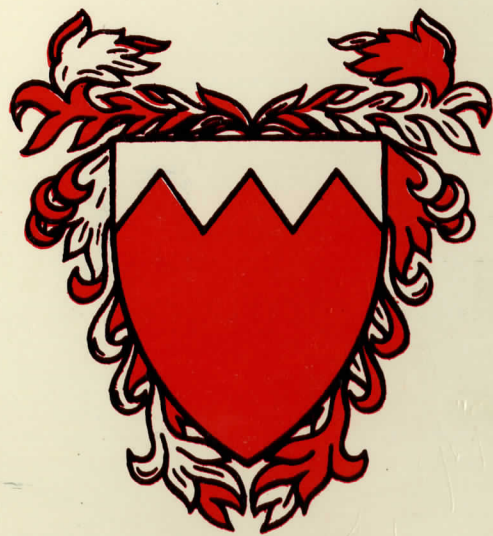


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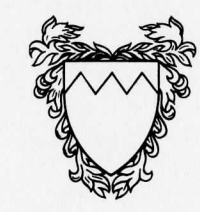


STATE OF
BAHRAIN
MINISTRY OF HOUSING

**A DYNAMIC APPROACH TO
A NATIONAL HOUSING
PROGRAMME**



دولة البحرين
وزارة الاسكان



STATE OF
BAHRAIN
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(1976) b/w Sept
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Foreword

This National Report on Human Settlements has been prepared as Bahrain's contribution to the UN Habitat Conference.

The report is divided into four sections. A brief Introduction describes Bahrain in broad terms. This is followed by a Data section which looks at statistical information relating to human settlements. In addition, this section indicates the methodology currently being used to forecast such planning inputs as housing need. The fourth section then looks at particular human settlements with a wider perspective and considers the problems being faced as a result of the development of these settlements. Finally, the Action section looks at what has been, is being and will be done to tackle and solve the problem of human settlements in Bahrain.

1 Introduction

Al Bahrain, 'the two seas' as it is called in Arabic, consists of an archipelago of low lying islands situated almost halfway down the Arabian Gulf, about 15 miles from the eastern coast of Saudi Arabia.

The largest island, Bahrain itself, is 30 miles long and 12 miles wide. It contains the capital city, Manama, and several other large towns, including Isa Town, Rifa'a, Awali and Jidhafs. Causeways connect the main islands of the State.

Bahrain is famous for its underground springs and wells of fresh water and these provide opportunities for irrigation and agriculture in an otherwise arid climate. Located in the northern part of the main island and on Muharraq, the springs have led to the establishment of extensive date gardens and other agricultural plantations.

Human settlements have existed in Bahrain since prehistoric times, and Bahrain has been identified as the famous Dilmun of early history. Since then, it has always acted as an entrepot as well as a centre for trade both within the Gulf and onwards to the Far East.

In more recent times, oil has played an important part in the development of Bahrain. The first oil to be discovered in Arabia was in Bahrain in 1932, and not long afterwards one of the first oil refineries in the Gulf was built in Bahrain. Today the refinery handles Bahraini oil and also a proportion of Saudi Arabian crude oil transported by an underwater pipeline.

However Bahrain is by no means totally dependent on oil. Its role as a trading and commercial centre has been continuous and today it acts as the focus of commercial activities for much of the Gulf. Many international banks, companies and other organisations have set up offices in Manama and this sector is continually expanding. The airport is on several major international routes and recently saw the inauguration of the first ever supersonic passenger aircraft service — Concorde. The port facilities are currently undergoing expansion to cater for the rapid pace of economic growth.

Industrial development has not been neglected: a large aluminium smelting works, taking advantage of natural gas as an energy source, came on stream in 1973 and is today recording very high levels of output. Several additional industrial projects are under construction and the largest of these is a dry dock. The Organisation of Arab Petroleum Exporting Countries, OAPEC, selected Bahrain as an ideal location for the construction of a large dry dock complex for oil tankers and work is currently progressing and will be completed in 1977.

Recent population growth has been very high, averaging over 3% per annum, and in 1974 the population was estimated at 237,000, of whom 182,000, 77%, are Bahrainis. This population is largely urban, with 77% living in the cities and principal towns. This pattern has been stable for some time, and Bahrain has seen little of the massive rural-to-urban migration experienced in many other countries.

