



STATE OF KUWAIT
PLANNING BOARD

HUMAN NEEDS IN THE ENVIRONMENT OF HUMAN SETTLEMENTS

A Report submitted to the United Nations
Conference on Human Settlements

Vancouver, May 31 – June 11, 1976
CANADA

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Foreword

This is the national report which has been prepared for the United Nations Conference on Human Settlements to be held in Vancouver 1976. The draft report of the same was submitted to the Regional Preparatory Conference on Human Settlements which was held in Tehran, Iran 1975.

The proposed Projects for 1976-81 Five-Year Plan have been included, consisting of the aims and objectives of Development for Health, Education, Agriculture, Industry, Electricity and Water and Social Services Sectors.

The statistics enclosed have been corrected and revised according to the latest figures available.

The compilation of this report has been supervised by Miss Mariam Awadi, Head of the Human Settlement Division, Department of the Environment in the Planning Board, in collaboration with the following Government Ministries and Bodies:

Ministry of Social Affairs & Labour
Ministry of Education
Ministry of Electricity & Water
Ministry of Public Health
Kuwait University
Kuwait Municipality

Introduction

In assessing and analysing Kuwait's achievements in the field of human settlements, one can easily perceive that the Government has been inspired by certain principles, objectives, policies and means, by way of its fulfilment. For instance, the Government of Kuwait has proclaimed by formal commitment, to improve the quality of life in human settlements, and recognised the right of the people to choose the type and strategies of development that conform with their life styles and values. Furthermore, the Government recognised that the economic growth of a country must be subordinate to the development and fulfilment of its human resources and that the improvement of human settlements is an essential component in achieving this aim. It is believed that the spatial dimension inherent in the concept of human settlements is an integral part of the unified approach to development. Needless to say that innovation in the use of resources and of institutional structures allowing popular participation is imperative to the attainment of the objectives of the declaration of these principles.

This report aims at evaluating the factors that have contributed to these current crisis, as well as, criticism of the Kuwaiti experiences gained so far in the implementation of solutions. The report is divided into four Chapters: Chapter One gives an outline of the physical, historical and economic background of Kuwait; Chapter Two deals with the immediate improvement of the quality of life in Kuwait and the changes that affected the structure of the City; Chapter Three discusses the formation of a national policy dealing with comprehensive planning, land use and mobilisation and allocation of resources. Finally, Chapter Four studies the ways and means.

CHAPTER I: THE PHYSICAL, HISTORICAL &
ECONOMIC BACKGROUND OF
MODERN KUWAIT

Chapter I: The Physical, Historical & Economic Background of Modern Kuwait

In a study of human settlements, no assessment or perception is possible without examining and evaluating the country's physical and economic resources. Consequently, it is proper to begin our subject by classifying this issue in order to put the reader in the correct and true picture.

The State of Kuwait lies at the head of the Arabian Gulf, between latitudes $28^{\circ} 45'$ and $30^{\circ} 5'$ north and longitudes $46^{\circ} 30'$ and $48^{\circ} 30'$ east. It has an area of 17,820 square kilometres or about 6,878 square miles, bounded on the west and north by Iraq, on the east by the Arabian Gulf and on the south by Saudi Arabia. Its population in 1975 is estimated at 991,392 of which 470,123 are Kuwaitis and 521,269 are non-Kuwaitis, mainly from Arab countries.

Kuwait is largely a desert, except for Al-Jahrah Oasis and a few fertile patches in the southeastern and coastal areas. The largest off-shore islands are the uninhabited islands of Bubiyan and Warbah. The island of Faylakah, near the entrance of Kuwait Bay, has been populated since prehistoric times. The other islands, Umm an-Nemmel, Mis'chan, Auhha, Al-Kubbar, Qaruh and Umm al-Maradim, are small specks of unhospitable sand. On some of them police outposts are stationed; others are occasionally visited by fishermen.

The capital city of Kuwait, a true desert metropolis of 80,405 persons (1970), is located on the southern shore of Kuwait Bay and derives its name from the diminutive of 'Kut', meaning "fort". It is the major city, even though the area of Hawalli

is now larger in population with 107,000 persons (1970). Most of the population of the country is concentrated in the urban areas. Overall, Kuwait is one of the world's most highly urbanised states.

Oil dominates the economy of the country, i.e. constitutes 93.5% of the Government revenues, 63.4% of the estimated gross domestic product in 1972/73 and about 95% of Kuwait foreign trade (1973). Kuwait is the sixth largest oil producer in the world after the United States, the Soviet Union, Saudi Arabia, Iran and Venezuela (1973) and the fourth in the quantity of exported oil after Saudi Arabia, Iran and Venezuela. It also ranks second after Saudi Arabia in oil proven reserves.

The landscape:

The topography of Kuwait is mainly flat or gently undulating, broken only by occasional low hills and shallow depressions. The elevations range from sea level in the east to nearly 1,000 feet in the southern corner of the country. The Jal az-Zawr escarpment, one of the main topographic features, borders the northwestern shore of Kuwait Bay and rises to a maximum height of 475 feet above sea level. Elsewhere in coastal areas large patches of salty marsh land have developed. Throughout the northern, western, and central sections of Kuwait there are desert basins called playas, which fill with water after winter rains, forming important watering areas for the camel herds of the Bedouins.

Climate:

The climate is semitropical, tempered somewhat in the coastal regions by the warm waters of the Gulf. If there is enough

rainfall, the desert turns green from the middle of March to the end of April. But during the dry season, between April and September, the heat is severe - the temperature ordinarily reaching 125°F (52°C) during the day.

The winter is more agreeable (even frost can occasionally occur in the interior, though never on the sea coast). Annual rainfall averages only from 25.4 to 177.8 mms., chiefly between October and April, though cloud-bursts can bring more than 50.8 mms. of rain in one day.

The frequent winds from the northwest are cool in winter and spring and hot in summer. Southeasterly winds, usually hot and damp, occur between July and October; hot and dry south winds prevail in spring and early summer. Fierce dust storms called the (Tauz), lasting sometimes for several days, occur mostly during winter. The rate of evaporation of water is high. The annual mean of evaporation is as high as 9.9 mms. The amount of evaporation reaches its maximum in June (18.6 mm./day), then falls gradually till it reaches its minimum in winter (3.1 mm./day in January).

Kuwait City:

Thus, the city of Kuwait was and is located on one of the most hostile spots on the earth's surface, and it was the discovery of oil that had given rise to an extraordinary metropolis that could never have grown so rapidly under normal conditions.

A vision of the old city of Kuwait was that of one oriented towards the sea and bounded landward from 1918 to 1956 by a mud wall, with gates that led out only into the endless desert - was compact, only about thirteen square kilometres in area, its typical

dwelling a courtyard house. Approaching the city by sea or desert route one could see in the distance a typically Arabian desert city.

The old city, was like a huge apartment dwelling, its bazaars a huge department store, its alleys and streets an interesting network of highways. Its courtyards were centres for family socialisation, industry, and relaxation. Its drinking water was imported by barges from Iraq (Shatt-al-Arab). Its culture was that of a seafaring, desert-daring, pearl-diving patriarchal society guided by the main driving force of the Arab - the religion of Islam.

Today, Kuwaitis drink distilled sea-water and live and work in air-conditioned surroundings. In and around the city are schools, hospitals, and tall office buildings. There is planning for still further expansion of public and civic facilities. Engineers, doctors, contractors, and merchants from all corners of the earth can be seen busily at work in Kuwait. It is a booming city, growing and mushrooming rapidly. Behind all this dynamism is oil.

Up to 1951 Kuwait city consisted of little more than the area enclosed within the semicircular city wall built in 1918. With the urban explosion of the years after 1951, the wall was demolished and new suburbs were formally laid out. Within these suburban blocks, building plots of 8,100 and 11,000 square feet were allocated to Kuwaiti citizens who had been transferred from the old city, in the process of radical redevelopment. This left the growing non-Kuwaiti population the choice to live within the old city or in one of the two more freely developing residential areas of Hawalli and Salmiyah.

The results of this sorting process can be witnessed today, two distribution patterns being clearly visible. Kuwaitis are scattered at the relatively low density areas, i.e., 16,000 to 18,000 persons per square mile, throughout the urban area, with minor concentrations in the new neighbourhoods (suburbs) of Dasmah, Shamiyah, and Idayliyah. On the other hand, non-Kuwaitis, excluded from the restricted neighbourhoods, live at higher densities of between 21,000 and 31,000 persons per square mile in the old city, Hawalli, Salmiyah, and Abraq-Khitan - mostly in flats and apartments.

