A Critical Evaluation of Libya’s Urban Spatial System
between 1970 and 2006

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Abstract

In Libya, rural-urban migration and rapid population growth were intensified by the discovery of oil and brought the polarization by the big cities. This polarization has become a major issue of problems within the urban spatial planning, particularly in the case of Tripoli and Benghazi. In order to resolve these, the Libyan government had since attempted various efforts to alleviate these urban pressures through both indirect national policies and explicit spatial development strategies. The aim of the study is therefore to produce a critical evaluation of Libyan spatial policies by the government between 1970s and 2006 and to offer insights into how Libya could benefit from a balanced urban system. Both secondary and primary data were explored.

This research has identified some merits of a number of spatial policies by the government as well as some major issues and weaknesses of these polices. Although government policies did have some effects in reducing the polarization by the two large cities, the issue of over dominance and the consequent urban problems still largely remained the same.
Declaration

I declare that, except where specific reference is made, the work described in this thesis is the result of the candidate. Neither this thesis, nor any part of it, has been presented, or is currently submitted, in candidature for any degree at any other University.

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Chapter 1 Introduction

1.1 Background

Libya has a land area of almost 1.8 million km², occupying a central position in North Africa with a 1,820 km coastline (Figure 1). Due to the favourable natural conditions in the rain-fed coastal plains of the Tripoli and Benghazi regions, these two regions have been settled and intensively cultivated since ancient times. Currently, 90 percent of the Libyan populations (around 5.4 million people) are living along or near the coast (Bulugma, 2004, p. 7). As a result, Libya is characterised by an unequal distribution of urban and rural settlements, by the dominance of two large coastal cities - Tripoli and Benghazi, a lack of medium-sized towns and cities, a north-south divide exhibiting dispersed settlements in the south, and by disparities in the living conditions and levels of utilities among the settlements.

Figure 1: Location of the Study Area.
(Source: Bulugma et al. (1985).

One of the most prominent phenomena that occurred in Libya during the second half of the twentieth century was urbanisation: this was the ever-growing rural-
urban and small-town to large-cities migration. This phenomenon has changed the spatial distribution of the population in Libya over recent decades. For example, previously the population distribution in Libya inclined to consistency and balance among rural and urban areas, but this balance has been upset because of the economic and social changes associated with the discovery of oil at the beginning of the 1960s. Therefore, development planning in Libya faces the problems of rapid population growth and industrialisation, which have resulted in increased overcrowding in the largest cities and an intensity of their excessive dominance in the urban system. This domination was reinforced during the 1964-1973 period, particularly in the state capital, Tripoli, where most of the population increase occurred. Because the Libyan government understood the emerging spatial distribution of their population and considered the resulting primate city patterns to be unacceptable, it attempted to change such patterns through indirect national policies or explicit spatial development strategies (Al Hadad, 1991). It could be said that during the 1975-1995 periods, spatial policies were partially successful in achieving a corrective of this unequally distributed system by increasing, for example, the national population share of less urbanised regions such as Khalij Sirt in the central area and Sabha, which is located in the south (Al Khikhia, 1995, p. 370).

One important observation is that urbanisation in Libya has a long history in the coastal region which is affected by natural conditions as well as by historical factors. This complicates analysis but there is consensus that the implementation of the spatial policies caused an evolution of the Libyan cities in terms of their sizes and numbers. However, there are still divergent views about the effects of these policies in controlling the growth and over-dominance of Tripoli and Benghazi on the urban system. Some believe that the policies were effective and that there is a decline in the population of these cities (Breabish, 2006); while others argue that the government has done nothing to effectively control the excessive growth of these cities (pilot interviews). Therefore, this study addresses the phenomenon of urbanisation in Libya and its impact on changing the spatial distribution of the population, with special attention being paid to the two large cities, Tripoli and Benghazi. The aim of the study is therefore to critically evaluate the policies that have been made by the Libyan government from the
1970s to 2006 in order to produce a more balanced system for the benefit of spatial socio-economic development of Libya. The term ‘urban system’ here is defined as the sum of towns and cities which constitute the settlement structure of the urban area in Libya. The study adopts the same criteria as those upon which the population censuses in Libya are based, i.e. any size of settlement with 5,000 people and above is defined as urban. In addition, an assessment of the role of these policies in controlling the over-growth of the two largest cities is made. To achieve this aim, both secondary and primary data will be used, the required data being obtained through interviews with specialists in regional and urban planning, as well as with government officials concerned with spatial policies and their implementation.

1.2 Objectives

The objectives of the study are as follows:

1) To study urban systems in Libya in some detail to reveal the settlement system in its spatial and hierarchical dimensions at national level, with special emphasis on the large cities;

2) To analyse the factors and forces that influenced the distribution and growth of Libyan cities in order to explain the present patterns of population distribution;

3) To evaluate the spatial consequences of the national policies - with particular reference to the changes that have occurred in the Libyan urban system - through the study of the relationships between urbanisation processes, policies and spatial development.

4) To evaluate the spatial policies already undertaken in Libya in order to ascertain the following:
   - How those policies have affected regional planning;
   - The extent to which they have achieved their objectives in the urban system, particularly as regards the over dominance of the big cities;
   - To assess the role of spatial policies in coping with rapid urban growth;
• To establish the extent to which policies reflect the philosophy and vision of the state regarding the urban system in the present and future.
5) To formulate recommendations for spatial development in the light of policy choices;
6) To develop recommendations and guidance for further research studies concerning social and economic changes and their impact on regional planning.

In light of the above objectives, the **key research questions** will be as follows:

1) How has the current pattern of population distribution evolved in Libya?
2) What human motives and natural factors have contributed to the existing patterns of population settlement in Libya?
3) What is the Libyan government’s philosophy in dealing with the perceptions of regional imbalance and the continued growth of the large cities? The last question will necessitate the examination of a series of subordinate questions:
   • What have been the goals of government policies and how successful are they?
   • What action has the Libyan government taken in order to produce a more balanced urban system and what has been achieved?
   • What is the effect of those policies on urban and regional planning?
4) What are the recommendations that might direct Libya towards a more balanced urban and regional system?

### 1.3 Outlines of the Thesis

The thesis is divided into eight chapters:

1. Chapter (1) offers a concise brief of this study, its research objectives, potential significance and the research questions. More depth of the
discussion relating the aim and the objectives are contained in the following chapter “The literature review and associated theoretical framework”.

2. Chapter (2) consults a range of academic and professional literature with a focus on the associated theories upon which the framework of the study is developed.

3. Chapter (3) presents the research methodology. Methods and approaches employed in this study are illustrated to demonstrate how the objectives set would be achieved.

4. Chapter (4) scrutinizes the features of the data obtained in the field work of this study and presents a measured qualitative analysis and interpretation of the interview results. This chapter aims to accomplish one of the research objectives regarding the spatial policies evaluation via soliciting and scrutinizing expert views within Libya.

5. Chapter (5) examines the characteristics of the urban systems over the years and gives an analytical account of the over-domination of Tripoli and Benghazi on the current urban system. The chapter is devoted to fulfilling the first and third objectives regarding studying urban systems and the changes that have evolved and taken place, with special emphasis on the largest cities.

6. Chapter (6) critically reviews and evaluates the role of spatial policies in reshaping the urban system. This chapter is dedicated for achieving the fourth objective, which is evaluating the spatial policies, especially regarding to the over-dominance of Tripoli and Benghazi. Moreover, some merits and weaknesses of these polices have been identified in this chapter.

7. Chapter (7) reveals the continued over domination of these two cities despite the efforts that have been exercised by the government.

8. Chapter (8) draws the conclusions of this research, indicating areas of further research (with recommendations) and outlining the contribution of this research thesis.
1.4 The Importance of the Study

As previously mentioned, Libya has experienced a rapid increase in its urban population over the last forty years, with more than 95 percent of the people currently living in cities. Moreover, the major cities of Tripoli and Benghazi have attracted a high proportion of the population, which has led to a concentration of 36.6 percent of the total urban population in these two cities (The General Organization for Information, 2009, p. 5).

The rapid rate of urbanisation has led to a number of urban problems which are still impeding the policies and programmes of urban development. This study will therefore focus on the strategy of spatial planning and its aim of creating a balanced urban system that is sustainable for socio-economic development. Additionally, the significance of this study lies in addressing the over-dominance of the two largest cities, which has affected the whole urban and social economic system. The study will therefore examine the role of the spatial policies to control the excessive growth of these two cities, as such growth could be problematic for Libyan development as a whole.

The study will attempt to identify a true image of the Libyan urban system and to outline the enhancements urgently required of the government; this will be done through a critical examination of the urban structure and its structural evolution within the Libyan context as well as through a measured evaluation of the government’s spatial planning and implementation process.
1.5 References


Pilot interviews, 2008

Chapter 2 The literature review and associated theoretical framework

2.1 Introduction

The literature on current urbanisation processes, patterns and their impact on the development are shaped by historically divided interpretations of the development theories. The aim of this chapter is to furnish the study with a theoretical base by outlining the theoretical foundations and a wide range of the existing literature relating to urbanisation, population distribution, state intervention, and the role of the cities in the development process, which are connected to the elements that have influenced regional problems in general and that have particular relevance to Libya too.

This chapter is an attempt to capture what can be gained from being discussed perspectives and to demonstrate the role of the cities in the development. It will also attempt to establish the study arguments via existing literature, theories or models. The first section of this chapter addresses the problem of research relating to Libya, while section 2.5 addresses the urban and spatial problems with which Libya is faced.

2.2 Modernization Theory

The rapid urbanisation process has been associated with the extreme growth of the large cities, particularly in developing countries, and is characterised by a heavy concentration of economic activities and wealth in a few large urban centres (Holdgate et al., 1982). For example, there were only 31 millionaire cities in the developing countries in 1951, compared with 500 of the 28 mega-cities in 2000, 22 of which are in developing countries (Zetter and White, 2002). According to Hall (1966), large cities function as major centres for political forces and national and international institutions deal with the government: this includes the leading financial centres, cultural locations, large seaports and airports. Friedman (1986)
defined large cities in terms of their role as financial, industrial and major transportation centres and as centres for many international institutions as well.

