



REPUBLIC OF KENYA

### Mombasa Pipeline Board

Report and Accounts
for
Financial Year Ending
30th June, 1974

### Mombasa Pipeline Board

Report and Accounts for Financial Year Ending 30th June, 1974

KENYA NATIONAL ASSEMBLY Accession: 10013249

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Mombasa Pipeline Board P.O. Box 30521 Nairobi, Kenya 17th December, 1974

The Minister for Water Development, Ministry of Water Development, P.O. Box 30521, Nairobi.

Sir,

As required by Part IV, section 13 (5) of the Mombasa Pipeline Board Act, No. 19 of 1957, I have the honour to submit the Report and Annual Accounts of the Board for the financial year ended 30th June, 1974.

Yours faithfully,

J. W. MUREITHI, Executive Chairman, Mombasa Pipeline Board.

### REPORT AND ACCOUNTS FOR THE FINANCIAL YEAR ENDED 30th JUNE, 1974

Address: -

### P.O. Box 30521, Nairobi

### CONSTITUTION OF THE BOARD

During the year under review, the Board was constituted as follows:-

### Chairman

J. W. Mureithi, Esq., with effect from 1st October, 1973.

T. C. J. Ramtu, Esq., up to 31st August, 1973.

### Vice-Chairman

Johnson Mweru, Esq.

### Members

Rockie Mchinga, Esq.

Councillor R. S. Ali (Mombasa Municipal Council).

Deputy Director-General, East African Harbours Corporation, Mombasa.

P. Mwangola, Esq.

V. G. Matthews, Esq.

Permanent Secretary, Ministry of Agriculture, Nairobi.

Director of Agriculture, Ministry of Agriculture, Nairobi.

### Secretary

E. A. Ngunya, B.Sc. (Civil) Eng., Director of Water Department, Government of Kenya.

There were three meetings during the year—and no changes in Board membership.

### Members of Staff

O. S. Cege, Esq., B.E. (Civil), D.I.C. Engineer.

Mrs. A. Pires—Personal Secretary.

### Bankers

Kenya Commercial Bank, Government Road, Nairobi.

### Auditors

Controller and Auditor-General, Kenya Government.

### SYSTEMS OPERATED

The Board's bulk supplies are delivered by two major pipelines connected with their respective sources of supply. These are:—

- 1. The Mzima/Mombasa Pipeline, and
- 2. The Marere/Mombasa Pipeline.

The Mzima/Mombasa Pipeline, a 24-inch prestressed concrete pipeline which collects the supply at the Mzima Springs, conducting it through the arid country north-west of Mombasa and delivering it to the reservoirs at Mazeras 130 miles to the south-east. The reservoirs are three prestressed concrete tanks each with a capacity of six million gallons making a total of 18 million gallons. From the Mazeras Reservoirs this Mzima water is conducted by twin 21-inch prestressed concrete pipelines which convey the water in the first instance to the service reservoirs at Changamwe prior to discharge into the Mombasa reticulation system. These reservoirs have a capacity of some 6.5 million gallons.

The Marere Pipeline is a cement lined steel pipeline which takes its supply from the Marere Springs in the Shimba Hills 20 miles to the south of Mombasa. The water is conducted to the service reservoirs at Changamwe where it mixes with the incoming Mzima water. From Changamwe where the Board sells the water in bulk to the Ministry of Agriculture as the Water Undertaker, the water as mixed is reticulated into the Mombasa Water Supply.

There are a number of subsidiary lines to various parts of the north and south coastal regions which derive their supply from the above two major systems. These may be described as follows:—

(a) A North Mainland Supply which delivers water to the Mainland north of Mombasa including Nyali, Bamburi, Kisauni and Shimo-la-Tewa. It comprises a 10-inch main drawing Mzima water direct from the Mazeras Reservoirs and capable of delivering 775,000 gallons a day to three reservoirs at Nguu Tatu 12 miles to the north-east. From here the water is reticulated to the several areas under the regime as referred to above. The reservoirs have a combined capacity of two million gallons.

In order to reduce to a minimum the difficulties caused by the not infrequent rupture of this pipeline resulting from soil movement in the unstable terrain through which the line is laid a six-inch pipeline has now been carried over the Nyali Bridge which links Mombasa Island with the North Mainland reticulation system only when that supply suffers interruption. As was anticipated in last year's report it has been necessary to keep this pipeline in continuous operation in order to maintain supplies at an adequate level.

- (b) A further pipeline originates at the Mazeras reservoirs, viz. the Mazeras/Kilifi Pipeline delivering water as far north as Kilifi. The six-inch asbestos cement pipe can deliver 350,000 gallons per diem and is regulated by three tank reservoirs of 100,000 gallons each at Ribe, Kaloleni and Mikirani. This is of course also Mzima water. If the economics of such an extension proves acceptable, it is possible that this line may be extended as far as Sokoke.
- (c) On the South Mainland there are two subsidiary supplies taken from a single connexion to the Marere Pipeline near Kaya Bombo. A connecting pipe to the main pipeline conducts water to a 250,000 gallon tank reservoir on the Kaya Bombo Hill and from thence one branch pipeline supplies water northwards as far as Likoni and another conducts it southwards as far as Diani. The connecting pipeline is capable of delivering 450,000 gallons per diem to the two systems.

In last year's annual report reference was made to the constant difficulties experienced in the various pipeline systems, and because of this the Board appointed consultants, Messrs. Scott Wilson Kirkpatrick and Partners, to investigate and report on ways and means of augmenting the water supplies to Mombasa and the rapidly developing areas to the North Coast and South Coast, because the existing supplies were rapidly being caught up by increasing demand. The

consulting engineers made four or five recommendations, most of which were accepted by the Board. During the year the Board was mainly engaged in the implementation of the consultants' recommendations as detailed under capital works.