Strong demographic and geographic contrasts have been introduced by the large-scale influx of migrants in recent years. In Kuwait today there is a veritable cosmopolitan mixture, each ethnic group adding colour and contribution to the fast-changing urban prospects and aspects of the country. A 1970 census of expatriates living in Kuwait showed 147,696 Palestinians and Jordanians, 39,129 Iranians, 39,066 Iraqis, and large numbers of Egyptians, Syrians, Lebanese, Indians and Pakistanis. There were 2,736 Britishers and 816 Americans.

Although presumably many of the unskilled foreign construction workers leave the country as major projects are completed, there are no signs yet of a letup in Kuwait construction programs, and thus there have been few departures of foreign workers. Both working conditions and wages are superior in Kuwait as compared with surrounding countries. It is a fair assumption that the population will continue to expand.

The geographical distribution of the population:

Kuwait, as a whole, is a thinly populated country. The ratio of man to land (density of population) is approximately 52 people to every square kilometre, if we assume that the population

is evenly distributed throughout the country. But this assumption does not exist, since most of the population is concentrated in a small area of the nation. The inhabited sections are about 160 square kilometres or 1.25% of the country's total area. The density of the inhabited area is about 5,459 persons per square kilometre, unevenly distributed. According to the 1970 census, about 30% of the nation's population lived in the capital Governorate, 37% of this ratio live in Kuwait's old city, while the remainder are situated in the suburbs, neighbourhoods and villages of the capital governorate.

The built-up area (The Greater Kuwait) which includes the old city, with its accompanying neighbourhoods and suburbs on the one hand and Hawalli and Salmiyah towns with their surrounding suburbs on the other hand, altogether have 436,245 people or about 59.5% of the country's population.

About six kilometres to the south west of Kuwait city, lies the second urban concentration, but it is relatively less populated than the built-up area. The core of this concentration includes the villages of Farwaniyah and Abraq-Khitan, with small satellite connected or semi connected settlements. This area has 158,617 people or about 21.5% of the State's population.

The third area of human concentration is al-Ahmadi - Fahaheel, with a population of 51,041 or about 7% of the country's population.

Finally, there are tiny settlements with widely ranging densities, i.e., al-Jahra (24001) and Salwa and Messela (1,573).

The population concentration in Kuwait city and its environs essentially manifests the uneven distribution of the population as a whole in the country. This unevenness obviously results from

an imbalance in economic opportunities. Most of the country's employment opportunities are concentrated in the Government Departments, located primarily in Kuwait city. The fast rate of urbanisation in the country should, however, be attributed to a set of special circumstances, such as a fast developing economy as a result of the discovery of oil which has resulted in better opportunities for employment and hence a high immigration of labour force from Arab and foreign countries.

It is worth noting that about 91% of the country's population live near the Gulf coast. The towns, villages and settlements take a linear development shape, extending from Doha in the north to Shuaiba in the south. Even the inland villages and settlements are not located far from the coast at a ten kilometre maximum. This coastal growth attributes its development to life in Kuwait before the discovery of oil, when the land was resourceless, vegetation was sparse and the most potential life source was the sea, and as a result the location and site of previous Kuwait settlements inhabitants concentrated along the sea coast.

Chapter II: The Immediate Improvement of
the Quality of Life in Kuwait

Chapter Two: The Immediate Improvement of the
Quality of Life in Kuwait

1. Creating the infrastructure

With increasing oil revenues and a rising immigrant population, Kuwait City expanded rapidly both vertically and horizontally. Expansion was not haphazard, as the degree of financial and legislative power which the Government was able to exercise was very successful and effective. These powers were freely used to transform the city physically, initially by a process of resettlement of the population, thus moving the inhabitants of the Old City to the newer suburbs beyond.

By 1951, despite five years of oil exporting and revenue payments, little physical change had occurred in Kuwait. Immigration was beginning on a large scale but accommodation was provided by Kuwait Oil Company (K.O.C.) employees at Magwa or Ahmadi, while other new comers lived in shacks and tents on the periphery of the city or west of Sulaibikhat (previously called Labourers' City). However, both the growing number of motor vehicles (over 1,000 in 1951) and the number of new arrivals were good reasons for embarking on a programme of wholesale city development. There was another reason - dealt with in details below - which was to distribute the oil wealth throughout the private and the public sectors of the economy. Large-scale purchase of land in the Old City by the Government, together with the benefits brought to the merchant community through contracts for Government constructions projects, were important facets of the fiscal policy of distributing the oil wealth amongst Kuwaiti citizens. This land and property acquisition scheme warrants close attention

not only because of its effects on the economy as a whole, but also because of the changes which it brought to the structure of any city, so that a study of the property acquisition scheme was undertaken with the aim of identifying the structure and changes in Kuwait's property values from the inception of the scheme to the present day.

The Government Land Purchase Scheme

The property acquisition scheme began in 1951 with the twin aims of infusing sums of money into the economy's private sector whilst at the same time facilitating the wholesale reconstruction of the Old City. Owners of land and property within the City were offered deliberately inflated prices by the Government to encourage the owners to move out into the newer suburbs and at the same time to provide these Kuwaitis with a certain amount of working capital. It was estimated that about KD 740 million was disbursed in the span of 21 years, i.e. from 1952 to 1973.

The Mission of the International Bank for Reconstruction & Development of 1963 expressed some criticism of the scheme. In the six years before 1964, 50 per cent more had been spent on property acquisition than on public capital projects. Much of the money disbursed on the scheme is apparently remitted abroad in private investment portfolios and is thus of relatively little utility to the economy of the State as a whole.

Nevertheless, the overall success of the scheme is inescapable, both in speeding Kuwait's economic development and in permitting the very rapid re-development of the Old City. One of the most important effects of the scheme was the way it brought

about the amalgamation of tiny plots of land in private ownership into larger State-owned blocks suitable for re-development.

Prices for land rose 32 times over between 1952 and 1960, while those for houses increased 15.4 times over between 1953 and 1966. For these two periods prices showed no steady increase because of the "skewing" effect produced by the purchase of large blocks of either very costly or very cheap property in any one year. In addition, the Valuation Committee considered that the rise in prices in 1960 was too high (between 1958 and 1959 prices had tripled), consequently the prices for open ground increased by 15 per cent. By 1963, however, prices had surpassed their 1960 level.

Planning and Urban Expansion

a) The 1952 Plan

Clearly Government planning was bound to play an important role in shaping the form of the new city with the administration assuming such an important economic position through the property acquisition scheme. In 1952 a British Consultant firm, Minoprio, Spencely and Macfarlane, was enlisted to prepare a master plan which was to determine to a large extent the location of subsequent development and the form of the contemporary city. This Plan involved the Government in the construction of 17 major residential blocks, arranged concentrically around the Old City and linked by a broadly radial road system. Hawalli was to be expanded to become a town of 15,000 people outside the grid-iron inner neighbourhood blocks. Shuwaikh (Area R and S) was reserved for industry, and areas T, U, V and west of Shuwaikh for health and recreational land uses. Despite

suggestions for the construction of an entirely new city outside the Old Town, the Plan recommended that the town within the wall should remain the city centre.

Thus, the Plan embodied several points of lasting significance to the final form of Kuwait City:

1. New major neighbourhood blocks were created to which Kuwaitis were transferred as the reconstruction of the Old City proceeded during the 1950s. Less formal plans were laid for the expansion of Hawalli and Salmiyah, later to become important areas of residence for non-Kuwaitis.
2. The Old City was scheduled for wholesale redevelopment as a modern city centre serving all of "Greater Kuwait". Only secondary consideration was given to residential accommodation within the wall.
3. Throughout the built-up area the road system was to comprise a series of radial dual-carriageways with semi-circular cross connections, together with a system of minor roads in a broadly rectangular layout within the new neighbourhoods. Overall, the traffic system was to be highly centralised in the Old City.
4. Each new neighbourhood was to have a centralized selection of services - schools, shops, mosques, etc. - which were designed to meet the local needs of that district's residents.

b) Physical expansion of the city structure

Once the guidelines of future urban growth had been laid, construction of the new suburbs proceeded rapidly. Suburban

development followed immediately, but in the late 1950s attention was directed towards the transformation of the Old City, particularly the erection of large public buildings. Most of the Old City in its original form was to disappear, but a recent report strongly criticises this replacement of the Old City with mediocre new buildings.