Traditionally, there was a collective opinion about the strong association between population growth and increasing inequality. This notion was initiated by Kuznets (1955), who has dominated most of the economic development models and practice since the 1950s, particularly in regards to the developing countries. The popular perception was that the shift from traditional to modern societies could be possible by adopting the values of modern urbanization. This process would be diffused to rural areas later, thereby achieving socio-economic development (Perroux, 1950; Hirschman, 1958; Friedman, 1969). The authors arguing in favour of this view consider that the polarisation of industry in major cities inevitably leads to growth and change. For example, the general model for the economic development of Hirshman (1958) forms the starting point for a discussion about this trend. He presented an optimistic view of the neo-classical situation and argued that polarisation should be seen as an inevitable advantage in the early stages of economic development. This directly supports the imbalance growth strategy, where investment is concentrated in specific major regions and sectors in the economy. Hirshman (1958) envisaged that the growth of these sectors would create a demand for other sectors of economy, quoting from the concept of natural growth pole of Perroux (1950). Both believed that development in the core regions would trickle down to the underdeveloped regions and this process was seen as an inevitable and spontaneous process. In this way, there has been conflict between researchers about the role of state intervention in eliminating spatial inequality. Myrdal (1957), for example, disputed that the potency of the development diffusion from the core regions is weak in developing countries, and the causative accumulation increased the disparity between the centre and other areas. He therefore favoured government intervention to reduce the spatial inequality. However, Hirshman (1958) argued that the state should not intervene to reduce spatial disparity since he believed that developments in the core region would trickle down to the developing regions. In his view, seeking profit, in the long term, would result in spontaneous growth and encourage industries to move to the developing regions. Additionally, the idea that without government intervention, development would move toward polarisation in transitional
societies was discussed and developed by a number of researchers at the end of the sixties and in the early seventies. The best example of this sort of study is the model of the centre and the periphery by Friedman (1966) who claimed that prolonged growth would lead to a progressive merging of the economy of the space. He also considered that economic development would ultimately bridge the gap in regional income differences and social welfare. However, Friedman noted that there were still cases of regional imbalance; he therefore stated that without state intervention, the transition from the second stage to the third one of the previous model would not be possible in developing countries. Here he agreed with Myrdal in his claim that the surplus in the social product would increasingly become concentrated in the same place.

More recently, the need for government intervention has been regarded as an urgent and important function in guiding subsequent growth and achieving a reasonable degree of regional equilibrium. This growth should then be sustained and induced with appropriate development policies. The significance of government intervention was also argued by Martine (1992) who stressed the importance of state policies for population redistribution by relocating public and employment investments. Further to this, Kivell (1993) supported the role of state intervention: ‘Whatever the ideological argument, the reality is, that laissez-faire urban development does not produce satisfactory results, and some degree of intervention is necessary’ (Kivell, 1993, p. 129).

It is generally accepted that urban development should be subsidised, with adequate power and resources to produce the major restructuring of land use (Adams and Hastings, 2001). According to Payne (2000), economic development strategies have significantly affected the options available to governments to deal with the problem of urban growth. However, Madanipour (2001) maintained that: ‘State interventions in the city proved to be a complex process and needed administrative management, as well as support from new branches of science and technology’ (Madanipour, 2001, p.5)

Elkahj (2008) also supported the idea of the state's role in the growth of small towns (as external growth), explaining the importance of the role played by the
Libyan state in such towns through economic and social development policies; for example, the Libyan state played an important role in bringing about changes in the town of Alghobba, such as the growth of the city's population and the planning of the urban area. He therefore concluded that the supportive and direct role of the state in encouraging growth in the small towns through development programmes could create balanced growth in the regions.

In this respect, evidence in the literature shows conflicting views and opinions regarding fears about the continued growth of the largest cities.

One group of views represented by earlier studies (Hardoy, 1975; Satterthwaite and Alonso, 1968) revealed that fears about the rapid growth of the largest cities proved to be unjustified, their claim being based on several factors such as the decline in the rates of migration in general, and urban growth in particular; this suggests that the phenomenon is not necessarily a negative one: ‘There is no basis for the belief that urban primacy or over urbanisation is detrimental to the efficiency goal of economic development’ (Alonso, 1968, p. 4).

In addition, some scholars have favoured the expansion of big cities for economic reasons, claiming that the growth of very large cities and the continuous flow of resources from adjacent areas to them are necessary to stimulate national economic development (Friedmann, 1978; Mera, 1978). However, later studies, such as those of Turner (1990) and Lewis (2003) indicated that worries concerning urban growth and large cities can be justified in both economic and social terms. For example, Richardson (1989) admitted that the productivity arguments he had advanced for large cities for some years might well have been overstated. Additionally, Bennett and Estall (1994) argued that primacy should not be necessarily considered in a negative light as this is an obvious phenomenon that is not only limited to Developing World Countries.

In addition, many studies have argued that growth comes about within a settlement system in the form of pyramid from large urban centres to small urban places, such as in the study of Hudson (1969). He noted that development diffusion can be seen at the bottom of the pyramid with a system of settlements.
starting in the large cities. Berry (1973) concurred with this view in his study on
the diffusion hierarchy of growth through innovation, and especially at local level.
Regarding the Arabic Countries, Abou Aianah (1984) observed that the peak of
urban hierarchical pyramids in Arab countries shows a tendency to enlarge at a
more rapidly rate than the base, which means that the major cities are rapidly
expanding and absorbing an increasing percentage not only of the population of
the country as a whole, but also of its urban population; because of this, the urban
hierarchy is out of balance (Abou Aianah, 1984, p. 455). This gave a clear
illustration of the law of the primate city, as postulated by Mark Jefferson (1939)
in the late thirties. He stated that within a single spatial area, one city towers
above all others in a manner inconsistent with the otherwise gradual, hierarchical
progression. He further noted that the primate city is usually the capital of the
country or region and plays a greater role than any other city in expressing
national identity and contributing towards national unity, bearing in mind the fact
that newly established federal capitals represent exceptions to this rule. It has been
claimed that the concentration of urban growth in a few large cities is a natural
stage of the development process. As Gone (1977) stated:

The pattern of primacy in many developing countries is becoming
accentuated as new manufacturing activities cluster in the primate
cities which offer the great advantage of agglomeration economics and
market accessibility….. The multiplier effects of rising incomes at any
levels of the urban hierarchy tend to leak up to the few largest centres
which provide high order services. (Gone, 1977, p.1)

The real advantage of these ideas regarding development polarisation was that
they went beyond being used as a basis for understanding the historical processes
of urban industrial change in the fifties and sixties of the last century, and became
a clear framework for the regional development policy at that time. In fact, the
principle of imbalanced growth became increasingly accepted in the first decade
after the Second World War; since then growth has rapidly followed the path of
industrial growth based on a non-intervention policy, and has enhanced the natural
growth of many centres. Al Hadad (2002) maintained that this idea gave cities a
leading role in the development process. This belief has dominated regional
planning since the fifties and up to the beginning of the seventies.
The modernisation theory attributed the continuing poverty in the post-colonial Developing World to specific national factors, such as authoritarian systems and those where there is bribery as well as military, political, and administrative systems. More recently, the modernisation theory of the 1990s attempted to discover the contradictions in the modernisation process as well as to explain the consequences of modernity for individuals in contemporary society (Giddens, 1991). Peredo and others (2004) summarised the ideas of modernisation theory as follows:

First, it sees development as passing through various stages. It implies that in order to progress and develop, traditional societies have to move toward modernity… Secondly, monetary income and, therefore, economic growth are regarded as key elements in measuring the quality of life. Thirdly, humans are or should be motivated by self-interest and rational economic behaviour. (Peredo et al., 2004, p.7)

Myrdal (1968) was more pessimistic, believing that capital development works to deepen the regional inequalities in regional and personal income and in the social welfare of people. Myrdal followed the discussion and debates concerning the vicious cycle of poverty and presented a causal accumulation theory. This theory stated that free market forces lead to regional disparities through ‘backwash’ effects resulting from the casual accumulation process in prosperous regions; this then leads to the loss of economic and human resources from the rest of the regions. In this way, a government can find itself confronting unbalanced development between the urban and rural areas: ‘In order to serve the main purpose of regional planning today (the regionalisation of national development) growth pole theory should refer to the system of poles, rather than to the single pole’ (Lasuen, 1996, p.44)

In fact, most developing countries, including Libya, have adopted these ideas from the modernisation theory and have introduced a growth pole strategy; this is based on urban industrial development and is a tool of economic and social transformation on a regional scale. For example, despite establishing petroleum industries in Khalij Sirt, especially in Ras Lanouf and Albrayigh, these oil towns amounted to only 0.7 percent of the total Libyan population in 2006 (General
People’s Committee, 2009). In addition, the failure of the policy of ‘Growth Poles’ in Libya could be attributed to the following reasons:

1. Selecting a large number of centres (371) to be growth and services centres;
2. The poor selection of these centres and their geographical distribution;
3. The policy concentrated on service aspects rather than relying on the economic functions; this weakened its role in the framework of the national strategy and limited its function to offering services so as not to create a demand for other functions to be involved (Markhous, 1998).

2.3 Dependency Theory

The second theory of urbanisation is associated with dependency as a reaction to modernisation theory. Myrdal’s assertion and dependency theorists argue that modernisation may lead to widen the gap between the urban centre and rural areas rather than attaining the desired spatial equilibrium. Dependency theorists, particularly those from Latin America, have tried to explain development as a function of world capitalism. Frank (1969) suggested that the development of developing countries was directed by its integration into the world capitalist system. He also defined dependency as a series of metropolitans (large urban centres) and dependent areas. The metropolitans exhaust the economic surplus from the dependent areas for their own needs, and consequently, support the process of development in the controlled countries while at the same time enhancing underdevelopment in subordinated countries. In the same vein, Dos Santos (1970) defined the state of dependency as:

A situation in which the economy of certain countries (or regions) is conditioned by the development and expansion of another economy to which the former is subjected. The relation of inter-dependence between the two or more economies, and between them and world trade, assumes the form of dependence when some countries (the dominant ones) can expand and can be self-sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion. (Dos Santos, 1970, p. 231)
Vance (1970) observed that with the progress of the commercial communities from the fifteenth century and beyond, settlements had started to appear along more complicated lines. Major development came with local colonialism in commercial campaigns, where a continuation of economic growth required many natural resources. However, the 17th and 18th centuries were characterised by the expansion of colonial operations. At that time, the ports dominated in the development of urban systems in each colony, which resulted in enhancing the positions of the ports in the urban system (Vance, 1970).

The historical aspects of commercial links led Vance (1970) to develop a new model for the evolution of urban settlements. This model came about because entrepreneurs in the 17th and 18th centuries were travelling outside Europe. This therefore constituted a source of change in developing countries from abroad and, in turn, brought about the evolution of the patterns of settlement systems; additionally, the systems of central locations in the developed countries were based on the principles of internal growth for local demand. This therefore occurred in the form of a closed settling system.

