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The UNITED ARAB EMIRATES

submitted to

the United Nations Conference on

Science and Technology for Development

Vienna, August 1979

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PREPARATION OF THE REPORT

The United Arab Emirates have given due consideration to the invitation which they received to participate in the Conference since their government officials are well aware of the need to establish firm principles for dealings between the developed and the developing countries in regard to the use of science and technology for development in order to lay the foundations for a new international economic order that would enable every nation to enjoy the fruits of progress and development.

Therefore, the Ministry of Foreign Affairs, in conjunction with the Ministry of Planning, invited the ministries concerned to prepare reports on their achievements in connexion with the use of science and technology, the obstacles and difficulties encountered and their developmental requirements in their respective fields. On receipt of the replies from the various ministries, the Ministry of Planning compiled a draft country report based on the information contained in these replies.

After its completion by the Ministry of Planning this draft report was submitted to a United Nations expert who had been invited to the country by the Ministry for this particular purpose. Representatives of the ministries concerned subsequently held two lengthy meetings to discuss the proposed draft and make the necessary amendments.

As a result of these meetings substantial amendments were made to the draft report with the co-operation of the various ministries. The report was then redrafted and submitted once again to the ministerial representatives who adopted it in the present form.

The United Arab Emirates hope that the Conference will succeed in achieving its objectives in order that mankind as a whole may, with God's help, advance on the road to prosperity, peace and security.

SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

Introduction

The United Arab Emirates realise the great importance of this Conference which, it is hoped, will lead to a more effective formula for laying the foundations of a new international economic order so as to narrow the scientific, technological and economic gap between the developing and the developed countries.

The United Arab Emirates hope that this Conference will afford an opportunity for fruitful discussion and constructive dialogue for the achievement of this goal. To this end, the United Arab Emirates are submitting this report on their recently gained experience in this field in all its positive and negative aspects and with the maximum amount of factuality and accuracy.

The United Arab Emirates trust that they will thus have contributed towards the enrichment of the discussion on this vitally important issue and also hope that they will have helped to shed some light on the features of a vitally strategic part of the world.

The age of science and technology

In the past it has been possible to characterise particular periods of time under specific designations such as the Age of Steam or the Age of Electricity but this can not be done in the case of our present age since science has introduced development and change in all aspects of our life. Hence, the "Age of Science and Technology" is possibly the most appropriate designation that could be applied to this age. The great importance of convening a Conference such as this is highlighted by the fact that scientific and technological progress has been concentrated in one part of the globe to the exclusion of others and thus needs to be reoriented with a view to striking a balance for the benefit of mankind as a whole without differentiation or discrimination.

The call for the establishment of such a balance is not exclusively based on humanitarian reasons since the economic, social and political interests of every developed and developing country make it imperative that such a balance be established.

From the economic point of view, the developed countries can not continue to depend on the developing countries as a source of raw materials and a consumer market for their products since in the case of many developing countries exporting raw materials such as petroleum their ability to purchase consumer goods is linked to the continuity and to the stability of the real value of the raw materials sold to the developed countries. The failure to develop and expand the economic structure of the developing countries with diversified sources of income will render them incapable of importing these manufactured goods.

From the political and social points of view, the peace and security of the world are, to a large degree, linked to the extent to which equal opportunities are available for all nations to enjoy the benefits accruing from science and technology in a world in which distances are decreasing while individual aspirations are increasing as a result of cultural contacts which lead to a more acute feeling of deprivation among low income groups. Neither peace nor security can be assured in the face of such frustrations.

Therefore, the best way to establish such a balance is through the transfer of scientific and technological methods from the developed to the developing countries in accordance with specific standards and controls appropriate to both parties and the foundations of which it is hoped will be laid during this Conference.

However, the mere transfer of scientific and technological methods without the ability to absorb, develop and adapt them to local conditions in each developing country or group of countries and without the ability to generate local technology will not achieve the goal of reducing the economic, scientific and technological dependence to which the developing countries remain subjected.

This highlights the importance of defining the measures which the developing countries must take in order to ensure the most effective transfer and utilization of scientific and technological methods. These measures can be summarized as follows:

1. The identification of existing local potential such as human and natural resources in each developing country through a scientific and factual study based on a comprehensive survey. To identify this potential, the developing countries will require assistance from the developed countries and also from international agencies and organizations.

