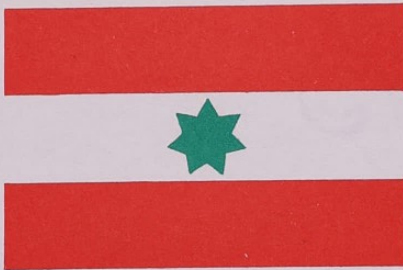


**NEWSLETTER**  
OF THE  
**TRUCIAL STATES COUNCIL**  
ISSUED BY  
THE DEVELOPMENT OFFICE



النشرة الاخبارية  
لمجلس محكام الامارات المتحدة  
بصدرها  
مكتب التطوير

NOVEMBER & DECEMBER 1970

1. General

The Development Programme has been overshadowed by the difficult and uncertain state of the Development Fund. In the short term, the problem has been the predicted deficit of approximately BD 200,000 in the 1970 Budget, caused partly by a shortfall of revenue through loss of bank interest by virtue of the Abu Dhabi contribution having been paid throughout the year in instalments instead of in lump sums in advance, and partly by accelerated expenditure on the trans-peninsular road; also contributing is the increasing loss on the operation of various public utilities, particularly Ajman Water Supply, because the Development Office has been obliged to charge uneconomic rates and other reasons, without these being re-imbursed.

To discuss this and the Development Programme for 1971 a delegation from Abu Dhabi came to Dubai on 7th November, with the result that it was agreed that the total proposed development programme for 1971 as tentatively put forward by the Development Office should be submitted to the full Executive Committee which met in the evening of 21st November. The Committee eventually decided to put forward the whole programme (copy attached as Appendix 'A') with very few amendments, for further discussion in Abu Dhabi, but this in fact did not take place, as the prospects of carrying out the Programme in 1971, or even a sizeable portion of it was negated by the decision of His Highness Sheikh Zaid, while generously continuing to support the Fund, to restrict the Abu Dhabi contribution in 1971 to the same amount as in 1970 - BD 2½ million.

An advance payment of BD 200,000 before the end of the year extinguished the deficit, but because of this deficit, because the 1970 account started with an unspent balance of approximately BD 442,000 and because expenditure on the recurrent services of the Council, particularly in Health, will inevitably rise, the prospect for the Capital Programme in 1971 is an inevitable reduction to under BD 1 million, most of this already committed, or less than half the expenditure on Capital Works carried out in 1970, unless further funds can be found.

/ Having regard

Having regard to the decision made at the last Rulers' Council Meeting, that the future development programme should be based on the recommendations of the Economic Survey carried out by the Middle East Division of the British Overseas Development Administration, the following is a summary of the proposals as they at present exist.

	Economic Survey	Total Recommended Programme	Inescapable Commitment
	BD	BD	BD
Education	100,000	416,000	13,500
Water	170,000	725,000	126,000
Roads	1,650,000	2,740,000	90,300
Health	20,000	511,500	474,630
Fisheries	220,000	250,000	44,120
Agriculture	90,000	105,200	34,610
Electricity	410,000	955,000	40,100
Harbours	100,000	317,000	134,000
Housing & Other Urban Development	100,000	285,000	13,150
Sewerage	-	350,000	-
Miscellaneous	-	250,000	-
	<u>2,860,000</u>	<u>6,904,700</u>	<u>970,410</u>

## 2. Capital Works Programme

### (a) Roads

Surfacing of the Transpeninsular Road in the vicinity of Masafi, begun in October, continued until the end of the year when there was some four kilometres ready for opening. In the Wadi Ham work continued on the abutments for the fourth bridge and the construction of retaining walls in the narrowest part of the wadi where the roadway will have to be raised from the wadi bed.

Work on the East Coastal Road was brought to an end, to conserve funds, but a start was made on Fujairah town roads with the Ruler's own plant, operated, fuelled and serviced by the Council's Public Works Department.

### (b) Harbours

Arrangements have been made for work to be done for the improvement of the creek entrances for Umm al Qaiwain and Ajman, partly by dredging carried out by Overseas Ast Co. and partly by direct labour work in constructing groynes with filled and picketed steel drums.

Overseas Ast moved to the Umm al Qaiwain site on 25th November and work continued until the end of the year there, though hampered by bad weather. The objective here is to provide a channel through the sand obstruction 4 metres deep at low water level and with a 20 metre bottom width; for the protection of the low lying area in the township, to assist in stopping erosion of sand in the area and in the preservation of the dredged channel, five groynes of varying length are being put in.

At Ajman the objective is to provide the same depth of water and bottom width, but only one groyne is planned.