A striking feature of the Mercantile Model is the outstanding linear characteristics for settlement patterns; the first stage was along the coasts (especially in the colonies), and then along the roads developed between the coastal linking points and the productive inland areas. In the economics of Plantations such as those found in the Caribbean, the local historical variety of the commercial settlement system was manifest in an urban agricultural model. This model was developed through stages, the first and second stages being based on the study of Rojas (1989) concerning human settlements in the eastern Caribbean. The remaining stages were explained by Potter (1995). In the first stage (1750), a Plant-polis was formed on the basis of agricultural self-sufficiency and independence, which means that one city performed the commercial and services functions in addition to holding political control. After liberation was granted in Caribbean (1833), local communities started to concentrate around the Plantations, practicing the farming of self-sufficiency and became a source of employment for those plantations, adding a third dimension to the settlement system (the second stage). The distribution of these communities varied according to the natural and
agricultural conditions. The third stage (1950) was the modern period, which witnessed the expansion of this polarising pattern of development. Libya followed a similar model, with the early settlements initially scattered along the coast. Further settlement patterns were also found along the road networks between the existing towns and inland areas. The former models of the Mercantile and Plant polis confirmed that the evolution of the settlement systems in most developing countries can be attributed to urban dependence. Moreover, the high degree of urban primacy and the coastal trends of the settlements in Africa, Asia, South America and the Caribbean are the results of exploitation of geographical advantages, which means they have not come about by accident or through abnormal situations.

Potter also argues that ‘the evolution of the developed and less developed areas of the world has been very closely interrelated over the past five hundred years’ (Potter, 1992, p.14).

However, this has been recently modified: some scholars (So, 1990) have argued that both theories introduce conflicting views about the relationship between the developing and developed region. Such contradictory guidance has led many to suggest several approaches in order to accommodate the nature of increasing contingency and human agency. In this vein, Tucker (1999) observed that this allows: ‘for the possibility of incorporating the experience of other peoples, other perspectives and other cultures into the development discourse’ (Tucker, 1999, p.16).

### 2.4 Bottom Up and Post-Modernisation

Since 1975, a new paradigm has emerged which focuses strongly on rural development strategies. The basic idea of this strategy is the belief that basic needs must be given priority in the regions and this cannot be achieved, particularly in Developing Countries, if countries become more dependent on their domestic resources and reduce their involvement in unequal exchange processes by following the policies of Regional/ Selective territorial closure.
It seems clear that this policy is based on socialist principles, whereby the social product surplus should not be concentrated in the upper levels of the settlement systems, but the focus should rather be on the needs of the lower levels of the settlement pyramid. This characteristic has led to the emergence of the term ‘bottom-up’ for such strategies. These strategies are usually implemented by strong countries so that they can be controlled and guided by the political centre of the state. Examples of countries that have adopted this development approach include China, Cuba, Tanzania and Libya (Al Hadad, 2002).

Despite studies that recommend small cities as an option for development, there is inconsistency among researchers regarding the importance of small towns in national urban planning. Obudho (1979), for example, argued that the development of small cities in rural areas would lead to a reduction in the polarisation processes which have come about because of the intensive growth in the two largest cities in Kenya. This can be done by directing some of the investments towards some selected small cities and is the only way to decrease the large differences between the developed urban areas and the underdeveloped rural ones (Obudho, 1979, p. 250). Similarly, Black (1980) argued that small towns could play a significant role in both the decentralisation of industry and in reducing the volume of migration to large cities. To support his argument, he cited the success of the small-scale industries in small towns in Algeria, Tunisia, and Turkey to show the significance of small towns and outlined the following reasons to justify his views:

The population of some towns is declining, while the number of small towns shows a net increase; more widespread than population decrease is the gradual loss of regional influence being experienced by many provincial market towns, resulting in a marked decline in wealth and status. Small towns deserve attention because many of them still function as vigorous regional centres and they represent considerable potential for the implementation of the development policies of central governments. (Black, 1980, p. 220)

Kezzeiri (1984) also provided a detailed study of the role of small towns in the Libyan urbanisation process. He showed that these towns had grown rapidly in size and number and explained the rapid growth experienced of many of the small towns, due in part to the impact of government investment programmes in urban
areas; this resulted in an acceleration of rural to urban migration and the arrival of large numbers of foreign workers. Kezzeiri (1984) therefore called on governments to support small towns by raising the status of selected small towns and by creating in them new employment opportunities and service functions so enabling them to play a significant role in regional planning.

Similarly, Rondinelli (1985) suggested that small towns in developing countries should be capable of carrying out many social, economic and services functions effectively, these being essential for regional and national development. However, not all small towns are able to achieve all of these functions or to perform them efficiently (Rondinelli, 1985, p. 20). This suggests that the government should be selective in choosing the towns to be promoted, bearing in mind their respective resources and abilities. As Rondinelli (1985) stated: ‘Not all small towns and cities can or should be developed as central places, nor should they all have a full range of services, facilities and infrastructure’ (Rondinelli, 1985, p. 21).

Kezzeiri (2007) argued that small towns in Africa do not play a significant role in rural development; indeed it appears to be hard for this role to be played without the practical implementation of decentralising policies. This should be supported by the local democracy and have popular participation. Kezzeiri (2007) added that despite attempts by some African countries to develop small towns, such attempts in general failed to achieve their aims. Two examples of such failed attempts were provided: the experience of cooperatives in Tunisia in the sixties and a project of one thousand socialism village in Algeria because of the lack of interest by people and due to other problems as well (Ibid, 2007, p. 178). Kezzeiri suggested that the success of any strategy for developing small towns in African countries depended on developing road networks between small towns and large cities, on the one hand, and between small towns and their rural hinterlands on the other. In addition, a change in the economic and social structures in rural communities has to take place for them to play their desired role (Ibid, p. 185). In support of this, Elkahjkahj (2008) considered small towns to be a service link between big cities and rural areas.
Some scholars are strongly in favour of the idea of developing small cities; Zeremba (1974), for example, considered that small towns should be developed or stimulated, and El Shakhs (1975) stated that such cities should be encouraged. However, there are those who have opposing views and explicitly defend growth and urban concentrations in large areas. An example of this is Abu-Lughod (1973), who argued that there is no solution to the growth of primate cities and favours the concentrations of urban growth in major cities; she also maintained that large towns and cities would experience greater rapid growth at the expense of small towns and drew attention to the fallacy of expecting a balanced hierarchy of settlement in the Middle East with a broad base of small towns. For her there is no solution to the growth of primate cities, but such growth could be guided to the axes that exist between the large cities.

In conclusion, Richardson (1982) came closer to the truth when he pointed out that:

> The importance of small towns depends on how their functions have evolved with respect to their hinterlands and on the institutional and cultural features of the country in question and how policies for strengthening the small cities are formulated and implemented (Richardson, 1982, p. 82).

Hence, it has become increasingly important to consider the future of major metropolitan areas in developing countries and to face the challenges of their urban growth and development. This can be done by searching for policies which improve the control of the growth of the largest cities and which move towards the development of medium-sized and small towns. In this way, regional inequality can be alleviated as far as population distribution and economic activities are concerned. Some scholars have stressed the importance of growth with equity and redistribution as a fundamental principle for subsequent growth (Adelman, 1995). More recently, the theoretical discussion that linked mass growth to inequality has resulted in reviving interest in this debate. El-Shakhs (1997) for his part indicated that most developing countries consider the spatial distribution of their populations and the resulting primate city patterns to be an
acceptable phenomenon. Accordingly, a high degree of urban primacy is considered another problematic characteristic for the distribution of the urban population in developing countries.

2.5 Existing literature about Libya

Notwithstanding some of the major issues and weaknesses of the modernisation and dependency theories, they have had a significant impact in many fields, such as in the role that cities play in the overall development of the developing world and in explaining the emergence of Third World metropolises. In spite of this, they cannot stand as development concepts for all developing countries, but may serve as an analytic framework for future research. From the literature on the new economic geography, Johansson and others conclude that ‘the regional policies must be designed differently for regions of different size’ (Johansson et al., 2002, p.13). As, the character and the speed of urbanisation differ from region to region and from country to country, depending on factors such as:

1. Population growth;
2. Level of development;
3. The socio-economic structure of society and its style of development.

For instance, there is a huge variance in the urbanisation processes in the developing world. That problem has made it difficult to generalise, as Abu-Lughod (1996) stated:

The Middle East is more fragmented than China and subject to more conflicting forces than Latin American. Special circumstances, such as the presence of petroleum resources in places that lack other bases for development and the widening gap between rich and poor Arab States, introduce variations that are more extreme than in other regions. Thus, studies of the Arab World cannot simply adapt the explained theories generated elsewhere, but must create new ones more relevant to the region. (Abu-Lughod, 1996, P.187)

Regarding the pattern of urban system development in Libya, Blake (1979), in his study of urbanisation and development planning in Libya, pointed out that
migration was the main reason for urbanisation and city growth. In addition, he criticised the trend of urban growth, which has led to a concentration of the population in just two cities, suggesting that expansion plans should take some of the pressure off Tripoli and Benghazi by moving in the direction of decentralisation.

In the same vein, Attir (1986) dealt with the pattern of urbanisation in Libya and its evolution during the period of 1911-1978. He showed that one of the most important characteristics of this phenomenon was the dominance of the cities of Tripoli and Benghazi on the urban system during the 1950s and 1960s due to the concentration of administrative and commercial services in them. In addition to this, he addressed the problems of urban planning resulting from plans and schemes prepared by Western bodies, which did not take into account the specifics of Libyan society.

Lawless and Kezzeiri (1986) explained that rapid urban growth has been unequally distributed through the Libyan system. Tripoli and Benghazi, the two major cities of the former provinces of Tripolitania and Cyrenaica, are both major ports and industrial, commercial, administrative, as well as educational centres which have become increasingly dominant.

The major reasons behind the increasing urban population in Libya, according to Fayad (1993), could be a lack of integration in social and economic development plans at national and regional level and an absence of industrial and productive projects in rural areas; this increasingly stimulates rural migration toward large cities. Unfortunately, this is not consistent with increases in production in the industrial and agricultural sectors and has resulted in the growth of service activities more than productive sectors (Fayad, 1993, p. 216).

Ahtyosh (1994) also discussed the issues of population growth and urban growth both globally and in Libya. The study found that each city had its own characteristics according to their different economic, social and demographic circumstances. Therefore, Ahtyosh (1994) stressed that the best way to understand urbanisation in developing countries is to set each country in the context of the
overall changes taking place domestically. The researcher also confirmed that the geographical situation of a country does not allow for choices as regards a wide range of population concentrations. He further asserted that the process of urbanisation would continue as a result of the following factors:

1. The provision of water by the Man-Made River System;
2. The improving means of transport and modern communications and transportation;
3. The transformation of the traditional economy to a modern economy based on industry;
4. The significant role of decentralisation in planning (Ahtyosh, 1994, p. 10).

