CHAPTER X

GREATER ADEN BEYOND 2000 A.D.

Life in all the districts of Aden looks towards the city and port of Aden in all its diverse phases—economical, social and cultural. The population is increasing and the city in future should plan its function in a manner as it may be able to cope with the diverse requirements of the people. What would be the situation in 2000 A.D. and beyond?

Aden had a lop-sided development during the period of occupation and the main concern was to strengthen the naval base and the cantonment. The economic activities were closely related to the port and the economic level of the people fluctuated with the rise and fall in the port activities. There was no Master Plan for a balanced development of the city. Any Master Plan for the development of the city could not be taken up before independence for two reasons.

a) The colonial masters did not realize the need for it.
b) There was a dearth in technical proficiency to take up such a venture. However, after independence the Master Plan of Greater Aden was prepared and is not yet complete.

Greater Aden being a capital city has played the role of a primate city dominating over all the urban centres. The population of Greater Aden in 1982 was more than 5 times of Mukulla (the city next in size to Aden) Greater Aden accommodated 18 per cent of the total population of the country and about 45 per cent of the total urban population and spreads over 313 km. The area of Greater Aden is sufficient for future development until 2010 A.D. Expansion of Greater Aden is possible to the outer-zone which covers 88.8 per cent of the total city area and to the intermediate zone towards Abyan beach. Future expansion of the inner zone is not possible as the area is having a mountainous complex. Moreover, the expansion will be too costly for it. Occupation of the harbour and salt fields between the inner zone and the outer zone have played a major role in the morphological structure of the city in the past and still continue to do so in the future. The direction of development lies towards the north east and north west. It will be worthwhile to discuss the proposals put forward by the developmental scheme of Greater Aden 2010 A.D., keeping in view of the growing population. The planning structure of Greater Aden consists of three planning regions (Fig. 87) including 13 districts. These three regions are as follows:
I. Southern Planning Region.

II. North-East Planning Region.

III. Western Planning Region.

I. Southern Planning Region: This region includes four city districts, which are located in the inner zone. These districts developed from the middle of the last century (except Maalla and Khormaksar where more development has taken place in the middle of this century). These districts include Crater, Maalla, Tawahi and Khormaksar. Most of these districts have mixed industrial, commercial, administrative and residential function. (Fig. 88)

II. North East Planning Region: This region consists of five districts of Greater Aden. Three of these districts are already developed which include Darsaad, Al-Mansora and Sheikh Othman. Some new districts were envisaged during the planning period such as Bir Fadle, Caltex and Al-Arish. This region will constitute the main region of Greater Aden in 2010 A.D., where residential districts and new houses will be accommodated and will account for 67 per cent of the total population of Greater Aden in 2010 A.D. (Fig. 89)

III. Western Planning Region: This region consists of three city districts, out of which two districts namely Al Shaab and Little Aden are residential and industrial, while the third one is mainly meant for industrial, storage and special territories. The industrial districts are located in the west of this region, which is densely populated. It is
expected that the population of this region will be 109,000 and that of Al-Shaab district will reach about 62.4 per cent of the total population of this region by 2010 A.D. (Fig. 90).

The city witnessed tremendous growth and continued to grow towards the peninsula and expansion took place beyond Crater. During occupation period new urban forces became more powerful. These forces mainly include commercial, military and political. Aden became permanent in the traffic route between east and west. With the closure of Suez Canal the city witnessed a decline in the population as well as in the economic activities.

The present state of development of the city is due to the internally oriented economic development and not due to any external forces. Owing to geographical location Aden had been subjected to greater foreign influence than the other towns of the country. With independence a new dimension was added to the city. It became the capital of P.D.R. of Yemen. Such a situation will continue and the city will grow towards the outerzone, where the land is available for expansion and the future growth pattern revolves round the following factors.

2. Ibid., p.7
Population Growth Prospects:

The need for urban amenities, housing, water supply, education, health and recreational facilities and other cultural services make it necessary to know the magnitude of population growth. The main factors influencing the size of population are the natural factors of growth and migration. Migration has added to the population in the past and shall continue to add on a large scale to the urban population. There has been an upward trend in the growth of population since 1931. The population of the city doubled by 1946 and quadrapled by 1955. It increased to 8 times in 1964 and in 1973 census the total population became five times the population of 1931. There was a period of decrease in the number due to the closure of Suez Canal, the removal of the British base and the development which had taken place in surrounding territories because of increased oil production. Expected growth of population will be three times the level of 1980 by 2010 A.D. Actual growth rate of population in 1931 was minus 2.93 while in 1946 an annual growth rate was 5.3 per cent and in 1955 it was 7.98 per cent and the estimate of 1964 showed that the growth rate was of 10.1 per cent. In 1973 census, the rate was low when it reached about 1 per cent. The reason for the sharp decline in the growth rate was that

after independence a large number of people left the city and although some new areas were added still the population was small in 1982 and the rate estimated was about 2.6 per cent.

