

Capital projects
Fish's

TRUCIAL STATES COUNCIL
Development Office

Round-up of News for the Month Ending 28th February, 1970

1. General

A meeting of the Executive Committee was held on 11th February, principally to consider suggested revisions of the 1970 Budget of the Development Fund in preparation for the meeting of the Trucial States Council of Rulers arranged for 28th February. The attached table summarises the allocations recommended to the Council for Major Capital Projects during 1970 (inclusive of unspent balances in 1969 carried over into the new year), together with actual expenditure incurred both in 1969 and also in the years preceding since the establishment of the Development Fund in 1965. Also attached are reports being submitted to the Council on Technical Education, the Council's Public Health Services and the Al Maktum Hospital, and Fisheries. Those for Agricultural Services and Public Works will be circulated later.

The Committee also discussed rates of hire for tractors to farmers, the management of the Mileiha Agricultural Scheme, and the report submitted on the progress of the new Ras al Khaimah Hospital. They considered tenders for the proposed Abu Musa Clinic and School but considered that the work would be better done as a direct labour operation by the Public Works Department.

2. Public Works Programme

The Contractor has obtained a new site engineer at Dibba Hospital and a genuine effort is now being made by him to show rapid progress and make up some of the time already lost, both on the hospital itself and on the staff accommodation.

The Ras al Khaimah complex has continued disappointingly slow and the Director of Public Works has been authorised to coordinate the rapid completion of all parts of this project, including the building of the Out-Patients Department by direct labour.

The completion of the two agricultural houses at Kalba Agricultural Trials Station and the clinic at Kalba have now been achieved and they are ready for immediate occupation.

An order has been given for plastic white lines on the Khan village road. So much work needs to be done on the Dubai-Sharjah Road and, in any case, a second carriageway is being seriously considered, that white lines for this road would not be carried out until all such works were completed.

As a result of the visit of the Director of Public Works and the Electrical Engineer to the U.K. for more satisfactory delivery promises for equipment have been obtained. This mainly applies to the three 280 KVA sets for Ajman, which should now all arrive by mid-April; but the visit has also resulted in other improvements.

The bridge abutments (South East of Bithna) for the first bridge to be erected on the Wadi Ham road are almost completed and the Callendar Hamilton bridge has been assembled on the site by the Army ready for early launching. Assistance in a second bridge immediately south of Bithna has also been promised by the 32nd Fd. Sq. RE. who are in addition still carrying out blasting work and building a R.C. culvert for this project.

Pole erection for the HV cables is proceeding well in Fujairah-Ghurfa and in Dibba and some equipment has already been delivered for these electrical schemes. At Umm al Qaiwain extensions to the H.T. and L.T. lines have been made and some alterations have been carried out to the power station for LV & HV switch gear. The fourth generator is expected beginning of March, having been shipped from the U.K. The Falaj al Mo'alla power station is being staffed by the Council now by request of the Umm al Qaiwain authorities. Alterations are also being made to the HV Lines at Ajman to switch over to the new power station in good time as soon as it is ready for operation.

Umm al Qaiwain is now linked with Dubai and therefore the rest of the world, by telephone.

3. Water Supplies

(a) Rural Water Development

During the past two months the Council's drilling rigs have been working at Wadi Samla and Hamraniyah (Ras al Khaimah) and the Sharjah-Dhaid Road area (Sharjah). Rig numbers 1 and 2 have also spent a considerable time under overhaul in the Dubai workshop.

Rig No. 1

The Wadi Samla area has proved most difficult for drilling and the two boreholes drilled during this period have both proved unsuccessful. The last borehole encountered hard rock at 80 feet without a significant supply of water. This rig, the oldest of the three, has now been withdrawn for complete overhaul.

Rig No. 2

This rig left the workshop in January and commenced drilling in the Hamraniyah area. Three wells have been completed for private garden owners under the repayment arrangements; all were successful and two wells have been pump-tested showing yields of 10,800 and 7,000 gallons per hour with conductivities of 1,900 and 1,870 micromhos/cc respectively.

Rig No. 3

This rig has been employed mainly in the Sharjah-Dhaid Road area. Three wells have been sunk to explore the possibility of supplying water to a Dune Control Test Plot 6 Km east of Sharjah. Two, with very saline water, were unsuitable, the third at a distance $\frac{1}{2}$ Km west of the plot showed surprisingly good quality water and further investigations are now in hand.

The sixth and last borehole of the series at Tawi Falah was completed and tested giving a yield of 4,590 gallons/hour at an EC of 3,570 micromhos/cc. The area has since been surveyed and the Agricultural Department is now preparing proposals for an irrigated garden.