Given the rapid pace of both economic development and population growth, the Government has recognised a need to develop and improve its human settlements. Considerable investment has already been made in infrastructure such as roads, power stations, desalination plants, and more is planned: for example, the first phase of a large island-wide sewage disposal scheme is underway. A large schools building programme has meant that virtually every young Bahraini now attends school, and other social services such as medical care and social security provisions are excellent.

Public housing has not been neglected and several schemes have been developed including a completely new town.

Recently the establishment of the Ministry of Housing has led to a speed up in Government programmes and the emphasis has been on low cost housing that Bahrainis of limited income can afford.

2 Data

In this section we consider the various data available concerning human settlements in Bahrain. Prime sources of these data are the various census reports of the Statistical Bureau and a number of physical condition surveys of the existing housing stock.

Currently Bahrain is estimated to have one of the highest natural population growths in the world. This has been brought about by a reduced death rate, but a still very high birth rate. The future increase in population, and official policies towards it, is expected to play a significant role in the pace and development of habitations.

Bahrain carried out the first census in the Gulf in 1941, and further counts have taken place at fairly frequent intervals ever since. Total figures for the State at census dates are as follows:

TABLE 1 CENSUS DATA 1941 to 1971

Year	Total population	Intercensal growth per annum
1941	89,970	
1950	109,650	2.35%
1959	143,135	3.0%
1965	182,203	4.1%
1971	216,078	2.9%

The overall growth rate since 1941 to date is 3% gross. However the intercensal growth has been increasing, and the figure for the period 1959 to 1971 is 3.5% gross. This figure includes both natural population growth and net inward migration.

Analysis of the underlying trend in natural growth indicates that the crude death rate has fallen, whereas the crude birth rate has been and continues to remain very high. The birth rate is now over 3% per annum and the death rate is around 0.8%. In addition, infant mortality is low, with an estimated survival to age 5 of over 90%. In combination, these figures mean that the natural increase in population is running at well over 2.5% per annum.

Apart from natural population growth, net inward migration has also been a contributory factor. Migrants have come from many countries, principally the Middle East, the rest of Asia and Europe, and the total immigrant population in 1971 was 38,000. Analysis of the distribution of this expatriate population by age and sex indicates that a large proportion can be classified as temporary settlers, and the average crude birth rate is correspondingly low. Nevertheless increasing numbers of immigrants are now settling and raising families in Bahrain.

The tremendous increase in population has placed considerable strains upon human settlement in Bahrain. The State is already relatively highly urbanised, with 77% of the population living in the largest cities and towns at relatively high average densities. The pattern of growth has been constant, as Table 2 shows.

TABLE 2 POPULATION GROWTH BY LOCATION

Location	1959	%	1965	%	1971	%
Manama	61,726	43	79,098	43	88,785	41
Muharraq	27,115	19	34,430	19	37,732	17
Other urban	23,703	17	29,742	16	42,300	20
Rural	30,591	21	38,933	21	47,261	22

Bahrain had already experienced a high degree of urbanisation by 1959 and indeed by 1941. This had been due to a number of factors — the relatively hostile environment encouraging sea-based townships dependent on activities such as fishing and pearl diving rather than agriculture, the growth of Manama and Muharraq as commercial and administrative centres, and the discovery of oil and the economic growth that it generated. As the figures in the table indicated, although urban areas have been growing, the aggregate figures indicate little or no rural-urban migration. Since 1965, the development of the new township at Isa Town has meant that the proportion of the total population in Manama and Muharraq has fallen slightly.

Although urbanisation was advanced in percentage terms by 1959, the absolute growth since then has still been significant. In Manama, for example, the population increased by 27,059, or 44% in the period from 1959 to 1971. There has been considerable peripheral development around Old Manama, usually at fairly low densities, but despite this a large part of the growth has had to be accommodated within the existing urban area. This has led to increasing central urban densities and greater strains upon the existing infrastructure.

Population growth in Bahrain is also a function of social customs, and the Arab household can very often be a large group of people; for example, a married son may well build his own accommodation within the family compound and one household may contain a number of nuclear units. In recent years this cultural pattern has begun to change and many younger people now desire their own homes, although the housing shortage has imposed limits on such aspirations. However the formation of the Ministry of Housing and the implementation of a large housebuilding programme may well encourage these trends to continue.