Within the Old City building took place in the open spaces bordering the built up areas of the 1951 city before urban renewal began on a large scale within the city itself. Parts of Mirgab were quickly appropriated for the Ministry of Public Works, while commercial development in Salihiya began in the late 1950s and early 1960. Only in the mid-1960s were extensive in-roads extended into the centre of the Old City where new commercial centres were emerging on the seaward side of the Suq, opposite the Seif Palace. A substantial concentration of public buildings - the Ministries of Social Affairs and Education - emerged in the Commercial Area 9 immediately to the east of Safat Square.

With some of the new suburbs up to 10 km from the city centre, new transportation problems have arisen within Kuwait's built-up area. In 1973, 146,715 private cars and a further 51,507 public vehicles were registered in the State. As a result, traffic problems have reached significant proportions in parts of the Old City and at major intersections.

c) Subsequent plans

Whilst Kuwait's urban expansion was almost unfettered throughout the 1950s, by the early 1960s almost all of the 1952 Plan's aims had been implemented. In 1962 outside consultants were again asked to advise of future development. Professor Thyse was one of those consultants who reported:

"My expectations of a large population in Kuwait City are not very high. The population number will not be very much increased and consequently in the near future Kuwait City will not grow very much larger than its present size."

Instead, importance was given on the industrial and residential development of south Kuwait, centred on the Ahmadi-Fahaheel-Shuaiba complex. This aspect of Thysee's recommendations is nearer fulfilment than his recommendations concerning Kuwait City, for two main reasons:

1. Thysee clearly overestimated Kuwait's potential for industrial growth. While he attributed most of Kuwait City's "propulsion" to the building industry, he failed to recognise Kuwait's major employment potential and attraction to immigrants.
2. The volume of immigration to Kuwait is almost unpredictable. Thysee could not have foreseen the political situation in the Middle East after the 1967 War and its effect on Kuwait's total population growth. The immigrants showed a marked preference for Kuwait City.
3. The most recent town planning consultants' report concentrated on the need for a comprehensive Master Plan, emphasizing the poor architectural standard in Kuwait and the seriousness of traffic problems, especially in the Old City.
4. In 1968 the Government commissioned Colin Buchanan & Partners to undertake a comprehensive study for National Physical Plan and Master Plan for urban areas.

Buchanan submitted his final drafts in 1970/71 in which he divided his proposals according to two phases, i.e. long term strategy and short term plan. The proposed long term urban strategy should provide for the growth of the population of Kuwait from the estimated level of 725,000 in January 1969 to a total of two million. The long term urban strategy was based on this population of two million rather than on a specified target date because of the uncertainty about the future rate of population growth. The pace of population growth will depend most of all on the rate of net immigration. It was shown that a population of two million could be reached as early as 1985 if immigration were to continue at an average rate of 3% a year (the approximate effective rate between 1965-69), or perhaps not until about 1997 if the net immigration were nil. The long term strategy could be divided into four phases, each phase would last 5 to $7\frac{1}{2}$ years.

The short term plan comprises the first two of the four phases (growth to 1,258,000 population in 1984) .

Increase & Improvement of Housing Programmes to meet demographic pressures

Housing Groups in Kuwait

1. Neighbourhood Units, mainly government owned land distributed to Kuwaitis whose land had been bought by the Government for development purposes.
2. Low-Income Group Housing.
3. Popular housing for Bedouin Resettlement.
4. Private development which provides rented accommodation for the non-Kuwaiti population.

Neighbourhood Units:

The rapid growth in population, as a result of the rise in standard of living, which followed the discovery of oil led to the need for new housing schemes to solve the housing problems and provide sufficient public facilities and services.

The plots in these areas were distributed in 1954 to eligible Kuwaitis for a sum of money considerably less than the market value. The criteria for eligibility was as follows:-

- (a) Those whose land in Kuwait City was bought by the Government.
- (b) Persons of low income group.

There is stringent control designed to ensure that the plots so distributed are used for residential purposes only and are designed as detached single family houses.

Private Development

The schemes of housing the non-Kuwaiti category are adapted by the private sector. Areas such as Kuwait City, Salmiya, Nugra, Hawalli and the villages accommodate predominantly non-Kuwaiti populations.

Two methods have been derived to control development in privately owned land:-

Private development schemes:

- 1) People who own big parcels of land and who want to develop it are required to submit a scheme to conform with all the planning regulations set out by the Municipality.
- 2) Planned Parcels (Blocks)

This method has been introduced in 1962 to ensure a standard size for the block, or parcel of land and to solve the problem of small plots of privately owned land within the development plans of villages and suburbs. The block which is a big parcel of land surrounded by main roads is usually owned by more than one individual.

Resettlement of Squatter Dwellers

The following recommendations have been made by the Master Plan Experts for the solution of the squatter problem:

- 1) To provide temporary housing for the bedouin to be replaced by permanent housing in the future in order to solve the problem as quickly as possible.

- 2) To design the housing units in such a way that they be easily altered to meet the changing needs of the family and to be easily extended.

The first recommendation has been implemented in housing squatter dwellers in spite of its disadvantages. The temporary houses have the advantage of being less expensive but at the same time they compell the government to supply the residents with permanent houses in the future and this factor may cause a further breakdown in family and neighbourhood ties.

The Council of Ministers assigned to the Municipality in 1965 the task of moving non-Kuwaiti squatter dwellers to Al Doha area in order to control the growth of these areas and the illegal residence of migrants. A strict law was formulated prohibiting the development of new squatters in any of the squatter areas in Kuwait.

In 1971 the Council of Ministers ordered the Municipality to evacuate the squatters in the urban areas and to prohibit workshops from producing raw materials for the squatters.

The Ministry of Defence and the Ministry of Social Affairs & Labour were assigned the job of providing the government with information about the approximate number of squatter dwellers in order to enable it to estimate the exact number of those who have been provided with popular and low income group houses. There were many difficulties facing the evacuation of the squatter areas, the most important of which was that no other area was assigned for them.

Finally three areas were assigned for resettlement of squatters: El Jahra, Mina Abdulla and El Ardiya.

The Government represented by Credit & Savings Bank constructed 6960 housing units from a total of 14992, in the following order:-

2592 units constructed in El Jahra

4368 units constructed in Mina Abdulla

The government has adopted this programme to solve the squatter settlement problems for the Kuwaiti people firstly, and in its second stage will endeavour to solve the problems facing the non-Kuwaitis. For this reason the government has signed an agreement with the National Real Estate Company for construction of 16,000 low rent units for non-Kuwaitis settling in squatter areas.

**CHAPTER III: FORMATION OF A NATIONAL POLICY
 DEALING WITH REGIONAL PLANNING,
 LAND USE, MOBILIZATION &
 ALLOCATION OF RESOURCES**

Chapter Three

Formulation of a National Policy for Regional Planning, Land Use, Mobilization and Allocation of Resources

Planning of Centres and their Existing Structure:

The size and catchment of the centre depends on the development of the area around it and the size and population of that area; centres are therefore evaluated in terms of these catchment areas and the variety of services they offer.

If we considered centres in Kuwait in terms of their size they would rank in the following hierarchical order:-

- (1) The 1st class centre of Kuwait City. This is the major centre in the State where 40% of all government employment and 1/3 of all the jobs in the State are located, as the majority of jobs are government jobs. These centres offer the widest range of specialized and varied services in the State.
- (2) The 2nd class centres are the District Centres such as Salmiya and Hawalli centres, 1/5 of the size of Kuwait Centre, in terms of total employment and 1/3 its size in terms of retail employment. The aim of these district centres is to ease the pressure of the city centres and reduce the need for long trips to the centre and in so doing reduce the traffic as well.
- (3) The 3rd class centres known as Township Centres are also proposed to be developed. These will function as are the neighbourhood centres formed at present, in the form of local shops and services that will serve a wider catchment area of say 3 or 4 neighbourhoods (to cover a radius of roughly 5 km.).

- (4) This 4th class of centres are the neighbourhood centres which have been established and planned to service the local needs of the neighbourhood. These centres by reason of their small size do not provide a wide variety or range of goods and services. Some neighbourhood centres offer more varied services than others so that we find these attracting people from outside neighbourhoods. In addition, some of the facilities and services found in the neighbourhood centres such as health and educational services, have played an important role in meeting the neighbourhood needs and thus decreasing the pressure on the city and distant centres.

As for the highly specialized shopping trips or other services, the majority turn to the City Centre to satisfy their needs.

2. Planning of Industrial Zones

A. Light Industry

There are five industrial areas in the State for light industry.

1. Shuwaikh Industrial Area. This is the largest centre for light industry in the country. It occupies an area of 1000 hectares and lies to the west of Kuwait City. It includes, the port, the power station, distillation plant offices of the National Industries Companies, and many other light industries. Storage facilities for the Government Departments and the port take up over half of the area while the rest is

occupied by firms the majority of which are of the motor vehicle trade and the servicing of repair vehicles.