### CAPITAL WORKS

### (a) Pemba River Works

These works were substantially completed during August this year by which time the commissioning was well under way. All the units right up to the final injection-pumps have been tested and brought into operation. Unfortunately, during the final stages of the commissioning, failures occurred in the pressure filters which are the last units before entry into the Marere Pipeline. Close examination of the filters revealed the cause of the failure to be some poor welding combined with an assembly fault. The manufacturers of the filters carried out the repairs successfully and gave an unconditional two years guarantee. The works are now completed and final commissioning is taking place at present. It is expected that the supply from this source will come into operation any time.

The boreholes in the vicinity of the Marere line were tested during the year and it was decided to develop and equip three of them. As indicated in last year's report, at certain times we would not be able to get the full amount of 1.5 million g.p.d. from the Pemba River and to cover against this condition it was decided to test pump existing boreholes near Marere line, equip those found satisfactory and introduce their flow into the pipeline. These boreholes were to be developed at an estimated cost of £82,000 which was approved by the Board during the financial year 1971/72. These holes were test pumped and together gave an output of approximately 600,000 g.p.d. At the moment, contract documents are being prepared and should be ready before the end of 1974.

### (b) North Mainland Scheme Augmentation

Work on this contract was expected to be completed by 31st October, 1973. As explained elsewhere in the report, there have been considerable delays in this contract caused mainly by the pipe manufacturer having difficulties in obtaining the raw materials for their manufacturing processes. However, by the end of April the contract was completed and commissioning started taking place. This scheme has now been completed and has already been handed over to the Operations Branch of the Water Department.

### (c) South Mainland Augmentation

Three boreholes were drilled on the South Coast, unfortunately, two of them proved to have yields too small for development. However, one hole near Tiwi yielded more than 6,000 gallons per hour and it was decided to equip it. The design for this scheme has now been completed and the construction would cost about £75,000.

### (d) Mzima Pipeline Renewals

The scheme consists basically of renewing weaker sections of the existing pipelines by lining new sections of piping parallel to it and reconnecting these to the original ones when circumstances permit, i.e. during periods of low demand or at a time when the lines may be shut due to a burst having occurred. The design for the scheme was completed during the year and the contract documents prepared. The final loan application for the scheme was sent to the Japanese Government and it is anticipated that a loan to cover at least the foreign exchange

element of the scheme will be obtained. The contracts for the supply of pipes, fittings and coupling joints have already gone to tender, and work on site is estimated to commence during October, 1974. The reason for the apparent delay is that there is a world shortage of steel at present and therefore the delivery period for the piping is somewhat longer than normal. The latest estimated project cost is £1m.

### (e) The Alarm System

In the last year's annual report, it was stated that the consultants had submitted a report on alarm and telephone equipment already supplied but not working. The consultants had recommended purchase of new telephone equipment which will operate in conjunction with the alarm equipment already supplied. They also recommend that the installation and commissioning of the modified system be carried out by Messrs. International Aeradio (E.A.) Ltd.

As already mentioned earlier, the Government has embarked on a major water project to provide an additional source of water for Mombasa and the Coastal Area, and as this project would also require an alarm system, the Board at the advice of the Director, Water Department, decided to postpone the implementation of the recommendations by the consultants.

The Mombasa Pipeline Board was established under the authority of the Mombasa Pipeline Board Act, No. 19 of 1957, which makes the Board responsible in the discharge of its functions to the Minister for the time being in charge of water. During the year under report, this has been the Minister for Agriculture. The actual operation and maintenance of the installations is undertaken by the Directorate of Water Department, Government of Kenya, acting as the Board's agents. The fees for these services are calculated in accordance with an agreed formula.

The plan at Appendix "A" shows a layout of the systems operated by the Board during 1973/74.

### FINANCE

### (a) Capital Account

The capital at charge on the 1st July, 1973, was K£4.720 million made up as follows:—

- (i) Mzima System-K£4.175 million.
- (ii) Marere System--K£31,848.
- (iii) North Mainland System—K£144,821.
- (iv) Marere/Kaya Bombo System—K£183,784.
- (v) Mazeras/Kilifi System-K£184,552.

The capital is wholly borrowed on loan capital, the creditors being the Government of Kenya for projects (i), (ii) and (iii) and the East African Railways and Harbours Corporation, Barclays Bank International, the Kenya Commercial Bank Limited and the Standard Bank in respect of project (i) only. The three banks loaned as a consortium a total of K£1,350,000 the repayment of which is guaranteed by the Government of Kenya. This loan is covered by an issue of Registered Bonds. The loans and guarantee by the Government of Kenya are secured by a debenture issued to the Government by the Board. The new South Mainland project and the Mazeras/Kilifi project referred to under (iv) and (v) have been financed partly by a loan made by the Israeli Government to the Kenya Government and re-lent to the Board, partly by a loan from the British

Government and partly from the Board's own resources. The terms of the Israeli loan are interest at 6 per cent and a period of seven years. In recognition of the fact that seven years is an impossibly short life in respect of projects of this kind, the Government of Kenya in relending extended the period to 25 years. Even 25 years is a short period in relation to such projects and this has inevitably had its effect on the charges which have necessarily had to be made to the consumers for the water from these new supplies. Of the 25-year term, four years were taken up in construction. The Board was not permitted to capitalize the interest during this construction period and the need to find funds to pay interest during a period of no revenue also had its effect upon the water tariff. The loan is being repaid over the remaining 21 years in equated instalments at 6 per cent. The same terms apply to the British Government loan.