HOUSING

In the various census reports, the total housing stock has been enumerated as follows:

TABLE 3 HOUSING STOCK 1941-1971

Year	Number of houses	% increase per annum	Population	% increase per annum
1941	14,382		89,970	
1950	16,274	1.4	109,650	2.35
1959	22,630	3.7	143,135	3.0
1965	26,300	2.5	182,203	4.1
1971	31,045	2.8	216,078	2.9
		2.6		3.0

The figures fluctuate between census reports, but the overall picture is one of a fast increasing population and a housing stock not keeping pace with that increase. The picture has been worse since 1959: the 3.5% increase in population contrasts with a 2.65% increase in housing stock. To a certain extent, the extendible family concept has meant increases by extensions in total rooms within existing houses, but data is lacking on room numbers as well as house numbers until recent years, so this effect cannot be precisely determined. Nevertheless the above figures indicate that recent population growth has meant increasing overcrowding.

TABLE 4 HOUSE TYPE DISTRIBUTION 1971

Type	Number	%
Detached house	26,858	86.5
Flat (units)	2,743	8.8
Other	1,444	4.7
TOTAL	31,045	100.0

The vast majority of dwellings — 86% — are houses, most of which are built with concrete blocks or coral stone. Even in the large cities and towns very few flats were built before 1971 and most of these tended to be inhabited by non Bahrainis. This reflects the traditional Arab desire to have a family home that includes room for expansion as the family increases in size.

Nevertheless, since the 1971 census, more flats have been built, partly as a response to sharply escalating land prices and partly from the increasing need for accommodation of any type. Until now, most of these have been occupied by non Bahrainis, but given the present housing shortage the Government is commissioning a number of low rise flats designed for younger families and also as temporary accommodation for families on the housing list who are in urgent housing need.

The 1971 census also enumerated rooms — the average dwelling size was calculated to be 2.92 rooms (excluding kitchen and bathroom). If these statistics are related back to the population statistics, average room occupancy is seen to be 2.42 persons per room (ppr), a relatively high figure when compared, for example, to European standards which are often 1.0 ppr or lower.

In addition, a cross analysis of house size against household size indicated a proportion of families living in crowded conditions: approximately 10% of households live at 5.0 ppr or above.

The existing housing stock is also in need of physical improvement. A brief physical condition sample survey, performed as part of a wider study on national housing policy, indicated the following breakdown of condition.

TABLE 5 PHYSICAL CONDITION OF HOUSING STOCK

Category	% of stock
Good condition	28
Repairable	40
Poor condition	32
TOTAL	100

Some Bahrainis used to live in barastis, traditional style huts built of palm leaves. However these have now been largely replaced by concrete block dwellings, often under a Government sponsored clearance programme. The proportion

of bad houses in the physical condition survey does include barastis, but the majority of the houses in this group are those built of coral stone and now showing signs of severe physical decay. Repairable houses tend to be blockwork where speedy remedial action will ensure a safe, satisfactory dwelling.

DEFINING THE HOUSING PROBLEM

Studies for the Ministry of Housing have indicated a considerable housing shortage. There are, of course, many ways of defining such a shortage, on differing levels of complexity and sophistication. Because the shortage was obviously large, a fairly simple and straightforward method was used: the number of houses required to reduce overcrowding to a desired average standard was calculated. To this was added the number requiring replacement. The total figure was then used as an initial overall guide in developing programme and budgets, and will be subject to revision over time.

With regard to overcrowding, the 1971 census had already shown the average occupancy rate to be 2.42 ppr. Since then, it is considered that population growth has continued to outstrip new housebuilding, and the average 1975 occupancy rate is estimated to be approximately 2.6 ppr.

When targets set to reduce overcrowding and eliminate unsatisfactory dwellings, these will themselves define the scope of the problem; for example, the better the average standard of occupancy, the more houses need to be built to achieve that target. Given the usual resource limitations, standards cannot realistically be set without regard to the costs of their implementation, which in turn requires some sort of national planning to give broad guidelines on resource allocation.