Similarly, Al Katab (1994) focused his study about the phenomenon of urban growth in Libya on three aspects: demographical growth and urban expansion; the process of urban growth in Libya; problems resulting from urban growth. The study also identifies the factors that confound the process of development as follows:

1. A lack of the necessary facilities and infrastructures;
2. The role of internal migration from the countryside to the cities as well as the return of migrants;
3. The concentration of the population in the major cities of Tripoli and Benghazi;
4. The spread of unregulated areas in the largest cities - particularly in Tripoli - such as in the areas of Ghot Al Shail and Alhadapa Alkhdra (Al Katab, 1994, p. 79).

The main factors behind the development and achievement of a rapid shift in the transformation process were also discussed by this study. Finally, the study pointed out the problems of urbanisation, stressing that all the planning studies conducted up to that time, in addition to the execution of the plans and programmes, had not succeeded in finding every successful solution for these problems, particularly as regards the most significant problem of the redistribution of the population (Ibid, p. 85). Therefore, the study produces some directions on
how to redistribute the population evenly in order to reduce the pressure on the areas with the highest concentrations of population.

Much of the academic research has acknowledged the significant challenges facing the urban development programmes in Libya. In this vein, though the researcher is not in favour of the views against large cities, however, evidences have already shown that the over dominance of the largest cities would be the root to the spatial problems, especially within the national Libyan framework. A clear picture of this situation in Libya was provided by Kezzeiri and Yousif (2003), who confirmed that the geographical distribution of the population in Libya is clearly characterised with an imbalance in the distribution of the population and with the majority of the population being concentrated on the coastal strip located around 25 kilometres from the coastline. They also pointed out that the north-western and north-eastern areas have the highest concentrations of population. Aside from this, the geographical distribution of the population is marked by a scattering of people and dispersion in large parts of the country, as seen in Khalij Sirte, with further scattering in the south oases where they are distant from each other. They attributed the reasons that led to this pattern of distribution to natural factors, as well as to the role of higher expenditure and the allocation of development plans in the cities of Tripoli and Benghazi. For example, in the period of 1981-1990, Tripoli and Benghazi obtained around 29.7 percent of the total government expenditure, which is the highest proportion overall (Kezzeiri and Yousif, 2003, p. 66). They concluded that although the government had attempted to create a balanced spatial development through many development plans for less developed regions. However, these plans did not achieve their objectives of reducing internal migration, diminishing the sizes of the major cities or countering the growing urban population at the expense of rural areas. They referred this failure to a lack of continuous evaluation for such plans (Ibid, p. 77)

Despite the potential advantages of urbanisation, however, the country suffers from the burden this phenomenon imposes. For example, one of the serious problems faced by Libya was explained by Porter and Yergin (2005):
Only a very small percentage of the country’s area - the land located along the Mediterranean coast - is habitable or agriculturally usable, for physical and climate reasons. As the major urban centres of Tripoli and Benghazi, which together account for around two-thirds of the country’s population, expand, they are encroaching on the two main agriculturally-productive regions in the country, the coastal rain-fed plains of Jifarah and Jabal Al Akhdar (Porter and Yergin, 2005, p. 125).

A study by Al Zinati (2003) about the decentralisation of development and its role in the redistribution of the population in Libya, considered the problem of urban growth and the policies that had been followed by Libya in the seventies and eighties to alleviate population pressure in the major cities, using Tripoli as an example. He states that concentration the population in specific cities is happening in country such Libya, which the majority of its territory is controlled by the desert; consequently, this phenomenon has resulted in losing a significant proportion of agricultural lands and concentrating a large proportion of the population in a very small area. Al Zinati (2003) attributed this situation to the inherent problems of the urban planning program at that time and its focus on the largest cities.

In 1992, Al Halag also presented his thesis on the urban growth and its impact on water consumption in the city of Benghazi. This study again concentrated on urban growth in Libya; it showed that the trend of urbanisation in Libya was the dominance of the major cities of Tripoli and Benghazi on other cities. These cities are economical capitals providing services for both the west and east of Libya; for example, Tripoli contained 27.2 percent of the total population in 1984, while, Benghazi accommodated about 11.3 percent of the total for the same year (Al Halag, 1992, p. 169). As a result of this growth, a number of problems emerged, such as the failure of the housing services and transport and social services in meeting the needs of increasing numbers of people.

Similarly, Kezzeiri (2003) in his research on population growth, urban expansion, and the problems of water shortage in the city of Benghazi, made a study of the water situation in Benghazi. This concerned the changes that occurred in both the quality and quantity of the water as a result of the changes in the population and urban growth. This study was based on an analysis of the available population
statistics for the period of 1954-1994. Additionally, the physical urban expansion for Benghazi and the uses of its land were studied in order to anticipate the urban growth of the city in the future as well as its impact on the future needs of water. It was therefore concluded that the city of Benghazi would witness significant population growth and urban development, which would result in an increased demand for water.

Bulugma (2004) presented research along the same lines at the Conference of Development and Population in Tripoli, Libya, in November 2004. This research addressed the effects of continuing population growth on dwindling volume and the quality of the basic and most important resources, such as the interior water and the decline in the percentage of fertile land. This problem will probably lead to an obstruction or failure to meet the needs of the current population as well as the anticipated numbers in the future. The researcher stated that Tripoli and Benghazi are still considered the first concentrations of population, and this has accordingly created an unusual situation for the distribution of construction, both in terms of size and location. Additionally, he attributed the decline of the total density of population in other regions to the effects of natural factors. However, human activities are considered to be significant reasons for increasing the density in the areas of Tripoli and Benghazi.

The study of slums and their impact on the Third-Generation Schemes by Al Zanan (2006) was concerned with the major characteristics of slums areas and their causes, as well as the consequences and problems accompanying this phenomenon. She, therefore also recommended intervention by the government in order to take urgent and effective steps to deal with the problem; if this is not done, it will be difficult to control and eliminate the problems of overpopulation, particularly as the causes still persist.

In addition to this, Zeidan from the Urban Planning Bureau in Tripoli produced a study entitled ‘Urban Planning and town plans: between reality and legislation in 2006’. The study concluded with an account of the measures that have been taken because of delays in applying new urban schemes and procedures. The researcher confirmed, however, that despite these efforts and the funding for the preparation
of plans as well as the legislation issued by the community, there were still problems, such as unregulated construction, and encroachment upon the schemes and land use was becoming increasingly serious. In fact, there was a direct correlation in the decrease of commitment and increase in disagreement with the schemes at all levels. However, this problem varied from one area to another, depending on the size and location of the masterplan and the value of the land and its location.

Consequently, countries such as Libya were set to face unprecedented social and economic challenges and environmental problems within the limits of their existing spatial and regional structure. An understanding of current patterns of spatial development and of how they can be changed most effectively to meet emerging development needs is essential to achieve growth with equity. In addition, the pursuit of coherent regional development strategies is essential to obtain equal growth. ‘Spatial development programs are important tools in restructuring urban systems. Questions of spatial balance and inter-regional equity have become legitimate and equally justifiable goals of development to leaders and planners of developing nations’ (El-Shaks, 1975, p. 381).

2.6 Concluding remarks of the theories revisited

The former theories can be useful to explain the current format of the urban system in Libya and to clarify Libya’s urban development in the past, hence, these theories helped with an examination of how the current patterns of population distribution evolved in Libya. However, they are, in practice, not helpful for Libya’s potential development. Consequently, Libya should not follow a modernisation theory which will make the cities of Tripoli and Benghazi even larger. This would increasingly encourage their growth at the expense of other cities and towns, and would clearly exacerbate the urban and spatial inequality and its associated problems. The authors who support the ideas of modernisation believe that the polarisation and development of the largest cities would lead to growth in the small and rural areas. This did not prove to be effective in Libya’s case. For example, after the exportation of oil wealth in the 1960s, the Libyan
government started huge investment programmes for general socio-economic development. The polarisation of such programmes in large cities, particularly in Tripoli and Benghazi in the northern coastal areas, has resulted in a concentration of activities and population in these cities. As Myrdal (1968) argued, the economic development in urban areas created further growth in the cities and their adjacent areas, but in general the existing inequalities between urban and rural regions increased. In the same manner, the dependency theory does not explain city development here as the cities of Tripoli and Benghazi do not depend upon other urban systems. In addition, this theory assumes that the dominant city, region or country can expand and be self-sustaining, while others (the dependent ones) can only benefit from the expansion of the dominant ones. These ideas favour the exhaustion of the economic surplus from the dependent areas in the interests of the dominant areas; such views therefore contradict the aim of the Libyan spatial policies in achieving a balanced development for the whole country. Hence, these theories should not be followed as models to develop the Libyan urban system as they are not in interests of the social and economic development of the country. It is argued here that Libya should instead develop its own model tackling her development problems arising from special natural circumstances and the urbanisation process. The theory of development formulated in developed countries does not adequately explain such problems, and consequently cannot serve as a basis for strategy and a policy capable of dealing with such circumstances successfully. This opinion is supported by much of the recent debate on local development, this being guided by the perspective that ‘development is a multi-dimensional process through which society seeks to achieve a variety of goals’ (Kulkarnu and Rajan, 1991, p.102). Wong (1995) accentuates this perspective, arguing that ‘academic debate over the causes of continuing uneven development has increasingly emphasised the local dimension and the distinctive mix of relative (dis) advantages possessed by each area’ (Wong, 1995, p.112).
2.7 The theoretical framework for this study

The theories and literature reviewed earlier have provided basis for the development and formulation of the framework for the study. The notion that development would move toward polarisation in transitional societies without government intervention was discussed and developed by a number of researchers at the end of the sixties and in the early seventies. More recently, the need for government intervention has been regarded as an urgent and important function in guiding subsequent growth and achieving a reasonable degree of regional equilibrium. According to the previous theories, there are conflicting views regarding State intervention, as follows:

- One view supported by Myrdal (1957) favoured government intervention in order to reduce spatial inequality;
- Another group represented by Hirshman (1958) argued that the State should not intervene to reduce spatial disparity since it was believed that developments in the core region would, in the long term, trickle down to the developing regions;
- The third group of views which take a neutral position between the two previous ones and are supported by Friedman (1966); he stated that government intervention is needed but in the later stages, as explained in his model ‘the centre and the periphery’. Here, the transition from the second stage to the third one of this model would not be possible in developing countries without the intervention of the government.

The researcher concurs that the government should intervene, especially in Libya’s case as the Libyan government is considered the principal variable in the process of urbanisation and development. In Libya, as in most developing countries, the burden of economic and social development falls upon the government; it is the government that must stimulate industrial and urban development, build infrastructure, and establish welfare programmes and it is also responsible for decisions concerning all aspects of urbanisation, land use, urban location, legislation, economic stimulation, and population redistribution. The participation of the government in the development of this oil-rich state has
therefore increased progressively with the growth in oil revenues, resulting in the state becoming the dominant factor in the economy.