2. A survey and examination of the technological and scientific requirements needed to enable these countries to develop their potential. The developed countries and international organizations would also have a role to play in helping to identify these requirements.

3. The formulation of a comprehensive national plan for the utilization of this potential through the provision of scientific and technological methods to meet the constantly increasing needs of the community with a view to narrowing the economic gap between these developing countries and the developed countries.

4. The training of local staff capable of assimilating and utilizing the scientific and technological methods needed for the development process.

5. The establishment of special scientific centres and institutions for the training of local staff.

6. The establishment of scientific research centres for the adaptation of scientific and technological methods to the local environment so that these transferred methods can be used to create a local technological base in each sector.

The difficulty in implementing these measures lies mainly in their complex and intricate nature, in the developing countries' eagerness to achieve rapid progress and in the reluctance of the developed countries to transfer scientific and technological methods in certain highly sophisticated scientific fields such as solar energy etc.

Many fields of co-operation between the developed and the developing countries have, nevertheless, been explored and the progress made through the efforts of international organizations is highly commendable even though much more needs to be done.

In this respect the United Arab Emirates wish to give the Conference an idea of the current situation within the country so that we can see to what extent the above measures have been implemented. This will also provide an incentive for combined efforts towards the accomplishment of future tasks.

Socio-economic features of the United Arab Emirates

I. Economic features

In the United Arab Emirates production is mainly based on petroleum together with certain specialized industries such as oil refining and sea water desalination, the cement industries, the manufacture of building materials and certain food industries.

Since petroleum is the fundamental base for production, the national economy as a whole is linked to the outside world not only in regard to exports (petroleum) but also in regard to its dependence on imports to meet its various needs. Consequently, changes in world prices and world inflation have direct repercussions on the internal situation. For example, the losses sustained by the United Arab Emirates as a result of world inflation and the declining value of the dollar amounted to more than 25 per cent of its real income.

With regard to the utilization of science and technology, the State-owned installations which are managed and operated by oil companies are still entirely dependent on imported technology in the form of equipment, techniques, spare parts and advanced technological studies, all of which are still provided by the developed countries. It can be said that the countries of the region as a whole are 100 per cent dependent on imported technology. From the design to the installation stage and subsequently during operation and maintenance the region is still importing ready-made packages at exorbitant cost. Only limited benefits have so far been gained by the training of local staff in project implementation.

Since the United Arab Emirates only recently attained statehood (the birth of the State was announced on 2 December 1971) the process of co-ordination, integration and consolidation in the field of industrial activity is still in its cradle, especially since there is no national industrial plan1/ and no legislation

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1/ On 22/1/1979 the Council of Ministers approved the proposal of the Ministry of Planning to begin the preparation of a national development plan.

for the regulation of industrial matters in the State,2/ and this has sometimes resulted in the implementation of mutually competitive and duplicated projects.

Where expansion is limited by climatic factors, water resources and manpower, the State has used applied technology to reduce the effect of these factors. Drip irrigation has been resorted to in over half of the cultivated area, thereby economizing water resources, reducing the need for manpower and helping to propagate agricultural mechanization. The State has also developed methods of cultivation in a protected environment (greenhouses) with the aim of counteracting the climatic effect on production and prolonging the agricultural season. At the same time local staff are being trained in the use of modern techniques in order to raise the standard of human performance in agricultural development. The area of cultivated and cultivable land in the State amounts to 274123 dunums.

In the field of fishery resources, which research has shown to be abundant with high production prospects, the United Arab Emirates, in conjunction with neighbouring countries, are participating in a comprehensive survey of surface and deep-sea fishing in the Gulf in order to ascertain the actual availability and formulate scientific and practical plans for its exploitation. The State is also studying the question of establishing a marine research centre, the services of which would be offered to the other countries in the region.

Modern technology is also being utilized and adapted for the development of animal resources through the use of machines for the production of green fodder under appropriate environmental conditions using no more than 2 per cent of the water requirements for the field production of a similar quantity.

Commercial activity is also receiving attention from the State which is diligently endeavouring to make use of modern scientific methods in this field. (In 1977 the value of non-petroleum exports amounted to 350,200,000 Dirhams while imports totalled 19,128,388,000 Dirhams). The extent to which commercial activity has been streamlined in accordance with the most modern methods is an indicator of the State's concern for the development of this sector of economic activity.