It is clear that the population as a result of migration increased after the Second World War and it continued up to 1964. After independence there was no intra-migration in the city but intermigration from rural areas will continue in future due to importance of the city in terms of its economic power, industrial and commercial functions. Many institutions were established as a result of which rural people were attracted to the city. It is estimated that the growth rate in the country was 2.6 per cent per annum in 1973. As a result of this the population of the city by 2000 A.D. will reach the level of about half million. According to the Master Plan, the population of Greater Aden will be 5,16,000 by 2000 A.D. and in 2010 A.D. it will be 870,000 (estimate based on 1973 census). The growth rate was 2.6 per cent up to 1980 and from 1981 onwards the growth rate has been 3 per cent.4

The most immediate and the primary need will be for housing. Average household according to 1973 census consists of 5.5 persons. Accordingly 126,810 houses will be required by 2010 A.D. Existing houses in 1980 were 46,000 with the result

that 80,181 houses will be required at the end of the planning period. There should be more parks, water supply and electric supply. The cultural facilities are not satisfactory for the population of the city. As population increases, there should be increased economic activity and more amenities will be required. The city depends upon the port of Aden from early time and Aden was a place where commercial goods were distributed to the surrounding areas. Increase of population requires more goods, so the development of the harbour and its activities should also increase. To ensure orderly planning of Greater Aden, a plan should be visualised to keep in view the requirements of increasing population. This should take care of land for industries, institutions and other facilities along with proper and efficient transport.

Future Expansion of Greater Aden Till 2010 A.D.:

It will be seen that many factors like topography, salt pans and location of the harbour and port of Aden put limits to the expansion of the city in the past before independence and the city developed in a scattered pattern. Greater Aden consists of 9 towns which are separated from one another and most of them are self sufficient in commercial, educational, and other services. In the innerzone old districts of Crater Maalla and Tawahi are located where the topography does not
allow the expansion of the city. The Master Plan has proposed some areas for development mostly in the outer zone of Greater Aden which has ample land for expansion. Here land has been earmarked for Greater Aden for development till 2010 A.D. This zone consists of five districts of Greater Aden.

The scheme of development for Greater Aden (for which planning had started since 1980) shows that the total area will increase from 13,955 acres in 1980 to 39,155 acres by 2010 A.D. The main feature of the city land is its residential area which includes public facilities and services. The second component is industries and associated aspects.

The proposed urban area according to the Master Plan has been divided into three planning regions consisting of 13 districts. Each planning region has been selected in such a way as it may reflect its own character in physical, social, cultural as well as in the pattern of land use. Each district is intended to be self sufficient with proper essential facilities. However, some of the districts have larger population especially Sheikh Othman. Besides the Master Plan has recommended that the total acreage under public offices be 1729 acres and that includes residential area also. Public building and all important functional
units have been recommended to be located at the main administrative centre of the city, such as governmental offices buildings of ministries and authorities and municipality buildings.

Housing:

The residential land will increase to cope with the increase in population. The proposal for residential area including public area will increase from 3690 acres in 1980 to 10,253 acres in 2010 A.D., with percentage growth of 177.9 during the next 30 years, with an Annual growth rate of 5.9 per cent. Residential land will contribute about 26.2 per cent of the total area of the city in 2010 A.D. The new construction will be multi-storeyed with average storeys between 4 and 5. In Crater, Maalla and Tawahi the buildings will have 2-3 storeys, while in Khormaksar 6-9 storeys. About 80 per cent of the buildings will be 5 storeyed. In Little Aden according to the Master Plan there will be 6-9 storeyed buildings. These newly constructed buildings will accommodate the increase in the population of Greater Aden. In the northern region the density per acre varies from 85 in Al-Mansora to 105 residents in Darsaad. Residential density in western region varies from 60 and 96 (Table XXXVI). Community facilities like primary schools, local parks, local shopping centres, internal residential streets and other facilities will be discussed in following pages.
Table LXXXVI - Gross Residential Density of Greater Aden
2010 A.D.