2. Al Ray Industrial Area. This is an area of some 195 hectares located south of Shuwaikh and the 4th Ring Road. It is still under development and is only occupied at present with storage facilities connected with the motor trade.
3. Ahmadi Industrial Area. This area has been developed to meet the needs of the town of Ahmadi and the oil industry. The types of light industry in this area are mainly construction and building materials as well as a large number of firms and motor vehicle repair and servicing garages.
4. Fahaheel Industrial Area. This is the 4th largest light industrial area and lies west of Fahaheel and is partly developed. Car servicing and repairs garages occupy the majority of the area.
5. Areas of Industry in Kuwait City. A number of light industries are found scattered throughout the city adjacent to the green belt which has replaced what used to be the city wall in the Old City of Kuwait. The main industries found in the city are motor trade workshops, the tin manufacturing and market, food and drink trade, building materials and printing industry.

B. Heavy Industrial Area.

A site for heavy industry and manufacturing has been selected at Shuaiba, located in the area between Shuaiba and Mina Abdulla.

The selection of the site was stimulated by a number of factors:

- (1) The area is within easy reach of the oil production centres only about 6 kilometres away from the Burgan which is one of the largest oil fields in the world.
- (2) The site with its excellent deep waters lies in an area most suitable for the development of a harbour.
- (3) It is within accessible reach of the City Centre.
- (4) There is a great deal of empty land which makes future expansion easy.

The Shuaiba Industrial Area occupies approximately 8.4 million sq. metres of which only 60% is utilised, the rest is being repaired for future industries.

The main industries found in the area are:-

The Kuwait Chemical Fertilizer Industry
The Kuwait National Petroleum Company Refinery
The Drilling Mud Plant
The Kuwait Fishing Company's Processing Plant
Kuwait Cement Plant
Oxygen Plant
Sulphur Plant
Plastic Materials Plant.

Objectives of the Second Five Year Development Plan, 1976-1981,
for Industrial Sector:(1)

(1) Note: These are draft proposals

- 1) The extension of industries depending on available natural resources.
- 2) To establish industrial units depending on making available the needs of the local market and exporting the surplus of production to neighbouring countries.
- 3) To establish large scale industrial units depending primarily on exporting to Gulf, Arab and World markets.
- 4) To co-ordinate between the supervising Industrial Sector parties.
- 5) To establish joint industrial projects between Kuwait and other Gulf and Arab States.
- 6) To co-ordinate and co-operate in the field of industry with the outside world.
- 7) To spread industrial awareness.
- 8) To train the already efficient personnel on all levels in the light of the needs of the industrial sector.
- 9) To eradicate industrial pollution.

3. Planning of Agricultural Areas

Lack of rain and underground water coupled with high evapotranspiration rates severely circumscribes agricultural activities in Kuwait. Agriculture, fishing and hunting contribution do not exceed 0.3% of the estimated gross domestic product in the fiscal year 1972/73. Recent attempts to extend cultivation beyond a "garden-culture" are a noteworthy addition to the traditional pastoral economy.

Field cultivation was until recently almost unknown in Kuwait. Early this century, Jahra was the only village with enough water to produce even dates and jit (a form of alfalfa).

In recent years, steps have been taken to ease this heavy reliance on imported food - particularly vegetables and milk. A Government-sponsored experimental farm was established in 1953 and now covers 40 hectares on the southern perimeter of Kuwait City. Initially it produced trees and shrubs for Kuwait's parks and roundabouts but now it has sections dealing with poultry, a dairy, and a nursery. Salt resistant strains are being tested and evolved on the farm.

A reconnaissance soil survey of Kuwait has been undertaken in 1966; but as in other Gulf States, the main drawback in agriculture remains water and not soil. The 1970 census shows that agriculture utilizes only a small per cent of the employment of the State: 2,375 workers contributing just about 4% of the nation's employment.

The Government has later begun to appreciate the importance of agriculture for economic and security purposes. Government incentives has induced the private sectors to share in the agricultural

development. Consequently the cultivated land has increased from 5,951 donums in 1970 to 8,116 donums in 1972. This continued to increase until it reached 9,372 donums in 1974. The local agricultural production in 1973/74 has risen to 42,080.71 tons, the value of which was approximately 1,209,877 Kuwaiti Dinars, i.e., around 2% food of the State's total consumption for that year. In 1972 Kuwait produced about 19.5% of its consumption of watermelon, potatoes, tomatoes, onions and garlic, as well as, in addition to a number of other kinds of vegetables.

The objectives of the development plan propose to raise the local food production to decrease reliance on imported vegetables. The draft of the Development Plan for the agricultural sector for 1976-1981 is as follows:-

The main objectives of the Development Plan:

- 1) To utilize the natural resources available such as, water, land, technical experiences, and to develop them.
- 2) To encourage the national capital to invest in agricultural sector.
- 3) To raise the local food production of vegetables, fruits, milk, eggs, chicken, etc.
- 4) To extend the agricultural area. Studies point out the possibility of extending in agricultural production as follows during the next 5 years - taking into consideration population growth - from 991,392 this year to about 1,250,000 in 1980.

Vegetable production:

- 1) To increase the local production from 19% to about 30% by 1980 through the increase of production from 20,000 tons to 50,000 tons per year.
- 2) To increase the local production of the green fodder for cattle from 30% to about 75% by 1980 through the increase of production from 35,000 tons per year to 90,000 tons by 1980.
- 3) To plant 100,000 trees of palm - olive - grapes.
- 4) To plant 3.8 million trees in different areas of Kuwait.

Animal production:

- 1) To increase the local production of chicken from 55% to about 100% by 1980 through the increase of production from 7,000 tons per year to 20,000 tons by 1980.
- 2) To increase the local production of eggs from 16% to about 35% by 1980 through the increase of production from 35 million eggs per year to 80 million eggs by 1980.
- 3) To increase the local production of milk from 10% to about 25% by 1980.

Fish production:

- 1) To increase the local production of fish from 10,000 tons to about 20,000 tons by 1980.
- 2) To continue the survey for marine resources in the Arab Gulf.

Public Gardens:

- 1) To increase the area of the public gardens and the planted avenues from 1200 donums to 3200 donums by 1980.

Housing Programmes for the Lower Income Sector of the Population

Low income housing had undergone several stages of development: In 1952 the first Development Board was established and one of its main responsibilities was to build and distribute houses. In 1955 the Government Property Authority was established and one of its main responsibilities was to distribute low income houses built by the Department of Public Works. In 1958 the Housing Board was established to help the Government Property Authority. In 1961 the Government Property Authority was amalgamated with the Housing Department of the Ministry of Finance to join efforts in solving the housing problems. In 1962 an Amiri Decree transferred the whole responsibilities of low income houses to the Ministry of Social Affairs & Labour, which was entrusted with the task of organizing and distributing low income houses. Till 1973 the following Ministries and public agencies were responsible for housing:

- Kuwait Municipality was responsible for allocation of housing sites.
- Ministry of Public Works, was responsible for the construction of houses.
- Ministry of Labour & Social Affairs was responsible for the distribution of houses.
- The Savings & Credit Bank was responsible for the construction of houses and allocation of loans.
- The Ministry of Finance - Housing Department was responsible for housing non-Kuwaiti government employees.

Before distribution of low income housing, the following reports were required:-

- i. A report on the social situation of the family, its size, housing standard and annual income.
- ii. A list of the property owned by the Head of the family.
- iii. A report from the Municipality showing that the applicant has not received any residential plot before.

Responsibilities of beneficiaries of Low Income Housing:-

- i. Paying for cost of maintenance.
- ii. Repaying the house's cost in instalments.
- iii. Refraining from renting the house or a part of it.
- iv. Refraining from utilizing the house for purposes other than residential.
- v. Refraining from selling or donating the house or any other action before receiving the ownership certificate.

In July 1974 the Public Authority for Housing was established. It has been entrusted with the task of building houses and formulating a housing policy.

In February 1975 the Ministry of Housing was established. Its responsibilities were:-

1. Formulating a housing policy in accordance with the Five Year Development Plan.
2. Preparing designs for government financed units and sites.
3. Implementation and supervision of housing schemes.
4. Distribution and renting of government houses to eligible parties.