Arrangements have also been made with the contractor to carry out pressure grouting repairs to the existing jetties at both places.

### /(c) Buildings

(c) Buildings

At Ras al Khaimah, materials are still awaited for the X-Ray room at the Hospital. The small Cooperative & Marketing building was completed by P.W.D. direct labour.

At Sharjah, work was restarted on the Hospital by the Contractor on 18th November, with block walls proceeding on the first floor; work subsequently came to a standstill again owing to lack of information on services by the equipment suppliers. Work continued satisfactorily on the Veterinary Clinic by P.W.D. direct labour.

At Dhaid, work on the clinic/maternity wing was virtually completed by the contractor, though some alterations will need to be made before it can be operated.

At Mileiha, P.W.D. direct labour is engaged in the construction of the Head Gardener's house and three bachelor quarters. Extension of water channels to irrigate the remaining plots not yet operative is being carried out by contract.

At Abu Musa, late delivery of the sliding folding partitions for the school is delaying completion of the contract.

At Dibba, work on the Hospital is virtually complete though some work needs to be done on the pressurised water system. The staff quarters have been completed and the Outpatients Department has been handed over.

At Kalba, work has been continuing on the Agricultural Offices and Stores and also on the Cooperative & Marketing Building, all by P.W.D. direct labour.

At Khor Fakkan, work was restarted on the Ice Plant at the beginning of December.

(d) Town Water Supplies

Work carried out has included the following:-

- (a) Construction of a new high level tank at Khor Fakkan,
- (b) Testing of the water main from Burairat to Ras al Khaimah and Jezirat Za'ab,
- (c) Laying and testing of pipes at Rams,
- (d) Excavation and pipe laying at Digdaga, Dibba and Ajman,
- (e) Pipe laying and testing at Falaj al Mo'alla to complete the village network.

3. Electricity

In Ajman all the generators and other materials from the old Power Station were moved to the new Station Compound by the end of November; modifications were carried out on the generator control panels making their operation simpler; winter maintenance of all transmission lines has been put in hand and will be completed by the end of February. 49 new connections were made in November and 50 in December, bringing the total in the town to over 900, with about fifty applicants still on the waiting list.

In Umm al Qaiwain a number of faults have occurred on the generators mainly because of the high humidity. Winter maintenance of transmission lines is in hand. 20 new connections were made in November and 26 in December.

Winter maintenance of transmission lines has also been in hand in Fujairah and Dibba, and fresh connections have been provided at both places.

#### 4. Rural Water Supplies

##### (a) Drilling

The four Council rigs were in operation, during the two months and drilled the following depths (in metres) -

	<u>November</u>	<u>December</u>
Rig No. 1		17
2	61	267
3	171	80
4	154	120

Rig No. 1 moved early in November from Jabel Fayya to Burairat well field to deepen some of the wells of Ras al Khaimah Water Supply; the work was very slow due to the stiff and hard formation. In December this rig moved down to Khawanij.

Rig No. 2 continued during the whole period drilling wells in the hinterland of Ajman State, in the search for an alternative water supply for Ajman town.

Rig No. 3 operated during the period on the East Coast, drilling in a very hard formation in Fujairah, before moving on to Maddab for drilling requested by the Ruler.

Rig No. 4 started the period by continuing drilling at Ghail and then moved on to Buhays near Jabel Fayya, where two wells were drilled and then to Dhaid. In December it was moved to Masfut.

Concurrently pumping tests were carried out in Ajman, Ghail, Maddab and Jabel Fayya.

##### (b) Falaj Repairs

Work continued at Hatta, Masfut and Khatt.

##### (c) Observations

Small floods were recorded near Dhaid and north of Masafi in November, and a small flood in the Wadi Bih (Ras al Khaimah) on 12th December.

Routine observations of water levels and salinities on wells on the East Coast and on the gravel plain were carried out.

##### (d) Deep Exploratory Drilling

Much criticism has been levelled at the Development Office about the high cost of deep exploratory drilling by a rotary rig under contract and it may be valuable to set out briefly what has been achieved by this.

The Water Resources Survey carried out by Sir William Halcrow & Partners was largely restricted to investigation of shallow quaternary aquifers in the gravel plain and desert foreland. However the desirability of investigating possible aquifers at greater depth and in different geological strata was recognised by the Consultants and in their final report recommended the drilling of a restricted number of holes in such areas.

The best possibility of finding good water at depth was believed to be in the neighbourhood of Al Khatt springs, and a specific study of the area had been undertaken by the Consultants on behalf of H.H. the Ruler of Ras al Khaimah.