Bearing these factors in mind, the Ministry decided that current definitions of unsatisfactory dwellings were realistic and that it should aim to replace such dwellings. The average level of room occupancy was felt to be too high at 2.6 ppr, and a 10 year target figure of 2.0 ppr was set as an average

to be aimed at. Taking these two factors together, the existing housing shortage was defined at around 15,000 units – approximately 40% of the present existing stock.

Given current population growth, and making an assumption of an average house size of 3.5 rooms, then the approximate annual increase in the housing stock to maintain the target of 2.0 ppr is 1000 houses per year.

In summary, the Ministry of Housing faces a defined housing need of 15,000 units now, plus a population growth rate leading to a need for an additional 1000 units each year. The base data on which these estimates are based is accepted as being fairly crude; however the effects of using different levels of standards are felt to be of greater significance than the reliability of the base data and assumptions, and the figures are taken as useful precursors for long term planning purposes. As will be discussed below, adopting a flexible approach means that these estimates can be revised later as a result of more accurate data without significant deviation to planned programmes. Furthermore the risks of moving ahead are minimal when compared to the scale of the problem and indeed the experience gained will prove to be one of the most useful inputs to later analysis.

3 Human Settlements

CITIES

As shown in Table 2, the majority of the population of Bahrain lives in urban settlements, principally Manama and Muharraq. There is still an active rural community, but this has not as yet been subject to particular pressures encouraging rural-urban migration. However the established urban locations are now experiencing problems due to their own inherently high population growth and external immigration – most immigrants live in urban rather than rural areas.

Manama and Muharraq, both coastal cities, originally depended upon industries such as pearl diving, fishing and other sea-related activities. Later other commercial and administrative functions came to these two towns, and they have thus grown to be the two largest settlements in Bahrain today.

The urban features of these settlements are in many ways typical of the Gulf region. Apart from a central shopping and commercial area, houses in the central area are quite densely packed, with only narrow streets for access. In the more suburban areas, newer housing developments have taken place at much lower densities.

In the 1971 census Manama contained 13,965 dwellings and Muharraq 5,670. The vast majority of these are single family houses, with a small number of flats and some houses being shared by more than one family.

As elsewhere in Bahrain, the physical condition of a proportion of these dwellings is not satisfactory. A random 10% sample survey carried out in 1974 and using a simple grid pattern indicated that between one quarter and one third of all the dwellings are unsatisfactory, given current Ministry standards. Another one third were repairable, and the remainder were considered satisfactory at the present time.

As noted earlier, almost all the houses are built of either coral stone or concrete blocks as basic materials. A cross analysis showed that almost all the coral stone houses were listed as unsatisfactory, whereas almost all the concrete block houses were repairable. The use of this sample survey is limited, but the figures produced do show how approximations good enough for planning purposes can quickly be obtained by relatively simple and straightforward methods.

As well as houses, a pattern of infrastructure has developed to cope with the problems of city life. In general, most elements of this infrastructure in the central urban areas are at, or even over, what would normally be termed capacity levels.

Despite this, the provision of services is generally very good, and virtually every house has a water and an electrical power supply. The local water comes from underground wells and although slightly saline is potable. It is distributed by an extensive system of elevated tanks and underground pipes. However some people prefer to use ionised water solely for drinking purposes, and this is distributed largely by motorised carriers.

Although the current distribution system is adequate, great demands are being placed upon the available volume of water, and the present system of wells is not able to provide sufficient quantities in some locations. To help meet demand, a 5 million gallon per day desalination plant is due to come on stream in September 1976.

Electrical power provision is also satisfactory. The peak period for electricity consumption is the summer when air conditioning units are heavily used. Recently rises in real incomes and the low unit cost for electricity have led to

increases in the sale of air conditioners, and electrical demand rose by 25% from 1974 to 1975. To cope with such a load without resorting to cuts, new power stations have been commissioned, and these should ensure that demand is met in the immediate future.

Sewage disposal is a problem in both cities. Two systems have been traditionally in use, either open sewers which dispose into the sea or individual septic tanks. The peripheral reclamation going on in both cities has caused complications in sea disposal, and because of the very high water table, particularly in Manama, where septic tanks are used, the effluent does not always soak away readily — indeed the tanks are sometimes flooded externally.