Loans & Plots Scheme

The Loans & Plots Scheme was established in 1958. This scheme was designed for families eligible for low income houses. They were ready to build their own houses if allowed a plot for this purpose; this group had no desire to live in a home marked as a low income house. They built more expensive houses than was initially planned for them. Loans by the Credit & Savings Bank are under Government guarantee. To those who apply for plots in the "Plot & Loan Scheme" further conditions are attached:

- Applicant should sign a guarantee stating that he will abide by the regulations, the proportion of males to females in the family, the size of the original house, which had been taken over by the Government.

The Role of Savings & Credit Bank in Housing Finance

The Savings & Credit Bank plays an active part in supplying low income houses. The Government finances a housing scheme through the Savings & Credit Bank.

The Bank gives building loans to citizens for the following purposes:-

- Housing construction
- Housing purchase
- Housing repair
- Enlarging & repairing government houses given to limited income beneficiaries.

Loans are given to applicants under the following conditions:-

- That the applicant is not a landowner.
- That the applicant had not previously owned land purchased by the Government at KD 15,000 or more or inherited this amount or acquired it through any other means.

Loans are given under a guarantee of estate mortgage. They should not exceed KD 15,000. This amount increased to KD. 19,000 in 1972 to be paid within a maximum period of 30 years and it continued to increase to KD 24,000 in 1975.

5. Provision of Public Utilities

1. Water

Until the fifties the only sources of water available in Kuwait was underground water which included few fresh water wells. In addition, there was also fresh water imported by dhow from Shatt al-Arab in Iraq.

The first desalination plants to produce water were installed in 1954 with a capacity of 250 million imp. gals and with the increase in the number of electric power stations this production rate increased gradually to 958 million imp. gals. in 1958 and 1848 million imp. gals in 1962. This rate continued to increase until it reached 9099 million imp. gals in 1972, when 3 distillation plants were installed made up of 24 units each with a capacity of 2-5 million imp. gals day.

Plans are being made for installing other plants with a capacity of 10 million imp. gals. per day. Production will also begin in 1977 on a distillation plant made up of 4 units with a capacity of 5 million imp. gals per unit.

In addition to distilled water from these plants, fresh drinking water is also available in wells which by 1972 had reached 26 in number with a capacity of 2 million gallons per day.

Efforts are being made to increase the quantity of brackish water. In 1954 production of brackish water was 188 million gals produced from a number of important wells reaching a figure of 6,495 million gals. in 1973.

Consumption

In the past twenty years the average consumption of water per person has increased greatly. For example in 1957 consumption per person was 3332 gals whereby reaching 8443 gals in 1967 and finally 10,927 gals in 1973.

Method of Distribution of Water

Distribution of water in Kuwait until the early sixties was through pumping stations found in the different areas, distributed to houses and buildings by means of special cars or tankers specifically designed for transporting water. Special underground or above ground water reservoirs are found in all residential areas. These reservoirs are extended with pipes and connected to the desalination plants and a distribution network has been established to distribute the water from the reservoirs to the different houses and buildings.

2. Electricity

The first station for generating electricity was established in 1952 made up of four steam units. It began production in 1954 with a capacity of 30 MW (megawatts) and rising gradually till it reached a capacity of 70 MW in 1958, 160 MW in 1961 and 1096 MW in 1972, at which period there were 3 stations made up of 22 power units of which 20 were steam units and 2 were gas units. In 1973-1974 production rose by 268 MW through the addition of 2 more steam units, to total production in 1974 to 1364 MW.

In 1976-1977 two new power stations will be commissioned - one in Shuwaikh to provide an additional capacity of 204 Mw, while the other will be in Doha to provide a capacity of 600 Mw so that by 1976/1977 the total installed capacity will have risen to 2,168 Mw. This increase in electricity production and capacity has led to the great use of electricity in the home for many daily uses and thus playing an important role in raising the standard of living of the individual. Consumption of electricity per person in 1957 was 576 KWh rising to 4,643 KWh in 1973.

Method of Distribution

The State aims in providing the consumers with electricity services in the fastest and cheapest way; as a result the geographical layout of the stations was taken into consideration when establishing these stations so that they were positioned according to the needs of the residents of the different areas. The State also provided substations and transformers for distributing electricity to each area separately and electrical cables were always laid underground or aerially.

The main objectives of the draft development plan for electric and water sector for 1976-1981 are as follows:-

- 1) The extension of electrical capacity to face the needs of growth and industrial development.
- 2) Increasing the capacity of electricity generated and to distribute the electrical capacity in various parts of the country in a regular form.
- 3) To improve the lightening of streets.

- 4) To provide various areas with water.
- 5) To study new sources for energy (electric and water) exploiting nuclear generators and to develop solar energy.

4. Utilizing of Local Building Material

The main sources of the raw materials for the local building industry are:-

- (1) The Ahmadi limestone quarry.
- (2) The supply of sand, limestone and oolite sand at Ras Ashirij and Jezerat Namil, used in the manufacture of bricks at the Sand-Lime Brick factory.
- (3) Other local supplies of sand and gravel.

The Ahmadi limestone quarry has been very active in the development of building materials since 1968 and recently the whole process has been more mechanized. In addition to this the reserve of the raw material is said to last for at least 20 years.

At Ras Ashairij and Jezerat Namil, supply of oolitic sand used in lime bricks is said to last for at least 10 years. Experts working in these sites feel that the National Industries Company in exploiting these materials haphazardly will run out of reserves pretty soon unlike in the Ahmadi quarry where the land is leased portion by portion by the Municipality.

Local sand and gravel is also greatly used by the Kuwait Prefabricated units. These are supplied from the sand pits in Jahra and Farwaniya near the airport. This supply is also used by

the Cement Products Factory which produces cement blocks, circular pipes and ready-mixed concrete. Gatch and clay may be very important in the future. These deposits are known to exist adjacent to the Basra Road north of the Zor Ridge and possibly extending south.

CHAPTER IV: WAYS & MEANS

Chapter Four: Ways & Means

1. Condition and Health of the Environment

As a result of the dry nature of the climate, with its low relative and absolute humidity, the absence of surface water and drainage and the desiccation of potential breeding places for mosquitos, flies and other disease vectors, infectious diseases are not a serious problem in Kuwait. Problems of health and hygiene and the combating of poverty have been tackled by the Government since the start of the petroleum era. Conditions in Kuwait, while comparatively unfriendly to man, are even more so to his traditional enemies, be they microbes, insects or other pests. There is one important exception however: Kuwait has been overridden by rats since its early history and on many occasions bubonic plague had ravaged the population. This is a result of the sea ties that connect Kuwait with disease infested equatorial zones.

It was thought that the piped sewage system would have provided the rat population with excellent opportunities for penetration and proliferation. This depends on the efficiency and care with the use of this system in some localities.

Kuwait has maintained environmental defences against infectious diseases. This is exemplified by the comparatively low prevalence of typhoid fever and related waterborne bacterial diseases, non-venereal syphilis and relapsing fever and clinically active intestinal amoebiasis, in contrast with the viral diseases. Measles especially is a scourge and results in a high fatality rate amongst children in certain groups, 0 - 5. Influenza is also a common infection and is sometimes very severe as evidenced

in the pandemic of 1957. More recently, the smallpox epidemic of 1967 provided a sharp reminder that the ambient conditions of Kuwait today are a ready stimulus to virus propagation and easily spread with the aid of air and dust-borne transmissions.

Average deaths per 1000 persons is 13.9

Average survivals per 1000 persons is 86.1

Death rate for infants under one year old is 49.4

This may be ascribed to climatic conditions and to the socio-economic situation of the family. This relatively low death-rate with the exception of the death rate for infants under one year, may be a result of the hostility of the environment to infectious diseases, thus with the increase in literacy rate, increased medical facilities and a rise in the standards of living, the death rate will be decreased to a minimum.

In 1974 there was:

- one doctor for every 950 persons
- one dentist for every 10,000 persons
- one pharmacist for every 260 persons
- one nurse or medical assistant for every 260 persons
- one midwife for every 300 married women.

The number of clinics and health units today is:

44 clinics

48 dental clinics

12 mother care clinics

16 child care clinics

12 preventive medicine centres

11 hospitals

i.e. there is one bed for every 215 persons.

Health Services Sector

The main objectives of the draft Development Plan for 1976-1981 are as follows:-

- 1) To decrease the mortality rate - especially infant mortality.
- 2) To decrease the rates of contagious diseases.
- 3) To make available necessary number of doctors to meet the responsibilities resulting from the improvement of medical services.
- 4) To make available a nursing staff in quality and quantity.
- 5) To make available the assisting medical staff which fits the actual needs to ensure the assisting services in hospitals and medical units.
- 6) To take care of the training courses for the staff working in the Health Services sector.
- 7) To make available the medical and hygienic services for the staff on all basic levels taking into consideration the population intensity and geographical distribution.
- 8) To make available the medical fitness services to enable the person to be an effective citizen.
- 9) To increase the medical establishments and its geographical distribution to fit the population intensity.

