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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

APPRAISAL OF THE TUNIS-LA GOULETTE
PORT PROJECT
TUNISIA

April 21, 1964

CURRENCY EQUIVALENTS

1 Tunisian Dinar = US \$2.38
1 U.S. Dollar = 0.420 Tunisian Dinars
(420 Millemes)

Tonnages of cargo are given throughout in metric tons weight.

The fiscal year is the calendar year.

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SUMMARY

i. The Government of the Republic of Tunisia has asked the Bank to help finance improvements and extensions at the La Goulette part of the port system of Tunis-La Goulette, more specifically the provision of cargo facilities at the existing quay, the construction of two additional berths, sheds and warehouses, the relocation of the road access to the port and the relocation of a breakwater. The estimated cost of the project is US\$11.4 million equivalent, including US\$7.0 million equivalent foreign exchange.

ii. Tunis is the capital city of Tunisia and is the principal commercial center of the country. The port serves an area with about 2.2 million inhabitants, or more than 50% of the total population of the country. It is the principal port for general cargo and during the past few years it has handled 75% of all of the imports, 40% of all exports and 50% of the total traffic of the country. The other commercial ports are Bizerte, Sousse and Sfax.

iii. The Tunis-La Goulette port complex comprises:

a) the old port of Tunis in the city at the landward end of a shallow 10-kilometer long canal; there are 965 meters of quay used for general cargo, jetties and dolphin berths for coal and minerals and other minor facilities. The quays are old and of poor design and construction. The mud sub-soil and siltation from storm drains severely restrict the depth of water in the harbor and alongside the quays and have caused considerable subsidence of the quays and buildings in the wharf area. Transit sheds, warehouses and open storage areas are insufficient but lack of space prevents any extension. The width and depth of the canal restricts shipping movements to single line traffic. All these factors contribute to restrictions in the size of ships using the port, to severe congestion of cargoes and to high costs of shipping and cargo handling. There is no way in which the Tunis old port could be rebuilt into a modern efficient deep water port. However, because of the lack of facilities at La Goulette most of the general cargo is still handled at Tunis.

b) By about 1954, 730 meters of deep water quay had been constructed at La Goulette on the North bank of the harbor at the seaward end of the canal. However, transit sheds, warehouses and other facilities for handling general cargo were not provided. This quay is at present used almost exclusively for grain and without the additional facilities cannot handle general cargo in sufficient quantities to afford needed relief at the old port, or to handle the expected traffic growth.

c) Opposite La Goulette on the South side of the harbor at Rades there are bulk facilities for the export of iron ore and phosphates and a bulk petroleum terminal.

iv. During the period 1953-1962 total general cargo traffic at Tunis-La Goulette rose steadily by 345,000 tons and is expected to increase by about the same figure during the nine years 1963-1971. It is clear that, in order to relieve the present serious congestion at Tunis and to handle the expected increase in general cargo traffic, the existing quay at La Goulette must be provided with facilities to handle a maximum amount of general cargo and that the quay must be extended.

- v. The project is designed to extend the quay at La Goulette by 370 meters, to provide two additional berths, and to construct the necessary buildings and other facilities in the whole of the wharf area. The capacity of La Goulette will then be about 650,000 tons of general cargo in addition to substantial tonnages of grain and wine.
- vi. Competent consultants have prepared the designs, which are technically sound, and the cost estimates, which are realistic. They will continue as consulting engineers and will supervise construction of the project. Tender procedures are being carried out on the basis of international competitive bidding. Construction will take about three years.
- vii. The commercial ports of Tunisia are at present operated by the Regie des Ports de Commerce, a government department. The Government will set up a new autonomous body, to be known as the Office des Ports Nationaux Tunisiens, to take over and administer the ports, under a charter satisfactory to the Bank. The passing of the law authorizing the creation of the Office will be a condition precedent to the effectiveness of a Bank loan to finance the project. The Office is to be under competent management and to have good financial and costing systems. It is to have a port charges structure and rates designed to ensure that its future finances will be satisfactory.
- viii. Cash surpluses earned by the present Regie des Ports de Commerce are held by the Treasury in an account for the credit of the Regie. These surpluses, which amounted to about T.D. 1.8 million at December 31, 1962, sufficient to cover most of the local currency costs of the project, are to be made available for this purpose. Any further sums needed are to be provided by the Office out of the cash surpluses it will earn during the period of construction of the project.
- ix. The financial forecasts used in this report are conservative, but even so, after completion of the project interest coverage will average 1.6 times during the four years 1968-1971, while debt service coverage will average 1.8 times. The economic return will be about 10%.
- x. The project is operationally, economically and financially sound and has been accorded high priority by the Government. The project is suitable for a Bank loan of US\$7.0 million equivalent to be made to the Government. A term of 25 years, including a three-year grace period, would be appropriate.

I INTRODUCTION

1. The Government of the Republic of Tunisia has asked the Bank for a loan to meet the foreign currency costs of improvements and extensions at the La Goulette part of the port system of Tunis, amounting to approximately US\$7.0 million equivalent out of a total of US\$11.4 million equivalent. The Government would be the borrower.

2. The project consists of provision of cargo facilities at the existing quay at La Goulette, and constructing two additional berths, sheds, warehouses and other facilities.

3. The following appraisal report is based on technical reports prepared by Bureau Central D'Etudes pour les Equipements D'Outre-Mer (B.C.E.O.M.) dated November 1960 and March 1962; an economic study and traffic forecast prepared by Societe d'Etudes Techniques et Economiques (S.E.T.E.C.) in August 1963; financial information and data supplied by Howell and Company, Accounting Consultants, over a period to January 2, 1964; and on the findings of a Bank mission which visited Tunisia in July 1963.

II GENERAL BACKGROUND

The Ports of Tunisia (Map 1)

4. The Republic of Tunisia borders on Algeria to the west and Libya to the southeast, and has an area of about 164,000 km². The coastline to the north on the Mediterranean Sea is about 300 km and to the east about 1,000 km. The population is about 4.2 million.

5. There are four deep-water ports: Bizerte on the north coast; Tunis-La Goulette, about 60 km to the south; Sousse, 120 km south of Tunis; and Sfax, 120 km south of Sousse. All these ports suffered considerable damage during the last World War. Sousse and Sfax were rebuilt during the years 1948-54 and have modern facilities, and the installations at Bizerte were repaired. At Tunis sheds and warehouses were built and construction of a new quay was commenced, but the latter was abandoned because of difficult soil conditions. At La Goulette 730 m. of quay wall was constructed together with two small sheds but adequate transit sheds, warehouses and stacking areas were not provided.

6. Until recently Bizerte was essentially a French naval base and handled only 3% of the total commercial traffic tonnage of the four ports. It will increase in importance with the recent starting up of an oil refinery and with the completion of a sugar refinery and a steel mill to be built in the area over the next few years. Sousse handles 5% of the total traffic while Sfax is the main port for phosphates, exporting about 1,800,000 tons a year, and handles altogether about 42% of the total traffic. Tunis-La Goulette is the main commercial port in the country with 75% of imports, 40% of exports and 50% of the total traffic.

7. The main fishing ports are Kelibia, Mahdia and Zarzis and all the commercial ports have a fishing port within their boundaries.

Inland Transportation

8. In relation to the size of the country and its population, inland transportation is highly developed. There are 15,600 km of roads of which 8,600 km are paved. The total length of the railway system is about 2,000 km of which 500 km in the north is standard gauge (1.4 m) and 1,500 km in the south is meter gauge, the two systems linking up at Tunis.

9. All the ports and their respective service areas are served with roads and railways and there are adequate connecting systems. The roads and railways are well maintained and could carry a greater volume of traffic than they do at present.

Administration of the Ports

10. The administration of the ports in Tunisia is the responsibility of the "Regie des Ports de Commerce" which is a division of the Ministry of Public Works, under the Chief Engineer of the Ministry. The Minister of Planning and Finance is responsible for financial matters, the Treasury acting as Banker.

11. The responsibilities of the Regie include (a) dredging, maintenance, marking and buoying of harbors, canals and sea approach channels, (b) pilotage, (c) towage, (d) port communications, (e) control of shipping and cargo within port areas, (f) port security and (g) the provision of terminal facilities. The Regie is also the Lighthouse Authority on behalf of the Government and operates and maintains ferries for the Government.

12. The Regie does not undertake stevedoring or handling of general cargo. These services are provided by private concerns but at Tunis mainly by the Societe Tunisienne d'Acconage et de Manutention (S.T.A.M.) in which the government has a 50% shareholding. Cargo handling at the Tunis general cargo quays is not efficient. The reasons for this are discussed in chapter IV. Charges for these services are fixed by decree of the Minister of Public Works.

13. The Budget of the Regie des Ports does not form part of the general budget of the country but is approved by the Minister of Planning and Finance and is published as an annex to the general budget. The Regie levies charges but does not handle its own finances, receipts being collected by the Customs Department and paid to the Treasury which makes all disbursements. Past years have shown cash surpluses, which are held by the Treasury on behalf of the Regie, amounting to T.D. 1.78 million at December 31, 1962.

14. New accounting and cost systems have recently been instituted by a firm of Certified Public Accountants based on an existing punch card installation. These systems are uncomplicated but are capable of development and will provide adequate costing information and data for Management.

The same firm is also training Tunisian accounting staff and will retain one of their representatives at Tunis to consolidate and develop the procedures, at least during the construction period of the project. The accounting department should be efficiently run.

15. Until recently the Regie operated Tunis-La Goulette through a local administration known as the Tunis Marine office, while at the other ports operations were supervised by the District Engineers of the Ministry of Public Works. There was no clearcut line of demarcation between the administration of the ports and that of the Bridges and Roads Service of the Ministry of Public Works. The development of the Ports of Tunisia has required a change in administration and as of January 1, 1964, the Regie has been separated from the Bridges and Roads Service. The overall direction is still under the Chief Engineer but a port manager has now been appointed to each of the four ports and a management staff has been set up for the Regie in three divisions (1) Administration (2) Engineering and (3) Finance and Commercial.

16. The Government intends to complete the separation of port management from direct departmental control by setting up an autonomous Authority, to be known as the Office des Ports Nationaux Tunisiens, to take over and operate the commercial ports in Tunisia. The Government has submitted a draft charter to the Bank which has suggested certain amendments. The Government has agreed that (a) as a condition of effectiveness of the loan, the law authorizing the creation of the Office shall have been duly enacted; (b) that the charter shall be satisfactory to the Government and the Bank; and (c) the Bank will be consulted before the appointment of a General Manager, during the early years of the Office's existence.

Future Port Development

17. The present project is the first phase of the Government's plans to develop La Goulette to take over as much as possible of the traffic now handled at Tunis old port and to handle the expected growth in general cargo traffic. Provisional plans have been drawn up for future extensions at La Goulette.

18. The present fishing port at La Goulette will be displaced under the project and construction of a new fishing port on the north side of the existing breakwater has already started. This is not part of the project and will be financed by the Government by a separate budget provision.

19. The Government intends that, so far as practicable, increases in the international trade of the country shall be accommodated at ports other than Tunis-La Goulette so as to improve the economic situation in other areas. In particular the Government is now studying the feasibility of constructing a new port at Gabes to serve the southern part of the country. The Government has agreed that the ~~Bank~~ will be consulted concerning future proposed programs (including financing) for the construction of new ports and the expansion of existing ports within the jurisdiction of the Office.

III PORT OF TUNIS-LA GOULETTE

General (Map 2)

20. Tunis is the capital of the country, the largest city and the main commercial center, with a population of about 500,000. The port of Tunis-La Goulette serves an area with about 2.2 million people or more than 50% of the total population of the country. However, it is the worst of all the ports so far as modern deep-water port facilities are concerned.