Hence, the basic features characterising the individual Emirates should be taken as the basis on which to establish integration in accordance with the best form of specialization consistent with the available potential in each of them.

2/ The Ministry of Planning, Finance and Industry has completed the preparation of draft legislation for industrial organization. This legislation will shortly be promulgated by the Council of Ministers.

One Emirate may be best suited to become a centre for industrial development, another to become a centre for commercial development, and another to become a centre for agricultural development etc.

All of these fields offer scope for the development of scientific and technological methods.

Since its establishment, the new-born State of the United Arab Emirates has placed emphasis on sectors conducive to the reinforcement of the economic base structure which has developed significantly. The amount of electric power generated has increased many times over, amounting in 1977 to 596 per cent more than the amount generated in 1972. The seven Emirates have also been linked by a complete network of highways and post and telecommunications of the most up-to-date design and using the most modern methods. Services have been expanded at the air and sea ports, the extent of education and health services has been increased and urban development and construction has expanded in most of the Emirates.

II. Social features

Despite the small size of the population of the United Arab Emirates, this population covers all aspects of human activity. Some have settled in the coastal regions and some in the agricultural regions while others are still living in desert and mountain regions. The sudden increase in the population during the past two decades was mainly due to the discovery of oil in some of the Emirates and to the establishment of the unified State which attracted large numbers of immigrants coming to work. In 1975 the total population was estimated at 557887 persons and this figure increased to 877000 persons at the end of 1978.

In general, society in the United Arab Emirates is characterised by the small size of the population and a consequent lack of sufficient local technical and professional staff for project implementation. Special consideration must, therefore, be given to the use of advanced scientific and technological methods based on mechanization and a low requirement of skilled, technical manpower for the operation of highly complicated technological equipment.

Reference must also be made to the existence of certain customs and traditions, such as the reluctance to engage in vocational employment, which constitute significant social obstacles to modernization and the development of socio-economic

conditions. The United Arab Emirates are sparing no effort in their endeavours to overcome the negative characteristics of the social structure. The most important of these endeavours is perhaps represented by the experimental establishment of new nomadic human settlements by the allocation of specific sites for the establishment of residential centres provided with all facilities and services and the encouragement of nomadic tribesmen to live in these centres by providing them with dwellings free of charge.

These experiments have been conducted on a voluntary basis in view of the well known nomadic customs which do not easily accept sudden radical changes. In addition to settlement and stability, one of the advantages resulting from such experiments is the fact that this sector of the population will become accustomed to living together, using tools and machines and, in general, adopting modern life styles. This will prepare the way for the selection and training of local technical and skilled staff in accordance with development needs.

The main achievements in the field of the utilization of scientific and technological methods

Many efforts have been made in diverse fields by various bodies in the United Arab Emirates in order to ensure the optimum utilization of scientific and technological methods. Although it would be difficult to list all of the efforts that have been made in this field, they can be summarized as follows:

A. Training of staff

The United Arab Emirates believe in the need for a linkage to be established between educational policy and scientific and technological policy in order to train local staff capable of ensuring real national development. A decision was therefore taken to establish the U.A.E. University for which the necessary funds have been allocated and a highly qualified scientific teaching staff engaged for the training of nationals. The University intends to establish faculties of engineering, medicine and agriculture in order to meet the country's needs for specialized staff in the field of economic development. The State is also giving attention to technical (commercial, industrial and agricultural) training. In general, education, as one of the main components of staff training, is receiving ever-increasing attention at all levels and in all stages.

Other institutions and ministries have also established training institutes and centres to help achieve the goal of training local professional staff. Examples of these are:

(i) The Building Research Centre (under construction).

(ii) The technical training centres established by the ADMA and D.B.C. companies.

(iii) The various vocational training centres.

(iv) The chemical laboratory for the testing of imported foodstuffs and production quality control.

(v) The centre for the training of employees and farmers.

(vi) The central laboratory for training in laboratory analysis.

(vii) The Arid Lands Research Centre to train staff in methods of greenhouse cultivation.

(viii) The dispatch of trainees to the regional project for livestock production and animal health based in Baghdad (Iraq), to the regional fisheries training project based in Kuwait and to the Arab Statistical Research and Training Institute in Baghdad (Iraq).

