Ultimately, however, a high level settlement was made at Rs. 83 lakhs at a meeting with the Yugoslav firm held by the Minister of Shipping & Transport in November, 1971. It appears that the said amount of Rs. 83 lakhs had also been recommended earlier both by the Consultants and the Chief Engineer's Committee but unhappily the chain of events and the reasoning behind them is not very clear. Out of this sum a major portion (over Rs. 42 lakhs) was said to have been on account of the harder strata of soil encountered and on account of loss of production due to breakage of cutter axle and bearings of the Dredger in the aforesaid soil conditions.

In spite of such experience, however, the Ministry did not make any specific provision in the supplemental agreement signed with the Yugoslav firm in February, 1972 about the rates to be paid in case harder soil was met with, as distinct from the ordinary soil and rock formation. In the Committee's view, it was this ambiguity which resulted in two further claims of Rs. 1.18 crores and Rs. 15.50 lakhs being preferred by the contractor in September-December, 1972 and October, 1973, respectively, which were paid by the Port authorities under protest since the "Engineer" who, under the terms of the original and supplemental agreements, had the power to

settle the claims, had for some reason which is not clear to the Committee, upheld the claims of the Yugoslav firm. The Committee however, have learnt that Government would contest these claims before an Arbitrator to be appointed after completion of the work. Whether it would be worthwhile remains of course, in the womb of the future.

The Committee are of the view that if the authorities had shown same foresight and sought to profit from the earlier experience of the difficulties posed by the soil conditions in settling the claims of the Yugoslav firm, they would have utilised the Supplemental Agreement as an opportunity of settling these rates in more specific terms to obviate any ambiguity and odium of overpayment. Government had also about the same time, already engaged another firm, M/s Descons, to undertake additional bore holes in the area to get more extensive and reliable information about soil conditions. The Committee, therefore, are unhappy over peculiar default which could and should have been avoided by intelligent planning. The Committee reiterate that Government must learn from experience and lay down detailed guide-lines to prevent ambiguities of this nature creeping into dredging agreements, particularly with foreign firms.

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19 4.37

Min. of Shipping
& Transport

The Committee find that in terms of Clause 13(2) of the Principal Agreement read with Clause 21 of the Supplemental Agreement, it was possible with the consent of the Contractor to approach arbitrators even before completion of the work and that as stated during evidence by the representative of the Ministry, the Contractor was being approached in that behalf. The Committee trust that the authorities would succeed in persuading the Contractor to agree to refer the matter (of the two payments of Rs. 1.18 crores & Rs. 15.50 lakhs made to the Contractor) to arbitration at the earliest, so that finality is reached about these heavy amounts which have been "under protest", and the public interest is safeguarded.

20 4.38

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An important factor which emerges out of the present study is that in the crucial sector of capital dredging Government did not take action well in time in the direction of self-reliance. The Committee feel that if the decision to have a Dredger Corporation had been taken at least a decade earlier when extensive capital dredging works had still to be undertaken for the enlargement of facilities at several major Ports in the country, it would have provided first hand experience in a very crucial field and saved Government the cost not only of heavy delays but also of a lot of avoidable foreign exchange on this account.

21 4.39
to
4.41

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The Committee are greatly concerned at the unconscionable delays on the part of the Ministry and the Port Authorities in taking timely action to provide the facilities which were obligatory in terms

21. (Contd.)

of the contract or which were subsequently agreed to as a result of Supplemental Agreement. There was a delay of several months in issuing orders for commencement of work and in arranging issue of import licences to the Contractor. It is pertinent to recall that out of the first claim of Rs. 2.37 crores preferred by the Yugoslav firm in September, 1971, as much as Rs. 1 crores was on account of such unfortunate and entirely unwarranted delay.

The Committee note also a serious short-fall in arranging supply of explosives with the result that the Contractor preferred a claim of as much as Rs. 50 lakhs on this account. (This was included by the Contractor in the claim of Rs. 2.37 crores).