To tackle these problems the Government is adopting urgent short term measures which involve an extensive programme of regularly cleansing septic tanks using specially adapted tanker lorries. A comprehensive long term study of mains drainage has been prepared in conjunction with the World Health Organisation and the International Bank for Reconstruction and Development. The first contracts under this scheme are due to be let shortly.

With the enormous increase in car use, roads are becoming more of a problem. Car ownership has risen from 18,372 vehicles in 1970 to 32,982 vehicles in 1975, an annual growth of 12.5%. The trend has been especially marked in the last years, with the annual rate of new registrations being approximately 21% of total vehicles. The Government has now taken steps to regulate this increase, in view of the severe problems it poses.

While the number of cars has been rising, the road network has also been developed. A series of causeways now link the major islands of the State, and these together with the main roads on the islands provide an efficient communication network between the main urban and industrial areas. Within the two cities, however, traffic distribution is more congested, and peak period delays do occur, though normally never for any great length of time. Nevertheless, to ensure that future growth is properly managed, the Government has appointed international consultants to examine long term options on

traffic dispersal across the island, and the individual problems of Manama and Muharraq will then be reviewed in the light of the preferred options.

There are a large number of much smaller neighbourhood facilities ranging from shops to mosques and clubs, the latter often used as communal meeting places. These facilities are extremely important in generating a sense of community within the large towns and are still very popular with local residents.

In summary, Manama and Muharraq exhibit many of the problems of cities whose populations have been subject to sudden increases, with strains being placed upon adequate provision of services and facilities. However the growth in population has not yet produced a problem of crisis proportions, and the Ministry is taking steps to ensure that the urban fabric and infrastructure is rapidly improved to provide an acceptable environment for the people.

TOWNS

Apart from Manama and Muharraq, there are another 5 towns with a population in excess of 6,000. These towns all situated in the northern half of the main island, or on Muharraq Island in the case of Hidd. In many ways they exhibit similar problems to Manama and Muharraq, but not on quite the same scale. Again concerted action is required to ensure that the settlements will be fit and satisfactory places to live in future years and many of the Ministry's current development plans are concerned with providing a natural infrastructure of services, focusing on Manama and Muharraq, but also reaching to other large settlements in the State.

One town deserves special mention, the new township created in the desert over the last 15 years — Isa Town. This new settlement was built for the people of Bahrain by the Government and was begun in the early 1960s. The nature of Isa Town, its pace of development and the experience gained from its construction is examined in detail in Section 4.

VILLAGES

As well as the cities and towns already discussed, there are approximately 50 villages in the State, containing 47,000 inhabitants, 22% of the population. The economic base of these villages was originally either agriculture or fishing, but in recent years the growth of job opportunities in the larger towns and at industrial locations has meant the many of the village people, although by no means all, now commute to work daily.

The pattern shown in the towns is repeated in the villages. Population growth rates have been high, but no significant drift to the towns has occurred and most of the increases have been housed within the existing village settlements. Nearly all the villages have both electrical power and water supply, and although these services are being overstretched, remedial action over the next five years will ensure a healthy rural structure, with expansion mirroring population growth.

4 Action

For many years the Government has recognised its duties towards improving the quality of life in its human settlements. Within the range of available resources, considerable effort has been made to provide a satisfactory environment. At present a whole range of programmes are being implemented so that over the next few years the environment in settlements – whether cities, towns or villages – will be improved still further.

ISA TOWN

1964 saw the start of one of the most ambitious new community programmes ever implemented by a government in the Gulf area – the construction of Isa Town, designed to provide units for middle and low income families. In addition, a full range of associated facilities was planned to give this new town and its inhabitants a sense of community.

To date, a large construction programme has been implemented which has provided houses, mosques, shops, schools, a sports stadium, a health centre and other facilities. Nearly 15,000 people live in Isa Town and the community is continually growing, with the eventual target being around 35,000 people.

The scale of resources necessary to bring about this new town has been massive: the total cost of houses, infrastructure and community facilities is in the order of BD 20,000,000, or US \$50,000,000 at current prices. Furthermore the develop-

ment process has been a dynamic one, with design modifications being introduced as a result of observations of the existing houses and the uses made of them by their occupants.