The State also sends trainees abroad to study in various fields of specialization in accordance with projects needs. In the academic year 1977/78 the number of students studying abroad amounted to 2380. The State also provides opportunities for administrative and technical managers to meet Arab and international colleagues and gain experience by participating in conferences, seminars and symposia, especially those of a scientific nature.

B. The transfer of technology

The economic and demographic characteristics of society in the United Arab Emirates have induced the responsible officials in all fields and sectors to make every effort to help all Arab and international organizations to carry out their role in the field of exploration, research and projects in accordance with various agreements such as:

(i) A study of the possibilities of establishing computer centres.

(ii) The proposed establishment of an institute for scientific and technological research.

(iii) Agreements and protocols with developing and developed countries in various fields for the exchange of expertise in connexion with the use of science and technology.

(iv) In co-operation with UNDP and FAO a project has been set up to conduct soil and water research for agricultural development. This project undertakes experiments with modern techniques and their applications such as irrigation methods, pesticides, fertilizers and various types of vegetables and fruits suitable for the region, in addition to experiments aimed at prolonging the agricultural season through the use of plastic greenhouses and the like. Local staff are given on-the-job training in these fields.

(v) In co-operation with the governments and institutions of developed countries research is carried out on modern techniques such as greenhouse cultivation in order to improve water use and overcome environmental problems under U.A.E. conditions.

(vi) Studies on the desalination of sea and brackish groundwater by various methods, mainly reverse osmosis and the use of new kinds of energy.

(vii) Since fishery resources represent one of the prospective fields that could help to achieve the goals of diversifying sources of income in the United Arab Emirates, a regional survey of fishery resources has been carried out as already mentioned.

(viii) Housing programmes and projects are of special importance in preparing the way for the achievement of development goals since investment housing projects help to ensure stability among the ever-increasing migrant labour force. Therefore, the Ministry of Public Works and Housing is endeavouring to employ modern scientific and technological methods for the implementation of these projects in co-operation with United Nations organizations. These methods include:

(a) A study of the use of modern building materials derived from local raw materials. Tests are being made on the potential use of sulphur in the manufacture of bricks and tiles and this is the first experiment of its kind in the region;

(b) The establishment of a national housing council where nationals can be trained by United Nations experts in this field;

(c) Research projects in connexion with existing building materials and construction techniques in which nationals work side by side with United Nations experts;

(d) Experiments on the use of pre-fabricated buildings in construction;

(e) The establishment of town and regional development planning boards in co-operation with the United Nations.

(ix) Realizing the importance of transport and communications services as a production facility and a social convenience, the United Arab Emirates has established a network of highways and bridges to link the Emirates. Sea and air port services have also been expanded, a U.A.E. telecommunications company has been established and a broadcasting and transmission network set up in addition to many other modern communication facilities.

Obstacles to the use of scientific and technological methods

Despite the afore-mentioned achievements in the use of science and technology there are still many obstacles impeding the optimum utilization of these methods. A scientific diagnosis of these obstacles is possibly the first step that should be taken in order to be able to meet and overcome them.

Since some of these obstacles may be similar or identical to those facing other countries participating in this Conference, an exchange of views and recommendations would be helpful in eliminating them. While some of these obstacles are attributable to socio-economic conditions in individual countries, others have been brought about as a result of international attitudes and world-wide conditions.

Internal obstacles

A. Technical and professional cadres

1. The exploitation of natural resources began before local manpower was made available in the requisite numbers and fields of specialization, making it necessary to depend on international expertise and immigrant labour. This represents an obstacle not only to the employment of the methods of science and technology but also to the process of embeding these methods into the structures of society and developing them, thereby promoting the creation of a local technology.

2. The small population of the United Arab Emirates represents an obstacle to obtaining the highly qualified local technical and professional cadres required in projects that employ complex technical tools and equipment.

3. The United Arab Emirates believes that the primary element in the foundations of an advanced and progressive society consists of placing the nation's own manpower in leadership positions in the different sectors. Because the required number of administrative cadres is lacking, however, gaps in administrative and executive posts are sometimes filled by technical and professional field project personnel.

B. Legislation

From its inception the United Arab Emirates has been confronted with heavy and diverse responsibilities. It can be said that in view of the newness of the United Arab Emirates as a country, much has been accomplished. The authorities, however, are aware that in the R & D field, where it is necessary to keep up with rapid and continuous change, there is a pressing need for overcoming obstacles in the area of legislation, whether in terms of domestic organization or the co-ordination of efforts with neighbouring countries, thereby facilitating the employment of the advanced technology commensurate with the country's economic development ambitions.