Two wells have been drilled near Tawi Nubayabighah, six kilometres west of Dhaid. The first of these produced little water and while the second was more successful the E.C. was high at 5,000 micromhos/cc. It is difficult to ascertain whether the aquifer is receiving any recharge due to the proximity of the extension of the Jebel Faya aquiclude; however further attempts are now being made a little further to the north and west which may prove more promising.

In Dhaid itself a well has been completed for the proposed clinic site, testing has shown a yield of 4,830 gallons/hour and an E.C. of 1,000 micromhos/cc. A repayment well was also completed for Sheikh Saqr bin Rashid al-Qasimi which proved most successful with a yield of 14,000 gallons/hour at an E.C. of 550 micromhos/cc.

Difficulty has been experienced in the supply of water to people in the Mileiha area direct from the irrigation water system; arrangements have accordingly been made for providing separate supplies in each of the two main settlements and two wells were completed during the report period. One showed a yield of 7,200 gallons/hour at an E.C. of 1,200 micromhos; the other although having a similar E.C. had a rather low yield of 3,000 gallons per hour and a supplementary well may eventually be necessary.

Well and Falaj Improvements

Work is well in hand in the repairing of a falaj at Hatta damaged during the October (1969) flood. A falaj at Haf is also under reconstruction.

Water Resources Survey

On the 6th and 16th January floods were recorded at both stations on the Wadi Bih (at Burayat and Ras al Khaimah); on 10th January at Wadi Siji and at Bitha on the Wadi Ham.

(b) Urban Water Supplies

New pipeline laying and well field reconstruction has continued at Ras al Khaimah, together with extensions to the distribution system in Ajman.

Additional pumping units have been installed in Ghurfa (Fujairah) and Kalba and repairs are in hand at the Fujairah installation.

Work has also commenced on the Water Supply System for Dibba where 3,000 ft. of 4" dia main has been laid.

4. Agriculture

The Council has sent Sayyid Mohammed Abdul Aziz, Assistant Agricultural Adviser, on a reconnaissance visit to Lebanon, Jordan and the U.A.R. During this visit Sayyid Mohammed made contacts with various organisations providing agricultural training. The contacts in all the three countries were cooperative and have shown great interest in training the graduates of the Council's Agricultural School at Digdaga. In the Lebanon, the A.U.B. was keen and Dean Swanson of the Faculty of Agricultural Sciences promised a special programme of practical training. In Jordan the Minister of Education and his subordinates showed keen interest in helping the Trucial States' agriculturists in every respect. The same response was felt from the Ministry of Agriculture, Foreign Relations Section in Egypt.

/ Sayyid Mohamed

Sayyid Mohammed was also able to obtain as a gift from the Jordanian Ministry of Agriculture 170 seedlings of different varieties of citrus, 1,000 cuttings of various kinds of vines, 1,000 cuttings of various kinds of figs,

400	''	''	''	pomegranates,
300	''	''	''	mulberry,
200	''	''	''	bougainvillia,
200	''	''	''	ficus nitteda
400	''	''	''	poplar,

and 2 Kgs. of sour orange seeds.

The Office of the Agricultural Adviser has also received cuttings of vines, figs, pomegranates and mulberries from the Department of Agriculture in Qatar as a gift to the Trucial States. All these seeds, seedlings and cuttings we sent to Mileiha for planting.

There is increasing cooperation between the two Departments which is a welcome development for the benefit of the area. A month ago 500 washintonia and 500 acacia cynophella seedlings were donated by the Agricultural Department of Qatar to the Council's Agricultural Department.

5. Cooperatives & Marketing

A general meeting of 50 farmers was held at the end of January for the purpose of initiating a "Farmers Cooperative" in Ras al Khaimah. This meeting was held after two other preliminary discussions which were aimed at introducing cooperative ideas and to show how cooperative effort could solve some of the farmers problems. The meeting was promising and all who attended agreed to be members in the proposed Cooperative. The by-laws of the proposed cooperative are now being drafted in the Development Office.

The Cooperative & Marketing Department issued two pamphlets for the months of January and February 1970. The first pamphlet was on the "Possibilities and Limitations of Farmers Cooperatives" while the second was on "Agricultural Marketing". These pamphlets were distributed to farmers and other interested parties.

The Cooperative & Marketing Department has now started data collection from the market concerning prices of various produce. With this information the Department will be in a better position to advise farmers of the comparative demand of various vegetables so as to enable them to relate production with market demand.