Other housing projects have been undertaken, including several low cost extendible housing schemes for limited income families. These have been very successful in terms of cost, and most families have already extended their original dwelling by one or two rooms.

TACKLING THE HOUSING PROBLEM

Recently, the Government looked at the whole question of housing, and decided to establish a new Ministry. This body, the Ministry of Housing, was given the overall responsibility for the housing programme. It was charged with providing satisfactory dwellings for all Bahrainis, and this includes new communities and renewal of existing urban areas. It also has responsibility for physical planning. Furthermore it has to liaise with other ministries to help ensure properly coordinated action in the creation, maintenance and renewal of human settlements.

To enable its efforts to be properly coordinated, the Ministry needed a national housing policy and international consultants were appointed to assist in defining this policy. The original policies have been and will be updated as programmes are implemented and will serve as general guidelines for short and long term planning.

The Ministry of Housing has tackled the housing problem that it faces in a number of ways. Firstly it defined the scope of the problem by developing the analysis that indicated that current housing need is around 15,000 houses, increasing by approximately 1,000 houses per year as a result of population growth. In addition, some 10,000 houses require repair and improvement in varying degrees.

When these figures were examined against resource availability, it was immediately apparent that there were no simple short term solutions. The relatively high cost of housing construction in Bahrain, compared against current and projected per capita incomes and average wages for the

working population, indicated that even to solve the problem within the next 10 years would require a massive shift of resources — particularly investment and manpower — into the public housing sector.

Given this approach, a whole range of alternative long term programmes was developed and examined against a wide range of factors which included :

- Timespan to solve defined problem
- Resources required
- Degree of involvement of local industry
- Implications for existing settlements, and other locational factors.
- Land availability.

Other low level factors included items such as unit costs, short term programme implications and the effects on trade balances.

THE HOUSING PROGRAMME — GUIDELINES

As a result of this analysis, the Ministry of Housing instituted a wide ranging and comprehensive housing programme. The overall target of the programme is to meet current definitions of need within 10 years, which implies an annual average rate of building of just over 2,000 units per annum. In the earlier years of the programme the Ministry itself will have to act as the prime generator of activity and has launched a large building programme.

As the programme develops it will enable Bahraini contractors and building suppliers to enter the housing market more readily. The Ministry will encourage the private sector to take on certain aspects of the programme, such as commissioning of some of the new buildings required. The Ministry's role will then be to provide lower cost housing for those families on limited incomes and act as a regulatory agency for all Ministry sponsored programmes by setting standards, providing financial resources and planning policy.

The Ministry has also adopted a careful monitoring process, to ensure that the current data base is continually updated and programmes are adjusted to meet need. In this

way the flexibility discussed earlier will be incorporated into the programme, and long term targets will be adjusted as and when necessary.

SELECTING APPLICANTS AND ALLOCATING HOUSES

Having set the broad guidelines of the programme, and accepted a heavy direct involvement in the early years of the programme, the Ministry then turned to specific policy implementation. First it had to decide who would be eligible for the houses available given that current demand is much greater than current supply. At the present moment, the existing application lists are being updated, but there are some 7,000 on the existing lists, with more applying daily under the auspices of new schemes. Faced with such a list, the Ministry has to select between the applicants and this is done by using a points system. A list of criteria has been developed which together indicate the existing housing need of an applicant. Points are awarded in each category, for example, degree of overcrowding, provision of facilities, state of repair and so forth and the sum total of points for each applicant is taken as the prime indicator of housing need. As houses become ready for occupation, those at the top of the list are allocated to them. In addition, the comprehensive nature of the programme means that a variety of alternatives exist for applicants, ranging from repair and improvement through self building loans to Ministry-built houses in a number of locations.

Once an applicant has been chosen, he is then offered a choice of housing suitable to his particular needs. The Ministry then had to determine how applicants would be able to pay for such housing.

SUBSIDISING THE COST

As a result of its studies, the Ministry concluded that some level of subsidy would have to be included in view of the current very high level of building costs in relation to wages and salaries, and it was decided to introduce this subsidy in the form of zero interest loans, giving every Bahraini the chance to own his own home.