Rooted in the State intervention theory, in particular, the school of thought represented by Friedman, this study sets out to evaluate the major aspects of government intervention in coping with rapid urban growth, as represented in the different generations’ plans, such as the First Generation Plans for the period 1968-1988, the Second Generation Plans for the period 1980-2000 and the Third Generation Plans for the period of 2000-2025. These plans have been chosen to be evaluated for many reasons:

1. They cover the town and regional planning during the periods under investigation;
2. These plans were designed both to regulate urban expansion and to make the benefits of the country’s wealth accessible to as many citizens as possible;
3. The second and third Generations Plans, in particular, were aimed to achieve greater urban-rural and inter-regional balance.

According to the dependency theorists, modernisation may lead to widen the gap between the urban centres and rural areas rather than attaining the desired spatial equilibrium. Myrdal (1957) disputed that the potency of the development diffusion from the core regions is weak in developing countries, thus, the government should intervene to reduce the spatial problem. Moreover, the literature revealed that the polarisation of the big cities has become a major issue of problems within urban spatial planning, particularly in the case of Libya with Tripoli and Benghazi. Therefore, the particular aspect that was addressed by this study is the over-dominance of the two largest cities which has affected the whole urban and socio-economic system. Therefore, some objectives to be set in order to achieve the above:

1. The study tried to look at the changes that occurred in the urban system in the periods located in between these plans to establish the gradual tide over the period from the first generation plans to the second ones and so
on (the time span between these plans being too great). Thus, studying urban systems in Libya in full detail was needed to reveal the settlement system in its spatial and hierarchal dimension with special emphasis on the large cities and to evaluate the impact of these plans on shaping the towns in addition to their restructuring of the urban system;

2. To evaluate the spatial consequences and changes that have occurred within the urban system;
4. To explore the urban problems that Libya is still facing, such as lack of housing, land use, and...etc;
5. To assess the role of those plans in the urban system, especially as regards the over dominance of the big cities. Exploring this aim would reflect the philosophy of the Libyan government regarding the regional planning in the past and in the future, as a result, recommendations for the spatial development can be suggested

The previous development theories also enabled the researcher to form a particular theory with which to guide this research. This theory implies that Libya still requires intervention by the government in the interests of its socio-economic system. In particular, Libyan towns are considered to be subsidised towns which completely rely on the central funds of the government in order to conduct their future development. Consequently, government intervention is increasingly needed through adopting investment strategies to encourage the growth of the other towns according to their growth potential and resources. For that reason, the study intends to analyse the factors that influenced the distribution of population in order to explain the current patterns of population distribution. In this regard, the previous literature stressed the importance of state policies for population redistribution by different means:

1. The decentralisation of industry and reduction in the volume of migration to large cities (Black, 1980);
2. Raising the status of selected small towns, and creating new employment opportunities and service functions in them, so enabling them to play a significant role in regional planning (Kezzeiri, 1984);
3. The necessity of the government in being selective in choosing the towns to be promoted, bearing in mind their respective resources and abilities (Rondinelli, 1985).

4. The relocation of public and employment investment (Martine, 1992);

5. The establishment of development programmes that could create balanced growth in the regions (Elkahjkahj (2008).

Thus, the study, also tried to formulate principles to create a more balanced urban and regional system in the light of these factors that influenced the distribution of the population.

This theoretical framework has also provided a significant methodological basis for the research, particularly as regards the questionnaire design for the purposive interviews.
2.8 References


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Chapter 3 Research Methodology

3.1 Introduction

This chapter explains the research methodology adopted for this study and also presents an overview of the research plan. The study employs a mixed approach to satisfy the aim and objectives of the study and to ensure the reliability and validity of the research.

3.2 A justification for the research objectives

The aim of the study is to critically evaluate the attempts that have been made by the Libyan government to achieve a more balanced system and to benefit the spatial socio-economic development of Libya. In addition, the study also assesses the effectiveness of these policies in controlling the over growth of the two big cities. To facilitate this, a large volume of primary and secondary data has to be obtained in a country where data capture has always proved difficult. Interviews with specialists in regional and urban planning including government officials also had to be conducted, focusing on spatial policies and implementation. The following objectives are set to accomplish the research aim:

1. As the aim of this study to establish the role of spatial policies in creating a more balanced urban system, it is therefore considered beneficial to study urban systems in Libya in full detail to reveal the settlement system in its spatial and hierarchical dimensions at national level, with special emphasis on the large cities. This objective was set in order to demonstrate how the cities were grown and developed and to discuss the changing patterns of population distribution and settlements for the period of 1954-2006 in the light of these policies. Therefore, the impact of the spatial policies on restructuring of the urban system over the years, particularly regarding the urban dominance of Tripoli and Benghazi can be critically examined;
2. The distribution of the population and current urban centers were initially influenced by a number of natural and socio-economic factors. Those factors have also played a significant role in the current formulation of the Libyan urban system. Thus, the research sets an objective of analysing the factors and forces that influenced the distribution and growth of Libyan cities in order to achieve the following:

- Explaining the present patterns of population distribution;
- Offering insights into how Libya could benefit from these factors in establishing policies for population redistribution;
- Examining to what extent those factors played role in the current formulation of the Libyan urban system, and the extent to which the spatial policies played role in this as well. This matter will help to find out how major factors may play role;
- Exploring the factors that confound the process of development, for example, to determine why centers in the south did not grow as fast as those urban centers are located in the north coast.

3. In order to assess the role of these policies in coping with rapid urban growth and the over dominance of the large cities, one of the objective has been set to evaluate the spatial changes that have occurred in the Libyan urban system over the years - with particular reference to the largest cities - through the study of the relationships between urbanisation processes, policies and spatial development. This objectives has been set;

4. In order to offer insights into how Libya could benefit from a balanced urban system, a critical evaluation of Libyan spatial policies by the government between 1970s and 2006 is produced. This evaluation is needed to ascertain the following:

- How those policies have affected regional planning to find out; how the government reacted upon the recommendations of these policies in
real terms, and identify the basis for the future development of regional plans;

- The extent to which they have achieved their objectives in the urban system, particularly as regards the over dominance of the big cities in order to identify real issue involved the Libyan spatial policies and offer a true picture of the reality regarding the over domination exercised by those two cities;

- Development planning in Libya faces significant challenges and problems of rapid population growth and industrialisation, which have resulted in increased overcrowding in the largest cities and an intensity of their excessive dominance in the urban system. These challenges have created problems, such as housing, infrastructure, transport system, and etc, which all of theses have impeded the urban development programs. that is why the sub-objective regarding of assessing the role of spatial policies in coping with rapid urban growth is set;

- To establish the extent to which policies reflect the philosophy and vision of the state regarding the urban system in the present and future. This sub-objective is set to identify how Libya should improve her current spatial system to meet the future challenges.

In order for the aim and objectives to be achieved, this research will be conducted using the following approaches:

1) A descriptive approach that aims to depict the characteristics of the Libyan urban system and its inherent problems.

2) A historical approach that facilitates a critical examination of the growth of the Libyan cities. The historical evolution of Libya’s urbanisation is perused and analysed via a wide spectrum of past and current developments, as well as its associated problems.

3) An analytical approach that scrutinises the claims by the government that its spatial policies to achieve a balanced urban system are effectively and successfully executed.
3.3 Time Scope of the Research

The time frame of the study was defined as the period of 1954-2006. Special attention is paid to the period starting after 1973; this being the time when the spatial dimension was explicitly considered in government policies involving the establishment of three generations of planning.

This frame was selected for two reasons:

1) The time frame was based on the period when population censuses in Libya were being prepared, this representing the main source of data relating to demographical statistics. The study covers the period from 1954 to 2006, this being the period of the last census.

2) Rapid urbanisation has taken place since the discovery and exportation of oil in the early 1960s. During this period, radical social and economical changes occurred which impacted upon the Libyan cities.

3.4 Defining Urban

In Libya, most of the urban and regional studies undertaken by foreign and national consultative organisations had different classifications for urban characteristic. However, according to the basis of the population censuses for the period 1954 - 2006, urban population was defined on the basis of a settlement size of 5,000 people and above. Hence, for the evaluation purpose of this research, a census definition is used.

3.5 Research Process

A process is a way of doing things in a connected series of actions to achieve a particular objective. However, there is no specific process for carrying out research because it can vary according to the type and topic of the research.
Saunders (2003) defined the general research process for carrying out research according to the following stages:

- Formulating and clarifying a topic
- Reviewing the relevant literature
- Choosing a strategy
- Collecting data
- Analysing the data
- Writing up a report

Good research has to satisfy its aim and objectives; it requires a thorough understanding of the topic area and recognition of the present situation and practices. In order to select the appropriate research method for this research, it was essential to have some basic knowledge about all the available methods so that it was possible to decide which method would be more appropriate to answer the research question.

### 3.6 Types of Research

Research can be broadly divided into two categories: quantitative research and qualitative research; Holland and Campbell (2005) showed some of the distinctions between these approaches in the following table:

<table>
<thead>
<tr>
<th>More qualitative research</th>
<th>More quantitative research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Non-numerical information</td>
<td>1) Numerical information</td>
</tr>
<tr>
<td>2) Specific (contextual)</td>
<td>2) General (non-contextual)</td>
</tr>
<tr>
<td>3) Active population involvement</td>
<td>3) Passive population</td>
</tr>
<tr>
<td>4) Inductive inference methodology</td>
<td>4) Deductive inference methodology</td>
</tr>
<tr>
<td>5) Broad social sciences disciplinary framework</td>
<td>5) Neoclassical economics (and natural sciences) disciplinary framework</td>
</tr>
</tbody>
</table>

**Table 1**: Differences between Qualitative and Quantitative Approaches.
Simply, quantitative approach is ‘any type of research that produces findings not arrived at by statistical procedures or other means of quantification’ (Strauss and Corbin, 1998, p. 39).

The qualitative research methodology, despite its disadvantages, may be advantageous in being a social process since it helps to answer the questions of ‘how’ and ‘why’, as well as enabling the researcher to be aware of the changes that occur. In this method, the data is collected using interviews, questionnaires, observation and documentary analysis.

One of the objectives of the research is to establish the role of spatial policies in creating a more balanced urban system; it is therefore considered beneficial to use a qualitative approach. Patton (2002) stated that ‘qualitative methods are often used in evaluation because they tell the program’s story by capturing and communicating the participants’ stories. They tell what happened, when, to whom, and with what consequences’ (Patton, 2002, p. 10).