The Marere project and the North Mainland project were financed by loans from the Government of Kenya. These are being repaid by equated instalments of interest and capital, the details of which can be seen in the Accounts. Repayment in respect of the Marere project commenced in 1958 and in 1962 in respect of the North Mainland Project.

It will be observed that the loan of K£500,000 made in respect of the Mzima/Mombasa Project by the then Railways and Harbours Administration (now the separate Railways Corporation and the Harbours Corporation) was referred to in the last Annual Report as having been extended until the 31st December, 1973. This means, of course, that there is a need for fresh negotiations to extend this loan beyond that date.

Loans totalling K£2,170,000 made by the Kenya Government in respect of the Mzima/Mombasa project fell due for repayment, partly on the 31st December, 1968, and partly on the 1st January, 1969. The negotiations by the Board for further renewal led to the loans being extended until the 31st December, 1974, with a small upward adjustment of interest. It is likely that the current financial year will see the opening of preliminary discussions on the possibility and the terms and conditions of extensions beyond 1974.

During the year under review capital repayments were as follows:—

- (i) Mzima System-K£156,805.
- (ii) Marere System—K£3,456.
- (iii) North Mainland System-K£8,412.
- (iv) Marere/Kaya Bombo System-K£5,947.
- (v) Mazeras/Kilifi System-K£5,971.

The capital remaining on charge at the end of the year on the 30th June, 1974, was K£4.539 million made up as follows:—

- (i) Mzima System—K£4.018 million.
- (ii) Marere System-K£28,391.
- (iii) North Mainland System—K£136,409.
- (iv) Marere/Kaya Bombo System-K£177,838.
- (v) Mazeras/Kilifi System-K£178,580.

### (b) Revenue

The Board revenue accrues almost entirely from the bulk sale of its water. Below are set out the comparative figures of consumption and revenue for the year ending 30th June, 1974, compared with that ending 30th June, 1973. These figures are given in respect of the Board's principal regimes.

### YEAR ENDED 30th JUNE, 1973

Mombasa and District	North Mair	land	Mazeras/K	ilifi	South Main	land
Consumption Revenue million gallons K£ 2,659 623,678	Consumption million gallons 298	Revenue K£ 63,821	Consumption million gallons 40	Revenue K£ 15,077	Consumption million gallons 90	Revenue K£ 34,077

### YEAR ENDED 30th JUNE, 1974

Mombasa and District	North Main	ıland	Mazeras/K	Tilifi	South Main	land
Consumption Revenue million gallons K£ 2,800 678,520	Consumption million gallons 350	Revenue K£ 81,948	Consumption million gallons 64	Revenue K£ 24,004	Consumption million gallons 106	Revenue K£ 39,871

The figures above disclose the same story throughout, the story of ever rising consumption. Throughout the Board's regimes consumption has increased and is increasing, emphasizing the urgency of developing new sources of supply if difficulties over shortage are not to be encountered in the not too distant future.

### (c) Expenditure

The Board's outgoings during the year fell under four headings as shown here below:—

- (i) The service charges on payments of the outstanding capital loans— K£273.540.
- (ii) Fees paid to the Directorate of Water Department in respect of operation and maintenance of the Board's installations—K£127,711.
- (iii) The expenditure on new work improvements, special maintenance, etc.— K£5.420.
- (iv) The cost of the Board and its staff—K£12,935.

### (d) Financial Results for the Year

The Board's overall revenue comprising the income from the sale of water and certain minor sources such as house and meter rents totalled K£853,548. With a total outgoing of K£671,393, the year's working disclosed an operating surplus of K£182,155. This is the amount, therefore, available from the year's working to be conveyed to the Reserve Fund and brings the total of the Fund as at the 1st July, 1973, to K£996,738.

### (e) Operation of Systems

(i) Mzima Pipeline.—The Mzima pipeline has operated successfully during the year apart from few leaks in Sections 7, 8, 9, 10, 11 and 13. During the year, bursts occurred on Section 10 approximately 450 feet upstream of S.V. 10-3.

Frequent and heavy storm floods in Tsavo between Mzima Springs and Mile 45 caused a lot of damage to the pipeline road. Repairs were immediately effected, including grading, stone pitching, etc., so that the road became passable again. Normal maintenance on the pipeline road has continued throughout the year.

The 21-inch pipeline known as Southern Leg through old Changamwe was replaced during the year where it crosses the new Mombasa Municipal road, with 4 lengths of 21-inch steel pipe. The new pipe runs through a box culvert with reinforced concrete roof slab.

(ii) North Mainland Pipeline.—The pipeline has operated without major difficulties. There were two bursts on the pipeline which were repaired without hardship to the consumers. A serious leak that developed at Marejeni Creek on the 10 in. A.C. pipeline necessitated replacement with 16 numbers 12 in. steel

bitumen lined and 4 numbers 12 in. steel concrete line pipes. The total cost of replacing the piping and labour amounted to some £2,415. Although a new engine was installed at Bwagamoyo Pumping Station, troubles were experienced but no major difficulties occurred. Installation of an electric motor at Bwagamoyo was started and should be completed by the end of the year.

Electrification of Bwagamoyo pump house was completed and one electric motor installed. However, electrical difficulties have been experienced on the electrical motor.

The new 1,000,000 gallon butyl tank was put in operation and the 12-inch pipeline from the reservoir to old Malindi was also operated successfully. Unfortunately, in early July the patch on the roof of the tank came off and was sucked down blocking the outlet of the tank.