C. Other economic considerations

1. The local market is very restricted. This is a significant obstacle where the goal is to put science and technology to mass production low unit cost methods.

2. Agriculture is in need of intensive capital to overcome the developmental obstacles arising particularly from water scarcity, unfavourable climatic conditions and manpower shortages.

3. Dependence upon the outside world with regard to exports (petroleum) and imports (the diversity of needs) subjects development plans to currency fluctuations in the international market and to their domestic repercussions.

Resume of the experiences of the United Arab Emirates

In the light of the foregoing, the United Arab Emirates is conscious that a variety of actions must be implemented and a number of sectoral and strategic objectives must be fulfilled if that progressive society wherein the citizen is able to enjoy all the fruits of human achievement in science and technology is to be achieved.

The United Arab Emirates is conscious of the following responsibilities:

1. Diversifying the sources of income on the basis that petroleum is mainly a transitional industry whose funtion is to stimulate the country's economic life. The primary role of oil revenues is to build the country's infrastructure and to establish as many oil and gas-related industries as possible, as well as intermediate industries to help answer domestic consumption problems. One positive indicator is that the rates of increase of expenditure on intermediate and capital goods now exceed the rates of increase of expenditure on consumption goods. This indicates an increase in the rate of social and economic development in the United Arab Emirates.

2. Improving the country's development strategy by relating socio-economic development needs to educational and training planning at all levels, thereby serving the goal of comprehensive economic development.

3. Going beyond the stage of local planning to the stage of planning at the Gulf and the Arab levels and establishing enterprises that benefit from the advantages of mass production in terms of employment and market facilities.

4. Strengthening the role of the private sector in development activity by supporting private initiative and by encouraging private sector institutions materially and morally, providing them with all the information needed for strengthening their bargaining power with foreign governments and companies.

5. Considering the selection of low labour - high technology projects suitable to countries with small populations.

6. Emphasizing the training of local manpower in all fields required by social and economic development and especially in the areas of project planning and execution.

7. Improving management systems efficiency and the introduction of scientific and technological methods therein.

8. Developing agricultural and water resources and employing all the scientific and technological methods available for horizontal and vertical expansion, in order to diversify the sources of the country's income and to promote self-sufficiency.

9. Optimizing the exploitation of marine resources through the employment of modern scientific and technical methods, so as to promote the afore-mentioned objectives.

10. Expanding the scope of studies and research activities and the improvement of the capabilities of executory institutions.

11. Completing the establishment of national planning and science institutions and enacting the necessary legislation for accomplishing the afore-mentioned objectives.

Recommendations to the Conference

Ever since its foundation the United Arab Emirates has maintained the strongest of ties with the international community in the areas of mutual co-operation and assistance to sister and friendly states. In fact, the amounts allocated by the United Arab Emirates to assistance, grants and loans exceeds 25% of its annual income. A simple comparison between this high percentage and the 0.07% allocated by the more advanced states for the same purpose reveals that the United Arab Emirates, which has suffered deprivation in the past, is intent on placing all its resources today at the services of its people and on acquitting its responsibilities towards the international community as a whole and the Third World in particular.

In this spirit, the United Arab Emirates recommends the following to this August Conference:

1. That the advanced countries be urged to increase their share in economic assistance programmes and that a certain proportion of this assistance take the form of equipment, tools, scientific and technological expertise and the training of local cadres. The considerable funds allocated by the oil-exporting states, including the United ArabEmirates to economic assistance could have produced better developmental results if the acquistion of scientific and technological know-how by the developing countries had been made available on just terms commensurate with the value of the funds delivered.

2. That the advanced countries allocate a portion of their research spending on the treatment of the problems of the developing countries and the adoption of solutions thereto.

3. That the advanced countries develop programmes in appropriate sections of their universities to meet the developing countries' local cadres development needs. For one of the factors behind the brain drain from the developing to the developed countries is the attraction of the enormous scientific opportunities available in the developed countries, which have accumulated much knowledge and expertise on this part of the world.

4. That the Code of Conduct formulated by the Conference on Trade and Development be adopted for dealings between the developed and the developing countries. Many transactions involving the export of scientific and technogical equipment are now taking place on commercial export terms with no real consideration for the developing country's capacity and preparedness for utilizing the equipment in question to its best advantage.