- 10) To achieve the de-centralization of the medical establishments' management to increase the effectiveness of its role.
- 11) To increase the level of medical and nutrition awareness to enable the people to live in an appropriate health situation.
- 12) To make available the lands and equipment needed to build up the establishments of the sector.
- 13) Ministry of Health would be responsible for determining the health specifications for housing and public services, environment pollution, food supply specifications and food and water control and vocational health.

2. Education

Education today is considered an investment of human resources which is the keystone of economic and social development. In most of the developing nations, because of exchange shortage and other obstacles, investment in human capital, that is, social overhead capital has been very small. Thus the basic problem facing some developing countries is not the poverty of natural resources but the under-development of their human resources. Hence their first task is to invest their capital in improving skills and manpower, because the progress of a nation depends first and foremost on the progress of its people.

In the 1950's Kuwait suffered from the lack of this commodity and turned to importing manpower to develop the country. In order to solve this problem an examination has been undertaken below to evaluate the country's achievements in the field of human resources in quantitative and qualitative terms.

An abundance of capital, and the small size of the population has enabled Kuwait to make fast strides in education. The increase of primary and secondary education in the 37-year span from 1936 to 1974/75 corresponds to the rapid rise in wealth due to oil revenues. In the base year there were two schools, 61 in 1956 and 280 schools in 1974/75. Student enrolment falls into the same pattern: 600 in 1936; 30,412 in 1956, and 182,778 in 1974/75. The teaching staff rose from no more than 25 in the base year to 1,425 twenty years later, reaching 14,213 in 1974/1975.

Levels of Schools

The basic structure is as follows:

Kindergarten	4- 5 years of age inclusive i.e. 2 year course
Primary	6- 9 " " " " " 4 " "
Intermediate	10-13 " " " " " 4 " "
Secondary	14-17 " " " " " 4 " "

Compulsory education in Kuwait is now required from 4 to 16 years of age. Stress has been placed on adequate secondary education on which depends the success of higher education. Schooling is free in Kuwait. In 1974/75 about 2,343 students were attending Universities abroad under scholarships, apart from 4,445 students studying in Kuwait University. This represents about seven for every 1,000 persons in the entire population. During 1957-70 the increase of education was appreciable, the percentages of increase among those who received primary, secondary and university degrees were 2,588; 858 and 956 respectively. In 1970 there were 107 per 1,000 persons who received primary degrees, the corresponding figures for secondary and university degrees were 51 and 20 respectively.

Apart from primary and secondary schools, Kuwait has other institutions such as the Commercial School, the Technical College, two teacher training institutes (one for boys and one for girls), the Religious Institute and an Institute which comprises three schools for the blind, deaf and the mentally retarded.

In 1966 two major institutions of higher education and training were opened, namely the University of Kuwait and Arab Institute of Economic & Social Planning.

Kuwait University was primarily created to meet the country's requirement of teachers, engineers, physicians, lawyers, economists, etc. The faculties of Science, Arts and Education were opened first, followed by a University College for Women, Law and Shari'a (Islamic Law), Commerce, and Political Science and Economics. Provision and preparation have been made for the development of university education in the country by establishing the Faculties of Engineering and Medicine in 1976/77.

The objectives of the Arab Institute of Economic & Social Planning is to act in a remedial capacity training specialists in finance and economic and social planning. A programme of practical and theoretical planning procedures will be extended to government employees of other Middle East countries and members of the staff of economic organisations. It will, moreover, serve as a centre for advisory services in the fields of economic and social planning.

Objectives of the draft development plan for Educational Services sector for 1976-1981

- 1) To ensure fair, geographical distribution of educational services in various areas.
- 2) To increase the percentage of obligatory education for children from 6 - 14 years of age.
3. To decrease the wastage by students quitting schools.
4. To increase the absorptive capacity in kindergartens to about 50% of children of kindergarten age.
- 5) To provide educational services for non-Kuwaitis.
- 6) To supervise and subsidise private education to enable it to extend and to increase the absorptive capacity of its schools.
7. To decrease illiteracy among Kuwaitis to about 25% by 1980.
8. To provide for vocational education for persons who wish to study in the technical field.
9. To design school buildings to fit the requirements of modern techniques of teaching and to provide health services for all schools.
10. To develop technical and vocational education programmes.
11. To develop the curricula, books and teaching methods and to utilize sophisticated teaching in education and to raise the level of qualified teachers and to train them.
12. To establish programmes for the handicapped and to extend the level of the programmes already available.

Social Security

The Government of Kuwait has devoted the oil wealth to one end only, the creation of the ultimate Welfare State, based on equality of opportunities, to give the same chance of a good life, a good education and good health to rich and poor alike in the State.

As we have seen from previous sections, education and health facilities have been given great attention and a great deal of money has been spent by the State to provide its citizens with free education and health services. Houses are also provided to the low income groups.

In addition to this, poor Kuwaiti families are also given financial aid from the State to enable them to easily afford the basic needs of life and raise their standard of living. Up till 1975 the number of families that had been extended with aid was 8791, made up of 21295 members. The total amount distributed to these families during 1975 reached KD 5,902,584 (One KD is equivalent to US Dollars 3.4).

The State had also attributed great significance to co-operative societies. By 1975 there was a total of 22 cooperatives distributed throughout Kuwait. The State encouraged the citizens to join these societies, thus the number of contributors reaching 41,826, the total contributions being KD 1,805,277. 10% of the profits of these societies went to social services in the areas.

In order to protect the citizens from the rise in prices, families were assigned ration cards to enable them to buy the essential food needs from the cooperative societies for prices much lower than that of the market, since these prices were marked by the Ministry of Commerce & Industry.

Special care and attention is given to the following sectors of the society:-

- (1) The Old: In 1955 an Old Peoples' Home was established for old men and women who have become disabled through old age and sickness and are unable to earn their living. Health services, recreation and religious services are provided for them free of charge.
- (2) Children: Care is given to children and youths whose parents are unidentified or who are born of unmarried parents. They have also been provided with a special home and attend schools as well as other cultural and recreational programmes especially prepared for them. Health services are also provided regularly; by 1975 the total number of children was 126 consisting of 54 male and 72 female.
- (3) Juvenile Delinquents: Special attention has also been given to this sector since 1958. The body that used to be responsible for them was the Ministry of Defence but this responsibility has been transferred to the Ministry of Social Affairs & Labour. Juvenile delinquent cases are usually reported through schools or guardians or police stations and law courts. Special programmes are then prepared for them for social and psychiatric care as well as health and education. In addition vocational training is also provided for them; by 1975 the total number of juvenile delinquents was 101.
- (4) Mentally retarded and handicapped. In 1965 a rehabilitation home for the mentally retarded and handicapped was established where health care, medical treatment and training is provided for them. The special training is given to

enable them to become active members in the society and if possible take up certain jobs within their ability. By 1975 the total number of mentally retarded and handicapped was 81 consisting of 33 male and 48 female.

The objectives of the draft development plan for Social Services Sector for 1976-1981 are as follows:-

A. Social Care Services:

- Social care services are extended to the mentally retarded and paralytic cases.
- Health care services are made available to the delinquent.
- Social care services are provided for children of unknown parents and those coming from broken homes.
- Social care services are made available for the old-aged.

B. Social Development Services

- To develop the responsibility and duty of the social unit which is the centre for social activities in the society.
- To provide appropriate care for children and to extend the area of gardens for children.
- To extend the centre of youth services and to increase the services of technical and scientific activities.
- To promote and diversify campings programmes for youths.
- To promote youth hostel services.
- To encourage the private sector to participate in the society development.
- To establish and distribute the cooperative societies according to the need of the populated areas.

- To develop the organisations' assistance systems, social assistance systems, and co-operatives to meet the changing circumstances.
- To promote and encourage the various organs for educational research.
- To develop the various social, psychological and medical services for school students and staff.
- To develop educational and cultural services for school students and to encourage the educational activities.
- To develop educational legislations, to standardise the educational systems, and to develop and promote the educational administration on all levels according to modern methodologies.