6. Public Health

(a) Malaria Control

The Health Adviser, Dr. Asim Al-Jamali, visited W.H.O. Regional Office, Eastern Mediterranean, in Alexandria, from 8th to 15th February, 1970, to discuss with the Organisation's experts the setting up of a malaria control unit in the Trucial States. He also met the Director of the Regional Office, Dr. Taba, and other members of staff and discussed with them various medical and public health problems related to the Trucial States.

In Cairo, Dr. Al-Jamali was able to meet the U.A.R. Minister of Health in connection with the recruitment of staff for the Malaria Control Unit proposed for the Trucial States.

(b) Sharjah Clinic

As a result of an increasing number of patients attending the Council clinic at Sharjah, presently about 400 patients a day, it has been decided to expand the accommodation facilities and recruit more staff.

7. Scholarships

Scholarship Selection Committee met on 2nd February, 1970, to consider twenty applications for Council awards. The following candidates' applications were approved at this meeting:

1. Miss Najiba Saeed Ali Noman, Sharjah subject, to study for the G.C.E. Advanced Level and, later, to join a medical school in the United Kingdom;
2. Moosa Abdulla Arab, Dubai subject, to study Accounts and Statistics in Ain Shams University, Cairo;
3. Said Ahmed Al-Ghobash, Ras al Khaimah subject, to study English Language in the United Kingdom.
4. Sultan Mohamed Ali Omair, Umm al Qaiwain subject, to study English Language and Local Government in the United Kingdom.

The Committee also agreed to sponsor the following candidates for the English Language Course offered by the British Council in Dubai:

Ahmed Mirza Hassan Al-Rahma,
Ahmed Saleh Al-Khateeb,
Ibrahim Ahmed Mattar,
Bahman Ali Ahmed,
Yousuf Abdulla Mohamed.

Major Capital Works Programme, 1969 & 1970

	Total Expenditure to end 1968	Expenditure 1969 *	Total Provision 1970
	BD	BD	BD
1. Technical Education			
Trade School, Dubai	50,229	-	44,000
Trade School, Sharjah	18,016	-	80,000
Trade School, Ras al Khaimah	106,466	21,756	-
- School Building	42,957	-	-
- Equipment	15,168	13,332	20,000
- Staff Housing		35,089	144,000
2. Health			
Central Hospital			
- Nurses Home	46,909	1,939	-
- Special Women's Ward	2,610	10,828	500
- Maternity Ward Building	-	3,429	34,500
- ,, ,, Equipment	-	6,250	-
Health Centre, Sharjah			
- Building	4,593	79,012	70,000
- Outpatients Department	-	-	35,000
- Hospital Equipment	-	-	40,000
Health Centre, Ras al Khaimah			
- Building	66,519	60,699	15,000
- Outpatients Department	-	-	30,000
- Hospital Equipment	36,551	11,363	2,000
- Staff Housing	19,944	54,354	36,000
Health Centre, Dibba			
- Building	4,562	88,422	55,000
- Outpatients Department	-	-	30,000
- Hospital Equipment	-	-	40,000
- Staff Housing	-	-	55,000
Health Centre, Dhaid			
- Building	3,704	3,385	50,000
- Hospital Equipment	-	-	10,000
- Staff Housing	-	-	25,000
Clinic, Kalba			
- Building	-	7,762	5,000
- Equipment	-	-	5,000
- Staff Housing	-	-	15,000
Clinic & School, Abu Musa	-	-	35,000
Clinic & Maternity Wing, Umm al Gaiwain			
- Building	207	13,042	500
- Equipment	-	5,521	-
Clinic, Sha'am	4	2,913	-
Clinic, Jezirat Za'ab	7,226	-	-
		348,919	588,500

* Totals may not add because of rounding.