21. The port consists of the old port in the city of Tunis at the landward end of the shallow Lake of Tunis and the more recently developed harbor on the coast at La Goulette. Tunis is approached from the sea at La Goulette by a canal about 10 kilometers long, having a depth of about 7.5 meters. The tidal range is insignificant.

Tunis (Old Port)

22. Detailed information regarding the old port is given in Appendix 1. The quays were built more than 50 years ago and have outlived their economic life. Foundation conditions over the area of the old port are very poor, making the construction of port works a difficult and very expensive matter. The draft of ships using the port is severely restricted by the depth to which the basin can be dredged and by the depth of water that can be maintained in the canal. Shore facilities are inadequate and lack of space precludes any possibility of improvement. It is inadequate to handle the present and future traffic and is incapable of development into a modern deep sea port.

Restrictions on Shipping at Tunis Old Port

23. The numbers of ships calling at Tunis and La Goulette and the average net registered tonnage for the years 1957-1962 are given in Appendix 2, and a table of the draft of vessels at Tunis and La Goulette in 1962 is contained in Appendix 3.

24. During the past six years between 1,400 and 1,500 ships have entered Tunis old port each year. The average net registered tonnage has decreased from 1,250 in 1957 and 1958 to 1,070 in 1959 to 1962. In 1962, out of 2,802 ship movements through the canal, in 84% of cases the ship drew less than $5\frac{1}{2}$ meters (18 feet), and in only 31 cases was the draft greater than $6\frac{1}{2}$ meters. These figures illustrate the effect of the limitations on the draft of ships using the canal and Tunis old port imposed by the lack of depth of water.

25. By contrast the average net registered tonnage of ships using La Goulette including Rades in 1962 was about 2,700, the average cargo being nearly 3,500 tons with 109 cargoes of more than 6,000 tons.

La Goulette (Map 3)

26. In 1949 plans were prepared for extensive construction of berths and facilities at La Goulette. By about 1954, 730 m of deep-water quay,

equivalent to five berths, with a depth alongside of 10 m at low water had been constructed on the north bank. This quay is equipped with standard gauge rail and with crane tracks, 7 quay cranes, and two small sheds. These facilities are in good condition but no further work was done; adequate transit sheds, warehouses and other necessary installations are lacking and the land in the port area has settled considerably in places. These deficiencies prevent full economic use being made of the La Goulette quay and relief of congestion at Tunis old port.

27. On the southern, Rades, side are three dolphin berths for bulk petroleum, iron-ore and phosphates respectively which are privately operated. There is also a 220 m long quay with 4 m depth of water which is now used for unloading butane gas by pipeline and for mooring dredger barges and ships awaiting passage through the canal.

Existing Equipment at Tunis-La Goulette

28. Details of the Regie's equipment at Tunis-La Goulette are given in Appendix 4. The stevedoring firms are responsible for providing adequate cargo handling equipment, but the Regie owns the quay cranes and some mobile cranes and power lift trucks which are hired out to the stevedores as required. The floating equipment is more than adequate and although some of it is old there is no necessity to replace any of it during the next few years.

IV. OPERATIONS

Past Traffic

29. Information as to past traffic is contained in the following appendices:

- No. 5 Ratio of cargo traffic at Tunis-La Goulette to all ports 1959-1962.
- No. 6 Analysis of cargoes handled at all ports 1961.
- No. 7 Analysis of cargo traffic at Tunis-La Goulette 1953-1962 by categories.
- No. 8 Comments on certain items of general cargo.

30. The exports of the country are handled at the ports serving the areas of origin. For example Sfax handles the largest individual category of goods, about 1.8 million tons of phosphates, or 90% of all phosphate exports of the country. Sfax, however, had only 53% of total exports, 19% of imports and 42% of total traffic in 1961. On the other hand in 1961 Tunis-La Goulette handled 69% of all imports, 40% of all exports and 50% of total traffic. During the four years, 1959-1962, Tunis-La Goulette handled an average of 75% of all imports, 40% of all exports and 50% of the total traffic of the country. These figures, particularly those of imports, indicate the predominance of Tunis as the commercial center of the country (appendices 5 and 6).

Bulk Cargoes (Appendix 7)

31. The bulk cargoes handled at Tunis-La Goulette are accommodated at wharves with special bulk facilities (Map No. 3 and photographs). These cargoes consist of iron ore and phosphates exports at La Goulette South (Rades), bulk petroleum products imports at Rades and coal and coke at the Mineral Quay at Tunis. Fuel oil for the power station is discharged at La Goulette North by pipeline.

General Cargo (Appendices 7 and 8)

32. The tonnage of general cargo handled at Tunis-La Goulette in 1953 was approximately equal to that of 1938, the last full pre-war year. Between 1953 and 1962, however, there were consistent increases until 1961, with a slight fall in 1962 due to a reduction of about 100,000 tons in cereals. The increases from 1953 to 1962 are summarized as shown below. In the second column cereals and wine are excluded as being of a bulk nature and requiring facilities different from those for general mixed cargo.

	<u>Total General Cargo (Tons)</u>	<u>General Cargo excluding cereals and wine (Tons)</u>
1953	747,000	532,000
1961	1,165,000	652,000
1962	1,092,000	687,000
Increase 1962 over 1953 (9 years)	345,000	155,000
% increase (9 years)	46%	29%

Distribution of Cargo Traffic between Tunis and La Goulette

33. The distribution of cargo tonnages at Tunis-La Goulette in 1962 is given below (see also Appendix 11):

	<u>'000 Tons</u>	<u>%</u>
<u>Tunis</u>		
Cereals, wine, cement and timber	240	
General Cargo	477	
Minerals and hazardous goods	96	
	813	72%
<u>La Goulette (North)</u>		
Cereals	263	
General Cargo	49	
	312	28%
<u>La Goulette (North)</u>	1,125	100%
Fuel oil for power station	90	
<u>La Goulette (South) Bulk cargoes</u>	1,215	
Iron ore, phosphates and other bulk petroleum products	1,148	
	<u>2,363</u>	

Operating Efficiency

(i) Tunis Old Port

34. Port operational efficiency is impaired by:

- (a) Restriction of the size and draft of vessels;
- (b) Lack of shore space and facilities;
- (c) Inefficient and cumbersome cargo handling and Customs procedures;
- (d) Low berth occupation ratio imposed by single-line traffic in the canal.

35. The Government has agreed that the present cargo handling and Customs procedures will be examined and that it will establish, within a reasonable time, appropriate regulations consonant with good operating efficiency and security. It has also been agreed that the Government will grant to the Office authority to enforce the regulations for cargo handling.

36. The average occupation of all berths at Tunis old port in 1962 was 46%, while at the South and Suet quays, marked e and f on photograph 1, which have the best facilities, it was 51%. The average tonnage per meter of berth was 700 tons. In the circumstances these figures are good.

(ii) La Goulette

37. In 1962 general cargo at La Goulette amounted to only 50,000 tons because of the deficiencies in general cargo facilities described in paragraph 26. The main traffic is in cereals and up to three full berths are occupied in loading, unloading, bagging and open storage of grain. This use of valuable berth and wharf space is uneconomical.

Labor Relations

38. Dock labor is employed by the stevedoring firms and the Regie has no direct control over labor relations. There is no history of serious labor unrest in the past. Trade unions are becoming better organized and responsible and there is a labor surplus. The government considers that labor relations with independent stevedoring firms are likely to be smoother than would be the case with a government Authority and that labor unrest is not likely to interfere materially with port operations.

Future Traffic Estimates

39. An analysis of estimated future traffic at Tunis-La Goulette for the years 1963-1971 is given on appendix 9. These estimates have been prepared by S.E.T.E.C. They have examined all the main categories and have considered all the actual and probable industrial developments and trends

that may occur. They have also considered the probable effect of the Government's development program, but where the objectives of that program appear to be over-optimistic they have made adequate allowances. SETEC's report and forecasts of traffic at Tunis-La Goulette have been accepted by the Government, and may be considered to be a reasonable forecast of traffic up to 1971. Total traffic at Tunis-La Goulette is expected to increase by 472,000 tons from 2,363,000 tons in 1962 to 2,835,000 tons in 1971, or 20% over nine years. Traffic studies and forecasts for the ports of Bizerte, Sousse and Sfax have not yet been made and the rates of growth at those ports have not been established. However, SETEC have stated that they do not anticipate any decreases and the financial estimates for those ports have been conservatively projected at the 1962 level. Comments of certain items of forecast tonnages are given on Appendix 10.

General Cargo

40. Omitting fuel oil for the power station and coal, coke and minerals, the traffic handled at general cargo wharves at Tunis-La Goulette is expected to increase by 345,000 tons over the 1962 figure of 1,064,000 tons to 1,409,000 in 1971, or by 32% in nine years. This is at about the same average rate of increase as for the previous nine years, 1953-1962. However, most of the future increase is expected to take place during the five years, 1966-1971, i.e. 310,000 tons, or 28%, over the 1966 figure of 1,099,000 tons.

Passenger Traffic

41. Since independence, 1957, passenger traffic has generally declined from 147,000 to about 70,000 in 1962. However, the Government is already taking steps to promote the tourist industry, for which the country and climate are well suited, and further development of this sector is planned in the 10-year "perspectives." Consultants estimate that by 1971 about 120,000 overseas passengers (total in and out) will use the port facilities at Tunis-La Goulette, apart from some thousands calling on cruise ships.

42. During 1962 52% of the total passengers arrived or departed during the three months July-September. On this basis over 60,000 passengers may be expected to pass through the port during that period in 1971. The present passenger terminal is at Tunis old port and is inadequate. Passenger ships will be diverted to La Goulette on completion of the project and modern, adequate facilities for passengers are therefore necessary.

Port Capacity and Requirements

43. Bulk cargoes handled at special facilities at La Goulette South, i.e. bulk petroleum products at the oil wharf, iron ore and phosphates, are ignored for the purpose of assessing port capacity and requirements, since they do not occupy general cargo berths and these bulk facilities are not suitable for general cargo.

44. Up to the present time the quays at the Tunis basin have been over-exploited and congested while those at La Goulette North have not been fully used. In 1962 Tunis handled 67% of all the general cargo, plus fuel oil for the power station, while La Goulette handled only 33%. Excluding fuel oil the figures are 72% and 28% respectively.

45. The Office des Cereales, a financially autonomous public body set up by the Government of Tunisia in April 1962, has plans for grain silos and equipment at La Goulette, in conjunction with cereal storage and merchandising cooperatives which have a representative on the Board. The Government has provision for grain silos in its development program and intends that the ports will not finance this investment. By construction of these or other adequate facilities one berth can handle all bulk grain and a considerable volume of general cargo.

46. Consultants estimate that, upon completion of the project and if bulk grain facilities are provided as referred to in paragraph 45, the seven berths at La Goulette will be able to handle 648,000 tons weight of general cargo, at an average of approximately 600 tons per meter, in addition to fuel oil for the power station, olive oil, wine and grain which are of a bulk nature and are estimated to total 476,000 tons in 1967. Six hundred and forty-eight thousand tons are equivalent to approximately 100,000 tons for each of five berths with rather less for the passenger terminal and grain berth. Total traffic expected to be handled at the La Goulette North berths in 1967, assuming completion of the project and the provision of bulk grain facilities, by the end of 1966, is allocated approximately as follows:

<u>Berth</u>	<u>Grain</u>	<u>Wine</u>	<u>Olive oil</u>	<u>Fuel oil</u>	<u>General Cargo</u>	<u>Total</u>
1		15		145	100	260
2		15	1		100	116
3		15			100	115
4 (Passenger Terminal)		15			68	33
5		15			100	115
6					100	100
7	<u>255</u>	<u> </u>	<u> </u>	<u> </u>	<u>80</u>	<u>335</u>
	<u>255</u>	<u>75</u>	<u>1</u>	<u>145</u>	<u>648</u>	<u>1,124</u>

Consultants also estimate that, if the proposed bulk grain facilities are not provided and if grain continues to be handled as at present, berths 6 and 7 will be used for this traffic, at an average of 255,000 tons a year, thus reducing the general cargo capacity of La Goulette North by 180,000 tons.