A second possibility lay in Maestrichtian Limestone lying under the gravel plain in the Mileiha area, and which outcrops to the west as Jabal Fayya.

The difficulties to be met in such work are largely related to the general uncertainty of drilling in completely new ground and the likelihood of encountering hard rock; no suitable rigs for this type of work are normally available in the Trucial States, but advantage was taken of the availability of a Rotary Drilling Rig being shipped through Dubai, and a hiring agreement at £2,600 per week for a minimum of four weeks was therefore made, with work to begin at the Al Khatt site at the beginning of March.

In the last week of February objections to the proposed drilling site were raised by the Fujairah authorities, although it was emphasised that the hole in question was exploratory and not development. Three weeks in time and fees were lost before the deadlock was broken, whereby the first hole was to be drilled in recognised Fujairah territory and a second near Al Khatt in Ras al Khaimah territory, the single initial and geologically most promising site having been in a disputed area.

When drilling finally started at the Habhab (Fujairah) site on 22nd March further difficulties ensued. The rock through which drilling was conducted was extremely hard and heavily fissured, which meant that copious supplies of water were required which the villagers of Habhab were unwilling to supply and alternative supplies had therefore to be trucked in. Drilling however continued to 80 metres, water of EC value 1,800 having been encountered. A 72 hour pumping test gave a yield of 16,520 gallons an hour with a drawdown of only 3 metres.

There was now no doubt that a high yielding aquifer had been encountered but the width and depth of the water bearing rock had not been determined. The water temperature indicated, as reported by Sir William Halcrow & Partners, that the origin of the water lay at a depth of about 900 feet and at least this thickness would have to be penetrated to determine the extent of the aquifer in a vertical direction. The difficulties with the Habhab bore and more particularly the supply of water to maintain 24 hour drilling through broken and fissured formation suggested that on the Al Khatt site an attempt to discover water should be made and that the first bore should be employed as a water source for drilling a second adjacent exploratory borehole at depth. The site selected was on the north side of Al Khatt village away from any influences that could be said to affect the settlement's natural springs.

Drilling of the first Al Khatt water supply hole commenced on 16th April and continued to over 80 metres at a slow rate due to shortage of drilling water obtainable from Al Khatt village. A pump test on the completed hole indicated a yield similar to that of the Habhab bore. Water now being available on site, an exploratory hole was selected some 50 metres away to avoid interference between the supply hole and exploratory hole while drilling, but sufficiently close, it was thought, for strata details of the two holes to be correlated.

Drilling began on 9th May but had to be abandoned at 45 metres on 11th May because the drilling bit jammed in the bottom of the hole and resisted all attempts at recovery. A new hole was therefore started alongside on 18th May, and a depth of 300 metres was reached in 12 days but nothing relating to the hypothetical water sources was encountered; to allow for inevitable discrepancies between theory and practice a 50% variation was allowed for and when no significant discontinuity was discovered the hole was completed at 475 metres.

It was now clear that while the aquifer was probably more extensive in a north-south direction than originally visualised, the distance between the Al Khatt and the Habhab water holes being about  $2\frac{1}{2}$  Km., the width of the water bearing strata was very narrow. The results were more fortunate than originally realised when high yielding formations had been struck at the first two attempts. The aquifer, however, had still not been penetrated to determine thickness, and as the potential source discovered could be very considerable, the thickness of the water bearing strata in view of the narrowness of the outcrop became proportionally very important. It was therefore decided to try one more bore fairly close to the water well to ensure contact with the aquifer, but in the event circulation between the two bores did occur and with caving of the hole work was abandoned, and the contract closed on 30th June.

The history of this project demonstrates the high cost and uncertainty of drilling of this nature in difficult and previously unexplored country; however, once such drilling is undertaken it is important to get as full amount of information as possible, particularly if new sources are discovered.

The original site for the exploratory borehole in the disputed area between Al Khatt and Habhab has since been confirmed by the Shell Hydrocarbons Geologist as the best one location for obtaining the maximum amount of geological information. If such exploratory work would be accepted by the States independently of future development many economies in this and future drilling would occur. An exploratory hole can always be capped or filled in if the dispute over development is severe.

A significant new source of water, average E.C. 1,800, has been discovered in a narrow band of lower cretaceous limestone extending at least from a point about  $\frac{3}{4}$  Km north of Al Khatt spring in Ras al Khaimah to a point about 1 Km. south of Habhab spring in Fujairah. A well capable of supplying at least 20,000 gallons per hour is now available in each territory and it is to be hoped that each of the two State Authorities concerned will cooperate in a sensible programme for the development of this source.