5. That the performance of United Nations organizations be studied and evaluated and their recommendations be followed up so as to determine the reasons for non-implementation wherever relevant and to submit these reasons to member countries for the purpose of dealing with and overcoming them.

6. That the creation of an international body from existing United Nations organizations be considered; that this body be given responsibility for gathering and analyzing information on scientific and technological methods for the purpose of locating ever more suitable alternatives and strengthening the negotiating power of the developing countries; and that members of this body subscribe to the Code of Conduct whose establishment has been urged.

7. That co-ordination be promoted among neighboring states that share similar socio-economic circumstances, in industrialization, marketing and other investment areas in the interest of balanced development.

8. That existing centres in the Gulf States be identified and studied with the purpose of strengthening them and rendering them more effective.

9. That the positions of the developing countries with regard to the acquisition of scientific and technological equipment be unified so as to limit monopolistic practices and commercial speculation and so as to bolster their negotiating power when acquiring such equipment.

10. That methods be formulated for linking the prices of raw materials exported by developing countries to the prices of finished goods imported by same, thereby limiting world price increases and increasing the developing countries' ability to acquire the scientific and technological tools of development.

A look into the future

The United Arab Emirates looks forward to an intensification of efforts and a concentration of energies for the purpose of developing its own society while simultaneously assisting other countries on the road to the same goals. It also looks forward to an era of closer co-operation with countries that have advanced further in the use of science and technology, with the hope that prosperity and well-being will encompass all the peoples of the earth.

The peace and security of the world are dependent upon the results of such efforts to establish a world of equilibrium, in which the individual enjoys the fruits of science and the products of technology.

The United Arab Emirates sincerely wishes that this Conference will be a worthy step on the road to the accomplishment of these sublime goals. For its part, it will ever act to consecrate its capabilities to the good of its people and that of all the peoples of the earth. It is firmly convinced that he who lives for himself alone is not worthy of entering this world.

God is the Arbiter of our success.

Table 1. Basic statistics on economic development in the U.A.E. for the years 1972-1977 (current prices in million dirhams)

Economic variables	1972	1973	1974	1975	1976	1977
Size of population (people)	319700	380070	461140	557887	725440	862000
Labour Force (workers)	144770	182850	234380	296516	406560	497535
Gross Domestic Product	6450.2	11392.1	31122.7	33349.4	43637.4	51460.4
Gross National Product (Income)	5244.8	9202.6	28900.6	30716.8	39606.7	46387.4
National Income	4711.0	8864.9	28061.5	29365.9	37637.1	44500.0
Gross domestic savings	4719.4	8571.8	26300.4	25797.2	33693.3	37701.0
Gross national saving	3514.0	6382.3	24078.3	23164.6	29662.6	32628.0
Net national savings	2980.2	5744.6	23239.2	21813.7	27693.0	30740.6
Gross final consumption expenditure	1730.8	2820.3	4822.3	7552.2	9944.1	13759.4
Private final consumption expenditure	871.6	1535.5	2150.4	3971.2	5107.8	7946.8
Governmental final consumption expenditure	859.2	1284.8	2671.9	3581.0	4836.3	5812.6
Gross capital formation	1747.7	2880.6	4824.7	9641.6	13400.7	17266.4
Gross fixed capital formation	1722.7	2116.6	4112.7	8885.6	12558.7	16139.4
Gross fixed capital formation of government sector	612.3	777.0	1785.0	4011.6	6708.4	9660.3
Gross fixed capital formation of business sector	1110.4	1339.6	2327.7	4874.0	5851.3	6479.1
Gross commodity imports	2229.4	3349.1	7094.0	10942.3	13600.8	17551.8
Commodity import less re-exports	1451.2	2154.9	5266.3	9126.8	11082.4	14033.3
Gross commodity exports	5332.9	9211.4	29134.2	27852.4	34792.7	38958.3
Commodity exports less re-exports	4554.8	8016.6	27304.0	26036.9	32194.3	35440.3
Balance of trade surplus	3103.5	5862.3	22037.8	16910.1	21191.9	21406.5
Balance of payments: current surplus	1760.9	3492.9	19243.3	13496.5	16236.7	15336.5
Balance of payments: capital surplus	780.8	539.0	7770.6	5991.7	9642.9	4426.6
Wages component	1256.7	2524.2	5103.9	6584.0	1057.6	13810.0