47. Appendix 11 gives the distribution of traffic between La Goulette North and Tunis old port for 1962 together with the estimated distribution for 1963 to 1971, assuming that the project is carried out and bulk grain facilities are provided. This shows that in 1967 approximately 82% of the total traffic of Tunis and La Goulette North will be handled at La Goulette, but this ratio will decrease to 71% in 1971 if no further extensions are undertaken at the latter.

48. The tonnage to be handled at Tunis old port general cargo wharves in 1967 will be about 155,000 and could be accommodated at the South Quay, with its quay cranes, rail tracks, transit sheds and ample storage areas, and the contiguous Suet quay (Photograph 1, e and f). These two quays total about 365 meters giving 425 tons per meter, which is a reasonable figure. In addition, there will be about 96,000 tons of coal and coke, minerals and hazardous cargoes at the mineral quay, giving a total of about 251,000 tons remaining at Tunis old port in 1967.

49. If the volume of traffic at Tunis old port were to remain at about 250,000 tons, use of the West and North Quays could cease, with substantial savings to the Office and other benefits. However, this figure will increase steadily to about 500,000 tons by 1971 unless further extensions are undertaken to the facilities at La Goulette. It is the intention of the Government (a) that the use of the port facilities at Tunis old port will eventually be reduced to a minimum and that the maximum amount of traffic will be diverted to La Goulette and (b) to this end to undertake further development and extensions at La Goulette after completion of construction of the present project. The Government has agreed that continuing studies will be undertaken of the traffic growth and trends at Tunis-La Goulette to establish the extent and phasing of such further development. By way of illustration tentative cost estimates for a further five berth extension at La Goulette, in the period 1968-1971, are included in the cash flow statement, Appendix 16.

50. The estimates of general cargo weight tonnage capacity given in paragraph 46 are reasonable initially but the adoption of, and increasing experience in the use of, modern cargo-handling techniques would probably result in a greater volume of cargo per berth than has been estimated. The Government has agreed that continuing studies of techniques will be undertaken and improvements adopted to ensure the maximum utilization of the ports, particularly at La Goulette, before plans are formulated for further development.

51. Consultants are conducting an economic study of the feasibility of diverting grain traffic to Bizerte, which will be considered by the Government. Bizerte has elementary facilities for handling grain but further investment would be required for efficient handling. Should grain be diverted to Bizerte it would not adversely affect the Regie's finances, since the revenue from this traffic would accrue to Bizerte instead of Tunis-La Goulette. It would have the advantage of increasing the general cargo capacity of La Goulette to take a still greater proportion of the traffic now handled at Tunis old port. The Government has agreed that adequate bulk grain-handling facilities will be provided at La Goulette, or at Bizerte should the grain traffic be diverted to that port, and that no part of the capital cost of those facilities will be charged to the Office except as may be otherwise agreed between the Government and the Bank.

52. There is no pattern of seasonal peaks in general cargo tonnages which tend to be spread evenly over the year. The consultants consider that this will not change materially in the future and that there is therefore no need to provide a margin for peak periods. However, this question would only affect future development.

53. There are no settled plans for further extensions at La Goulette, but they will probably be on the lines indicated on Map 3. However, the siting of future extensions will depend to a large extent on the future of the iron ore and phosphate traffic, since the Rades side of the La Goulette harbor will become available for development to a greater or less degree during the 1970 decade, depending upon the decision as to exploitation of the new phosphate deposit near Kalaa Djerda.

Land Access to La Goulette

54. Earlier drafts of the project included provision for (a) widening, improving and restoring the level of the road paralleling the canal between Tunis and La Goulette, (b) a new ferry boat of a larger capacity to take freight vehicles between La Goulette North and La Goulette South (Rades), (c) construction of new ferry terminals and road access. The estimated total cost of these items excluding engineering and interest during construction, was about T.D. 0.45 million of which T.D. 0.31 million (US\$0.74 million equivalent) was foreign exchange.

55. The Government's view is that these investments are the responsibility of the Ministry of Public Works, Bridges and Roads Division, which is competent to carry out the construction work on the road and the ferry terminals, with its own technical resources as budget provisions become available. The Government has agreed that it will construct access roads necessary for the efficient operation of the project and will maintain and repair such access roads.

V. THE PROJECT (Map 3)

General Description

56. The purpose of the project is to permit the diversion of a considerable portion of the general traffic now being handled at Tunis by developing and extending the port of La Goulette. Two additional berths will be constructed and these together with the existing berths will be provided with transit sheds, warehouses, passenger terminals, working areas and office buildings. Road access to the port will be relocated and the road and rail system in the port area extended. The breakwater covering the port inlet will be relocated. Firefighting and telecommunications equipment will be provided.

Dredging and Reclamation

57. A considerable amount of dredging and refilling will have to be done to give the various structures solid foundations and the port a suitable layout. About 50,000 m³ of mud and silt have to be removed and disposed of outside the harbor and approximately 1,200,000 m³ of sand and gravel have to be hauled in barges from Qued Soltaine, 20 km south-east of La Goulette, and used for road construction, elevation of existing areas and reclamation of new areas.

Roads and Bridges

58. The project requires and includes the re-siting of a fishing channel to the lake, (A on Photograph 2), the re-location of the Eastern stretch of the Tunis-La Goulette road and the construction of two reinforced concrete bridges, one for the road and one for the railway, over the new fishing channel (Map 3).

Additional Berths

59. The existing 730 m of quay will be extended another 370 m eastwards to provide two more berths for general cargo. The depth alongside the new berths will be about 12 meters. The new berths will be equipped with necessary transit sheds, rail and crane tracks and customs fence and the stacking area inside the custom's fence will be paved. The old fishing channel and the existing fishing and Navy basin will be filled.

60. Inside the port area approximately 9.7 km of two, three and four lane roads will be constructed and about 140,000 m² of open storage space will be paved. The greater part of the ports 60 ha. transit area will be filled to about 2.5 m above the water and leveled off. The area will be equipped with necessary drainage, water mains, fire hydrants and electrical distribution cables. Sewers will also be provided and connected to the existing system in La Goulette.

Sheds and Other Buildings

61. Seven concrete transit sheds will be constructed on the existing and new berths, each with a floor area of 4,000 m². One of these sheds will have two stories with a 1,700 m² reception hall for passengers on the second floor. Three warehouses with a combined area of 9,000 m² and various auxiliary buildings will be constructed.

62. A new four story administration building with a floor space of 2,500 m² is to be erected in the central part of the back area. Considerable settlement will undoubtedly be experienced in the area now occupied by the old fishing port. On account of the soil condition all new major buildings will be founded on concrete piles.

Consultants' Services

63. The Government has agreed to employ consultants, acceptable to the Bank, to provide services in connection with (i) design and supervision of construction of the project, (ii) traffic studies and forecasts, (iii) bulk handling of grain, (iv) port charges structure and rates, (v) cargo handling and Customs procedures, (vi) costing and financial systems and training of accounting and statistical staff of the office. The costs of these consultant services are included in the project.

Cost Estimate

64. The estimated cost of the project is T.D. 4.79 million, US\$11.4 million equivalent. The necessary foreign exchange would amount to US\$7.0 million. The cost estimate includes 10 percent provision for construction contingencies. Interest on the Bank loan during construction is also included. The cost estimate, which is based on final engineering, is considered to be realistic, and is given in Appendix 12 separated as to foreign exchange and local currencies. The following is a summary of this estimate:

<u>Item</u>	<u>Total Cost</u>	
	<u>T.D. Million</u>	<u>US\$ Equiv. Million</u>
1. Dredging, demolition and reclamation	0.756	1.80
2. Roads, bridges and rail tracks	0.777	1.85
3. 370 m new quay at La Goulette	0.429	1.02
4. Sheds and other buildings	1.188	2.83
5. Fencing and utilities, fire fighting equipment and telecommunications	0.689	1.64
6. Relocation of breakwater	0.252	0.60
7. Miscellaneous	0.177	0.42
8. Consulting services, engineering design and supervision	0.286	0.68
9. Interest during construction	<u>0.235</u>	<u>0.56</u>
Total:	4.789	11.40

65. Construction will start at the beginning of 1964 and should be finished by the end of 1966. Expenditure is scheduled approximately as follows:

	<u>Local Currency</u>	<u>Foreign Currency</u>	<u>Total</u>	
	<u>Million Dinars</u>	<u>Million US\$</u>	<u>Million Dinars</u>	<u>Million US\$</u>
1st year	0.500	2.300	1.470	3.490
2nd year	0.676	2.200	1.600	3.810
3rd year	<u>0.672</u>	<u>2.500</u>	<u>1.719</u>	<u>4.100</u>
	1.848	7.000	4.789	11.400

Construction and Procurement

66. The design and tender documents for the construction of the port of La Goulette have been prepared by Bureau Central d'Etudes pour les Equipements d'Outre-Mer (B.C.E.O.M.). International bidding is being carried out under satisfactory procedures but no contract has yet been awarded.

67. The Ministry of Public Works will be responsible for the execution of the project acting through its Chief Engineer. The present consulting engineers B.C.E.O.M. will be the resident engineers in charge of the supervision of the construction.

Town Planning

68. The port development program for La Goulette is co-ordinated with the re-planning of the town of La Goulette.

Economic Justification

69. Possible Alternatives to the Project. There is no economic alternative to fitting up the present La Goulette quay. The position of Tunis as the capital city serving more than 50 percent of the population and the main, almost only commercial center makes it impracticable to divert to other ports the general traffic now using Tunis. Those other ports, particularly Sousse and Sfax, already handle most of the general cargo traffic for their respective service areas and are too remote from Tunis to take any of its commercial traffic. At Bizerte, the facilities at the commercial port are not adequate to take any large increase in traffic and will shortly be occupied to the limit of capacity following the industrial development in that area. Tunis-La Goulette will continue to be the major commercial port of the country.

70. Present Congestion and Traffic Growth. The urgent necessity to relieve the congestion in the Tunis old port and to avoid stagnation in the port and damage to the country's economy is clear. The provision of transit sheds and other facilities at the existing quay at La Goulette to provide five general cargo berths is long overdue. In addition, the development of the country's economy will result in a substantial growth in traffic as a whole, particularly in general cargo. An extension of berth capacity is needed to relieve the pressure at Tunis and to keep pace with traffic growth over the next few years. Without the expansion of the port the existing facilities would be saturated in the near future and the general economy of the country would be seriously affected.

71. Government Planning. In its three-year plan and ten-year perspectives the Government has rightly given high priority to development of the port at La Goulette.

72. Specific Economic Benefits

(a) Savings in ships' time and canal fees and cargo handling costs.

There will be approximately 670,000 tons of cargo diverted from Tunis old port to La Goulette, made up of the general cargo capacity at La

Goulette, 648,000 tons, less the present volume handled of 50,000 tons, plus 75,000 tons of wine. Consultants have estimated, from actual examples, that these savings amount in all to a little less than T.D. 1 per ton, T.D. 0.150 to the ship and T.D. 0.840 for cargo handling including ship's stevedoring. Taking a conservative total figure of only T.D. 0.750 per ton the annual benefit will be T.D. 502,500.