- (iii) Marere Pipeline.—The pipeline has been operating without serious trouble over the period apart from minor leaks. The commissioning of Mile 8 Booster Station brought about three bursts, all of which were repaired without serious trouble. The commissioning of Pemba Treatment Plant was not completed as there were certain constructional faults to be rectified by the contractors and up to the end of the year the plant was not fully operational. The repairs to Mwache Bridge were completed during the period.
- (iv) Mazeras Kilifi Pipeline.—No serious troubles have been experienced with this pipeline. As reported in last year's annual report, the pipeline is approaching its design capacity and there have been constant complaints due to insufficient water supply in meeting the demand from the Tezo Roko and Kilifi consumers. The condition of the plant at Ribe Pumping Station deteriorated rapidly and we were unable to meet the demand. Again the E.A. Power and Lighting Co. were slow in spite of repeated requests for them to submit a firm estimate for the installation of electrical supply.
- (v) Mazeras Reservoirs.—The reservoirs' levels which have been up to maximum started falling off in October, 1973, and by early November of the same year rationing was found necessary. Rationing was applied on 2nd November and ended on 14th November. Since then, the levels fluctuated widely due to high consumption because of the peak tourist season and because of drought which caused a lot of misuse of water for gardening. Rationing had to be applied from 6 p.m. to 6 a.m. twice, i.e. from 25th January to 17th February, and from 12th March to 2nd April, 1974. During the first rationing period, bursts on Section 10 necessitated strict rationing on the 1st to 2nd February but even then the levels went down to approximately zero, before normal flow was reinstated.

Due to high demand and a prolonged drought which necessitated watering of gardens it proved difficult to maintain safe levels at Mazeras. Water rationing was applied for two periods 16th April to 8th May and 23rd May to 28th June. Although June was relatively a wet month, rationing continued as a result of bursts along Marere-Changamwe pipeline during the commissioning of Pemba Treatment Works and Mile 8 Booster Station.

(vi) Changamwe Reservoirs.—The Reservoirs have been in good working order during the period. The lining of Reservoir No. 5 was completed during the year. Both mushroom valves for Reservoir No. 6 broke down and repairs including installation had to be done by divers. Chlorination has been maintained although

the equipment is still causing trouble from time to time. Sparling meter spares were delivered in Mombasa early in the year, but unfortunately, broke down again and it became necessary to place new orders. So far, the spares have not been received due to difficulties with overseas deliveries.

(vii) Secondary Water Supplies.—These secondary water supplies are set out in the Statement of Water Supply in the accounts which form part of this report. They operated successfully throughout the year.

J. W. MUREITHI, Executive Chairman, Mombasa Pipeline Board.

### CERTIFICATE OF THE CONTROLLER AND AUDITOR-GENERAL ON THE ACCOUNTS AND BALANCE SHEET OF THE MOMBASA PIPELINE BOARD FOR THE YEAR ENDED 30th JUNE, 1974

Revenue Account		 Statement No. 1
Net Revenue Account		 Statement No. 2
Net Revenue Appropriation Acc	ount	 Statement No. 3
Capital Account		 Statement No. 4
Balance Sheet		 Statement No. 5
Statement of Water Supplied		Statement No. 6

The attached accounts and balance sheet have been examined in accordance with section 13 of the Mombasa Pipeline Board Act (Cap. 373). I have obtained all the information and explanations I have required and as a result of my audit, I certify that in my opinion, the accounts and balance sheet are in agreement with the book of accounts maintained by the Board and reflect a true and fair view of the Board's operations.

Nairobi, 25th April, 1975. D. G. NJOROGE, Controller and Auditor-General.

# REVENUE ACCOUNT FOR THE YEAR ENDED 30th JUNE, 1974

	K£ s. cts.	1,178 12 00 6 10 00											825,869 18 85
INCOME	ACCRUED REVENUE FOR THE YEAR: Sale of Water	evenue											
1972/73	K£ s. cts. 736,647 03 55	737,387 08 40 982 06 00 76 02 20											738,445 16 60
	K£ s. cts.				12 035 07 85	12,733 01 03				30 01 001 001	133,129 10 03	679,805 00 95	825,869 18 85
ITURE	K£ s. cts. 3,666 13 15	245 07 70 413 07 85 682 05 45	25 00 00 59 12 45	576 15 35 813 18 20 533 12 00 166 13 30	688 10 00 4 08 50			85,245 03 40 19,842 13 95	4,656 17 45 9,508 11 50	5,419 10 75 8,456 13 00		Account	
Expenditure	PIPELINE BOARD—HEAD OFFICE: Chairman's Remuneration	Cost Official Entertainment Incidental Expenses Travelling Expenses and Allowance of Members	Audit Fee Bank Charges Maintenance and Running Expenses of Board's Trans-	# _ `	man N.S.S.F. Contribution—Staff		MAINTENANCE AND OPERATION OF PIPELINE: Reimbursement to the Ministry of Agriculture:—	(i) Main Pipelines (ii) North Mainland Scheme.	Scheme Scheme (iv) Mazeras/Kilifi Scheme	Extraordinary maintenance and Renewals Hire Charges of Vehicles		Balance carried to Net Revenue Account	
1972/73	K£ s. cts. 3,999 19 80	8000	25 00 00 68 05 25 915 03 25	1,866 00 00 732 00 00 1,666 13 35		15,236 06 40		73,608 04 70 12,404 17 85	6,127 01 55	8,931 09 60	106,992 06 05	616,217 04 15	738,445 16 60