Even under these conditions, costs are high in relation to incomes, and the Ministry has decided to :

- 1 Choose low cost extendible houses for a large proportion of its current housebuilding programme
- 2 Embark upon a coordinated design programme to lower costs
- 3 Begin urban renewal and rehabilitation.

The concept of extendibility was introduced to allow families to alter the size of their houses so as to accommodate their changing needs as family size increases. At the same time it will mean lower cost housing and will ensure a flexible longer term programme as individual occupants are left to choose the eventual size of their dwelling.

Revised designs were introduced as it was felt that existing designs were too expensive and under the direction of the Ministry coordinated efforts by architects, engineers, quantity surveyors and local contractors have already led to cost savings of over BD 7m or US \$17m on original programme cost estimates.

The Ministry wishes to preserve its existing communities and urban renewal and rehabilitation are important elements in such policies. They are also favourable economically, as the per capita cost of providing such housing is often much less than with new building.

LOCATING THE NEW HOUSES

Once the overall structure of the programme was developed, the Ministry considered locational policy; where to put its new houses. The concept of a comprehensive policy was continued and new dwellings have been and will be constructed in :

- Virgin land areas
- Villages
- Towns and cities.

The building on new land will take place on the periphery of existing settlements, in particular further development of Isa Town towards its long term target population figure. This

development will help to cater for urban overspill. The programmes in the villages, towns and cities will help existing settlements to develop and maintain a sense of community.

IMPLEMENTING URBAN RENEWAL

An ambitious programme of urban renewal is also planned, especially for Manama and Muharraq. Two overlapping policies will be implemented: a general programme offering loans to anyone who wishes to improve his house and a specific programme implemented on an area by area basis.

At the moment outline Master Plans are being prepared for Muharraq and the first action area study has been commissioned. These action areas will receive considerable attention, and local improvement and redevelopment programmes will be established for them. The Master Plan will act as an overall planning device within which the policies for a specific area can be clearly established. The Master Plan itself is only a framework, and the Ministry has refused to allow lengthy development of the Plan; the emphasis has been on action — on getting areas defined and chosen for improvement, and moving in teams to develop specific policies.

When an area is chosen, its people will be encouraged to apply for improvement loans and the Government will itself participate by improving the local environment, upgrading the existing infrastructure and developing community facilities. Those houses which require renewal rather than repair will be identified, and their owners offered loans to encourage them to rebuild.

The Ministry of Housing recognises that urban renewal is a vital part of its long term plans. Considerable problems remain to be faced, such as issues of land tenure, temporary accommodation while repair is in progress, the cost and duration of loans, the attitude towards those who do not wish to repair their property and the private rented sector. Nevertheless, these problems are being tackled and the Ministry is carefully monitoring the results so as to develop a general framework which can then be implemented in other areas of Bahrain.

SUPPORTING PROGRAMMES

As well as the construction and renewal programmes, a range of supporting programmes is also being instituted. The most important of these is the loans programme which provides zero interest loan finance for Bahrainis to:

Purchase a new house

Build a house on their own land

Improve, repair and/or extend their existing house.,

The loan scheme is wide ranging and represents a considerable financial commitment by the Government. However it is viewed as an important element in the housing programme. It is hoped to encourage private interests to assist in housing development, and at the same time allow finance to be available for extensions and rehabilitation.

When extendable houses are built, funds will have to be provided to allow extensions as and when necessary and rehabilitation outside action areas chosen by the urban renewal programme is also possible using such loans.

LOOKING TO THE FUTURE

Obviously such a widespread programme has tremendous implications both short and long term. The short term response has been excellent and already two factories for reinforced concrete system houses are under construction, several local contractors have been awarded housebuilding contracts and more are under negotiation and many loans have been approved.

To ensure that the programmes progress properly, the Ministry of Housing is actively coordinating with other Ministries involved in human settlements in Bahrain and long term plans are being developed. Coordinated development of all aspects of communities, from houses, roads and drains to schools, hospitals, mosques and shops is planned and initial projects are already underway.

In summary, the Government of Bahrain is tackling the problems of human settlements by :

Providing the necessary organisational structure to handle including financial assistance

Accordinging the programmes a high level of priority.

In this way a wide ranging and comprehensive housing programme is being matched by other programmes to ensure balanced and rational development, in both existing and new communities.