(b) Additional Transport Costs. The above benefits will be reduced by additional transport costs of the traffic moving between Tunis and La Goulette, which are estimated at T.D. 0.160 per ton. Of the total of 670,000 tons diverted approximately 500,000 tons may be subject to this additional cost, making a total of T.D. 80,000.

(c) Possible Size of Other Savings. Execution of the project would produce savings in dredging and maintenance cost of the canal and of the Tunis old port basin, since the traffic remaining at that port can be carried in vessels of up to four meters draft. In addition dredging of the canal is a contributory factor in subsidence of the railroad and highway and cessation of dredging will provide some savings in maintenance costs. The sum of these savings is estimated at T.D. 160,000 per annum.

(d) Net Economic Benefits. The net economic benefit may therefore be taken as T.D. 422,500 per annum if only the direct savings, ships' time, cargo handling and transport costs, etc. are counted. With the maintenance savings the total benefits per annum would be about T.D. 582,500.

Economic Return

73. The new facilities at La Goulette would be operating at full capacity, and the above benefits would accrue, immediately on completion of the project. Projected over the estimated economic life of the project of 30 years the direct savings of T.D. 422,500 represent an economic return, on a total project cost of T.D. 4.79 million, of 8 percent in the first year, while on total benefits of T.D. 582,500 the return is $12\frac{1}{2}$ percent. As experience is gained and cargo handling improved the direct savings together with the economic returns will increase.

74. By themselves, these benefits justify the project. In addition, the diversion of some 670,000 tons of cargo from the Tunis old port to deep water berths at La Goulette will enable larger, more economical, ships to be used to carry this traffic. This benefit cannot be measured but is clearly considerable.

75. The project will reduce the c.i.f. cost of general exports and improve their competitive position in world markets and at the same time lower the delivered costs of imports.

76. Upon completion of construction ownership of the project will be transferred to the Office upon terms and conditions acceptable to the Bank.

VI. PAST FINANCES AND EARNINGS

Charges Structure and Rates

77. The principal charges assessed against the vessel are for harbor dues, anchorage, pilotage, and towage. Ships are also charged wharfage on cargo loaded and discharged and on passengers. The main charges assessed directly against cargo are open storage and warehousing. There are no berthage dues. Stevedoring and cargo handling are not functions of the Regie and will not be taken over by the new body. The last general revision of rates was in January 1952. Ships dues were increased in 1953 and 1954 and wharfage in 1958. Charges for storage and warehousing of cargo and passenger dues have not been revised and there has been no change in the charges structure. Charges generally compare favorably with those at other North African ports. All charges are fixed by decree of the Ministry of Public Works, including stevedoring and cargo handling charges levied by the stevedoring companies.

78. There are disparities between certain charges at Tunis and La Goulette which should be discontinued upon completion of the project and in general, the charges are not related to the costs of services provided. Consultants are about to commence a study of the whole charges structure and rates of the Regie in conjunction with actual costs and will make recommendations as to revisions they consider necessary. The new charges structure and rates, with amendments from time to time, will be designed to produce revenues that will, taking one year with another, cover all operating costs, including maintenance and depreciation, and interest on debt and, on a cash basis, provide sufficient funds for renewals and replacement of facilities, amortization of debt and leave a reasonable amount for investment in future development of facilities.

Past and Present Finances

79. Although the Treasury has acted as banker to the Regie and in theory the accounts of the Regie have been treated separately, in practice the government system of accounting has made it impossible to prepare normal revenue and expenditure accounts for past years. The records are on a cash basis, no information being available as to accruals. During the years 1955 to 1960 expenditure has been incurred on capital works but it has not been possible to identify it in the Treasury records. It has been established that considerable sums have been charged to the Regie on revenue expenditure and capital account that should have been borne by the general state budget for the Bridges and Roads Division of the Ministry of Public Works but the amount involved cannot be ascertained. No provision has been made for depreciation.

80. However, the Treasury and the Regie confirm that the sum standing to the credit of the Regie as at December 31, 1962, after providing for all debt service to that date, was T.D. 1.781 million. Since the balance at April 1, 1952, was T.D. 0.202 million the average annual cash surplus generated over a period of 10 years and nine months was about T.D. 0.147 million. The average annual operating surplus, before debt service, has been of the order of T.D. 0.430 million. The funds held by the Treasury to the credit of the Regie, after allowing for working capital would finance approximately 90% of the local currency costs of the project.

81. The Government has agreed that these funds will be made available to meet the local currency costs of the project. In its budget for 1964, which has been approved by the Government, the Regie has provided the sum of T.D. 1.0 million for this purpose for that year. The Government has also agreed that, upon setting up the new Office, the balance then remaining to the credit of the Regie's account will be transferred to the Office. Arrangements will then be made by which the Office will provide the Government with funds to meet local currency costs of the project arising thereafter to the extent that the Office has sufficient funds available for that purpose.

Present Debt

82. A schedule of the outstanding debt of the Regie as of December 31, 1963 is given in Appendix 13.

83. The total original amount of the debt was T.D. 8,580,000, all of which originally derived from French sources. Of this total T.D. 500,000 was obtained by the Government in 1947 from the Comptoire National D'Escompte de Paris (C.N.E.P.) repayable in Dinars at 4% per annum for a period of 20 years, and will be fully repaid in 1967. The balance outstanding at December 31, 1963 was T.D. 118,000.

84. The balance of T.D. 8,080,000 was made available to the Regie by the Tunisian Government out of funds provided by the French Government in French francs. The balance outstanding at December 31, 1962 was T.D. 6,681,000. Because of the devaluation of the French franc, not followed by Tunisia, the Tunisian Government has agreed to devalue these loans and convert them at the new rate of T.D. 850,709 = Fr. francs 1,000 as from September 1, 1960. (An adjustment took place in the value of the French franc in December 1958, when the exchange rate moved from 4.2 to 4.9 to the US\$1. It was decided that the T.D., which had been established in November 1958, would not maintain parity with the French franc.) The balance outstanding at December 31, 1963 was T.D. 5,686,000. The whole of this debt is on generous terms, the interest rate being 1½% per annum. Of the original T.D. 8,080,000, T.D. 6,631,000 was for a period of 50 years, T.D. 1,088,000 for 25 years and T.D. 361,000 for ten years.

85. The total annual debt service on all existing debt for 1963 was only T.D. 276,000.

86. It has not been possible to relate these loans to actual investment, since no records of capital expenditure exist, but the probability is that the bulk of these loans helped to finance the postwar development and reconstruction.

87. Although the Regie is a department of government this debt has always been considered due by the Regie and debt service payments have been properly made out of the Regie's resources to the State budget. It will be taken over by the Office, with the same terms and conditions continuing to apply.

Existing Assets

88. There are no official records of capital expenditure or assets. In 1962 a physical inventory was prepared of the property under the jurisdiction of the Regie, and a valuation made on the basis of estimated present replacement costs and expectation of remaining life. This inventory and valuation included not only terminal facilities (quays, buildings, services) and floating and land based plant but also harbor facilities such as breakwaters, moles and other sea defence works, dredging and reclamation work.

89. The estimates of replacement costs appear to be high and in some cases do not represent current costs and the annual depreciation charges appear overstated. In the absence of any other valuation these depreciation figures have had to be used in the financial estimates, although the effect is to increase the operating ratio and reduce the interest coverage. Even then the operating ratio, which declines from 81% in 1967 to 75% in 1971, is satisfactory. The present consultants recommend that the harbor facilities be taken over as fully depreciated and in the circumstances this recommendation is concurred in. Upon setting up the new body a fresh inventory and valuation will be made of the assets to be taken over.

90. Because of the foregoing, pro forma balance sheets, returns on total investment and debt/equity ratios based on the present valuation would be misleading and would serve no useful purpose. These data have therefore been omitted from this report.

VII. FUTURE FINANCES

91. A detailed statement of estimated operating revenues based on present tariffs and expenses, interest and surplus and debt service for the period 1963 to 1971 is given in Appendix No. 14. A condensed version for alternate years is given below:

	-----T.D. 000-----				
	1963	1965	1967	1969	1971
<u>Operating Revenues</u>					
Tunis-La Goulette	811	873	981	1,092	1,168
Other Ports	464	464	464	464	464
Total Revenues	1,275	1,337	1,445	1,556	1,632
<u>Operating Expenses</u>					
Tunis-La Goulette	452	489	543	572	599
Other Ports	201	201	201	201	201
Depreciation	306	306	425	425	425
Total Expenses	959	996	1,169	1,198	1,225
Net Operating Revenue	316	341	276	358	407
Interest Charges	94	86	169	230	217
Payment in lieu of taxes	20	20	20	20	20
Surplus	202	235	96	108	170
Operating Ratio %	75	74	81	77	75
Cash Generation	622	647	701	783	832
Debt Service	296	279	360	457	457
Available for Investment	326	368	341	326	375

92. The Regie enjoys immunity from all Municipal taxes, property taxes, Central Government income tax and all other similar imposts in consideration of the payment to the Central Government of an annual payment of T.D. 20,000. The financial forecasts have been based on the assumption that this arrangement will continue.

93. Upon completion of construction and take-over of the project by the Office, the Office will assume to the Government a debt equivalent to the amount of, and on substantially the same terms and conditions as those for, the Bank Loan. Total debt service is covered between 2.2 times and 2.6 times during the construction period, after which it will fall to 1.7 times in 1968 rising to 1.9 times in 1971. Detailed estimates of debt service are shown in Appendix No. 15. Interest charges are covered 3.3 to 4.0 times during construction and 1.3 times to 1.9 times afterwards.

94. The statement of estimated cash flow, Appendix No. 16, shows that during the construction period of the project the available surplus will be reduced by only T.D. 455,000. Provision has been made for a further five berth extension, as suggested in paragraph 49, at a tentative total cost of T.D. 5.042 million, including interest during construction. It has been assumed that construction of the further extension will take four years, 1968-1971, and that an external loan will be obtained for the foreign currency costs, estimated at 60% of the total. On these assumptions and on the basis of the present tariff the new Office should be able to finance the local currency costs of this further extension and still have funds of nearly T.D. 1 million at the end of 1971 available for further capital works or asset replacement. In 1972 the cash generated, including depreciation, should be about T.D. 0.85 million while total debt service would amount to about T.D. 0.57 million and would be covered 1.3 times. With a revised charges structure and rates this financial position could be improved.

95. Interest and debt service coverage and the generation of cash surpluses are satisfactory, even on the conservative financial forecasts, the bases and assumptions of which are given in Appendix No. 17.

VIII. CONCLUSIONS AND RECOMMENDATIONS

96. The project is operationally essential. It will enable the present quays at La Goulette to be used to full capacity for general cargo and will relieve the present congestion and shipping restrictions at Tunis old port. It is economically and financially sound.

97. The project is technically well designed by competent consultants who have prepared the design and who will supervise construction. The estimates of cost are realistic. The execution of the works will be awarded to qualified contractors chosen through international competitive bidding.

98. The Government will set up a new autonomous body, the Office des Ports Nationaux Tunisiens, to manage and operate all the commercial ports and harbours in the country. The passing of the law authorizing the creation of the Office has been made a condition of effectiveness of the loan. The Office will be under competent management, have good accounting and costing systems and will operate with port charges and rates designed to ensure that future finances will be adequate.

99. On the basis of agreements reached with the Government, the project is suitable for a Bank loan of US\$7.0 million equivalent to be made to the Government, a term of 25 years, including a three-year grace period, being appropriate.

April 21, 1964
Bank

TUNIS OLD PORT

(Map 2 and photograph 1, Port of Tunis)

There are about 965 meters of quay used for general cargo (Basin B on photograph), 80 meters of very shallow draft quay (Basin A) and jetties and dolphin berths for coal and minerals (Basin C). There is also a separate shallow basin (D) used mainly in connection with a land area known as "Madagascar" having floating craft slipways and maintenance facilities for buoyage and lighthouse equipment and workshops and stores of the Roads Department. At Madagascar, also, there is an explosives store.