Table 2. Major economic and social indicators in the U.A.E. for the years 1972-1977

Economic indicators		1972	1973	1974	1975	1976	1977
Mean per capita National Income	dirhams	14736	22535	60852	52638	51882	51624
	dollars	3361	5604	15413	13289	13102	13223
Mean per capita Gross Domestic Product	dirhams	20176	29974	67491	59778	60153	59698
	dollars	4601	7454	17095	15091	15190	15291
Mean per capita gross final consumption	dirhams	5414	7420	10457	13537	13708	15962
	dollars	1235	1845	2653	3418	3462	4089
Mean per capita private final consumption	dirhams	2726	4040	4663	7118	7040	9219
	dollars	622	1005	1181	1797	1778	2361
Mean per capita gross domestic savings	dirhams	14762	22553	57033	46241	46368	43737
	dollars	3366	5609	14446	11674	11709	11203
Mean per capita net national savings	dirhams	9322	15115	50395	39100	38174	35662
	dollars	2126	3759	12765	9871	9640	9391
Mean per capita gross fixed capita formation	dirhams	5388	5569	8919	15927	17312	18723
	dollars	1229	1385	2259	4021	4372	4796
Mean per capita commodity imports	dirhams	6973	8812	15390	19614	18758	20362
	dollars	1590	2191	3898	4952	4737	5216
Mean per capita imports less re-exports	dirhams	4539	5670	11421	16360	15166	16280
	dollars	1035	1410	2893	4130	3830	4170
General average labour productivity	dirhams	44550	62382	132902	112912	107939	104259
	dollars	10160	15514	33663	28506	27257	26706

Table 2. (cont'd)

Economic indicators		1972	1973	1974	1975	1976	1977
Mean labour productivity in the oil sector	dirhams	1240909	1918390	4894668	3955711	4200894	4344532
	dollars	282990	477093	1239784	998665	1060832	1112841
Mean labour productivity in the other sectors	dirhams	16641	19811	26560	32764	35712	39360
	dollars	3795	4927	6474	8272	9018	10082
General average wages	dirhams	8681	13805	21776	22205	26000	27757
	dollars	1980	3433	5516	5606	6066	7110
General average wage productivity (e.g.)		5.1	4.5	6.1	5.1	4.1	3.7
Average exchange value of U. S. dollar	dirhams	4.385	4.21	3.948	3.961	3.960	3.904

Table 3. Production values at current prices, 1972-1977
(in million dirhams)

Sectors	1972	1973	1974	1975	1976	1977
Agriculture, livestock and fish resources	138.0	186.0	250.0	339.0	445.0	577.0
Mining and quarrying	4555.0	8746.3	27858.2	26656.3	32952.0	36265.0
Manufacturing	425.0	543.0	728.0	910.0	1455.0	2140.0
Electricity and water	108.0	186.3	274.5	449.4	673.5	1209.8
Construction	756.0	1018.7	1875.4	4515.0	6927.2	9506.6
Wholesale and retail trade, restaurants and hotels ...	681.3	1039.4	2406.6	3210.9	4181.5	5497.0
Transport, storage and communications	686.0	904.7	1472.0	1800.3	2610.0	3707.9
Finance, insurance and real estate	333.7	573.2	820.2	1367.6	2228.3	2862.0
Government services	859.2	1284.8	2671.9	3581.0	4836.3	5812.4
Other services	36.5	50.9	105.7	151.4	240.2	288.3
Gross value of production	8578.7	14533.3	38462.5	42980.9	56549.0	67866.0

Table 4. Gross Domestic Product at current prices for 1972-1977
(in million dirhams)

Sector	1972	1973	1974	1975	1976	1977
Agriculture, livestock and fish resources	116.0	155.0	208.0	379.0	367.0	476.0
Mining and quarrying	4099.0	7870.4	25069.7	23984.7	29648.3	32628.4
Manufacturing	176.0	225.0	301.0	369.0	593.0	886.0
Electricity and water	83.9	140.5	158.3	238.2	344.8	550.8
Construction	408.0	550.0	1012.5	2438.1	3740.5	5133.5
Wholesale and retail trade, restaurants and hotels..	489.8	739.7	1704.8	2260.4	2952.5	3884.2
Transport, storage and communications	475.5	625.7	919.2	1243.7	1819.8	2559.2
Finance, insurance and real estate	283.4	494.6	700.2	1161.4	1900.9	2441.8
Government services	288.5	565.0	991.4	1384.8	2324.6	3081.7
Other services	29.2	40.7	84.6	121.1	192.2	230.6
Gross Domestic Product (at factor cost prices)	6449.3	11406.6	31149.7	33480.4	43883.6	51872.2
Plus indirect taxes (+) ..	43.5	55.1	100.8	140.0	204.8	272.8
Minus grants (-)	42.6	69.6	127.8	271.0	451.0	684.6
Gross Domestic Product (at market prices)	6450.2	11392.1	31122.7	33349.4	43637.4	51460.4