Much geological & hydrological information on this equifer has been collected. It is to be hoped that in the future the matter will be further investigated and recommended on by a competent geologist, possibly as part of a geological programme covering the other information collected by the Council's normal drilling programme.

### 5. Scholarships

Following an offer by the Qatar Training Centre to take students from the Trucial States in certain subjects, interviews were held on 2nd November by the Education Sub-Committee of the Executive Committee, together with Sayyid Faiz Qadurah, Director of Vocational Development. A total of 52 students were accepted on courses in the following subjects:-

<u>Course</u>	<u>Duration</u>	<u>Number of Trucial States Students Accepted</u>	
Clerical (including typing & Arabic & English language)	24 months	4	
Electrical Generation		1	
Distillation		1	
Electrical		13	
Carpentry		3	
Mechanical		12	
Refrigeration & Air-conditioning		4	
Surveying		30 months	6
Sanitation		16 months	5
Masonry			1
Welding	2		
Total ..		52	

Of these 20 successful applicants were from Dubai, 12 from Sharjah, 12 from Ras al Khaimah, 6 from Umm al Qaiwain, and 2 from Ajman. The Qatar Training Centre has agreed to pay QDRs. 400/- monthly to the students, who left the Trucial States for Doha on 3rd December.

### 6. Health

#### (a) Al Maktum Hospital

Since April 1967 the Development Fund has shared equally with H.H. the Ruler of Dubai the running expenses of the Hospital, but during the last three months of the year the Fund's assistance has had to be stopped, because of the critical financial situation and because it did not prove feasible for the Hospital authorities to reduce recurrent expenditure to the extent expected of departments of the Trucial States Council.

The report from the Hospital gives the following as the Hospital's financial situation in the period January to December 1970:-

/ Revenue

	QDRs.
Revenue	494,062.63
Expenditure - Salaries	2,267,056.45
Allowances	449,191.71
Services	286,058.86
Supplies	1,049,586.86
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Total Recurrent	4,051,893.88
Minor Capital	403,410.06
	<hr/>
Grand Total	4,460,303.94

Of this the Development Fund contributed QDRs.1,664,624.96 during the year.

Staff totals are -

Medical	19
Nursing	129
Technical	21
Administrative	39
Subordinate	68
	<hr/>
	276

Several developments took place during the year. The new 40 bed maternity unit was completed and taken into use in August; the opening of this unit released the former 20 bed maternity ward and it is proposed to take this into use as a Paediatric Ward in 1971. The improved outpatient facilities and the new Casualty and Emergency Department were completed and taken into use in August. Other buildings close to the C.P.D. formerly used as staff housing have been adapted to provide accommodation for the Vaccination Centre and other outpatient clinics. The specialist surgical staff has been increased to provide a 24 hour service of fully qualified surgeons to deal with accidents and other surgical emergencies.

The first recorded case of cholera in Dubai was diagnosed in the Hospital Laboratory on 11th August. A total of nine cases were diagnosed in Dubai and two were admitted from Falaj al Mo'alla (Umm al Qaiwain); the nursing of these patients threw a considerable strain on the nursing staff. The Hospital also provided medical and nursing staff for a mass vaccination campaign in which some 60,000 people were vaccinated.

In-patient accommodation is as follows:-

Male Surgical	30
Male Medical	30
Female	30
Maternity	40
Special Ward	4
Paediatric	20
	<hr/>
	154

In-patients during 1970 consisted of 1,968 Male, 1,520 Female & Children, 1,658 Maternity (1,373 births) and 83 Special, a total of 5,229. Patients per bed per year were -

Male Wards	33
Female & Children	50
Maternity	41

/ There were



There were a total of 127,425 outpatients seen; apart from general and private services, specialist clinics are held for medical, surgical, gynaecological, ophthalmological, ante-natal, family planning, tuberculosis, vaccination and child welfare cases.

The pathological laboratory includes sections dealing with haematology, parasitology, bacteriology, blood transfusions and clinical chemistry; 51,474 laboratory tests were performed.

The X-Ray Department now includes three X-Ray Machines, two tables and separate developing facilities; 2,754 examinations were carried out.

(b) Umm al Qaiwain

The Council's Umm al Qaiwain clinic and maternity ward were handed over to the Government of Abu Dhabi for future administration.