S T A T I S T I C A L A N N E X

F O O D

Table 1
PER CAPITA INTAKE OF FOOD ELEMENTS PER DIEM

1973

	Energy	Protein	Quantity	Energy	Protein	Quantity
	Percent			Grams per day		
1. Cereal Products	52.64	51.67	36.81	1646	46.4	467.6
2. Pulses	3.39	7.91	2.33	106	7.1	29.6
3. Meat	4.89	14.70	5.88	153	13.2	74.7
4. Fish	1.47	6.57	2.45	46	5.9	31.1
5. Eggs	1.37	3.90	2.13	43	3.5	27.1
6. Dairy Products	6.97	8.91	6.99	218	8.0	88.8
7. Fats & Oils	10.23	0.11	3.21	320	0.1	40.8
8. Vegetables	192.0	1.78	15.12	65	1.6	192.0
9. Potatoes	0.96	1.11	3.27	30	1.0	41.6
10. Fruit	8.79	0.34	16.01	275	3.0	203.3
11. Sugar & Products	7.20	-	5.80	225	-	73.6
TOTAL	100.0	100.0	100.0	3127	89.8	1270.2

Table 2
**Cost of Imports of Food Products to Kuwait for
 1970-1974**

Items	1970	1971	1972	1973	1974
	in thousand KD				
Live animals	1,971	1,917	3,768	4,950	4,970
Meat & meat preparations	3,771	3,734	4,245	5,326	8,089
Dairy products & eggs	4,992	5,869	7,099	7,435	9,217
Fish & fish preparations	532	595	426	464	803
Cereals & cereals preparations	7,127	9,065	7,911	8,818	12,511
Fruits & vegetables	9,995	10,032	11,345	13,245	17,231
Sugar, sugar preparations & honey	1,893	1,986	2,381	2,975	4,506
Coffee, tea, cocoa & spices	5,837	5,052	6,662	6,502	7,643
Miscellaneous food preparations	1,140	1,889	1,569	2,279	3,217
Beverages	856	899	972	583	678
Tobacco & tobacco manufactures	4,868	5,195	5,539	7,066	8,768
Oil seeds & oil nuts	49	87	56	339	346
Animal oil & fats	27	7	6	1	19
Vegetable oils	508	1,038	939	987	1,709

Table 3
Cost of Exports of Food Products for 1970-1973

Items	in thousands of KD				
	1970	1971	1972	1973	1974
Live animals	24	5	41	10	4
Meat & meat preparations	255	327	403	283	92
Dairy products & eggs	180	228	187	115	190
Fish & fish preparations	1,028	760	646	2,750	1,563
Cereals & cereal preparations	589	1,371	1,181	534	1,104
Fruits & vegetables	1,058	877	1,187	1,414	962
Sugar, sugar preparations & honey	299	383	508	480	238
Coffee, tea, cocoa & spices	1,674	2,205	2,536	3,124	2,605
Miscellaneous food preparations	192	128	68	52	29
Beverages	14	19	21	21	18
Tobacco & tobacco manufactures	1,233	894	1,403	2,436	3,637
Oil seeds & oil nuts	1	-	-	5	16
Animal oils & fats	21	13	15	18	31
Vegetable oils	25	21	30	30	37

W A T E R

Table 4

Production of Drinking Water to the nearest
Million Imperial Gallon

Year	Production
1954	250
1955	370
1956	531
1957	688
1958	958
1959	1228
1960	1440
1961	1634
1962	1848
1963	2155
1964	2335
1965	2762
1966	3470
1967	4291
1968	5007
1969	5866
1970	6636
1971	7674
1972	8584
1973	9191

Table 5

v.

Maximum Daily Consumption of Drinking Water during the period 1966-73

<u>Year</u>	<u>Consumption</u>
1960	5.9
1961	6.6
1962	7.6
1963	7.5
1964	8.1
1965	8.9
1966	12.7
1967	14.7
1968	16.7
1969	20.1
1970	22.3
1971	26.0
1972	30.6
1973	31.8

Table 6

Production of Brackish Water in millions of gallons during period 1954-73

<u>Year</u>	<u>Production</u>
1954	188
1955	252
1956	377
1957	523
1958	813
1959	1185
1960	1529
1961	1886
1962	2969
1963	3342
1964	3617
1965	4284
1966	4641
1967	4176
1968	4443
1969	5587
1970	5755
1971	5567
1972	5397
1973	6495

HOUSING

Table 7

Number of Houses required from 1965 till the end of 1973

Governorate	Number of houses required
Neighbourhoods & villages of capital governorate	7291
Hawalli governorate	8074
Ahmadi governorate	3507
Total	18872

Table 8

Number of houses distributed till the end of 1975

Governorate	Number of houses distributed
Neighbourhoods & villages of capital governorate	2512
Hawalli governorate	6496
Ahmadi governorate	6378
Total	15386

Table 9

This Table shows Bank Investments in Real Estate Schemes

Year till end of March	Real Estate Schemes	Real Estate Loans	Low Income Houses	Popular Housing
1965	-	3,584,785	-	-
1966	-	9,099,911	-	-
1967	-	15,998,642	-	-
1968	32,624	20,266.060	32,624	--
1969	88,265	22,262,681	88,265	-
1970	24,592	25,310,474	24,592	-
1971	22,000	25,878,643	22,000	-
1972	21,564	31,184,541	21,564	-
1973	481,237	31,049,172	5,230,986	446,892

Table 10

This table shows the actual expenditure of the Government for housing projects during the period 1967-68 and 1974-75

	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75
Low income houses	3,712,769	2,489,982	3,239,363	1,917,658	2,234,675	1,681,528	1,167,689	-
Housing Municipal Cleaners	7,156	-	-	-	6,880	158,220	-	-
Housing Government staff	78,060	27,414	48,824	-	-	-	-	-
	3,797,985	2,517,396	3,288,187	1,917,658	2,241,005	1,839,748	1,167,699	1,479,000

Table 11

This table shows the number of additional dwellings required between 1969 and 1990

	Additional Dwellings required (dwelling units)			
	1969- 1975	1975- 1980	1980- 1985	1985- 1990
1. Dwellings needed to house population increase	8107	10810	12665	14412
2. Dwellings needed to replace obsolescent housing	4560	4560	-	-
3. Dwellings needed to alleviate overcrowding	1410	1410	1410	1410
4. Dwellings needed to allow for vacancy rate of 5%	704	839	704	791
TOTAL	14781	17619	14779	16613

EDUCATION

Table 12

Increase in the budget of the Ministry of Education

Year	Amount in Kuwaiti Dinars
1961/62	11,356,133
62/63	11,676,412
63/64	12,027,513
64/65	14,439,541
65/66	16,711,084
66/67	20,802,397
67/68	24,834,369
68/69	27,389,666
69/70	30,353,420
70/71	31,412,899
71/72	36,643,630
72/73	47,115,150
73/74	54,487,900
74/75	62,175,000

Table 13

Number of Schools by Levels for the School Year 1974/1975

Level	Boys	Girls	Co-ed	Total
Kindergarten	-	-	52	52
Primary	52	37	-	89
Intermediate	37	28	-	65
Secondary	15	16	-	31
Primary & Intermediate	9	12	-	21
Intermediate & Secondary	2	1	-	3
Primary, Intermediate & Secondary	-	1	--	1
Teachers Training Institute & Educational Training Institute	1	1	-	2
Special Training Institute	5	5	1	11
Religious Institute	1	-	-	1
Technical Training Secondary School	-	1	-	1
Industrial Training Institute	1	-	-	1
Commercial Training Institute, Intermediate & Secondary	1	-	-	1
Health Institute	-	1	-	1
TOTAL	124	103	53	280

Table 14

Students According to Governorate: School Year
1974/1975

SCHOOL LEVEL	GOVERNORATES			TOTAL
	Capital	Hawalli	Ahmadi	
Kindergarten	5030	6100	1452	12582
Primary	26612	44373	12596	83581
Intermediate	17711	29523	8004	55238
Secondary	10371	13567	2582	26520
Vocational	1988	692	-	2680
Religious Institute	607	1570	-	2177
	62319	95825	24634	182778

Table 15

Increase in Number of Students from the School Year
1961-62 to 1974-75

School Year	Boys	Girls	Total	Percentage	
				Girls	Boys
1961/62	30860	20230	51090	60	40
1962/63	35674	23877	59001	60	40
1963/64	41511	28597	70108	59	41
1964/65	46613	32509	79122	59	41
1965/66	53550	38238	91788	58	42
1966/67	58702	43026	101728	85	42
1967/68	64366	47655	112021	57	43
1968/69	68877	51673	120550	57	43
1969/70	73262	55783	129045	57	43
1970/71	78363	60384	138747	56	44
1971/72	84460	66219	150679	56	44
1972/73	83897	71334	160231	55	45
1973/74	93371	76046	169417	55	45
1974/75	100061	82717	182778	55	45