The quays are inadequately served with transit sheds and warehouses totalling only 14,000 m² in area, and open storage and vehicle areas are very restricted. Only the South Quay (e on photograph), with 260 meters of quay, has both standard and meter gauge rail tracks and quay cranes. The port area is congested and there is no land for expansion.

The quays were built more than 50 years ago. They are of poor design and construction and rest on a layer of sand placed on soft mud. There has been considerable subsidence and the top of the quay face is now only about 30 cm above water level. The quay aprons cannot carry heavy loads and mooring bollards had to be placed about 8 m back from the quay face with the result that ships' mooring lines interfere with cargo handling on the quays and the use of mechanical equipment.

Because of the mud sub-soil and the shallow foundations it is not possible to dredge against the quay faces to a depth greater than about 4 m and even medium-size ships have to berth with pontoons placed between them and the quay. The greatest depth of water that can be maintained anywhere in the Central Basin is 7.5 m.

It became apparent before the last World War, when traffic was less than it is now, that the installations could not accommodate the general cargo traffic, but the war precluded any action. In 1949 work was commenced on a project to reconstruct the quays at Tunis on a straight line. This was unsuccessful as part of the new quay (the Suet Quay) (f on photograph) turned over and slid into the mud. Work on this project was then abandoned. It would be an extremely difficult engineering problem, as well as being uneconomically costly, to construct a modern deep-water port at Tunis.

The Tunis installations are connected to the sea at La Goulette by a canal, across the Lake of Tunis, 10 km long and dredged to a depth of 7.5 m. Parallel to the north bank of the canal are a railway and a highway constructed on the mud. Siltation of the canal occurs partly from mud being squeezed out by the weight of the railway and road and of the traffic they carry. This is a continuous process and also results in the gradual sinking, at about $1\frac{1}{2}$ cm a year, of the railway and road. The railway has been maintained by a continual packing with extra ballast which now is 1.5 m deep. It is estimated by the Consultants that ceasing to dredge the canal would result in savings of approximately D 40,000 per annum; the annual cost of dredging the canal and maintaining the bank is estimated at D 70,000.

APPENDIX 2

TUNIS-LA GOULETTE PORT PROJECT

Vessels calling at Tunis-La Goulette 1957-1962

	<u>Number of vessels</u>		<u>Total</u>	<u>Average net Registered tonnage</u>	
	<u>Tunis (via canal)</u>	<u>La Goulette Rades</u>		<u>Tunis (via canal)</u>	<u>La Goulette Rades</u>
1957	1,359	429	1,788	1,254	2,201
1958	1,426	480	1,906	1,247	2,144
1959	1,522	483	2,005	1,084	2,357
1960	1,427	508	1,935	1,021	2,687
1961	1,475	510	1,985	1,042	2,885
1962	1,403	448	1,851	1,075	2,714

Source: S.E.T.E.C.

APPENDIX 3

TUNIS-LA GOULETTE PORT PROJECT

Table of the draft of total movements of
vessels using Tunis-La Goulette, 1962.

Draft in Meters	Arrivals and departures plus movements within the Port			
	<u>Tunis (via Canal)</u>		<u>La Goulette</u>	
	No. of Movements	%	No. of Movements	%
Less than 3.50	486	17.4	99	10.0
3.50 - 3.99	491	17.5	107	10.8
4.00 - 4.49	548	19.6	89	9.0
4.50 - 4.99	362	12.9	123	12.5
5.00 - 5.49	454	16.2	88	8.9
	2,341	83.6	506	51.2
5.50 - 5.99	224	8.0	79	8.0
6.00 - 6.49	206	7.4	103	10.4
6.50 - 6.99	25	0.9	79	8.0
7.00 - 7.49	4	0.1	78	8.0
7.50 - 7.99	1	-	60	6.1
8.00 and Over	1	-	82	8.3
	2,802	100.0	987	100.0

NOTE Movements at La Goulette include vessels anchoring awaiting passage through the canal to Tunis

Source: S.E.T.E.C.

APPENDIX 4

TUNIS-LA GOULETTE PORT PROJECT

Regie's Existing Equipment

(a) Tunis

Quay cranes 3 x 6 ton on South quay only
Mobile cranes 13)
Fork Lift trucks 7) Mechanical handling equipment

(b) La Goulette

Quay cranes 7 x 6 ton

(c) Floating Equipment at Tunis-La Goulette

2 dredgers
7 tugs
3 lighters
2 barges
5 floating cranes (up to 60 tons)
6 launches and pilot boats
1 modern 790 ton service vessel for maintenance
of lighthouse and buoys
Other small craft

TUNIS-LA GOULETTE PORT PROJECT

Ratio of Cargo Traffic at Tunis-La Goulette to all Ports 1959-1962

'000 Tons

	<u>Total Traffic</u>			<u>Imports</u>			<u>Exports</u>		
	<u>All Tunisia</u>	<u>Tunis-La Goulette</u>		<u>All Tunisia</u>	<u>Tunis-La Goulette</u>		<u>All Tunisia</u>	<u>Tunis La Goulette</u>	
	<u>'000 Tons</u>	<u>'000 Tons</u>	<u>%</u>	<u>'000 Tons</u>	<u>'000 Tons</u>	<u>%</u>	<u>'000 Tons</u>	<u>'000 Tons</u>	<u>%</u>
1959	5,193	2,473	47.6	1,114	761	68.3	4,079	1,712	42.0
1960	5,091	2,774	54.5	1,251	962	76.9	3,840	1,812	47.2
1961	5,359	2,656	49.6	1,754	1,208	68.9	3,605	1,448	40.2
1962	4,647	2,363	50.9	1,262	1,070	84.8	3,385	1,293	38.2
	<u>20,290</u>	<u>10,266</u>	<u>50.6</u>	<u>5,381</u>	<u>4,001</u>	<u>74.4</u>	<u>14,909</u>	<u>6,265</u>	<u>42.0</u>

TUNIS-LA GOULETTE PORT PROJECT

Analyses of Cargoes Handled at all Ports - 1961

	<u>'000 Tons</u>									
	TUNIS		BIZERTE		SOUSSE		SFAX		TOTAL	
	<u>'000 Tons</u>	<u>%</u>								
<u>Imports</u>										
Coal and Coke	42	88					6	12	48	100
Bulk Petroleum Products	380	77	18	4			95	19	493	100
<u>General Cargo</u>										
Cereals	357	62	55	10	94	16	68	12	574	100
Other	<u>429</u>	67	<u>4</u>	1	<u>43</u>	7	<u>163</u>	25	<u>639</u>	100
	<u>786</u>	65	<u>59</u>	5	<u>137</u>	11	<u>231</u>	19	<u>1,213</u>	100
<u>Total Imports</u>	<u>1,208</u>	69	<u>77</u>	4	<u>137</u>	8	<u>332</u>	19	<u>1,754</u>	100
<u>Exports</u>										
Phosphates	194	10					1,746	90	1,940	100
Iron Ore	875	98	20	2					895	100
Alfa (Esparto Grass)					67	83	14	17	81	100
Salt					59	43	77	57	136	100
<u>General Cargo</u>										
Cereals	25	89	3	11					28	100
Cement	39	43	51	57					90	100
Wine	131	100							131	100
Olive Oil							44	100	44	100
Other	<u>184</u>	71	<u>39</u>	15	<u>15</u>	6	<u>22</u>	8	<u>260</u>	100
	<u>329</u>	68	<u>93</u>	17	<u>15</u>	3	<u>66</u>	12	<u>553</u>	100
<u>Total Exports</u>	<u>1,448</u>	40	<u>113</u>	3	<u>141</u>	4	<u>1,903</u>	53	<u>3,605</u>	100
<u>Total Imports and Exports</u>	<u>2,656</u>	50%	<u>190</u>	3%	<u>278</u>	5%	<u>2,235</u>	42%	<u>5,359</u>	100%
<u>Summary</u>										
<u>General Cargo</u>										
Cereals, wine, olive oil	513	66	58	8	94	12	112	14	777	100
Other	<u>652</u>	66	<u>94</u>	9	<u>58</u>	6	<u>185</u>	19	<u>989</u>	100
	1,165	66	152	9	152	9	297	16	1,766	100
Bulk	<u>1,491</u>	41	<u>38</u>	1	<u>126</u>	4	<u>1,938</u>	54	<u>3,593</u>	100
	<u>2,656</u>	50%	<u>190</u>	3%	<u>278</u>	5%	<u>2,235</u>	42%	<u>5,359</u>	100%

Source: Regie Des Ports de Commerce

TUNIS-LA GOULETTE PORT PROJECT
Analysis of Cargo Traffic at Tunis-La Goulette 1953-1962

'000 tons

	I M P O R T S						E X P O R T S						Total Traffic		
	Coal & Coke	Bulk Petroleum	General Cargo		Sub-total General cargo	Total Imports	Phosphates	Iron Ore	General Cargo			Sub-total General cargo		Total Exports	
			Cereals	Other				Cereals	Cement	Wine	Other				
1953	68	271	-	338	338	677	198	888	194	18	21	176	409	1,495	2,172
1954	64	307	-	350	350	721	216	783	174	62	49	133	418	1,417	2,138
1955	36	359	28	382	410	805	197	973	84	95	76	137	392	1,567	2,372
1956	50	345	89	398	487	882	213	1,007	43	111	77	191	422	1,642	2,524
1957	68	283	39	358	397	748	244	946	100	170	129	194	593	1,783	2,531
1958	25	298	37	350	387	710	319	877	190	117	124	191	622	1,818	2,528
1959	23	325	76	337	413	761	280	793	135	181	142	181	639	1,712	2,473
1960	46	346	164	406	570	962	242	983	108	143	107	224	582	1,812	2,774
1961	42	380	357	429	786	1,208	194	375	25	39	131	184	379	1,448	2,656
1962	33	388	243	406	649	1,070	196	654	44	65	118	216	443	1,293	2,363

Source: S.E.T.E.C.

COMMENTS ON CERTAIN ITEMS OF GENERAL CARGO

Fast Traffic

(a) Cereals. The main crop is hard wheat and the quantity available for export depends upon the climatic conditions for the harvest. In good years exports of grain have been up to 194,000 tons and have averaged 110,000 tons over the past ten years. Cereals are also imported, mainly soft wheat, and the quantity again depends on the local harvest. The maximum has been 357,000 tons with an average of 103,000 tons. Total cereal imports and exports have averaged 213,000 tons during the past ten years, 276,000 during the past five years, with a peak in 1961 of 382,000 tons. Most cereals are handled at La Goulette North. All loading and unloading is manual. Imports, which are in bulk consignments of up to 6,000 tons, are bagged at the wharf and stored there for long periods. Losses are sustained in damage to bags and contents and costs are incurred in having to re-bag considerable quantities. Up to three full berths are taken up at La Goulette with cereals. This traffic must be removed from the quays before any real quantities of general cargo can be diverted from Tunis and before the La Goulette berths can be fitted up to take that diverted traffic.

(b) Cement. Cement is produced locally, the surplus available for export depending on local demand. Exports were 18,000 tons in 1953, rose fairly regularly to 181,000 tons in 1959 and then fell sharply with 65,000 tons in 1962. Cement is exported from the Tunis Basin, in bags, mainly in small ships taking full loads.

(c) Wine. Exports of wine improved slowly after the war, were 21,000 tons in 1953, rose consistently to 142,000 tons in 1959 but have fallen to 118,000 tons in 1962. A small proportion, about 20% is exported in special small wine tankers carrying a maximum of 3,000 tons, but the greatest part is carried in small consignments in storage tanks in general cargo ships. Loading is by pumping from road tankers. The project includes the installation of storage tanks at La Goulette with pipe lines to the various berths.