CAPITAL WORKS PROGRAMME 1971

	Total Proposals	Inescapable Commitment
	BD	BD
<b>1. Education</b>		
Village Schools	100,000	-
Secondary School, Ajman	40,000	-
Dubai Trade School	48,000	12,000
Sharjah Trade School	200,000	1,500
Ras al Khaimah Trade School	28,000	-
	<u>416,000</u>	<u>13,500</u>
<b>2. Water Supplies</b>		
Rural Water Development	120,000	80,000
Town & Village Water Supplies		
Ajman	250,000	25,000
Umm al Qaiwain	25,000	-
North Ras al Khaimah	120,000	6,000
Digdaga, Fahlain & Kharan	120,000	10,000
Dibba	15,000	5,000
Fujairah & Ghurfa	10,000	-
Fujairah Villages	150,000	-
Khor Fakkan	20,000	-
Khor Kalba	10,000	-
Masfut & Hatta	20,000	-
Falaj al Mo'alla	10,000	-
Abu Musa	20,000	-
Greater Tunb	20,000	-
Other Ras al Khaimah Villages	50,000	-
Dhaid	15,000	-
	<u>725,000</u>	<u>126,000</u>
<b>3. Roads</b>		
(a) <u>Trunk Roads</u>		
East Coast & Transpeninsular	750,000	60,000
Central Barrier Road	900,000	2,300
Dubai-Sharjah	400,000	-
Masafi-Dibba (first stage)	100,000	-
Masfut Road	50,000	-
	<u>2,200,000</u>	<u>62,300</u>
(b) <u>Spur &amp; Town Roads</u>		
Fujairah & Ghurfa	40,000	28,000
Khor Fakkan	150,000	-
Kalba	60,000	-
Dhaid	60,000	-
Ajman	30,000	-
Spur Roads	100,000	-
	<u>440,000</u>	<u>28,000</u>
(c) Access Roads to Remote Villages	100,000	-
<b>4. Health</b>		
Central Hospital	3,000	3,000
Health Centre, Sharjah	195,000	276,910
Health Centre, Ras al Khaimah	95,000	14,700
Health Centre, Dibba	85,000	150,200
Health Centre, Dhaid	90,000	19,080
School & Clinic, Abu Musa	3,500	10,740
Building & Extension of Clinics	40,000	-
	<u>511,500</u>	<u>474,630</u>

/ 5. Fisheries

	Total Proposals	Inescapable Commitment
	BD	BD
<b>5. Fisheries</b>		
Cold Store, Khor Fakkan	32,000	44,120
Cold Store, Dibba	33,000	-
Loans for Boats	100,000	-
Refrigerated Vehicles, Umm al Qaiwain	10,000	-
Fishery Development, Ajman	75,000	-
	250,000	44,120
<b>6. Agriculture, Veterinary &amp; Marketing</b>		
Station Buildings, Digdaga	17,500	-
Agricultural School, Digdaga	33,000	-
Veterinary Buildings	9,000	3,000
Buildings, Other Out-stations	21,700	2,070
Tractors	9,000	-
Forestry Plots	12,000	-
Loans Guarantee for Cooperatives	3,000	-
Mileiha Scheme Works	-	29,540
	105,200	34,610
<b>7. Electricity</b>		
Ajman	249,000	10,100
Umm al Qaiwain	274,000	10,000
Dibba	153,000	10,000
Fujairah & Ghurfa	30,000	10,000
Falaj al Mo'alla	38,000	-
Digdaga	10,000	-
Kalba	10,000	-
Dhaid	35,000	-
Masfut	26,000	-
Abu Musa	35,000	-
Greater Tunb	35,000	-
Other Villages	60,000	-
	955,000	40,100
<b>8. Harbours</b>		
Harbour Development Scheme, Khor Fakkan	140,000	-
Creek Entrance, Umm al Qaiwain	40,000	70,000
Creek Entrance, Ajman	57,000	64,000
Jetty, Dibba	55,000	-
Jetty, Fujairah	25,000	-
	317,000	134,000
<b>9. Housing &amp; Other Urban Development</b>		
Mapping of Urban Areas	45,000	-
Sea Protection, Ras al Khaimah	100,000	-
Fujairah/Ghurfa	10,000	9,000
Ajman	10,000	850
Masfut	10,000	3,300
Other Villages	110,000	-
	285,000	13,150
<b>10. Sewerage</b>		
Ajman	300,000	-
Umm al Qaiwain	50,000	-
Khor Fakkan	50,000	-
	350,000	-
<b>11. Miscellaneous</b>		
Regional Headquarters	100,000	-
Airstrip, East Coast	100,000	-
Fire Stations & Engines,	40,000	-
Various Centres	40,000	-
	240,000	-