# NET REVENUE ACCOUNT FOR THE YEAR ENDED 30th JUNE, 1974

	K£ s. cts. 679,805 00 95	27.678 08 80	
ME	K£ s. cts. 5,597 09 30 5,249 19 95 16,830 19 55		
Income	Balance brought from Revenue Account INTEREST RECEIVED: Cash on deposit with Cereals and Sugar Finance Corporation Cash on deposit with East African Building Society		
1972/73	K£ s. cts. 616,217 04 15 5,024 05 00 15,760 05 45 2,226 00 00	23,010 10 45	
	K£ s. cts.	273,540 01 30	
ITURE	K£ s. c1s. 24,369 02 40 60,000 00 00 40,000 00 00 116,876 00 00 1,273 18 20	8,921 17 85 11,027 01 45 11,073 01 40 3,456 07 35 8,411 16 45 156,804 11 22 5,946 12 65 5,946 12 65	
EXPENDITURE	INTEREST CHARGES: Bank Loans (K£1,350,000) Kenya Government Loan— (K£1,000,000) EN. R. M. Loan (K£500,000) Kenya Government Loan— (K£2,170,000) Kenya Government Loan— (K£70,277) Kenya Government Loan—	KEZ10,000)  Kenya Government Loan— Marere/Kaya Bomb o Scheme (KE199,680)  Kenya Government Loan— Mazeras/Kijifi Scheme (K£200,513)  Loans Redement Loan—Kenya Government Loan—Marere Supply Annual Instalment—Kenya Government Loan—Marere Supply Annual Instalment—Bank Loans Annual Instalment—Bank Loans Covernment Loan—Marere re/Kaya Bombo Scheme Te/Kaya Bombo Scheme	
1972/73	K£ s. cts. 35,345 08 78 60,000 00 00 40,000 00 00 116,875 00 00 1,406 16 95 9,423 19 55	285,826 00 28 3,323 08 60 7,909 14 75 146,546 06 41 11,243 09 25	

NET REVENUE ACCOUNT FOR THE YEAR ENDFD 30th JUNE, 1974—(Contd.)

1972/73	EXPENDITURE		1972/73	INCOME	
K£ s. cts. 135,675 13 51	Fransfer to Loan Redemption	K£ s. cts. K£ s. cts. K£ s. cts. 145,932 00 00 135,675 13 51	K£ s. cts. 135,675 13 51	Provision for Loan Redemption Carried to Net Revenue An-	K£ s. cts.
184,378 15 31	Balance, being net Operating Surplus transferred to Net			propriation Account	145,932 00 00
	Revenue Appropriation Account	253,352 12 03			
774,903 08 11		853,415 09 75 774,903 08 11	774,903 08 11		853,415 09 75
			1		

# NET REVENUE APPROPRIATION ACCOUNT FOR THE YEAR ENDED 30th JUNE, 1974

	K£ s. cts. 253,352 12 03 1,184,328 18 27	1,437,681 10 30
INCOME	Transfer from Net Revenue Account Balance as at 30th June, 1974	
1972/73	K£ s. cts. 184,378 15 31 1,220,552 10 00	1,404,931 05 31
0.000.000	K£ s. cts. 1,220,552 10 00 145,932 00 00	1,437,681 10 30 1,404,931 05 31
EXPENDITURE	Salance as at 1st July, 1973 Salance brought from Net Revenue Accounting the cost of rehabilitation of Mzima/Marere Pipeline North Mainlan Marerek Kaya Bombo and Mazeras/Ki Schemes	
1972/73	K.E. 5. cfs. 1,116,547 06 65 135,675 13 51 152,708 05 15	1,404,931 05 31

### STATEMENT OF INVESTMENT AS AT 30th JUNE, 1974

Market Value as at 30th June, 1974	K£ s. cts. 2,039 17 20	62,804 10 80	64,844 08 00
Quotation Market Value (Middle Market as at 30th June, Value)	Per cent 62.5	95	
Cost Price	K£ s. cts. 3,229 07 25	62,696 07 48	69,373 16 40 65,925 14 73
Amount of Stock	K£ s. cts. 3,263 15 60	66,110 00 80	69,373 16 40
Stock	44 per cent Nyasaland 1971/78	8½ per cent East African Kallways and Harbours 1975	

# CAPITAL ACCOUNT FOR THE YEAR ENDED 30th JUNE, 1974

1	Assets as at 30th June, 1973	Expenditure during the year	Total to 30th June, 1974	INCOME	Loans as at 30th June, 1973	Received during the year	Total to 30th June, 1974
	K£ s. cts.	K£ s. cts.	K£ s. cts.	LOANG RAIGED.	K£ s. cts.	K£ s. cts.	K£ s. cts.
	5,397,885 8 16 285,069 18 89	33,144 0 80 34,320 6 80	5,431,029 8 96 319,390 5 69	E.A.R.&H. Corporation Loan Kenya Government Loan	1,350,000 0 00 500,000 0 00 2,170,000 0 00	1   1	1,350,000 0 00 500,000 0 00 2,170,000 0 00
Marere/Kaya Bombo Scheme Mazeras/Kilifi Scheme	204,536 3 40	4 165 12 70	204,536 3 40	Kenya Government Loan—Mare- re Supply Kenya Government Loan—North	70,277 0 00		70,277 0 00
:	6 088 674 13 35	1	6 160 254 13 65	Mainland Scheme Kenva	210,000 0 00		210,000 0 00
2.11	25 51 170,000,0	0000	0,110,724.13.03		1,000,000 0 00		1,000,000 0 00
				ras/Kilifi Scheme	200,512 17 85		200,512 17 85
			1124	re/Kaya Bombo Scheme	199,679 19 15	1	199,679 19 15
					K£ 5,700,469 17 00		5,700,469 17 00
				Sale of Assets Recovery of damaged valves	4,231 0 57 1,589 0 00	433 0 00	4,664 0 57 1,589 0 00
					2,750 0 00 180 3 00	11	2,750  0  00 $180  3  00$
				phone at Nguu Tatu	57 0 00		57 0 00
				K£	8,807 3 57	433 0 00	9,240 3 57
			ACCUSED TO A COMMUNICATION AND THE CO.	Contribution from Net Revenue Appropriation Account for the rehabilitation of the Mzima/Ma- rere pipelines, North Mainland Scheme, Marere/Kaya Bombo Scheme and Mazeras/Kiifi Scheme	379,347 12 78	71,197 0 30	450,544 13 08
			6,160,254 13 65		6,088,624 13 35	71,630 0 30	6,160,254 13 65