TUNIS-LA GOULETTE PORT PROJECT

Estimates of Future Traffic, Port of Tunis - La Goulette - 1963-1971

'000 Tons

	Actual 1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
<u>Cargo at General Cargo Wharves</u>										
<u>General Cargo</u>										
<u>Imports</u>										
Cereals	243	243	135	135	135	135	135	135	135	135
Timber	32	32	38	41	45	49	53	58	64	70
Other	<u>374</u>	<u>374</u>	<u>375</u>	<u>405</u>	<u>388</u>	<u>424</u>	<u>464</u>	<u>508</u>	<u>517</u>	<u>559</u>
	649	649	548	581	568	608	652	701	716	764
<u>Exports</u>										
Cement	65	65	40	40	40	40	40	40	40	40
Cereals	44	44	120	120	120	120	120	120	120	120
Cereal Derivatives	59	59	63	65	67	70	72	75	77	80
Wine	118	118	125	125	125	125	125	125	125	125
Fruit and Vegetables	58	58	72	81	91	102	114	128	144	160
Olive Oil	1	1	3	4	6	8	10	12	16	20
Other	<u>70</u>	<u>70</u>	<u>76</u>	<u>79</u>	<u>82</u>	<u>35</u>	<u>89</u>	<u>92</u>	<u>96</u>	<u>100</u>
	415	415	499	514	531	550	570	592	618	645
<u>Total General Cargo</u>	1,064	1,064	1,047	1,095	1,099	1,158	1,222	1,293	1,334	1,409
<u>Fuel Oil (Power Station)</u>	<u>90</u>	<u>90</u>	<u>100</u>	<u>106</u>	<u>139</u>	<u>145</u>	<u>154</u>	<u>159</u>	<u>192</u>	<u>200</u>
<u>Total at General Cargo Wharves</u>	1,154	1,154	1,147	1,201	1,238	1,303	1,376	1,452	1,526	1,609
<u>Coal, Coke and Minerals</u>	<u>61</u>	<u>61</u>	<u>72</u>	<u>74</u>	<u>72</u>	<u>72</u>	<u>77</u>	<u>80</u>	<u>84</u>	<u>88</u>
<u>Total Cargoes at Tunis and La Goulette North</u>	<u>1,215</u>	<u>1,215</u>	<u>1,219</u>	<u>1,275</u>	<u>1,310</u>	<u>1,375</u>	<u>1,453</u>	<u>1,532</u>	<u>1,610</u>	<u>1,697</u>
<u>Bulk Cargo at La Goulette South (Rades)</u>										
Bulk Petroleum Products	298	298	85	95	106	120	134	151	169	188
Iron Ore	654	654	850	850	850	850	850	850	750	750
Phosphates	<u>196</u>	<u>196</u>	<u>200</u>							
	1,148	1,148	1,135	1,145	1,156	1,170	1,184	1,201	1,119	1,138
<u>TOTAL</u>	<u>2,363</u>	<u>2,363</u>	<u>2,354</u>	<u>2,420</u>	<u>2,466</u>	<u>2,545</u>	<u>2,617</u>	<u>2,733</u>	<u>2,729</u>	<u>2,835</u>

Source: S.E.T.E.C. 1964-1971
 Estimates for 1963 were assumed
 to be the same as 1962 actual.

COMMENTS ON CERTAIN ITEMS
OF FORECAST TONNAGES

It is impossible to forecast annual variations in imports and exports of cereals. As stated earlier, the total of imports and exports of cereals has averaged 276,000 tons over the past five years with a peak of 382,000 tons in 1961. Average figures of 255,000 tons (imports 135,000 tons, exports 120,000 tons) have been used in the projections. Provided that adequate bulk handling facilities are installed one berth will be able to deal with all grain tonnages up to peaks of 4-500,000 tons a year, and can handle general cargo when not being used by grain ships.

Fuel oil for electricity generating station (map 3)

It is estimated that bulk fuel oil discharged at La Goulette North commercial quay for the power stations will rise steadily from 90,000 tons in 1962 to 200,000 tons in 1961 but it is not expected that this increase will have any appreciable effect on general cargo tonnage capacity. The second power station is under construction. Consignments of fuel oil for the power station will continue to be carried by sea.

Bulk cargoes handled at special facilities at Rades

- (a) Petroleum products. An oil refinery at Bizerte is expected to start production in 1964. It will have a capacity of 1,000,000 tons with a future extension to 1,500,000 tons. No decisions have yet been made as to methods of distribution but on the basis of comparative costs it is estimated that, assuming full production in 1964, sea-borne deliveries by coastal tanker to La Goulette South (Rades) oil terminal will drop from the 1962 figure of about 300,000 tons to 85,000 tons in 1964 and rise to 188,000 tons in 1971.
- (b) Iron ore exports. The reserves at the iron ore deposit at Djerissa, which is served by Tunis-La Goulette, are estimated at about 12,000,000 tons and, at the current rate of export will be exhausted by about 1975. There are no known alternative suitable deposits within the Tunis service area and it is probable that the bulk wharf and facilities at Rades will become redundant during the 1970s.
- (c) Phosphates. The largest and most favorable phosphate deposits now being exploited are in the southern part of the country, exports being from SFAX. The only deposit at present served by Tunis in the northern part of the country is at Kalaa Djerda. The reserves are estimated at between 5-10,000,000 tons with exports at about 200,000 tons per annum, compared with about 1,800,000 tons per annum from SFAX. It is estimated that the Kalaa Djerda deposits will be exhausted by about 1972, taking into account local consumption.

A further large deposit has been found near to Kalaa Djerda, of relatively poor quality but easy to extract. Studies are still continuing to decide whether or not to exploit this new source. If it is so decided, the annual export from Tunis could rise to about 650,000 tons in 1967 and 1,000,000 tons in 1971. Otherwise the bulk facilities at Rades will also become redundant in about 1972.

TUNIS-LA GOULETTE PORT PROJECT

ESTIMATED DISTRIBUTION OF TRAFFIC AT TUNIS-LA GOULETTE - 1963-1971

('000 Tons)

	<u>Actual</u> <u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
<u>LA GOULETTE (North)</u>										
Cereals, wine, olive oil and fuel oil	353	353	431	437	470	476	485	490	523	550
General Cargo	<u>49</u>	<u>49</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>648</u>	<u>648</u>	<u>648</u>	<u>648</u>	<u>648</u>
<u>Total La Goulette</u>	402	402	481	487	520	1,124	1,133	1,138	1,171	1,198
% of Total Tunis-La Goulette (North)	33%	33%	39%	38%	40%	82%	78%	74%	73%	71%
<u>TUNIS</u>										
<u>Commercial Quays</u>										
Cereals, wine, cement and timber	240	240	223	226	230	139	143	148	154	160
General cargo	<u>477</u>	<u>477</u>	<u>434</u>	<u>477</u>	<u>470</u>	<u>16</u>	<u>76</u>	<u>140</u>	<u>173</u>	<u>220</u>
	717	717	657	703	700	155	219	288	327	380
<u>Mineral Quay and Hazardous Goods</u>	<u>96</u>	<u>96</u>	<u>81</u>	<u>85</u>	<u>90</u>	<u>96</u>	<u>101</u>	<u>106</u>	<u>112</u>	<u>119</u>
<u>Total Tunis</u>	813	813	738	788	790	251	320	394	439	499
% of Total Tunis-La Goulette (North)	67%	67%	61%	62%	60%	18%	22%	26%	27%	29%
<u>Total Tunis-La Goulette (North)</u>	1,215	1,215	1,219	1,275	1,310	1,375	1,453	1,532	1,610	1,697
<u>RADES (La Goulette South)</u>										
Bulk Petroleum, Iron Ore and Phosphates	1,148	1,148	1,135	1,145	1,156	1,170	1,184	1,201	1,119	1,138
<u>TOTAL</u>	2,363	2,363	2,354	2,420	2,466	2,545	2,637	2,733	2,729	2,835

Source: Howell & Co, S.E.T.E.C

TUNIS: PORT OF LA GOULETTE PROJECT

Estimate of Project Cost

1 T.D. = US\$2.38

	<u>Local Currency</u> <u>cost thousand</u> <u>dinars</u>	<u>Foreign Currency</u> <u>cost thousand</u> <u>US\$</u>	<u>TOTAL COST</u>	
			<u>thousand</u> <u>dinars</u>	<u>thousand</u> <u>US\$ equivalent</u>
1. Demolition, dredging and reclamation	328.0	1,020	756.0	1,800
2. Roads, bridges and rail tracks	362.2	985	777.2	1,850
3. 370 m. new quay at La Goulette	112.0	755	429.0	1,020
4. Sheds and other buildings	638.8	1,310	1,188	2,830
5. Fencing and utilities, fire fighting equipment and telecommunication	155.0	1,270	689.0	1,640
6. Relocation of breakwater	100.8	360	252.0	600
7. Miscellaneous	109.2	160	176.6	420
8. Consulting services, engineering design and supervision	42.0	580	286.0	680
9. Interest during construction	-	560	235.2	560
	<u>1,848.0</u>	<u>7,000</u>	<u>4,789.0</u>	<u>11,400</u>

TUNIS-LA GOULETTE PORT PROJECT

Regie des Ports de Commerce

Present Debt

in T.D. '000

Date of Loan	Amount of Loan	Interest rate %	Period		Balance outstanding at December 31, 1962		Balance at December 31, 1963	Total debt service at converted rate 1963
			Amount	Years	At old parity rate of exchange	Converted at D850,709 = Fr.1,000		
<u>STATE LOANS</u>								
1955	Expenditure 1946-1955 consolidated in one loan	7,250	1½	360 800 6,090	10 25 50	6,125	5,211	5,076
1956		290	1½	1 15 274	10 25 50	261	222	218
1957		270	1½	116 154	25 50	236	201	195
1958		270	1½	157 113	25 50	239	203	197
		<u>8,080</u>				<u>6,861</u>	<u>5,837</u>	<u>5,686</u>
	<u>Comptoire National D'escompte de Paris (C.N.E.P) through state (not devalued)</u>							
1947		<u>500</u>	4		20	<u>149</u>	<u>149</u>	<u>118</u>
		<u>8,580</u>				<u>7,010</u>	<u>5,986</u>	<u>5,804</u>
	<u>Annuity for Repurchase of Port of Bizerte Concession</u>							
								<u>1</u>
	Source: Howell & Co							276

APPENDIX 13

TUNIS-IA GOULETTE PORT PROJECT

Regie des Ports de Commerce/New Autonomous Port Authority

Statement showing Estimated Revenues, Expenses and Surpluses and Interest and Debt Service Coverage, 1963 to 1971
Year Ending December 31 in T.D. '000