Further, the researcher has to look closely at Tripoli and Benghazi using particular criteria, such as population growth, physical expansion, and the concentrations of economic activities. An inductive approach is employed to examine the various spatial policies and to draw conclusions about the extent to which these policies have been effective in alleviating the over-dominance of these two cities. Referring again to Holland and Campbell (2005), inductive inference relies on qualitative data to reach its conclusions.

**Triangulation**

Sarah and Teressa (2006) defined triangulation as the use of different data collection tools to answer the same research question. The adoption of triangulation reinforces the findings as it cross-checks the results of all the methods to confirm their validity. This study used three methods of data collection in order to triangulate the research results. First of all, secondary data
was gathered from the published literature and primary data was collected by visiting particular organisations related to the subject, such as Urban Planning Organizations and consultative offices; interviews using questionnaires were also conducted. To obtain even more information, a mix of qualitative and quantitative methods was used to analyse the responses of the interviewees. Additionally, some of the questions were designed to be open-ended in order to obtain more qualitative material, so providing the researcher with rich data. Therefore, in order to achieve the aims of the research and answer the research question, a number of methods were required:

3.6.1 Secondary Data

This includes both qualitative and quantitative data. Saunders et al. (2003) divided this into three categories: documentary data, survey-based data and data compiled from multiple resources. In order to answer the questions raised, the study relied on the following approaches:

1) Documentary analysis - collecting all the data for the content of the research, such as government reports, books, Master’s and PhD studies, as well as articles relating to this topic.

2) The research methodology for this study was also based on critical analysis of previous studies on urban, regional, and spatial phenomena, especially those concerning Libya; population statistics were also analysed here. The objective of analysing these studies is to explore views and opinions about the phenomenon of urbanisation, over-dominance, and the role of the government to handle it.

3) The existing knowledge acquired via personal observations and published materials as well as official documentation jointly informed both a pilot approach to the interviews with the aforementioned experts and the final evaluation.
3.6.2 Primary Data

Primary data is collected from the real world and has not been published anywhere before. The researcher collected primary data from the interviews conducted with senior academics, business people, and government officials who specialise in urban and regional planning in Libya: these included administrators, town planners/architects, geographical experts and people in government institutions who are involved in the implementation of the spatial policies. Special attention was given to local authority officials, as these people are responsible for spatial, regional, and urban planning and it was important to elicit their opinions about the present demographical, regional, and urban system with all its problems.

Interviews, generally, have several advantages and a few disadvantages. The advantages:

- Give the researcher the chance to explain the questions to avoid any misunderstandings;
- Make the parameters of the investigation less rigid and more likely to be determined by the participants;
- Provide flexibility and enable the world views of the research participants to be discovered;
- Facilitate face-to-face contact – this kind of interview has the highest response rate and permits the use of long questionnaires;
- Provides detailed and more in-depth information than other surveys (Gilham, 2005).

However, there are also disadvantages:

- With a wide geographical area and a large sample, it can be very difficult to achieve good coverage;
- The generalisability of the finding may be difficult;
• Impressionistic and subjective qualitative findings rely too much on the researcher’s often unsystematic views about what is significant and important;
• Interviews are time-consuming and costly, partly due to the geographical limitations on the interviews;
• It is hard to analyse and compare the data (Gilham, 2005).

The data from interviews is mainly qualitative data and has to be measured appropriately. The main advantages of using interviews in this study are as follows:

1) They explore the research concerns in the real context of Libya; the researcher can question the interviewees closely about the major characteristics of the Libyan urban system and its shortcomings. The interviews also permit the researcher to evaluate policies from the point of view of those formulating the policies;
2) The data obtained from the interviews show opinions about changes which are difficult to measure through quantitative analysis;
3) Because of the lack of some important data, interviews provide the researcher with important information about the ways in which the spatial policies affect the urban system.

Interviews also have the advantage of allowing the researcher to obtain a better and more in-depth view of the issue in question. In addition, the research can clarify doubts and ensure that the responses are clearly understood by repeating or rephrasing the question. Conducting the interviews required a questionnaire. The aim of this was to obtain views and opinions about the Libyan urban system and the role of the government regarding spatial policies to control the growth of the big cities and produce an even distribution of the population. The provision of profile information helped the researcher to differentiate the analysis of views and opinions. What follows is a brief description of the questionnaire used in the study by researcher.
Methodology of Interviews

The primary data for the research was collected using an interview questionnaire. There were several reasons for selecting questionnaires as a tool of data collection. For example, it is the easiest way to collect data, the analysis of the collected data is straightforward and it helps when collecting specific and required data. There are two kinds of questions in the questionnaires: closed and open-ended. Youngman (1987) identified six types of closed-ended question:

- A list: here the respondent selects from a provided list;
- Category: only one response can be selected from all the categories given;
- Ranking: the respondents have to put things in order;
- Scale or rating: a rating device is used to note the responses;
- Quantity: when the response is a number denoting the amount;
- Grid: where answers of two or more questions are recorded in the same matrix.

The respondents’ perceptions were measured using 44 questions (see Appendix 1). These were mainly open-ended questions in order to give the interviewees ample opportunity to express their thoughts, especially with questions about how and why particular events occurred. The questionnaire also included closed-ended questions which contained different choices relating to each question. However, in some cases, closed-ended questions were provided with other choice questions as an option to allow an interactional exchange of dialogue to take place, which could open up new ideas or queries to the researcher. This sort of interview, despite having advantages in terms of the quantity of the information that may be gathered, has particular limitations in terms of the time taken to code and analyse the answers. The questions were also post-coded according to the interviewees’ options prior to analysis. Mason (2002) described this type of interviews thus: ‘It is heavily consuming of skills, time and effort, both in the planning and conducting of the interviews themselves, and in the analysis of the products’ (Mason, 2002, p. 82).
The interviews were all tape-recorded and later transcribed. Bryman (2008) indicated the advantages of this approach as follows:

- It helps to correct the natural limitations of our memories.
- It allows more thorough examination of what people say.
- It permits repeated examinations of the interviewees’ answers.
- It opens up the data to public scrutiny by other researchers, who can evaluate the analysis that is carried out by the original researchers of the data.
- It therefore helps to counter accusations that an analysis might have been influenced by a researcher’s values or biases.
- It allows the data to be reused in other ways from those intended by the original researcher- for example, in the light of new theoretical ideas or analytical strategies. (Bryman, 2008, p. 451)

In addition to this, the interviews were carried out in the Arabic language, since the field work was carried out in Libya. Therefore, the transcribing process also involved an English translation for analytical purposes. Although it was very time-consuming, the researcher was able to gain significant benefits by becoming more familiar with the data and identifying key themes; in this way it was possible to establish the similarities and differences between the individual interviewees’ accounts.

The questions were selected in order to obtain significant opinions about the Libyan urban system; they were also chosen to establish the role of the government in its spatial policies for controlling the over growth of the big cities and producing an even distribution of the population. While a range of policy views are reported from these interviews, it is clear that all the views are predicated on the belief that the twin cities will continue to dominate Libyan urban development if no action is taken by the government.

Generally, the data comprises two main sections: this first section focuses on the general description of sample population in terms of 5 independent variables of gender, age, the type of organisations, the post and level of education. It is likely
that these variables influenced the respondents’ perceptions as regards the components of the questionnaire. In addition, the presentation of the data included descriptive statistics and, particularly, frequencies, and percentages.

The questionnaire was then used face-to-face with 30 specialist people (see Chapter 4 and appendix 1). These thirty people were chosen using purposive or selective sampling according to their extensive knowledge of the government’s spatial policies since most of them had experienced or participated in them. The sample was divided into three groups:

- Academics from geography, urban and regional planning as well as those involved in economic studies - constituting (18) of the total sample;
- Government officials specialised in urban and regional planning in Libya, town planners / architects and people in government institutions involved in the implementation of the spatial policies – these made up (10) of the total sample;
- People in business companies – these amounted to only two persons of the total sample. The original intention was to interview 10 of the business company representatives, but only two interviews took place (see Figure 2).

![Figure 2: Organisation types to which the interviewees belong](image)
The reason behind the high percentage of academics people is their interest in participating in scientific research. Other factors, such as availability and lack of time, contributed to the low proportion of government officials and business company representatives in the total sample. It was advantageous that all thirty samples came from different cities - Tripoli, Benghazi, and Al Zawyia – as well as different organisations; this ensured a balanced choice and ‘fair’ sample in addition to adding another dimension to the results and improving the data sample.

3.7 Data Analysis

Saunders (2003) indicated that there is no standard method of analysing qualitative data because, by its very nature, it does not allow itself to be standardised. However, the researcher did rely on the following approaches to conducting data analysis:

1) Descriptive analysis involving previous studies that addressed the subject of urbanisation and population in Libya, such as academic studies, urban and regional schemes or plans and governmental reports;
2) Descriptive statistics analysis including the data obtained from demographical statistics that had been issued by government agencies. In order for these statistics to be well displayed, tables and graphics were also used;
3) Descriptive analysis for the data extracted from the questionnaire using a quantitative form of analysis as represented by the percentage and frequency of the answers.

In order to analyse the data through descriptive statistics, it was examined with the Statistical Package for Social Science (SPSS) for Windows, using frequency, percentage, and multiple responses. The researcher analysed these views according to the main themes of the study, namely:
1. The factors and forces behind the current distribution of the population and the formulation of the urban system;
2. The current condition of the urban system;
3. The role of the Libyan government through its spatial development policies;
4. Future prospects of spatial development policies as they are seen by the interviewees (see more detailed explanation of the data analysis in Chapter 4).

### 3.8 Validity and Reliability

Reliability and validity are of the utmost importance in any research project as it is important to that the results have been collected in a scientifically and methodologically sound manner. This section therefore explains the key issues relating to validity and reliability and how these are dealt with in the study.

**Validity**

Validity is concerned with the integrity of the conclusions generated from a piece of research (Williams, 2006). This is a vital feature of any research for whatever reason it is carried out, e.g. academic or business purposes. According to Quinton and Smallbone (2006), validity means checking whether the objectives the researcher intended have been achieved or not. Another aspect of assessing the validity of the research is to check whether the results of the research can be applied to other perspectives and to what level this is possible: the greater the chances of applying the results to other situations, the more valid the research is. Here, the data obtained from the interviews matched the results of the statistic analysis in the field study of Tripoli and Benghazi and therefore supported the results of this research.