S. CAPI					
- FC	K£ s. cts.	K£ s. cts.	K£ s. cts.	CAPITAL ACCOUNT: Conital Evanaditue as non Canital Account 6 160 254 13 65	i. K£ s. cts.
	Loans: Outstanding (Note 1) 4,539,348 06 82 Kenya Loan, Marere	orne Lova cirk ediki		Capital Expelluture as per Capital Accou	0,100,23+13 03
65,179 02 05	Kenya Loan, North	nduro est i uta			
845,065 03 22 31.857 02 90	Bank Loans 1,001,869 14 44 Kenva Loan, Marere/				
	Kaya Bombo and Ma- zeras/Kilifi Schemes 43,775 04 30	000			
5,700,469 17 00 8,807 03 57 Ca	Capital Receipts	9,240 03 57			
0	ppropri	450,544 13 00			
6,088,624 13 35		6,160,254 13 65		D	
REVI 1,899,459 09 14 LC	REVENUE ACCOUNT: Loan Redemption Fund as		1,220,552 10 00	riation Account	1,184,328 18 27
135,675 13 51 Au	at 1st July, 1973 (Note 2) Add Provision for 1973/74 145,932 00 00	2 181 067 02 65	65,925 14 73	Myestimens—Crown 65,925 14 73	3
138,347 18 83 Su	Sundry Creditors	148,033 13 75		devaluation Pound 6,399 16 95	
			358,540 04 65	y Debtors	321,189 00 95
		of the second se	152,226 00 00	On deposit with East	
			125,000 00 00	ciety 316,050 18 10	0
			257,638 09 05	and Sugar Finance Corporation 125,000 00 00 At Bank (Note 3) 323,006 01 30	
				1	764,056 19 40
8.262.107 14 83		8,489,355 10 05	8,262,107 14 83		8,489,355 10 05

J. W. MUREITHI, Executive Chairman, Mombasa Pipeline Board.

> I. G. MWANIKI, Chief Accountant, Mombasa Pipeline Board.

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### NOTES ON ACCOUNTS FOR THE YEAR ENDED 30th JUNE, 1974

### 1. Loans

The outstanding amount of K£4,539,348-6-82 is made up of the following loans:—

								Κ£	
Vanua Cauaramant									s. cts. 0 00
Kenya Government		• •						2,170,000 1,000,000	0 00
E.A. Railways and Harbours		ions						500,000	0 00
E.A. Kanways and Harbours	Corporat	10115			· · K£		s. cts.	300,000	0 00
Kenya Government for Marer	e Sunnly					.277	0 00		
r							12 04		
Less. Total repayment .					71	,005	12 04	28,391	7 96
Kenya Government for North	Mainlan	d Schem	0		210	,000	0 00	20,391	, 90
Less: Total repayment .		d benem					19 40		
Less. Potar repayment						,550	17 10	136,409	0 60
Banks					1,350	.000	0.00	150,105	0 00
Less: Total repayments							14 44		
acost returner and memory						,00		348,130	5 56
Kenya Government for Marere	Kaya Bo	ombo and	Maze	eras/				0.0,100	
Kilifi Schemes					400	,192	17 00		
Less: Total repayments					43	,775	4 30		
					-			356,417	12 70
									-
							TZ C	4 520 240	( 00
Outstanding loans as at 30th J	une, 1974						K£	4,539,348	6 82
Outstanding loans as at 30th J	une, 1974						Kt	4,539,348	6 82
								4,539,348	6 82
Outstanding loans as at 30th J  2. Movement of Funds State				ENDED	30тн Ј			4,539,348	6 82
				ENDED	30тн Ј			***************************************	s. cts.
	TEMENT F			ENDED	 30тн Ј			***************************************	and the second
2. Movement of Funds Star Cash at the beginning of the ye Sources of funds:	TEMENT F	OR THE			 30тн J		1974	K£	s. cts.
2. Movement of Funds Star Cash at the beginning of the year.	TEMENT F	OR THE			 30тн J 		1974	K£	s. cts. 9 05
2. Movement of Funds Star Cash at the beginning of the ye Sources of funds: Net operating surplus for the Sale of fixed assets during the	TEMENT Fear	OR THE	Year 			UNE,	1974	K£ 257,638 253,352 433	s. cts. 9 05 12 03 0 00
2. Movement of Funds Star Cash at the beginning of the yesources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors	TEMENT Fear	OR THE	Year 			UNE,	1974	K£ 257,638 253,352 433 37,351	s. cts. 9 05 12 03 0 00 3 70
2. Movement of Funds Star Cash at the beginning of the ye Sources of funds: Net operating surplus for the Sale of fixed assets during the	TEMENT F ear e year ie year	OR THE `	YEAR			UNE,	1974	K£ 257,638 253,352 433	s. cts. 9 05 12 03 0 00 3 70
2. Movement of Funds Star Cash at the beginning of the yesources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors	TEMENT F ear e year ie year	OR THE `	YEAR			UNE,	1974	K£ 257,638 253,352 433 37,351 9,685	s. cts. 9 05 12 03 0 00 3 70 14 92
2. Movement of Funds Star Cash at the beginning of the yes Sources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors. Increase in creditors	TEMENT F ear e year ie year	OR THE `	YEAR			UNE,	1974	K£ 257,638 253,352 433 37,351	s. cts. 9 05 12 03 0 00 3 70 14 92
2. Movement of Funds Star Cash at the beginning of the yesources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors	TEMENT F ear e year ie year	OR THE `	YEAR				1974	K£ 257,638 253,352 433 37,351 9,685	s. cts. 9 05 12 03 0 00 3 70 14 92
2. Movement of Funds Star Cash at the beginning of the yes Sources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors Increase in creditors Application of funds:	rement fear	OR THE `	YEAR		   	UNE,	1974 ss. cts.	K£ 257,638 253,352 433 37,351 9,685	s. cts. 9 05 12 03 0 00 3 70 14 92
2. Movement of Funds Star Cash at the beginning of the yes Sources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors Increase in creditors Application of funds: Capital expenditure during the	rement fear e year e year he year	OR THE	YEAR		     K£ 71,	(UNE,	1974 ss. cts. 0 30	K£ 257,638 253,352 433 37,351 9,685	s. cts. 9 05 12 03 0 00 3 70 14 92
2. Movement of Funds Star Cash at the beginning of the yes Sources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors Increase in creditors Application of funds:	rement fear e year e year he year	OR THE	YEAR		     K£ 71,	(UNE,	1974 ss. cts.	K£ 257,638 253,352 433 37,351 9,685 558,460	s. cts. 9 05 12 03 0 00 3 70 14 92 19 70
2. Movement of Funds Star Cash at the beginning of the yes Sources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors Increase in creditors Application of funds: Capital expenditure during the	rement fear e year e year he year	OR THE	YEAR		     K£ 71,	(UNE,	1974 ss. cts. 0 30	K£ 257,638 253,352 433 37,351 9,685	s. cts. 9 05 12 03 0 00 3 70 14 92 19 70
2. Movement of Funds Star Cash at the beginning of the yes Sources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors Increase in creditors  Application of funds: Capital expenditure during the Increase in cash deposited we	e year e year he year ith E.A.F.	OR THE	YEAR		     K£ 71,	(UNE,	1974 ss. cts. 0 30	K£ 257,638 253,352 433 37,351 9,685 558,460	s. cts. 9 05 12 03 0 00 3 70 14 92 19 70
2. Movement of Funds Star Cash at the beginning of the yes Sources of funds: Net operating surplus for the Sale of fixed assets during the Decrease in debtors Increase in creditors Application of funds: Capital expenditure during the	rement fear e year e year he year	OR THE	YEAR		     K£ 71,	(UNE,	1974 ss. cts. 0 30	K£ 257,638 253,352 433 37,351 9,685 558,460	s. cts. 9 05 12 03 0 00 3 70 14 92 19 70