	1963	1964	1965	1966	1967	1968	1969	1970	1971
<u>OPERATING REVENUES</u>									
Tunis - La Goulette	811	832	873	874	981	1,034	1,092	1,111	1,168
Other Ports	464	464	464	464	464	464	464	464	464
	<u>1,275</u>	<u>1,296</u>	<u>1,337</u>	<u>1,338</u>	<u>1,445</u>	<u>1,498</u>	<u>1,556</u>	<u>1,575</u>	<u>1,632</u>
<u>OPERATING EXPENSES (Before Depreciation)</u>									
Tunis - La Goulette	452	477	489	498	543	555	572	583	599
Other Ports	201	201	201	201	201	201	201	201	201
	<u>653</u>	<u>678</u>	<u>690</u>	<u>699</u>	<u>744</u>	<u>756</u>	<u>773</u>	<u>784</u>	<u>800</u>
<u>OPERATING SURPLUS BEFORE DEPRECIATION</u>	622	618	647	639	701	742	783	791	832
<u>TOTAL DEBT SERVICE</u>	276	276	259	242	446	427	427	427	427
<u>DEBT SERVICE COVERED - TIMES</u>	2.25	2.24	2.50	2.64	1.57	1.74	1.83	1.85	1.95
<u>CASH GENERATED AFTER DEBT SERVICE, AVAILABLE FOR INVESTMENT</u> <u>SUBJECT TO ANNUAL PAYMENT IN LIEU OF TAXES (see below)</u>	346	342	388	397	255	315	356	364	405
<u>DEPRECIATION</u>	306	306	306	306	419	419	419	419	419
<u>NET OPERATING SURPLUS AFTER DEPRECIATION</u>	316	312	341	333	282	323	364	372	413
<u>OPERATING RATIO</u>	75%	76%	74%	75%	80%	78%	77%	76%	75%
<u>INTEREST CHARGES</u>	94	90	86	82	233	227	221	214	208
<u>INTEREST COVERED - TIMES</u>	3.30	3.47	3.97	4.00	1.21	1.42	1.55	1.74	1.99
<u>PAYMENT IN LIEU OF TAXES</u>	20	20	20	20	20	20	20	20	20
<u>NET REVENUE BALANCE TO SURPLUS</u>	202	202	235	231	29	76	123	138	185

Source: Howell & Co, modified by Bank Staff

TUNIS-LA GOULETTE PORT PROJECT

Regie des Ports de Commerce/New Autonomous Port Authority

Estimates of Debt Service 1963-1971
in T.D. '000

	<u>1963</u>		<u>1964</u>		<u>1965</u>		<u>1966</u>		<u>1971</u>	
	<u>Total</u>	<u>Interest only</u>								
State loans, including C.N.E.P.	275	93	275	89	258	85	242	82		
Annuity-Repurchase of Bizerte	1	1	1	1	1	1	-	-		
	<u>276</u>	<u>94</u>	<u>276</u>	<u>90</u>	<u>259</u>	<u>86</u>	<u>242</u>	<u>82</u>		
	<u>1967</u>		<u>1968</u>		<u>1969</u>		<u>1970</u>		<u>1971</u>	
	<u>Total</u>	<u>Interest only</u>								
State loans	224	79	205	77	205	75	205	72	205	71
I.B.R.D.	222	154	222	150	222	146	222	142	222	137
	<u>446</u>	<u>233</u>	<u>427</u>	<u>227</u>	<u>427</u>	<u>221</u>	<u>427</u>	<u>214</u>	<u>427</u>	<u>208</u>

Source: Howell & Co

TUNIS-LA GOULETTE PORT PROJECT
Regie des Ports de Commerce/New Autonomous Port Authority
Statement of Estimated Cash Flow 1963 - 1971
in T.D. '000

	Construction Period					Post-Construction Period						GRAND TOTAL
	1963	1964	1965	1966	Sub-total 1963-1966	1967	1968	1969	1970	1971	Sub-total 1967-1971	
CASH REQUIREMENTS												
Capital Investment: Project					4,571							9,613
Tentative Future Investment - Five Berths at La Goulette											5,042	
Work in Progress:: Project	400	1,076	1,556	1,539								
Future Investment							1,260	1,261	1,260	1,261		
Debt Interest: I.B.R.D. Other	94	90	86	82	352	154 79	150 77	146 75	142 72	137 71	729 374	729 726
Debt Amortization I.B.R.D. Other	182	186	173	160	701	68 145	72 128	76 130	80 133	85 134	381 670	381 1,371
Payment in lieu of Taxes	20	20	20	20	80	20	20	20	20	20	100	180
<u>TOTAL CASH REQUIREMENTS</u>	<u>696</u>	<u>1,372</u>	<u>1,835</u>	<u>1,801</u>	<u>5,704</u>	<u>466</u>	<u>1,707</u>	<u>1,708</u>	<u>1,707</u>	<u>1,708</u>	<u>7,296</u>	<u>13,000</u>
CASH AVAILABLE												
Net Operating Surplus	316	312	341	333	1,302	282	323	364	372	413	1,754	3,056
Depreciation	306	306	306	306	1,224	419	419	419	419	419	2,095	3,319
I.B.R.D. Loan		966	882	967	2,815							2,815
Loan for Future Investment: assumed 60% of cost							756	757	756	756	3,025	3,025
	<u>622</u>	<u>1,584</u>	<u>1,529</u>	<u>1,606</u>	<u>5,341</u>	<u>701</u>	<u>1,498</u>	<u>1,540</u>	<u>1,547</u>	<u>1,588</u>	<u>6,874</u>	<u>12,215</u>
<u>ANNUAL CASH SURPLUS</u>		212				235						
<u>DEFICIT</u>	74		306	195	363		209	168	160	120	422	785
<u>SURPLUS BROUGHT FORWARD</u>	<u>1,781</u>	<u>1,707</u>	<u>1,919</u>	<u>1,613</u>	<u>1,781</u>	<u>1,418</u>	<u>1,653</u>	<u>1,444</u>	<u>1,276</u>	<u>1,116</u>	<u>1,418</u>	<u>1,781</u>
<u>SURPLUS CARRIED FORWARD</u>	1,707	1,919	1,613	1,418	1,418	1,653	1,444	1,276	1,116	996	996	996
of which working capital (cash in hands of cashiers Dec. 31, 1962, T.D. 155,664)	158	162	170	170		191	202	213	217	228		

Source: Bank Staff

TUNIS-LA GOULETTE PORT PROJECT

Financial Forecasts

Bases and Assumptions Used

Revenue forecasts for Tunis-La Goulette are based on the current tariff and on the traffic forecasts. Operating expenditure is based on the 1963 budget with suitable allowances for cost increases and for maintenance of the new facilities.

For the other ports, in the absence of any traffic forecasts, revenue and operating expenses have been assumed to remain at the level of the 1963 budget.

Depreciation on existing assets has been provided on the basis of the existing valuation, and at $2\frac{1}{2}\%$ per annum on project costs.

Provision has been made for a Bank loan of T.D. 2.941 million (US\$7.0 million equivalent) at $5\frac{1}{2}\%$ for a period of 25 years with a three-year grace period.

The forecasts are conservative since they do not make allowances for the following:

- a) Reorganization of the rate structure including probable new dues and rates and probable upward adjustment of certain dues and rates;
- b) Reduction in operating costs by elimination of dredging and maintenance of the Tunis-La Goulette canal and of the Tunis basin;
- c) Substantial additional revenue that will accrue at Bizerte from the importation of crude oil for the refinery and from industrial development;
- d) Traffic growth at ports other than Tunis-La Goulette;
- e) Elimination of expenditures not attributable to the ports (para 79);
- f) Reduction in depreciation charges on existing facilities.

Mediterranean Sea

Gulf of Tunis

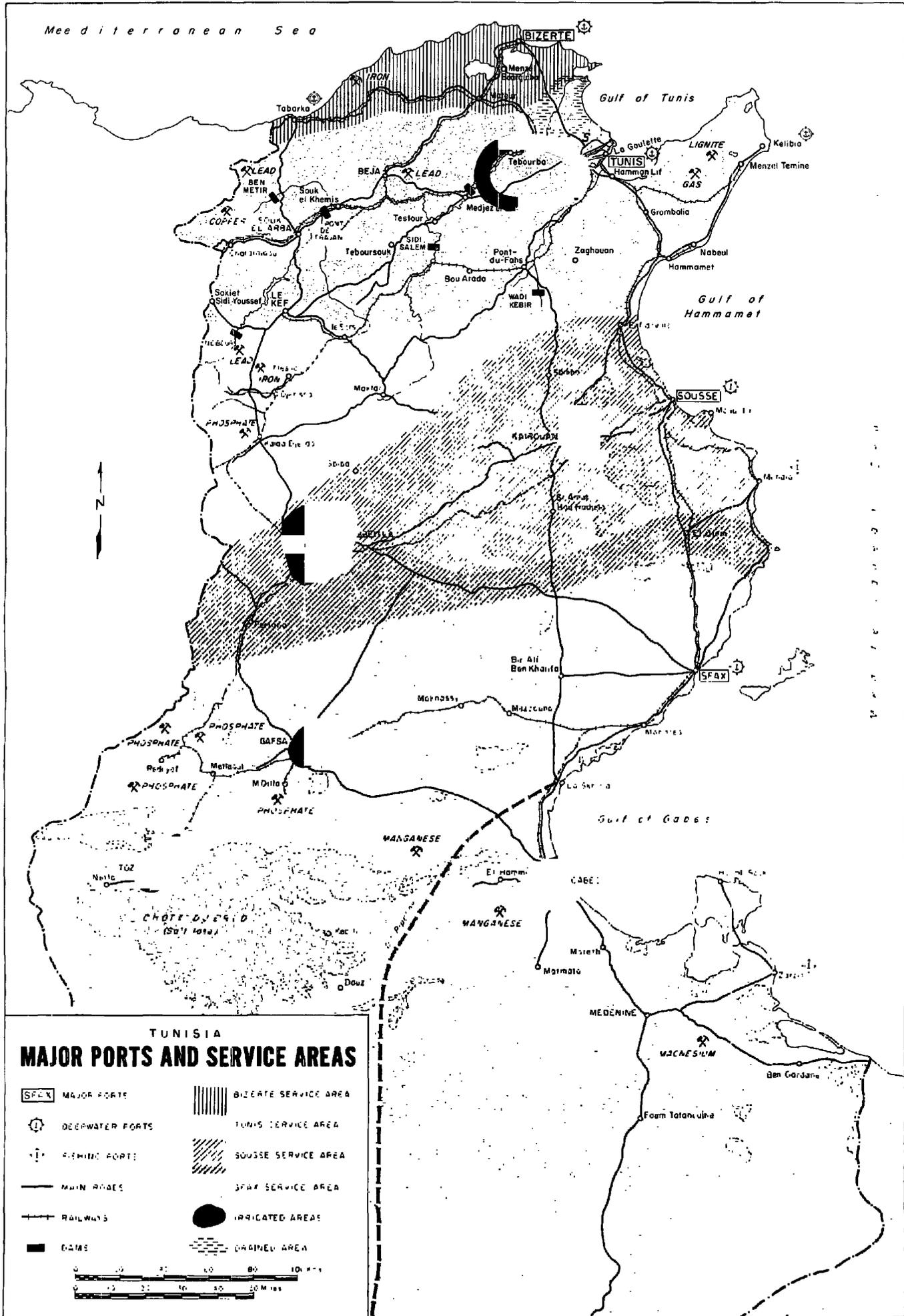
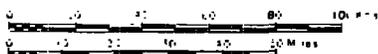
Gulf of Hammamet