**Reliability**

The research is said to be reliable if the same results can be obtained by repeating the research or if the research is carried out by some other researcher (Quinton and Smallbone, 2006). Research carried out in laboratories is easy to replicate because the researcher can control the conditions. However, research carried out
in real life is more difficult because real life conditions are very dynamic and rapid and any research involving people is very difficult to replicate. Reliability, as indicated by Bryman and Cramer (2009), constitutes the consistency of measures because it focuses on the internal consistency of the items involved. Reliability also relates to the consistency of the results and can be assessed through a deductive or inductive approach. A deductive approach establishes the consistency based on the same results being measured on different occasions. An inductive approach, however, assesses consistency according to the observation of different researchers on different occasions. Saunders et al. (2003) identified the major threats to reliability as being subject error, subject bias, observer error and observer bias. The conclusion of this study is based on the views of thirty Libyan experts who are specialists in this area to elicit their opinions about spatial development policies and their role in controlling the growth of Tripoli and Benghazi. The conclusion was also based on the views of the government officials concerned with spatial policies and their implementation. These experts were chosen from different cities around the country.

The researcher also took care to ensure that the data was carefully and correctly analysed and presented: the conclusions have been clearly drawn from the collected data with pains being taken to avoid misleading information.

3.9 Limitations of the Research

Some particular and important difficulties were encountered during the field work as well as in the whole process of the research project and should be mentioned here:

1) The time series data in some areas and years is patchy and appears to vary from one publication company to another.
2) There was a delay for the approval of particular and significant sources, such as the official maps for administrative demarcations and the population census of 2006 (which was only published in 2009); further to this, the last census did not contain any migration data.
3) Demographic measures and observations by government and academic sources are strikingly inconsistent. Tremendous efforts therefore had to be made in the analysis and recompilation of the material for the project.

4) Changes in the administrative boundaries and the redefining of urban categories also proved to be a particularly arduous undertaking. For example, the administrative regions have been changed several times. In the early seventies, the country was divided into 10 Mohafada (Provinces) with different boundaries. Changes to the administrative boundaries reached a peak between 1973 and 1997 and then the country was divided into 44 Baladiyas (municipalities) and 173 branches in 1979. However, in the early 1980s, these Baladiyas were reduced to 25 Baladiyas. In 1984, the Baladiyas were reduced once again to 24 Baladiyas, with 134 branches, and after two years they were decreased to 13 Baladiyas and 52 branches. In the early 1990s, the Baladiyas declined for a third time to 7 Baladiyas and 44 branches, and in 1992 a new classification appeared which divided the country into 1455 Komouna (districts) and then into 295 Komauni. To complicate matters further, in 1997 the country was first divided into 34 Shabyias and then into 32 Shabyias. This problem made it difficult to establish comparisons, especially as regards the geographical distribution of the population.

5) The government statistics about natural growth, migration, and expenditure are only available for Shabyias and not for the cities. This research therefore relied on studies about particular cities where such data was available.

Government officials were contacted repeatedly in order to reconcile differences and produce definitive data. Moreover, using the questionnaire as a form of exploratory research in the individual interviews allowed the researcher to gain greater critical depth and clarification about the Libyan urban system and government policies; this information supplemented the published data.
3.10 References


Chapter 4 The Interviews and the Analysis

4.1 Introduction

The aim of this study is to evaluate the attempts made by the Libyan government to produce a more balanced urban system for the benefit of spatial socio-economic development in Libya. In addition, the study seeks to analyse Libyan spatial development policies and their impact on controlling the growth of large cities in Libya as an effective response to problems posed by rapid urban growth.

This chapter therefore focuses on exploring expert perceptions and views of the Libyan experts regarding Libya’s spatial policies via an analysis of the data acquired from interviews within the country. The intention is to establish what light the questionnaire data throws on the reality of the urban system and urban growth in Tripoli and Benghazi. It also seeks answers to the following questions:

1. How did the present day population distribution of Libya evolve?
2. What are the human motives and the natural components leading to the existing patterns of population settlement?
3. What is the Libyan government’s philosophy in dealing with the perceptions of regional imbalance and the continued growth of the large cities? This latter item necessitates an examination of a series of subordinate questions:
   - What have been the goals of government policies?
   - How successful have those policies been in achieving their objectives?
   - What has the Libyan government done to produce a more balanced urban system?
   - What has been achieved?
   - What is the impact of policy on the size of the cities located in agricultural areas? Has the Libyan government succeeded in controlling the growth of the big cities?
   - What is the effect of these policies on urban and regional planning?
Does Libya need intervention for regional development or population redistribution?

Is the Libyan government presently satisfied with their policies? If this is not the case, what new direction for the development of the country is envisaged?

4. What are the principles that might direct Libya towards a more balanced urban and regional system?

4.2 Analyses

This section will reveal the interviewees’ views towards the urban system and the role of the spatial development policies on that system in general and in controlling the growth of the largest cities in particular. Hartley (1972) stated: ‘It is difficult to provide an adequate explanation of the system and patterns of settlements in Libya, which neither theoretical nor empirical evidence would appear to explain Libya’s peculiar settlement pattern’ (Hartley, 1972, p.80).

The data presented here reveal the predominant themes and views of the interviewees, so reflecting the current situation of the Libyan urban system and how this affects future development. Except those referenced specifically, most quotes of references in this chapter are extracted from the interviews of the field studies conducted in 2008. The following discussion relates to the findings from the interview questionnaire and attempts to analyse these results in the context of the various theories and views from the literature review; this involves coding each item according to the following dimensions:
4.2.1 Factors and Forces behind the Current Distribution of the Population and Formulation of the Urban System

4.2.1.1 The Role of Natural and Human Factors

One important observation at the outset is that urbanisation in Libya has a long history in the coastal region, this being affected by natural conditions. This is consistent with Figure 17 and the responses of the interviewees, as 18 of the interviewees emphasise the role of nature factors and consider water resources and climate as the most effective factors in distributing the population. Socio-economic factors were next in importance, with the second highest number (7) of the interviewees supporting this. However, only five of the interviewees supported the role of historical factors in the current distribution of population. It is interesting to reveal here that none of the interviewees attaches any importance to government policies in this matter.

![Figure 3: Factors that influenced the distribution of population.](image)

The spatial distribution of cities and population is influenced by particular natural and socio-economic factors and consequently these factors should be considered when making policy choices. Richardson (1977) argued that:
There is no optimal city size distribution. In fact, the size
distribution of cities can not be evaluated in dependently of
their spatial distribution, and the latter is affected by
topography, history, level of development, area of the country,
its total population, and other variables. (p. 67)

It is widely recognised among the interviewees that climate is one of the key
factors in the spread of the cities and the distribution of population. Bulugma, a
Professor of Urban Geography, and Consultant of the Scientific Body for
Researches, emphasised the significant role of the natural conditions in
distributing the population. This particularly concerned the water shortage and
desert conditions, which restricted human activities to the coast. He stated at the
interview that “any attempts to invest in the southern areas would be in vain
because of these factors”. For example, 90 percent of the total area of Libyan land
falls under the influence of the arid desert climate; the remaining parts being a
narrow strip along the Mediterranean coast and sections of the mountainous areas
in the north-west and north-east, these constituting only 10 percent of the total
area (Mgali, 1995) (see Figure 4).

Figure 4: The Climatic Regions.
Source: Bulugma et al. (1985)
According to the figure above, Libya can be divided into three climatic regions:

- **The Mediterranean Climatic Region:** occupying a limited area which is about 1.7 percent of the total area; this region is represented by the north-western and the north-eastern areas. These areas are characterised by the annual rainfall amount, ranging from 250 mm in the western mountain (Al Jabal Al Gharbi) and 600 mm in the eastern mountain (Al Jabal Al Akhdar). For example, the annual amount of rain in Tripoli’s city was 368.4 mm in 2000, while in Benghazi this was 266.0 mm (Data of Meteorological Department, 2000). The further south the location from the coastline areas, the more the rainfall decreases. For instance, Alazizia, which is located 50 km to the south of Tripoli, received 214 mm in 2000 (Ibid). This region is also characterised by a moderate temperature. For example, the annual average temperatures in Tripoli and Benghazi were 19.5 °C and 19.9 °C respectively, but in the southern areas this reached 23.7 °C in Kufra and 23.2 °C in Sebha. These climatic conditions have contributed to the population concentrations being in the cities in the coastal areas. For example, more cities seem to be concentrated in the north-western area extending from the city of Zworia to Misurata in the east, and on the eastern side of Al Jabal Al Gharbi, from the city of Jado to Khomis. During the interview, Bulugma stated that “this area includes 26 cities and towns, such as Tripoli, Al Zawyia, Ziltin, Zworia, Al Jimale, Alajelat, Sobrata, and Sorman. Another area of concentration is located in the north-eastern area, including the territory north of Benghazi’s plain and Al Jabal Al Akhdar. This area has 19 cities and towns, such as Benghazi, El Beida, Derna, Al ghabba, El Merj, and Alabyiar”. The importance of this region is that it contained more than 54 percent of the total of all Libyan cities in the year 2000, with more than 80 percent of the total population. In addition, the most important and largest cities are included to this region, such as Tripoli, Benghazi, Misurata, El Beida and El Zawyia (Brebish, 2006, p. 200).
- Semi-Desert Region: this is a transitional region between the Mediterranean region in the north and the desert region in the south. This region occupies 8.7 percent of the total area, including the huge areas from the middle and west Al Jafara Plain and the southern sides of Al Jabal Al Gharbi. This region, as stated by Bulugma during the interview “has annual rainfall ranging from 50 to 200 mm and has 19 cities and towns, such as Sirt, Ejdabyia, Tiworgha, Ras Alounof, Albraigha, and Toburq”. In 2000, this region included 23 percent of the total number of Libyan cities and 8.5 percent of the total population (Brebish, 2006, p. 202).

- Desert region: This includes the majority of Libya’s land, which is 89 percent of the total area. This area is characterised by drought and receives less than 50 mm of the annual rain: for example, in 2000 the rainfall in the city of Al Kufra amounted 0.7 mm, in Tazerbo to 0.9 mm, Sebha was 7.6 mm and in Obari this was 10mm (Data of Meteorological Department, 2000). Bulugma stated at the interview that “Due to its climatic conditions, this region only has 18 cities and towns, e.g. Al Kufra, Tazerbo, Sebha, Obari, Houn, and Ghat”. In 2000, this region also only had 9.7 percent of the total population and 22 percent of the total number of Libyan cities (Brebish, 2006, p.203). However, underground water resources were considered the main reason for population concentration in this area and therefore, most of the cities and towns are to be found around the oases where groundwater is provided.