/ 3. Agriculture

	Total Expenditure to end 1968	Expenditure 1969	Total Provision 1970
	BD	BD	BD
<u>7. Town & Village Water Supplies</u>			
Umm al Qaiwain	232,561	1,613	80,000
Ajman	80,410	9,810	50,000
Jazirat Za'ab & South Ras al Khaimah	14,479	66,035	110,000
Fujairah & Ghurfa	20,493	21,644	3,000
Dibba	114	16,503	15,000
Other Fujairah Villages			20,000
Khor Fakkan	28,456	6,852	10,000
Kalba & Khor Kalba	17,547	15,293	4,000
Masfut & Hatta	-	-	20,000
Falaj al Mo'alla	-	-	10,000
Ras al Khaimah Villages	-	-	100,000
Sharjah	160,000	-	-
Ras al Khaimah	82,600	-	-
		<u>137,751</u>	<u>422,000</u>
<u>8. Electricity</u>			
General	23,394	11,822	-
Ajman	50,972	60,634	100,000
Umm al Qaiwain	51,975	53,316	10,000
Ras al Khaimah - 1st Scheme	215,911	41,317	1,000
Khauran & Digdaga	62,847	7,961	2,000
Dibba	6,880	46,012	20,000
Fujairah & Ghurfa	-	48,971	35,000
Jumaira	81,554	10,446	-
Sharjah	186,597	-	-
		<u>280,480</u>	<u>168,000</u>
<u>9. Housing</u>			
Dibba (Fujairah)	-	3,843	11,000
Husn Dibba	-	1,956	12,000
East Coast Rehabilitation	-	7,638	-
Fujairah & Ghurfa	62,600	-	-
		<u>13,436</u>	<u>23,000</u>
<u>10. Urban Development</u>			
Sharjah	7,945	4,336	-
Ajman	23,847	10,098	2,000
Umm al Qaiwain	20,446	17,099	-
Ras al Khaimah	2,654	490	-
Fujairah	-	3,402	10,000
Sea Protection, Ma'aridh	38,441	-	-
		<u>35,424</u>	<u>12,000</u>
<u>11. Telecommunications</u>			
Ajman	1,399	690	-
Umm al Qaiwain	1,399	1,739	-
Ras al Khaimah	46,667	-	-
		<u>2,429</u>	<u>-</u>
<u>12. Miscellaneous</u>			
Economic Survey	190	-	-
Salt Experiment	-	-	3,000
Mineral Survey	2,493	-	-
		<u>-</u>	<u>3,000</u>
Grand Total	...	1,471,148	2,597,700

Report of the Adviser on Technical Education, 1969

For the Technical Education Department 1969 has been a year of expansion and change. Expansion to accommodate the increasing number of students wishing to study technical subjects, and change to meet the needs of development and further education.

Students

The academic year closed in June with a total of 206 students under instruction and of these 28 gained certificates and left school for work in industry. The new academic year opened in September with a total of 302 students in all three schools, the breakdown of numbers being:

	<u>June 1969</u>	<u>October 1969</u>
Dubai	146	176
Sharjah	60	90
Ras al Khaimah	-	36

Courses

During 1969 the arrangement of courses has been changed to enable all new students to follow a syllabus leading to the award of an external certificate granted by the City and Guilds of London Institute following a four year Intermediate Course. This course leads naturally into higher standard courses and certificates when Secondary Technical classes commence in 1971. Some students will continue to follow the original three year courses, but these will be discontinued in June 1971. Courses leading to direct entry to the Gulf Technical Institute are being designed, together with courses that will enable students to enter industry as fully trained craftsmen. There is an urgent need to establish a long ladder of education and training to meet the needs of local industry in the middle and late 1970's. The higher students allowances that will become payable under the 1970 budget should ensure full advantage being taken of these courses.

Buildings

The Ras al Khaimah School buildings were brought into operation during 1969 and the school opened in September. Work is proceeding at Ras al Khaimah on the same lines as at Sharjah and Dubai. Five new classrooms, a language laboratory and a new double workshop were built at the Dubai Technical School and also a small maintenance workshop was constructed. Much valuable training and experience was gained by the students in the construction of these buildings. The present site at Sharjah offers no possibilities of expansion, and a new school is urgently needed there to enable more students to attend the Intermediate courses and present students to begin Secondary studies in 1971. A further building is required during 1970 at the Dubai School to enable Secondary studies to begin there in 1971. Present courses of students in Sharjah and Dubai are manufacturing concrete shuttering, high quality doors and door frames etc., and preparing electrical installation for what will be again a valuable exercise.

Gifts

The Technical Education Department has acknowledged the gift by H.M. Government of a complete language laboratory for the Dubai School. It is hoped that the same kind of equipment can be obtained eventually for the Sharjah and Ras al Khaimah Schools.

Staff

The Technical and Trade Schools welcomed new staff from Lebanon, Palestine, Egypt and the United Kingdom during 1969. With great pleasure the Schools welcomed back eleven ex-students who had been training overseas to take up duties in Technical Schools in the Trucial States.