### STATEMENT OF WATER SUPPLIED—1973/74

Total Value of Water Supplied	K£ s. cts.	39,871 03 25		50 17 45	51 91 15 15	17,364 03 20
Amount	K.£ s. cfs. 11,440,423 90 230,217 10 154,786 85 62,754 80 62,291 60 36,864 25	158,706 50 192,453 95 128,921 40	860,628 20 451,338 95		140,121 50 74,154 10 185,113 75 5,953 20 20,693 60	167,624 45 179,658 75
Rate per 1,000 Gallons	K.Sh. cts.  5 60 5 60 7 1 23 6.50, 1.23, 5.60 5 60 1 23 1 23	7 50 7 50 1 64 1 64	5 60	5 60	1 23 5 60 1 23 5 60 5 60	\$ 60
Gallons	2,042,932,000 41,110,200 125,843M3 10,475,580 11,093,300 6,597,000	106,323,100 21,160,600 117,350M3 78,614M3	1,696,900 417,100 152,683,600 120,527,760	181,700	113,920M3 13,241,800 150,499M3 894,500 3,695,200	30,126,660 32,081,900
MER				pro		::
CONSUMER	Ministry of Agriculture Main Pipeline Voi Water Supply Mariakani Water Supply Kwale Water Supply Mazeras Water Supply Mazeras Water Supply Kinango Water Supply	South Mainland Water Supply	Bachuma Research Station Matuga Holding Ground North Mainland Water Supply (WDD) Nyali Water Supply	MINISTRY OF WORKS: Road Construction Unit-Mackinnon Road	E.A. RAILWAYS CORPORATION:  Maungu Mackinnon Road	PRISONS DEPARTMENT: Manyani Camp (Mbololo Hills Prison) Shimo-la-Tewa Prison
Conn. No.	M.W.S. 7 7 115 17–75 41		25 78 46–51–68–71 42, 44, 70 & 91	. 40	. 4 . 4 3.5 55–59	45

STATEMENT OF WATER SUPPLIED—1973/74—(Contd.)