The latest instance of similar default is the delay of 170 days in the matter of giving advance of Rs. 90 lakhs (including Rs. 25 lakhs in foreign currency of the choice of the Contractor) as per further Supplemental Agreement executed in June, 1974, with the result that the Engineer has directed in terms of the Agreement that the date for completion of the balance of the work would accordingly be extended by corresponding period.

Apart from the monetary claims referred to above, which had to be settled by cash payment, the authorities did not choose to impose the penalty of Rs. 40 lakhs to which the Contractor appears to have been liable for non-completion of the work in time.

The Committee consider that these delays were uncalled for and urge Government to hold a strict investigations in the matter and sternly call to account whoever are found responsible for such dereliction of duty which should not recur.

22. 4.42

Min. of Shipping
& Transport

The Committee would also stress that the procedure and formalities for complying with the obligations undertaken *vis a vis* the contractor by Government, should be precisely implemented in accordance with the agreed time schedule so that the Contractor does not have any further alibi or excuse for non-completion of the work in time.

The Committee require that Government authorities and agencies charged with the responsibility of making available the materials, advances, permits, facilities, etc. should act in a responsible, coordinated and effective manner and ensure strict compliance with the time schedule prescribed in the agreement. This alone can bring about principled and disciplined functioning and guarantee proper performance by the contractors, foreign as well as indigenous, who would know in that case that non-performance would entail the application of the appropriate sanctions against their default.

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23. 5.8
to
5.11

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The Committee note that the supplemental Agreement of January, 1972 with the Dredging Contractor (Yugoslav Firm) *inter alia* provided that the Port Trust would take over the dredged areas as and when completed in parts, instead of after completion of the en-

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23. (Contd.)

tire dredging as originally stipulated. With this, the Port Trust had taken upon themselves the responsibility of maintenance dredging of the areas so taken over by them in advance of the completion of the entire work of dredging. The rates for dredging and dumping agreed upon at the time of executing the original agreement no doubt included the cost of maintenance by the contractor of the dredged areas till the entire area was dredged and handed over to the Port Trust. Thus, absolving the contractor of the responsibility of maintenance of the areas handed over in advance of completion of the entire work, has given him an unearned benefit over and above the additional payments made and other concessions given to him under the Supplemental Agreement.

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The areas so handed over in advance of completion of the entire work of dredging are stated not to have been dredged again so far by the Port Trust. In view of this position, it has not been possible for the Committee to obtain a quantified idea of the value of this benefit given to the Contractor. The Committee have, however, been informed that according to studies made by the Central Water and Power Research Station, Poona, 18 per cent to 19 per cent of the spoil deposited at the Biana Beach was flowing back into the harbour area, the obvious implication being that at least a part of this flowback would also get deposited in the areas already taken over by the Port Trust and the dredging of this accumulated silt would have to be done by the Port Trust at a future date.

Normally, business prudence would have demanded that in exchange for this benefit to the contractor, a demand for scaling down the concessions on other accounts granted to the Contractor should have been put forward and pressed by the Port Trust at the time of executing the Supplemental Agreement in January, 1972. The Committee, however, find that on the contrary, the Contractor even succeeded in getting rid of the liability of maintaining those areas on the ground that he could not saddle himself with the responsibility of maintaining them for an indefinitely long period resulting from the delay in the original schedule of dredging.

Now that the harm has been done and the Contractor has undertaken to complete the entire dredging work by December, 1976, the Committee express their displeasure over the entire business and require that in case of any request from the contractor for further extension of time, he must be asked to meet the cost of maintenance (to be calculated and specified) beyond December, 1976, of the areas already handed over by him.

24.