Teacher Training

Twenty one ex-students are now in teaching service and eleven are training overseas. Of the twenty-one returned, it is estimated that three will not become efficient teachers and after a trial period the services of these three may be terminated; they will, however, be a gain to the industry of the Trucial States. Of the remaining eighteen it is hoped that four or five will be sent this year to the Gulf Technical Institute for the next stage of their training. It is estimated that six years of training after leaving Technical School will be required to produce knowledgeable and efficient teachers for the purposes of technical education. The present local staff have so far received a basic training only and more advanced training is required before they can be considered fully qualified teachers. Training of staff is being undertaken in stages so that the number of expatriate teachers is kept to a minimum.

Future Plans

It is expected that one ex-student of the Sharjah Trade School will become the Master-in-Charge of the Sharjah School in January 1971. This teacher is fully qualified and it is expected he will be sent on a Management of Vocational Education Course to the I.L.O. Centre Turin, from September to December 1970, before taking up his new duties at Sharjah. He is very young for the responsibilities he will undertake and special training for his duties is necessary in the absence of experience.

General

The Technical & Trade Schools now employ staff from the Lebanon, Egypt, Palestine, Jordan, Sudan, Zanzibar, Sharjah, Dubai and the United Kingdom, and students come from all over the Trucial States. It is hoped that when additional boarding accommodation is constructed this will enable a fair number of places to be put at the disposal of residents of Umm al Qaiwain and Fujairah and of the East Coast Sharjah Dependencies. There are harmonious relationships between the various members of staff and between the students.

The harmony achieved is directly due to the restraint and co-operation shown by all members of staff and students.

/ Technical Education

Technical Education is growing into a useful part of the education system in the Trucial States, and the establishment of Secondary Courses will provide a channel by which future engineers, technicians and business executives of the local areas can achieve professional qualifications. It is hoped a strong link will grow between the Trucial States Technical and Trade Schools and the Bahrain Technical Institute so that a continuous stream of education will become available for local students to achieve the highest qualifications in technical, administrative and business subjects.

5th February, 1970.

Report of the Health Adviser, 1969

General

1969 saw an increase in the activity of the Department in many fields. The number of staff working the Department has appreciably increased, so has the turn-out of patients attending various clinics. New clinics were built in Umm al Qaiwain, Sha'am and Kalba, and the Sharjah Clinic has been expanded and additional staff added in an attempt to keep up with the ever increasing number of patients attending here. Progress in the construction of new hospitals at Ras al Khaimah, Sharjah & Dibba has been continuous and of these, that at Ras al Khaimah is almost complete, while the plans for the Sharjah Hospital have been revised to allow for 100 in-patients; the hospital in Dibba when completed will have about 40 beds. In addition to this a new clinic (with over-night beds) and a small maternity wing is expected to be completed this year in Dhaid and it is hoped that this will also cover patients attending the clinics in Masfut, Howeilat and Jabal Faya.

2. The Situation in the Major Clinics

- (a) Sharjah: In June 1969 structural alterations were made to the rented building being used for this clinic to allow for its expansion in order to keep us with the large number of patients attending this clinic. A Lady Doctor with gynaecological and obstetrical qualifications was appointed to tend the female patients, and it also became necessary to appoint two more Health Assistants and a fully qualified female Nurse. From time to time a third doctor attends this clinic to assist the resident doctor who normally sees well over 100 patients a day; the average daily attendance here has recently jumped to over 400 between old and new patients.
- (b) Umm al Qaiwain: The Council's contribution to this Health Centre comprises the out-patients clinic and maternity wing; this is now ready. Equipment for the maternity unit has been stored in the premises of this Centre, until the arrangement whereby this unit is administered by the Abu Dhabi Health Department can be brought into effect. The Council's Department continues to send a doctor daily to attend the out-patient clinic and he sees between 15-20 patients per day.
- (c) East Coast: The new clinic in Kalba is almost complete and it is hoped that it will shortly be furnished and equipped. This clinic has facilities for over-night patients. The doctor attending the East Coast area is kept busy and he sees well over 60 patients a day. The seriously ill, injured and those requiring hospital admission are transported to Dubai in an ambulance which is kept permanently stationed on the East Coast.
- (d) Ras al Khaimah: The new hospital is almost complete and work is now in progress on staff housing. A Surgeon/Superintendent and two additional general duty doctors (one female and another with experience in anaesthetics) have been appointed. A number of nurses have been appointed and it is hoped they will arrive shortly.

The work carried out during 1969 at this Hospital can be summarised as follows:

(i) General Outpatients:

Average number per day June-September approximately 130
" " " " rest of the year " " 60

No records are available of the total number of patients seen.

(ii) In-patients:

Males	374
Females	544
Children under 5 years	156
Total	<u>1,074</u>

Total deaths, including neo-natal 21.