Table 16

Distribution of Students According to Nationalities
School Years 1974 - 1975

Level	Nationality of Students		Percentage	
	Kuw-aiti	Non-Kuwaiti	Kuw-aiti	Non-Kuwaiti
Kindergarten	12126	456	96	4
Primary	45756	37825	55	45
Intermediate	38455	16783	70	30
Secondary	14862	11658	56	44
Teachers training for boys	35	56	38	62
Teachers Educational Training Institute for Girls	620	10	98	2
Religious Institute	151	1	99	1
Special Training Institutes	1411	447	76	24
Technical Secondary School for Girls	328	4	99	1
Industrial Training	622	58	-	8
Commercial Secondary School	516	5	99	1
Commercial Intermediate School	5	-	-	-
Health Institute	151	1	99	1
Total Boys	62176	37885	62	38
Total Girls	53156	29561	64	36
TOTAL	115332	67446	63	37

Table 17

NUMBER OF STUDENTS PER TEACHER BY SCHOOL YEAR 1962-63
1974/75

SCHOOL YEAR	Total Number of Students	Total Number of Teachers	Student per Teacher
1962/63	59551	2941	20
1964/65	79122	4215	19
1966/67	101728	5668	18
1968/69	120550	7317	16
1970/71	138747	9085	15
1972/73	160231	11505	14
1974/75	182778	14213	13

Table 18

NUMBER OF STUDENTS PER CLASSROOM FROM 1962-63 TO 1974-75

School Year	Level				
	Kinder- garten	Pri- mary	Inter- mediate	Secon- dary	Vocatio- nal Training
1962/63	34	37	31	32	11
1964-65	34	35	31	31	11
1966-67	34	35	32	29	11
1968-69	30	33	31	31	17
1970-71	27	33	31	28	17
1972-73	24	31	29	28	14
1974-75	23	32	29	27	15

Table 19

Adult Education & Eradication of Illiteracy
1974/75

Level	Sex	No. of Centres	No. of Classes	No. of Participants		
				Kuw- aiti	Non- Kuwaiti	Total
Eradication of illiteracy	Male	33	210	1549	6353	7902
	Female	24	87	985	1202	2187
	TOTAL	57	297	2534	7555	10089
Intermediate	Male	30	236	2715	1170	7801
	Female	22	124	1576	6256	2746
	TOTAL	52	360	4291	5084	10547
Secondary	Male	7	97	1622	1856	3478
	Female	7	66	791	675	4944
	TOTAL	14	163	2413	2531	8422
Commercial Training	Male	1	20	437	4	441
Vocational Training	Male	1	9	52	2	54
TOTAL	Male	72	572	6375	13301	19676
	Female	53	277	3352	3047	6399
	TOTAL	125	849	9727	16348	26075

Table 20

Number of Private Schools for the School Year 1974-75

Schools by Level	Arabic	Foreign	Total
Primary	1	-	1
Intermediate	2	-	2
Kindergarten & Primary	21	1	22
Primary & Intermediate	5	1	6
Kindergarten, Primary & Intermediate	7	6	13
Intermediate & Secondary	1	-	1
Primary, Intermediate & Secondary	1	1	2
Kindergarten, Primary, Intermediate & Secondary	8	8	16
TOTAL	46	17	63

Table 21

Classes - Teachers & Students in Private Schools for the School
Year 1974---1975

Level		Classes	Teachers	Students
Kindergarten	Arabic	197	208	6911
	Foreign	61	71	1841
Primary	Arabic	383	657	12335
	Foreign	194	262	5960
Intermediate	Arabic	277	424	8948
	Foreign	117	152	3073
Secondary	Arabic	52	192	1276
	Foreign	44	74	815
TOTAL	Arabic	909	1481	29470
	Foreign	416	559	11689

Table 22

Various educational statistics in government schools for the school year
1974-75

	Male	Female	Total
Scholarships for Arab & Foreign Students	317	16	333

Table 23

Kuwaiti Students on study missions abroad for school year 1974-1975

Country	Male	Female	Total
Egypt	386	220	606
Lebanon	2	40	42
Iraq	3	4	7
Saudi Arabia	2	-	2
United Kingdom	126	1	127
United States	438	28	466
Syria	1	1	2
Jordan	1	-	1
TOTAL	959	294	1253

Table 24

Kuwaiti Students abroad on self-supported
scholarships and other sources, for the
year 1974-1975

Supporting Body	Male	Female	Total
Self Supporting	684	140	824
Crown Prince	139	57	196
Companies, Associations & Other Bodies	62	8	70
TOTAL	885	205	1090

Table 25

Expected Kuwaiti Graduates from Kuwaiti Missions for the School
Year - 1974 - 1975

(These include Ministry of Education Missions, Self-Supporting
& Scholarships)

Student (m)	Student (f)	Total
217	53	270

Table 26

Increase in number of University students

School Year	Student (m)	Student (f)	Total
1966-67	242	176	418
1967-68	470	416	886
1968-69	709	611	1320
1969-70	875	838	1713
1970-71	956	1032	1988
1971-72	1204	1388	2593
1972-73	1429	1857	3286
1973-74	1548	2210	3758

Table 27

Students on University Scholarships abroad for
Doctorate Degrees till 1973-1974

Subject	Student (m)	Student (f)	Total
Science	35	6	41
Medicine	11	1	12
Engineering	2	1	3
Arts	29	28	57
Law	6	2	8
Commerce	19	3	22
Economics & Political Science	12	4	16
TOTAL	114	45	109

Table 28Kuwait University Staff by Nationalities for the
University Year 1973-1974

Nationality	Number
Kuwait	23
Egypt	147
Jordan	14
Palestine	3
Iraq	25
Syria	13
Lebanon	2
Sudan	3
Pakistan	2
India	4
Czechoslovakia	3
Sweden	1
U. S. A.	5
TOTAL	245

ELECTRICITY

Table 29

Production of Electric Power in Kilowatts per hour (to the nearest million)

Year	Production
1954	10
1955	58
1956	87
1957	119
1958	166
1959	204
1960	249
1961	313
1962	418
1963	508
1964	627
1965	792
1966	1045
1967	1346
1968	1659
1969	2012
1970	2213
1971	2636
1972	3295
1973	3666

Table 30

Average Consumption of Electricity per person

Year	Popula- tion	Average consumption per person K.W.H.
1957	266,500	576
1958	230,700	720
1959	257,600	792
1960	287,800	865
1961	321,600	973
1962	303,100	1184
1963	387,800	1316
1964	425,800	1473
1965	467,300	2318
1966	512,200	2661
1967	561,400	2946
1968	615,300	3256
1969	674,200	3637
1970	738,700	3612
1971	797,700	3870
1972	858,300	4355
1973	891,200	4643

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TRANSPORTATION

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TRANSPORTATION

Table 31

Proposed Layout Standards

Road Types	Speed k.p.h.	Way's width	Form of Interchanges		Spacing of Interchanges	
			Major	Minor	Major	Minor
Primary	(a) 80 in built up area (b) 110 between built up areas	30	Grade separated directional & semi-directional	Grade separated roundabouts diamond form	1500	800
Secondary	50-70	18,50	Roundabouts and Signal		250	400
Local	50	10	-----		-----	-----

Table 32

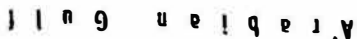
Hourly and Daily Capacities on Existing Roads

Highway type & location	Peak Hour ratio	Tidal Flow ratio	Capacity conversion factor (peak hour, one-way to daily two-way)
Western radials	8.2%	60:40	20.4
Eastern radials	8.2%	67:33	18.2
Rings & transverse routes	8.7%	65:35	18.2

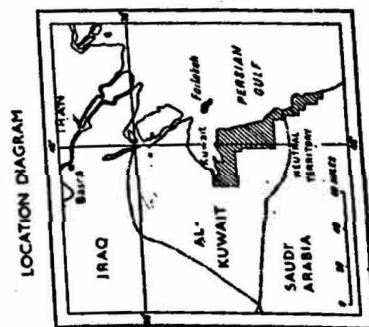
Table 33

Capacity Standards for Highway Planning

Road Type	Location & orientation	Capacity in p.c.u./day	
		2 x 7.50	2 x 11.00m
Motorways	Eastern radials	55,000	80,000
	Western radials	60,000	90,000
	Ring & lateral routes	55,000	80,000
Expressways	Eastern radials	45,000	65,000
	Western radials	50,000	75,000
	Ring & lateral routes	45,000	65,000



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