6.13
to
6.15

Min. of Shipping
& Transport

The Committee note that in respect of the stipulation in the original contract with the Yugoslav Firm for dumping of the dredged material at a distance of 4.5 kilometres, three departures were made at different times. Between September and December, 1970, the dredging contractor was allowed to dump 4.84 lakh cubic metres* in Vasco Bay at a distance of about one Kilometre on the condition

*According to Audit, this figure is 5.30 lakh cubic metres.

24. (Contd.)

that it would be subsequently removed from there. This was, however, not insisted upon as the spoil had formed useful land for Port authorities, which fetched them considerable amounts of lease money. However, 50 per cent reduction in the contracted rate for dredging (viz. Rs. 4.10 per cubic metre) was made in the payments for this dredging.

Again, according to the Supplemental Agreement of January, 1972, the contractor was allowed to dump between January and September, 1973, 6.73 lakh cubic metres of spoil in Baina Beach at an average distance of 2.15 kilometres with some reduction in rate, and another 4.5 lakh cubic metres of spoil in Vasco Bay at a distance of 1 kilometre without any reduction in the rate of Rs. 4.10 per cubic metre.

According to Audit, it was on account of no reduction in rate having been made in respect of the dumping at Vasco Bay and inadequate reduction in respect of dumping at Baina Beach that the Yugoslav Firm was paid an excess amount of Rs. 12.08 lakhs.

It has been pointed out by Audit that if the rates were calculated strictly with regard to the distance for which the contractor was obliged under the original agreement to dump the dredged material, the rate in respect of Vasco Bay would have worked out

to Rs. 2.90 per cubic metre as compared to Rs. 4.10 per cubic metre provided in the Supplemental Agreement. The Ministry have, however, taken the stand that the rates mentioned in the Supplemental Agreement were only allowed after hard bargaining and were reasonable under the conditions then prevailing. What causes the Committee greater concern is the fact that some of the material dumped in Vasco Bay admittedly settled down in Zone 'B' and, according to Audit, the removal of 4 lakh cubic metres of this material would cost Rs. 19 lakhs. The Committee feel that the least that the Ministry and the authorities could do was to make sure that in finalising the rate under the Supplemental Agreement this contingency was fully taken into account. The Committee cannot, therefore, see the rationale as to why in the Supplemental Agreement the rate for dredging and dumping at Vasco Bay in 1973 was kept at Rs. 4.10 per cubic metre as in the original contract even when the distance was reduced from 4.5 kilometres to about one kilometre which would have warranted reduction of rate to Rs. 2.90 per cubic metre.

671

As regards the dumping at Baina Beach in 1973, the Committee note that reduction of 20 per cent in rate was obtained from the contractor on account of what is termed a flow-back of that order. The Committee, however, find that even if the rate was not calculated in terms of distance for the material dumped in Baina Beach, the reduced rate on the basis of 20 per cent flow-back would work out as rightly stressed by Audit, to Rs. 3.28 per cubic metre and not Rs.

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3.50 per cubic metre settled for the first 15 lakh cubic metres and Rs. 3.60 per cm. for the rest.

The Committee would like these aspects to be fully gone into and responsibility fixed for any omission to safeguard Government interest.

25. 6.17 Min. of Shipping & Transport

In respect of the dumping at Vasco Bay, the Committee find that objection to this dumping was taken by the representative of the Indian Navy on the Board of Trustees of the Mormugao Port on the ground that the Naval area was very close to Vasco Bay. The representative of the Ministry stated during evidence that "this was gone into by the Port Trust and they found that sufficient precautionary measures had been taken to prevent inflow of material into the naval area". The Committee would like the Ministry to examine this matter very seriously, in consultation with the Naval authorities and the Ministry of Defence, to make sure that adequate measures have actually been taken to prevent any inflow of material into the naval area.