<table>
<thead>
<tr>
<th>District</th>
<th>Residential area in acres</th>
<th>Estimated Total population in 2010 A.D. in thousands</th>
<th>Estimated Density of population in 2010 A.M. person per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crater</td>
<td>556</td>
<td>77</td>
<td>138</td>
</tr>
<tr>
<td>Tawahi</td>
<td>287</td>
<td>20</td>
<td>69</td>
</tr>
<tr>
<td>Maalla</td>
<td>445</td>
<td>58</td>
<td>130</td>
</tr>
<tr>
<td>Khormaksar</td>
<td>790</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Sheikh Othman</td>
<td>2309</td>
<td>178</td>
<td>77</td>
</tr>
<tr>
<td>Darsaad</td>
<td>865</td>
<td>91</td>
<td>105</td>
</tr>
<tr>
<td>Al-Mansora</td>
<td>1112</td>
<td>95</td>
<td>85</td>
</tr>
<tr>
<td>Bir Fadel</td>
<td>865</td>
<td>73</td>
<td>84</td>
</tr>
<tr>
<td>Al-Arish</td>
<td>1037</td>
<td>94</td>
<td>90</td>
</tr>
<tr>
<td>Caltex</td>
<td>568</td>
<td>51</td>
<td>89</td>
</tr>
<tr>
<td>Al-Shaab</td>
<td>988</td>
<td>68</td>
<td>69</td>
</tr>
<tr>
<td>Little Aden</td>
<td>427</td>
<td>41</td>
<td>96</td>
</tr>
</tbody>
</table>

Total        10249     867     93.7

Source: Development Scheme of Greater Aden, Principal Scheme For 2010 Table 2. Aden, 1983.

It will be seen from Table LXXXVI that the expected average density of population in Greater Aden will be 93.7 person per acre and most of the densities in the city districts are below the average except Crater, Maalla and
Darsaad where the density will be higher than the average. New districts of Al-Arish, Bir Fadel and Caltex will have low average density of population as envisaged by the Master Plan for the next 30 years. It will be worthwhile to examine the suggested facilities in each planned region and compare them with the existing ones.

Establishments and Administrative Facilities:

According to the Master Plan providing suggestions up to 2010 A.D. there will be much facilities in each district. Municipal projects, administrative establishments, Post Offices and Police Stations will be located in each district. The plan has suggested one bank for a population of 15-20 thousand and according to this scheme the city needs about 49 banks. About 150 telephone lines are planned per 1000 inhabitants and in Greater Aden more than 130,647 lines would be needed.

Cultural Facilities:

Based on the establishment of these facilities the standard per thousand inhabitants was planned by the Master Plan. Clubs with 25 seats per thousand inhabitants have been planned and in total they would require about 21,672 seats in different regions. The cinema halls which now exist in the city are not sufficient. The Master Plan suggested 40 seats
per 1000 residents in the city, while in 1980 38.6 seats per thousand existed. In accordance with the Plan about 34,836 cinema seats will be required by 2010 A.D. and may be more if they are to be designed properly. One library is located in Crater in the southern region and that too with insufficient number of volumes. It is suggested that about 8 thousand volumes for 1000 residents are needed and therefore more libraries are to be added in each region. The Plan has suggested 12 pupils for 1000 population with the result the schools containing a total of 10452 seats are to be added.

The city has no exhibition ground. It has been proposed to have an Exhibition Hall in each district and thus there should be 12 Exhibition Halls.

Service Facilities:

Today the commercial function is performed by the Super Bazar and the state shops, which are located in different parts of the city. However, the inner zone continues to have private commercial and business centres. The Master Plan has proposed shops and stores including groceries and provision shops and suggested about 70 m² per thousand of residents. As a result 60,766 m² will be required for additional shops in 2010 A.D. Also the plan has suggested markets along with coffee houses
and restaurants to be constructed in different areas and that will require $2611 \text{ m}^2$ upto 2010 A.D. 11 service centres for 1000 residents have been proposed and the city will thus require 12,189 service centres.

Public Health Amenities:

The existing public health facilities are inadequate. In a hospital an average of 13 beds have been proposed for one thousand persons. As a result, the city population would require about 11,013 beds to satisfy the needs upto 2010 A.D. While on the average about 0.3 beds per 1000 existed in 1980. Each district will have a pharmacy, but it may not be sufficient in the case of a district like Al-Shaab with population of about 69 thousand. Other facilities suggested is autonomous laundry. About 120/1000 inhabitants are working in shift, the requirement will reach 104,578 for 2010 A.D. along with 6444 dry cleaning units. Other utilities like fire station and offices for maintenance of houses will also be needed. The Master Plan suggested one such project for 12 thousand residents, or there should be about 73 such offices by 2010 A.D.