(iii) Natal:

Ante-natal Clinic	1,373
(new patients 488)	
Deliveries	260
Prem. (under 4 lbs. 8 oz.)	22
(of which 8 dead)	
Still-births	8

A much greater number of booked patients were confined than in previous years.

(iv) Children Welfare:

Clinic - total	1,640
Vaccinations children over	198
1 year	

Following the beginning of the vaccination programme in September 1968, it was encouraging to see several patients coming back for the booster doses a year after completion of the initial course. Also the numbers completing their initial courses has increased to about 50%.

- (v) Home Visiting: Due to the great increase in work, home visiting has had to be kept to a minimum, but children suffering from severe malnutrition were visited at least once in their homes and if they failed to keep appointments further visits were made. Also the few reported cases of T.B. were visited and all contacts brought to hospital for examination. Many patients are suspected of Pulmonary Tuberculosis but are unwilling to make the journey to Dubai for X-Ray, even though a hospital car for patients is sent down to Dubai each Tuesday.

It is hoped that with the increase of staff when the new Hospital is opened more extensive home visiting will be possible, and that it will be possible to set up a simple clinic in the Idhn area on similar lines to that in Sha'am.

/ (e) Sha'am Clinic:

(e) Sha'am Clinic:

Total number of patients	971
Antenatal	160
Child Welfare (vaccination & feeding problems)	107

The clinic was re-opened at the end of August, but due to sickness and holidays only a total of 15 clinics was done.

3. Preventive Medicine

A Malaria Survey was carried out in March/April 1969 by a W.H.O. team lead by Dr. Zahar, Regional Entomologist. Dr. Zahar in his report gives valuable statistics on the incidence and transmission of malaria in various places. The area most affected is the East Coast where in some villages between 40 - 50% of the people examined showed the parasites in their blood. Dr. Zahar, in his recommendation, suggested the formation of a Malaria Control Unit for the Trucial States made up of about 12 trained personnel, and attached to the Health Department to initiate anti-malaria activities.

--- A more detailed report on the Malarial Survey is attached.

A report by the "Save the Children Fund" has been received, and this organisation may be prepared to open a children's clinic initially in Dubai under the general supervision of the Council's organisation and in cooperation with the Al Maktum Hospital. They would hope to expand their activities into other areas later.

Malarial Survey

The Report on the Malaria Survey carried out in the Northern Trucial States in March and April 1969 has been received. The Survey was undertaken by Dr. A. R. Zaher, W.H.O. Regional Entomologist and Mr. M. Adra, W.H.O. Technical Officer, who spent over a week on the East Coast based at Khor Fakkan and a somewhat lesser period in and around Ras al Khaimah, assisted by members of the Council's medical staff; a total of nearly 3,000 slides was taken.

The general findings were that on the East Coast malaria is widespread, in the Ras al Khaimah area rather less so, and of uneven distribution in the mountain areas. Malaria control about the whole area should be established under a unified public health service and the organisation might consist of a Malariologist as Director and Medical Entomologist as his Deputy, assisted by two laboratory technicians, two sanitarians, two entomology technicians and four insect collectors. Its function would be:

- (a) The further delimitation of malarious areas;
- (b) The collection of epidemiological data and the correlation of these with meteorological data in order to delimit the transmission season, vector prevalence and survival, breeding habits and reaction to insecticides;
- (c) The conduct of trials of different methods of control;
- (d) The planning and organisation of control activities;
- (e) Training, which would preferably be carried out in Dubai;
- (f) The supervision and evaluation of control methodology;
- (g) Assessment of results.

To assist in the work, diagnostic centres should be created in existing hospitals and clinics, and in certain cases expanded, but as an integral part of the overall health organisation.

Experience in some schools in the Trucial States has already shown that the mass use of curative drugs for preventive purposes is likely to cause development of resistant strains to the malaria parasite. Preventive drugs must therefore be used with great care without discouraging the use of such measures.

The possibility of reducing malaria by mechanical means, i.e. by filling in unused wells, covering wells in use and storage basins etc. and by biological control through mosquito parasites, predators and larvivorous fish, should be examined. In the meantime oil, which is economical, and other larvicides could be used.

Every use should be made of effective health education, since without the interest and cooperation of the public preventive measures are largely ineffective.

The report is to be submitted to the Trucial States Council with the proposal that an Anti-Malarial Unit should be set up, and provision for this has been included in the Budget of the Council for 1970. In the meantime the small unit established locally for the Survey has continued its activities by treatment of certain wells and collecting blood-slides in selected area in both the East Coast and in the Ras al Khaimah area.