26. 7.7 Min. of Shipping & Transport/Min. of Home Affairs

The Committee note that the existing mechanised plant at Berth 6 of the Port Trust has been established by M/s. Chowgule & Co. under Decree Law No. 41816 of 9 August, 1958 issued by the former portuguese Government which continues to remain valid in terms

of Goa, Diu and Daman (Administration) Act, 1962 and Regulation 4 of the Mormugao Port Trust (Adaptation of Rules) Regulation 1964. This anomaly, namely, the continuation of the erstwhile colonial law in that part of India should, in the Committee's view be removed without delay.

27 7.7
to
7.9

Min. of Shipping
& Transport

The facilities provided at the mechanised plant are being utilised not only by Chowgules but also by some other exporters. As per the contractor, out of Rs. 4 recovered per ton on iron ore handled at the plant, Rs. 1.37 would be paid to the Port Trust authorities as their share and the remaining amount of Rs. 2.63 would accrue to Chowgules who are responsible for the operation, maintenance etc. of the Plant.

The Committee are informed that in terms of the contract and the Decree referred to in para 7.7 of the Report, the first option to acquire the mechanised plant on payment of compensation would occur in 1977.

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The Committee are not satisfied with the complacent attitude of the authorities for the following reasons:

- (i) The mechanised plant is being used by a number of exporters and not by Chowgules exclusively;
- (ii) Chowgules is a monopoly house and the ownership and operation of a mechanised plant at a major port has to be viewed as a chain in this bigger monopoly operation. In accordance with Government's policy to contain the mono-

27 (Contd.)

poly houses, an integrated and more comprehensive view should have been taken;

(iii) Infrastructural facilities at ports are normally owned and operated by Port authorities.

The Committee are of the view that if this mechanised plant had been brought under the effective control of the Port authorities several years earlier, they would have gained valuable first hand experience and insight into its working and economics, and would also have been enabled to settle on a more realistic basis the capacity and design of the new mechanised plant which is being installed at an enormous cost and which would on present showing, be utilised only to the extent of 31 percent of its capacity.

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The Committee stress that Government should lose no further time in appointing an expert group which should go into all aspects of the working of this privately owned mechanised plant in the context of the new Government owned mechanised plant with a larger capacity for handling of iron ore, the prospects of export of ore including manganese ore, the financial implications of having to pay compensation for a plant which has already done eighteen years of service etc.

The Committee would like to be informed in detail of the findings of the expert group and the decision taken by Government in the matter.

Sl. No.	Name of Agent	Sl. No.	Name of Agent
	WEST BENGAL		
21.	Grantholoka, 5/1, Ambica Mookherjee Road, Belgharia. 24-Paraganas.	32.	Lakshmi Book Store, 42, Municipal Market, Janpath, New Delhi.
22.	W. New Man & Company Ltd., 3, Old Court House Street, Calcutta.	33.	Bahree Brothers, 188, Lajpat Rai Market, Delhi-6.
23.	Firma K. L. Mukhopadhyay, 6/1-A, Banchharam Akrur Lane, Calcutta-12.	34.	Jayna Book Depot, Chhaparwala Kuan, Karol Bagh, New Delhi.
24.	Mrs. Manimala, Buys & Sells, 128, Bow Bazar Street, Calcutta-12.	35.	Oxford Book & Stationery Co., Scindia House, Connaught Place, New Delhi.
25.	M/s. Mukerji Book House, Book Seller, 8B, Duff Lane, Calcutta.	36.	People's Publishing House, Rani Jhansi Road, New Delhi.
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26.	Jain Book Agency, Connaught Place, New Delhi.	37.	The United Book Agency, 48, Amrit Kaur Market, Pahar Ganj, New Delhi.
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29.	J. M. Jaina & Brothers, Mori Gate, Delhi.	40.	M/s. Saini Law Publishing Co., 1899, Chandni Chowk, Delhi.
30.	The Central News Agency, 23/90, Connaught Place, New Delhi.		MANIPUR
31.	The English Book Store, 7-L, Connaught Circus, New Delhi.	41.	Shri N. Chaob Singh, News Agent, Ram Lal Paul High School Annexe, Imphal.—MANIPUR.

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