Children Facilities:

Facilities for children are most important. The existing
facilities for children are not sufficient. The Master Plan has suggested schools for about 220 pupils per 1000. There will be 191,610 pupils in the capital in 2010 A.D. During 1982 the total number of pupils were 65,256. Other facilities for children are the establishment of Kindergarten school and creches. The Master Plan suggests about 90 children per thousand, arrangement of Kindergarten would be for about 78,385 children. The Master Plan has also suggested that Kindergartens will increase to 2512.

Industrial Component:

Sporadic location of industries has resulted into uneven development in residential area. Industries such as small scale and oil refinery, will determine the overall industrial frame in the future. Among others, weaving and spinning industries, aerated water and plastic products will be important in future. Most of these industrial products will be meant for local consumption. The industrial zone in the city will be located in the western part of the residential area as suggested by the Master Plan. There are two power stations, one constructed in 1982 and the second one is under construction it is expected that it will start functioning in 1986. This region of industries is located towards the west and will not affect the
residential area. The total land for industrial development will be about 16,885 acres including the zone of transport routes beyond city limits. The land use pattern will change and new areas of industry will be set up.

The second area with about 600 acres is distributed in different parts of the region, where ample land is available. Despite the land already occupied for industrial use in 1980, about 1711 acres of land will be available. This region will be one of the main industrial area in Greater Aden by 2010 A.D. The third region is located towards the west of the industrial area where about 1907 acres of land is occupied by industry. The Master Plan has recommended about 6175 acres by 2010 A.D. As a result this region will represent the first industrial region in the future. Heavy and Chemical industries are recommended because of the existence of oil refinery and future expansion in this region.

Transport Zone:

This zone occupied an important role in the planning of the city. The roads developed in the past required much attention for their maintenance in a proper way. In view of the fact the present network will not be able to accommodate the increasing number of vehicles. The Master Plan has suggested a large area of 1680 acres lying in different parts
as well as along the northern boundary of the city. Intertown bus stations and railway station in the northern part of the city on the road to Lahej have been suggested. In the built up areas most of the city roads connect Darsaad to Little Aden as well as the rest of the district, while bus station and workshop and public transport are quite far from the city. The Master Plan has proposed standards for transportation for 2010 A.D. 150 private cars 4 taxies and five bus services were established per 1000 residents. The number of private cars will be 130,500, the number of taxies will be 3480, while the number of service buses will be about to 4350. Aden is a focal point of two national highways system one of them is Aden Abyan with four Governorates such as Abyan, Shabwa, Hadhramaut and Al-Mahra, while the second connects Greater Aden with Lahej Governorate and North Yemen. These are the two highways in existence in Greater Aden today. Aden as a capital and main urban centre requires more public transport and convenient terminal to link the city with the rest of Governorate. The city require more attention and adequate transport, terminals and parking for places such as museum, exhibitions, sport, airports, stadium, libraries cinema halls and other public places; although they exert pressure on transport system and there is need for proper planning according to these perspectives. According to the provisions made in the Master Plan for specific residential
area, the transport network needs to be revamped and tailored accordingly, otherwise the functional units of the city will get disturbed.

Recreational Space and Playgrounds:

There is a public park in Greater Aden. It is located to the north of Sheikh Othman. The location of the city near the sea with beaches could reduce the need for provision of recreational space but it has not resulted in this way. The existing open green space is not only insufficient but is also unevenly distributed. According to the Master Plan, green space will be developed including parks, public gardens, and green areas for sport complexes. It is proposed that in the first stage of the plan, about 740 acres of land will be established, while there is also a recommendation for the forest zone of about 1 km. in width covering a total land area of about 8,645 acres. The Master Plan has recommended green belts on the periphery. The standard of greenery in Greater Aden according to the Master Plan would be about 10 m² per person. In the first stage it would be 4 m² per person and in the last stage it would be 6 m² per person. In residential areas, the Master Plan has recommended the above mentioned standards. Arrangement for the rest houses and sports as suggested by the Master Plan would be divided into two short term and long terms. Short term would be developed through beaches as
fishing zones suburbs, cottages and parks; while the long
term would be through rest houses youth camps kindergarten
and rest camps. For short term complex the Plan has
suggested that in Crater, Caltex, Al-Arish, Al-Shaab and
in Little Aden, the above mentioned functions be concentrated.