The annual cost of the unit has been assessed at BD 55,000, which would include the salaries of the Malariologist, Medical Entomologist, Sanitarian, Senior Laboratory Technicians and junior staff and also 4 Landrovers and other minor capital expenditure necessary to establish the Unit.

Al Maktum Hospital Report 1969

1. Staff

The Staff of the Hospital are as follows:

16	Medical (4 Specialists)
113	Nursing (2 Matrons, 7 Ward Sisters, 40 Staff Nurses, 44 Nurse Trainees, 20 Orderlies & Dressers)
16	Technical
30	Administrative
95	Subordinate
<u>270</u>	

2. In-Patient Facilities

The following bed space is available:

30	Male Surgical
30	Male Medical
30	Female & Paediatric
20	Maternity
4	Special Ward
<u>114</u>	

In-patients during the year amounted to:

1,956	Male
1,360	Female & Children
1,211	Maternity (1,122 births)
2	Special
<u>4,529</u>	

Patients per bed per year were therefore:

Male Wards	32.6
Female/Children	44.0
Maternity	45.4

3. Out-Patient Services

These consist of:

- (a) General outpatients (male & female)
- (b) Private Clinic (fee-paying)
- (c) Specialist Clinics:
 - (i) Medical, surgical, gynaecological, ophthalmological,
 - (ii) Antenatal, family planning,
 - (iii) Tuberculosis, Vaccination,
 - (iv) Child welfare.

4. Diagnostic Services

- (a) The Pathology Laboratory includes sections dealing with haematology, parasitology, bacteriology, blood transfusion & clinical chemistry, 33,922 laboratory tests were performed.
- (b) The X-Ray Department now includes 3 X-Ray Machines, 2 tables and separate developing facilities. There were 5,600 X-Ray examinations.

5. Developments

Private Block: This new block has been opened. It is being used for the female to relatives of Rulers.

X-Ray Department: The equipment has been moved to another building with more space for the machines, a separate developing room and with better changing and toilet accommodation.

Pharmacy: The pharmacy has been moved to a larger building near to the Outpatient Department.

Theatre: A minor operating theatre is now in use in addition to the original operating theatre.

Laboratory: The removal of the X-Ray Department has allowed the laboratory to expand. The interior has been upgraded and the facilities greatly improved.

Private Clinic: The doctor in charge is now situated in a better building nearer to the other general outpatient services.

Vaccination: Space has been allocated separately for smallpox and cholera vaccinations.

Doctors' Accommodation: Separate accommodation for medical officers on overnight duty in the hospital has been provided, with facilities for an evening meal to be taken in the hospital.

Nurses' Accommodation: A start has been made on alterations to the former Medical Superintendent's house to accommodate 10 female staff nurses.

New Maternity Unit: Building of the new 40 bed Maternity Unit has begun.

Outpatients Department: Plans have been prepared for extensions to the Outpatients Department to provide more waiting space and a Casualty Department.

6. Finance

The total expenditure on the running of the Hospital in 1969 was:

Salaries and allowances	2,103,087.70
Services and supplies	1,103,933.48
Minor Capital	271,906.19
	<hr/>
	3,478,927.37

The total revenue Income was 281,481.93.

Fisheries Department 1969-70

During 1969 funds were made available to build a small marine workshop together with an office and staff quarter at Umm al Qaiwain.

The Public Works Department arranged for this building to be built by contract and the building was finished and handed over to this department in November 1969. Workshop staff based here have up to date assisted Umm al Qaiwain fishermen by repairing 147 outboard engines and 19 inboard diesel engines. In addition to this, a branch workshop was set up in a rented store in Ajman where the workshop staff have assisted fishermen by repairing and overhauling a total of 70 inboard diesel engines and 35 outboard engines. An important aspect of the work done in these workshops has been the training of fishermen in maintenance and repair work on their boat engines.

Staff based in the Umm al Qaiwain office assist the Umm al Qaiwain Government and are responsible to the Umm al Qaiwain Government for the running of a loan and grant scheme to fishermen under which the Umm al Qaiwain Government has made funds available to distribute 63 marine engines to fishermen.

Technical advice was given to the Umm al Qaiwain Government in respect of the Umm al Qaiwain Fisheries Development Scheme.

Funds were also made available in 1969 for the establishment of a Fisheries Department Headquarters at Khor Fakkan - Sharjah State. This comprises of offices, laboratory space, marine workshop and slipway and a staff quarter and stores. The construction of the above facility has been undertaken by the Public Works Department by direct labour and will shortly be completed and handed over to the Fisheries Department. To date 51 fishermen's engines have been repaired in Khor Fakkan by workshop staff.