Table 5. Gross fixed capital formation by sector and by government and private sector activity (in million dirhams)

Sector	1972			1973			1974		
	Government	Business	Total	Gov.	Bus.	Ttl.	Gov.	Bus.	Ttl.
Agriculture, livestock and fish resources	9.3	4.0	13.3	19.7	5.0	24.7	22.7	3.0	25.7
Mining and quarrying	0.3	472.3	472.6	3.9	392.1	396.0	6.6	927.7	934.3
Manufacturing	18.3	223.0	241.3	24.8	297.4	322.2	296.4	249.3	545.7
Electricity and water	81.4	9.1	90.5	126.0	16.0	142.0	418.4	38.5	456.9
Construction	-	73.9	73.9	-	113.7	113.7	-	174.9	174.9
Total commodity sectors	109.3	782.3	782.6	174.4	824.2	998.6	744.1	1393.4	21375
Trade, restaurants and hotels	-	35.0	35.0	-	92.0	92.0	-	97.0	97.0
Transport, storage and communications	221.1	234.1	455.2	262.7	328.9	591.6	388.0	543.4	931.4
Finance, insurance, real estate and business services	18.2	58.0	76.2	38.2	91.5	129.7	87.1	287.9	375.1
General community services; social and personal services	261.2	1.0	262.2	299.2	3.0	302.2	564.3	6.0	570.3
Total services sector	500.5	328.1	828.6	601.1	515.4	1115.5	1039.4	934.3	1973.7
Total	609.8	1110.4	1720.2	774.5	1339.6	2114.1	1783.5	2327.7	4111.2
Loans	2.5	-	2.5	2.5	-	2.5	1.5	-	1.5
Grand Total	612.3	1110.4	1722.7	777.0	1339.6	2116.6	1785.0	2327.7	4112.7

Table 5. (contd.)

Sector	1975			1976			1977		
	Government	Business	Total	Gov.	Bus.	Ttl.	Gov.	Bus.	Ttl.
Agriculture, livestock and fish resources	33.3	22.0	55.3	66.1	38.0	104.1	83.8	47.0	130.8
Mining and quarrying	8.4	786.2	794.6	8.0	812.6	820.6	8.5	1502.5	850.0
Manufacturing	336.8	2019.6	2356.4	573.1	1426.9	2000.0	897.5	1502.5	2400.0
Electricity and water	1061.7	100.0	1161.7	2026.0	276.7	2302.7	2029.9	270.6	2300.5
Construction	0.2	268.8	269.0	1.1	298.9	300.0	0.6	330.0	230.6
Total commodity sectors	1440.4	3190.6	4637.0	2674.3	2853.1	5527.4	3020.3	2991.6	6011.9
Trade, restaurants and hotels	2.4	111.0	113.4	0.1	215.0	215.1	42.1	213.0	253.1
Transport, storage and communications	1258.4	805.1	2063.5	2352.5	1220.9	3573.4	3973.3	1518.7	5492.0
Finance, insurance, real estate and business services	168.4	754.3	922.7	234.0	1553.3	1787.3	518.1	1747.8	2265.9
General community services; social and personal services	1121.6	7.0	1128.6	1412.1	8.0	1420.1	2077.5	8.0	208.5
Total services sector	2550.8	1677.4	4228.2	3998.7	2997.2	6995.9	6611.0	3487.5	10098.5
Total	3991.2	4874.0	8865.2	6673.0	5850.3	12523.3	9631.3	6479.1	16110.4
Loans	30.4	-	20.4	35.3	-	35.5	29.0	-	29.0
Grand Total	4011.6	4874.0	8885.6	6708.5	5850.3	1558.8	9660.3	6479.1	16139.4