No.			Consumer	ER						Gallons	Rate per 1,000 Gallons	Amount	Total Value of Water Supplied
,	COUNTY COUNCIL OF KWALE:	KWALE:									K.Sh. cts.	K.£ s. cts.	K£ s. cts.
16	:	:	:	:	:	:	:	:	:	2,000		1 20	
53	Mwando	:	:	:	:	:	:	:	:	182,700	5 60	514 05	
54	Muschi	:		;	:	:	:	:	:	134,600	5 60	753 75	
63	Mwachings	:	:	:	:	:	:	:	:	193.7M3	1 23	238 10	
64	Mwalmaani	:	:	:	:	:	:	:	:	4,851M3	1 23	5,966 75	
65	Integnoani	:	:	:	:	:	:	:	:	736M3	1 23	905 20	
23	C C Kwale	:	:	:	:	:	:	:	:	24,800	2 60	130 60	
93	Gwachemi	:	:	:	:	:	:	:	:	997M3	1 23	1,226 35	
:	C wachelli	:	:	:	:	:	:	:	:	105,600	2 60	591 25	
													516 17 25
\$	Project Manager U	UNDP/FAO	:	:	:	:	:	:		000 089	6 60		10
3.8	Mrs. Betty Deaneu	:	:	:	:	:	: :	: :	: :	44,600	909		12 15 90
21	Mr. Jackson N. M.	Mwabaki	:	:	:	:	:	:	:	212,340	1 23		200
100	Mr. Samuel Chidsugwe Nguma	ugwe Nguma	:	:	:	:	:	:	:	90,400	2 60		200
109	Mr. Samuel Chidsu	ugwe Nguma	:	:	:	:	:	:	:	188M3	1 23	231 25	
24		Parks Tsavo East	:	:	:	:	:	:		8 355 940	1 23	16 764 05	36 18 05
82		arks Tsavo Wes	t :	:	:	:	:	:	: :	32,700	1 23		
86		Parks	:	:	:	:	:	:	:	1,652M3	1 23	2.031 95	
106	Nenya National Pa	Parks	:	:	:	:	:	:	:	348-3M3	1 23	421 55	
001		SAIR	:	:	:	:	:	:	:	1,908M3	1 23		
26	Kanwar Store	:	:	:	:	:				507 500	09 3		000
29	E.A. Oil Refineries	:	:	:	:	:	:	:	: :	572.042M3	9		35 184 03 70
39	Laita Ranching Co	. Ltd.	:	:	:	:	:	:	:	11,634M3	1 23		30
55	Mamburi Portland Cement Co. Ltd.	Cement Co. Lta	:	:	:	:	:	:	:	45,255,800			=
. 19	Mr. Burusi Isuma	:	:	:	:	:	:	:	:	197,000	5 60		10
62 and 74	Kenya Meat Commission	nission	:	:	:	:	:	:	:	780,400			10
4/ AIIU /4	Denia Salari Lodg	ses and Hotels	:	:	:	:	:	:	:	18,229,040			4
09	Mr Daymond Sudney, Mombasa	icer, Mombasa	:	:	:	:	:	:	:	6,858M3	1 23		421 15 40
200	Mr Vuenf Ali Mun	mey Mayers	:	:	:	:	:	:	:	46,583M3			03
73	Mr. I Karnim	arsann	:	:	:	:		:		150,800			40
)	Will St. E. Ivan dill d	:	:	:	:	:				(4)			

STATEMENT OF WATER SUPPLIED—1973/74—(Contd.)

Conn. No.		Con	CONSUMER		2				Gallons	Rate per 1,000 Gallons	Amount	Total Value of Water Supplied
	Mr. Ikonge Mwamgunda	:	:	:	:	:	:	:	1,612M3	K.Sh. cts.	K.£ s. cts.	K£ s. cts. 99 02 75
	Mr. Chuppi Ngalaa	:	:	:	:	:	:	:	656,100	5 60		4
	Headmistress, Taru Harambee Secondary Schoo	Second	lary Sc.	hool	:	:	:	:	2,932M3	1 23		
	Mrs. Mnyazi Kombo	:	:	:	:	:	:	:	70,860	1 64		26 11
	Mr. William Kombo	:	:	:	:	:	:	:	33,200	2 60		8 19
	Mr. Kazungu Nyanze	:	:	:	:	:	:	:	113·8M3	1 23		
	Mr. Myuu Lembi	:	:	:	:	:	:	:	174,100	2 60		48 15
	Mr. Salım Abdallah	:	:	:	:	:	:	:	27,100	2 60		7 13
	Mr. Chengo Mazarakwe	:	:	:	:	:	:	:	73,420	1 23		26 05
	Mrs. Mary Lucas	:	:	:	:	:	:	:	52,400	2 60		14 13
	Mr. Mwinyi Hamisi Juma	:	:	:	:	:	:	:	560M3	1 64		45 18
	Major O. N. Wanyoike	:	:	:	:	:	:	:	596M3	1 23		36 1.
	Bachuma Graziers Scheme	:	:	:	:	:	:	:	633,880	1 23		177 07
	Brollo Kenya Ltd	:	:	:	:	:	:	:	NIC :			1
	Mr. T. C. J. Ramtu	:	:	:	:	:	:	:	47M3	1 23		29 03
	Mr. Patrick M. Nzomo	:	:	:	:	:	:	:	103,600	2 60		29 00
	Joseph Fosi Charo	:	:	:	:	:	:	:	115,100	1 23		32 04
	Mr. Stephen Mwallo Menza	:	:	:	:	:	:	:	312M3	1 23		
	Mrs. Margaret Samuel	:	:	:	:	:	:	:	109·2M3	1 23		
	Mreje Gereza	:	:	:	:	:	:	:	330-2M3	1 23		20 06
	Mr. John Paton	:	:	:	:	:	:	:	199,300	7 50		
	Firoze Construction Co	:	:	:	:	:	:	:	403,600	2 60		
	Mrs. Costence Mwakishe	:	:	:	:	:	:	:	114M3	1 23		
	Mr. Nyondo Ndime	:	:	:	:	:	:	:	95,400	2 60		26 14
	Mr. Ngome Mwachiti	:	:	:	:	:	:	:	213M3	1 23		
	Daniel John Kombo	:	:	:	:	:	:	:	140M3	1 23		10 14
	George Leka	:	:	:	:	:	:	:	600,000	2 60		1 1
	Note:	,	00 700	ç								824,343 01
	(1) water consumed in gamons $= 2.0 \cdot 2.950,280$ (2) Water consumed in cu. meters $= 1,241,723M3$	s = 2,0/2 ters = 1,	241,72	3M3	::	::	::	::	2,672,936,280			
	(9.1M3 = 2.000  gallons)	;							2 046 115 240			