The Exploratory Fishing Boat provided for in the 1969 Estimates arrived towards the end of May 1969. By the end of July rigging of the boat and the fishing equipment was complete and a crew had been recruited.

Exploratory fishing with shrimp trawls was carried out from August to November. A considerable resource of small shrimp suitable for canning was discovered off Ras al Khaimah. These shrimp (*metapenaeus* sp) occur off shore between the Ras al Jibal area and Jazira al Hamra in depths of water between 10 fathoms and 28 fathoms. The shrimp are at their most plentiful off Khor Khuwair. The shrimp do not seem to be available during daylight and all successful catches were made at night. In addition to shrimp the same area has quantities of a type of crayfish (*scyllarides* sp) which can also be caught in shrimp trawls.

Small quantities of the large shrimp (*penaeus semisulcatus*) also occur in the area. The area in all covers approximately 300 square miles and it is thought that it holds sufficient shrimp and crayfish for a commercial operation based on a canning factory.

/ During

During the months of December and January the Majid was re-rigged for purse seining and the crew trained in this method of fishing. Purse seining is a highly skilled and highly mechanised method of fishing and it is not surprising that it took three months to rig the boat and to train the crew. By February 1970 we were obtaining some results, and, for example, on the 7th February there were at least 30,000 tons of anchovy available off Ghurfa (Fujairah State) in depths of water ranging from 20 fathoms to 8 fathoms. This is in addition to the anchovy available in shallow water near the beach which is normally caught with the local beach seines.

Whilst it is still too soon to make any definite statement results obtained so far indicate that it would be possible to establish a profitable fish meal factory on the East Coast as a first stage in major fisheries development. The factory should have a capacity of between 20 and 100 tons per hour or 480 to 2,400 tons of fish per day. At a later stage a canning industry could be added. This is to say it would appear that the production of fish on the East Coast could be increased by at least 100,000 tons of fish per year with no danger of over-fishing.

Much work remains to be done in respect of the assessment of the stocks of anchovy and sardine, the development and design of suitable fishing gear and boats, the collection of information regarding fish migrations and seasons.

However, as a direct result of the work being done on the Majid one of the worlds largest fish meal companies which at present operates in Peru and Panama is willing to make an extremely favourable offer to the Governments of Fujairah and Sharjah in respect of a joint fisheries development project based on fish meal, and a second and smaller company from Hawaii has made a separate proposal to the Government of Sharjah. I understand that the Government of Fujairah has accepted the offer made by the first company.

A Kuwaiti company has shown great interest in the shrimp found off Ras al Khaimah but has not yet made any formal approach to the Ras al Khaimah Government.

It is expected that during this year sufficient data will have been gathered by the Majid to enable the largest fish processing factory on the Arabian Peninsular to be established on the East Coast.

During 1969 the Fisheries Adviser attended various meetings with staff from the Food & Agricultural Organisation of the United Nations and it would appear that this organisation hopes to carry out a survey of the marine resources in the Arabian Gulf and the Gulf of Oman. It is expected that the survey would last for five years and it may begin some time during late 1971.

The only new items asked for by the Fisheries Department are ice factories and cold stores at Khor Fakkan and Dibba together with insulated trucks. Both these projects are revenue earning and, once built, should more than cover their costs of operation, and thus not increase recurrent expenditure.

/ The object

The object in providing these facilities is to enable fishermen to preserve their fish in a fresh condition and to enable this fish to be transported to the existing markets in the larger towns for sale. These ice factories will also greatly assist the export of fresh fish overseas by small launches to Gulf ports such as Bandar Abbass, Kuwait and so on, and by air to Beirut.

During 1969 a good start was made in respect of Fisheries Development and provided the work is kept up 1970 should see a considerable industrial expansion based on the export of fish products from the Trucial States. It should be remembered that after oil fish are the largest natural resource in the Trucial States.

This department wishes to thank H.H. Sheikh Khalid bin Mohamed al Gasimi, the Chairman for his support and interest in the activities of this department. I also wish to express my personal appreciation for hard work of my staff, especially Mr. L. Alegre, the Captain of the Majid, who has trained the crew to a high standard, Mr. Mohamed al-Barwani, the West Coast Fisheries Officer, and Mr. Ahmed Abu-Bakr Bafadhal who has organised and maintained the workshops and the Survey Vessel Majid.

24.2.1970