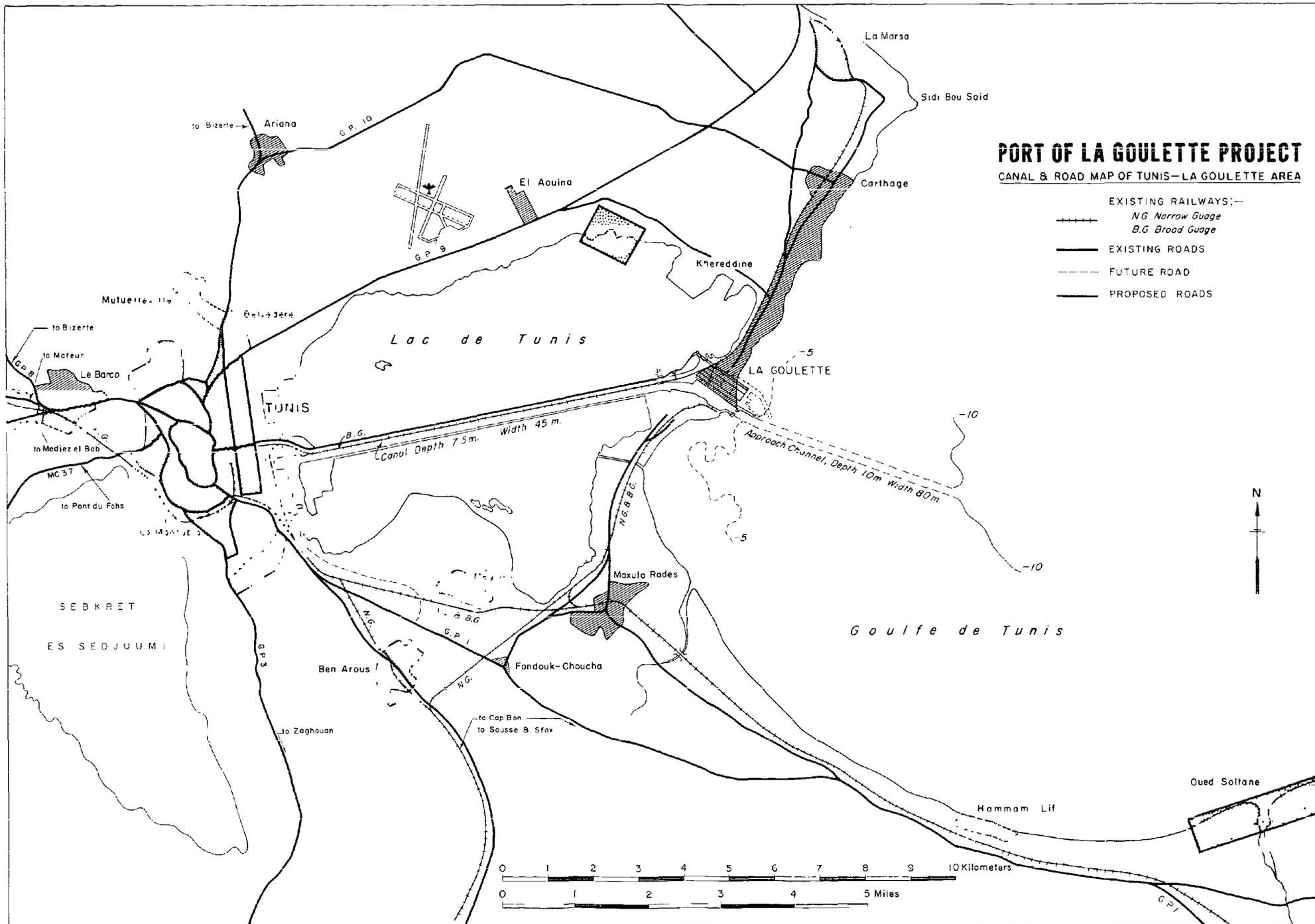
Gulf of Gabes

TUNISIA

MAJOR PORTS AND SERVICE AREAS

- MAJOR PORTS
- DEEPWATER PORTS
- FISHING PORTS
- MAIN ROADS
- RAILWAYS
- DAMS
- BIZERTE SERVICE AREA
- TUNIS SERVICE AREA
- SOUSSE SERVICE AREA
- SFAJ SERVICE AREA
- IRRIGATED AREA
- DRAINED AREA

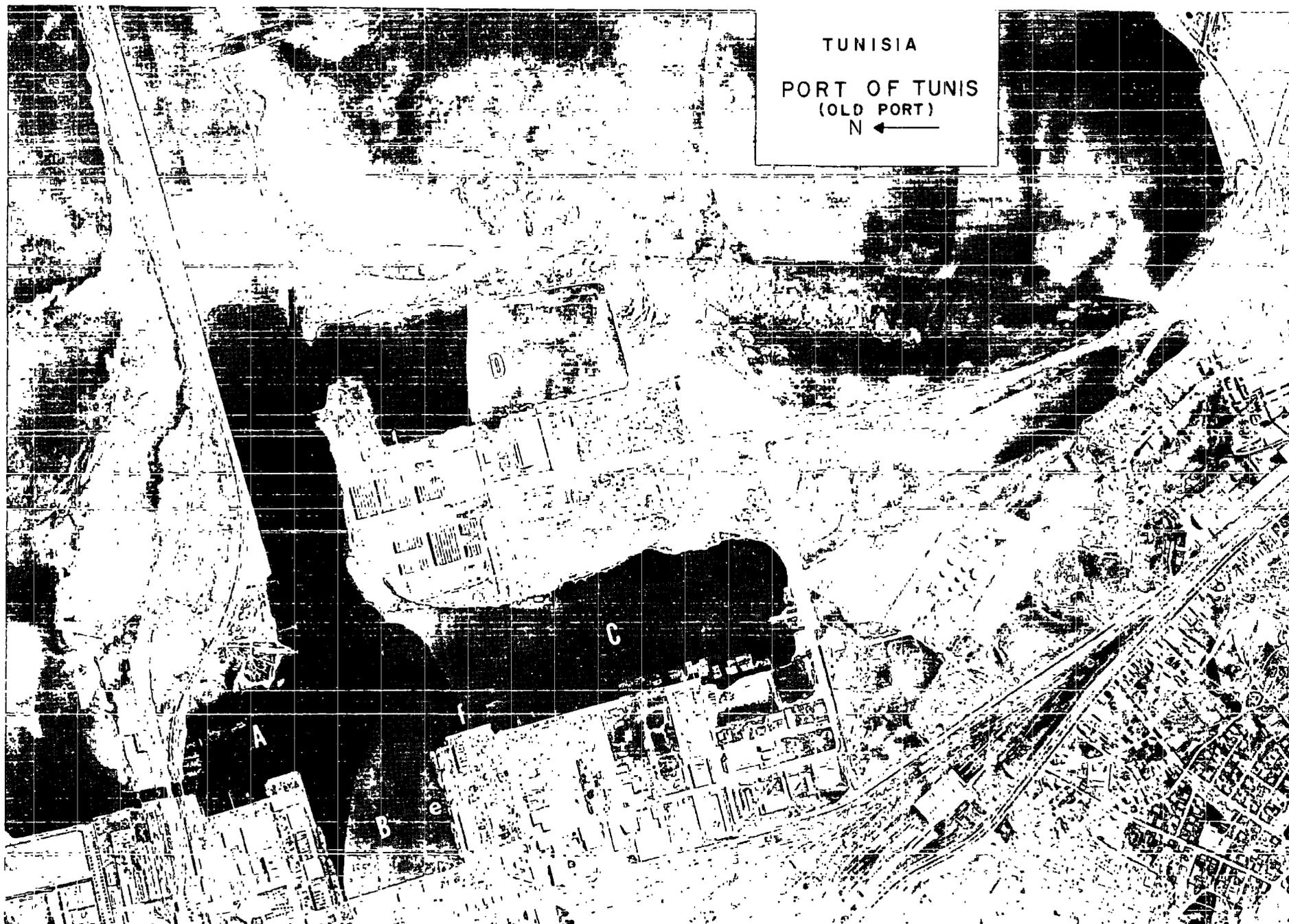




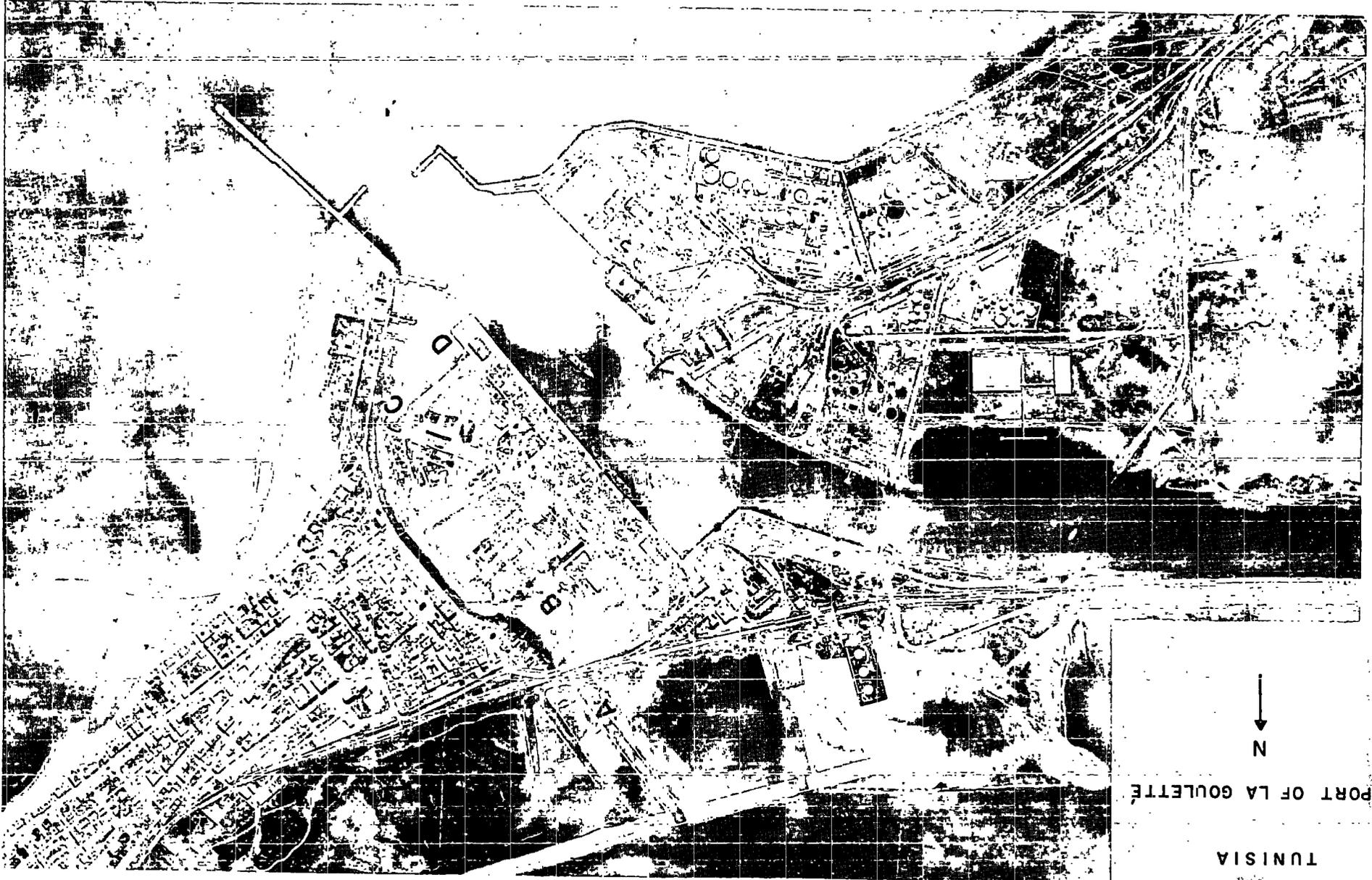
PORT OF LA GOULETTE PROJECT
CANAL & ROAD MAP OF TUNIS—LA GOULETTE AREA

- EXISTING RAILWAYS:—
 NG Narrow Gauge
 B.G Broad Gauge
- EXISTING ROADS
 FUTURE ROAD
 PROPOSED ROADS





A. HARBOR CRAFT BASIN C. MINERAL BASIN e. SOUTH QUAY
B. MAIN COMMERCIAL BASIN D. MAINTENANCE BASIN f. SUET QUAY



A. FISHING CHANNEL
B. FISHING BOAT BASIN
C. FISHING PORT
D. NAVY BASIN

TUNISIA
PORT OF LA GOULETTE
N

Photograph 2