Water availability in the coastal area has also affected the polarisation of the population. Despite the provision of underground water reservoir in the areas along the west coast and in central and eastern areas, the available amount of water in the Mediterranean region is no longer capable of meeting the requirements of agricultural and industrial trades, and does not even meet human consumption in some areas. An excessive consumption of groundwater has resulted in particular problems, such as the continuous decline in the level of water and seawater being interpenetrated into underground water (see Table. 2).
The table above indicates that the most important cities located on the coastline, which includes more than 80 percent of the total population, are suffering from a decline in water in both quantity and quality. However, the southern areas which have less than 20 percent of the total population have good quality and large amounts of groundwater.

In order to provide the northern areas with fresh water, around 1300 million m³ is transferred annually by the Man-Made River from the southern areas, particularly from Tazarbo, Al Sarir and Al Kufra to the coastal areas of Benghazi and Tripoli (Bulugma & Fadil, 1995, p. 211). This has deprived the southern areas of their most valuable resource in favour of the coastal cities, especially Tripoli and Benghazi. At the interview with the researcher in 2008, Al Hasi argued that “the water reservoir in the southern areas could instead be used as a fundamental factor for the development of these southern towns”.

These favourable natural conditions are considered to be the most important factors in underlining the situations of those two cities whereby they can be the recipients of further activities and an increased population. However, this factor has been the major reason for the decline in population density in the southern areas and any spatial development policy should be based on a comprehensive study of the natural factors of each region so that it is suitable and effective for the whole county, with all the different physical characteristics. However, no importance was attached to natural factors when spatial development policies were used to develop other towns and this was the case for setting up the plans as well as their implementation (General People’s Committee, 2006, p. 50).
addition to this, favourable natural conditions were not considered when using increased government expenditure to cope with the difficulties faced by the population in the southern areas. The following table captures an overview of this in 1995:

<table>
<thead>
<tr>
<th>General land use</th>
<th>Area square km</th>
<th>Percentage of total national land</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>600</td>
<td>0.03</td>
</tr>
<tr>
<td>Agriculture / irrigated and rain-fed</td>
<td>17,900</td>
<td>1.01</td>
</tr>
<tr>
<td>Pasture land and grass land</td>
<td>70,000</td>
<td>3.94</td>
</tr>
<tr>
<td>Forest and woodlands</td>
<td>5,000</td>
<td>0.29</td>
</tr>
<tr>
<td>Waste land / mainly desert</td>
<td>1,682,000</td>
<td>94.73</td>
</tr>
<tr>
<td><strong>General total (</strong>)**</td>
<td><strong>1,775,500</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


On the other hand, seven of the interviewees believed in the significant role of socio-economic factors in the current pattern of the population distribution, such as with providing job opportunities and services in this area. Al Hadad, a professor of economic development stated at the interview that “in the mid-1960s, Libya adopted sectorial planning as a key method of the development planning. This produced spatial differentials as shown in the concentration of investment programmes and productive projects in a limited number of the cities. Further concentrations of population and activities mainly occurred in Tripoli and Benghazi. For instance, more than three-quarters of the length of the roads are concentrated in the northern areas. These networks began in the cities of Tripoli and Benghazi and then were extended to link the other major urban centres. Transport and road networks tend to be more concentrated around these two cities, while they are less concentrated in the other cities and regions”. Moreover, he argued that “the regional approach which was confirmed by the development plans for the years 1973-1975, 1976-1980 and 1981-1985 to reduce the excessive dominance of Tripoli and Benghazi and to narrow the economic gap and social disparity between the regions, had not been properly achieved as it should have been”. He therefore came to the conclusion that the main reasons for the failure of these development plans were: “the absence of the local development leaders, regional and tribal fanaticism, the lack of a relationship between regional and
urban planning”. The former statement was explained by Bennett and Estall (1994), who argued that one of the two major causes of the phenomenon of primacy is the contemporary development policy, which favours certain areas over others.

In addition to this, the final results of manpower counting in 2001 revealed that 80 percent of the workforce is concentrated in 15 administrative regions, but Tripoli and Benghazi respectively have around 20.9 percent, and 10.4 percent of the total Libyan manpower (National Corporation for Information and Documentation, 2001). Hence, both areas constituted 31.3 percent of the total workforce, these being the centres of the main population concentration.

As regards the percentage of investment and service allocations in 2001, the Shabyias\(^1\) of Tripoli and Benghazi together received around 25.8 percent of the service allocations and 28.8 percent of the investment allocations. These Shabyias, which included the big cities of Tripoli & Benghazi, continued to gain the highest percentage of allocations in addition to some Shabyias located on the northern coast (National Organization for Information and Documentation, 2002, pp.30 and 92).

Notwithstanding this, the provision level of services and social amenities was at a less than acceptable level in the whole country, including Tripoli and Benghazi (Porter and Yergin, 2006). For example, all the interviewees stated that the infrastructure and provision of social amenities (with housing) were not at a satisfactory level in the whole country.

Around five of the selected sample attributed this pattern of population distribution to historical factors, particularly the colonial settlement. The former colonies had established their urban centres along the Mediterranean coast, with a special focus on Tripoli and Benghazi; for example, in 1936, these two cities accommodated 59.9 percent of the Libyan population (Abdulssalam, 1983, p. 163). Other writers also referred to the leading role of these two regions and their

\(^{1}\) administrative unit
service accumulations since ancient times. This analysis is supported by Gottdiener and Budd (2006), who argued that:

In many cases the pattern of over urbanization and the creation of a primate city is a consequence of a colonial past. When countries were colonized, an urban infrastructure was developed in only a select number of locations while the interior was left to be exploited for its natural resources alone. Over time, the primate city became a magnet, drawing huge numbers of people off the land and into the city in the hope of obtaining some measure of wealth. (Gottdiener and Budd, 2006, p. 106)

For a deeper analysis, a cross-tabulation was made between the groups of interviewees (academics, government officials and business companies) and the most effective factors in population distribution.

![Figure 5: The factors of concern for each group of interviewees](image)

- **Academics**: most of the academics attributed the present distribution of the population to natural conditions, 12 of them considering this the most important factor in both the current formulation of the urban system and the present population distribution. This factor resulted in the establishment and development of the old settlements according to the favourable conditions on the coastal strip. Hence, historical factors
were considered a second cause of the distribution of the population with five of the interviewees. It should be noted here that because of the overlapping impact of these factors, some of the interviewees insisted on selecting socio-economic factors as a second choice due to their supporting impact for population attraction. However, government policies were less important and influential among academics. Some of them believed that the role of these polices, if any, was limited; in their view this role was part of The National Physical Perspective Plan (1981-2000), due to its function in developing the middle area (Sirt) and its policy of adopting a regional and spatial dimension in the planning process. However, majority of the academics considered that the government’s spatial policies did nothing to control the excessive growth of the largest cities. The findings from this data are highly significant because they indicate that spatial policies have a minor effect on the population distribution. For example, despite establishing the petroleum industries in the areas of Sirt and Ejdabyia and the agricultural projects in the cities of Al Kufra, Obari, and Murzuq, their population densities were less than 1person/km² in 1995; this can be attributed to the desert location of these places and the vast distances involved (Jlala, 2005, p. 120).

- **Government Officials**: around seven of the government officials held a different opinion, considering socio-economic factors to be the most influential element in population distribution. However, the role of the natural conditions was considered to be the prime reason for population concentrations with four of the respondents. Historical factor were seen as being of support to population distribution and concentrations and government policies were considered to have no effect in this matter. The officials in this category are mostly specialists in urban and regional planning who have practical experience with planning problems and their constraints. As indicated earlier, these officials come from different cities, particularly Tripoli and Benghazi, the cities in question; therefore, because of their field work, they are able to define the effectiveness of these policies as regards the distribution of the population and the formulation of the
urban system. In this case, they considered them to be mere policies on paper with little practical implementation.

- **Business Companies**: all business people considered that the natural conditions were the most effective factor in population distribution. Moreover, they paid little attention to historical factors and government policies. This is to be expected from business companies, which are largely interested in the areas that suit their economic activities, focusing more on the natural and human factors that could affect the economic viability of their projects.

From the above, it can be clearly noticed that all the groups of interviewees had a similar negative view regarding the role of the spatial development policies on population distribution. Both government officials and business companies excluded the impact of spatial development policies on population distribution. This could be explained by the nature of their work; for example, government officials are more familiar with the practical realities of these plans, and the problems relating to their implementation. In their view, most of these policies could not be applied effectively. As stated by some of the interviewees from each group that, “the problems of development in developing countries, including Libya, are not related to set policies and plans in their theoretical framework. However, they are related to the failure of their implementation and evaluation methods as well as to the manner of transferring international planning theories without modification and adjustment to individual environments”. Business people, on the other hand, are concerned first and foremost with social and economic factors. For their part, academics considered these policies had a minor effect, but only at later stage, especially from the mid-1980s. However, they also focused on the role of the natural conditions, which should be taken into account in the development of any policy. Therefore, they attributed the failure of the first and second generation plans to the exclusion of natural factors in studies, which then resulted in academics being involved in the preparation of the Third Generation Plans.
4.2.1.2 Population Redistribution

Before considering the factors that would aid the redistribution of the population and regional development, one important question, which is extracted from the modernization theory, should be asked: *does Libya need intervention by the government to achieve redistribution?*

Having drawn out the answer to this from the interviewees, all the participants (30) interviewed believed that the government in a country such Libya should play a more significant role as regards population redistribution. This belief is due to two fundamental reasons: 27 of the interviewees declared that the Libyan government was and still is a basis and the principal variable in the process of urbanisation and development. It dominates the country’s income and all the administrative and financial matters are subject to centralised decisions. For example, the dependence ratio of the Libyan cities on the central budget was 71 percent in 2002 (The National Organization for Information and Documentation, 2002). The second reason was that the private sector has a minor effect in this process as it is considered to be a developing sector, which is incapable of carrying out this role, and this was supported by (3) of the interviewees, These arguments are supported by Abiodun (1997), who stated that managing a large city depends both on the formal, political and administrative structures as well as on the way these work in practice, and may be governed more by informal relationships than by formal actions. Therefore, it is generally accepted that urban and spatial development should be facilitated by providing adequate powers and resources to produce major restructuring of land use (Adams and Hastings, 2001).

To return to the factors that would have an effect on achieving regional development and an even distribution of population (see Appendix 1, question 11 ‘If the answer is yes, then how’), ten of the interviewees underlined the importance of providing an infrastructure and the necessary facilities for population concentration. Moreover, nine of other interviewees supported the provision of incentives - projects, investment, and jobs - to attract people. Around four of the interviewees stated that urbanisation should be organised by the government to ensure an even distribution of the population and to achieve
regional development. This analysis was supported by Payne (2000), who declared:

The challenge facing governments is not how to contain urban growth. Instead, it is how to harness the creative forces operating and channel them in ways which facilitate investment and development by others in ways which are socially, economically and environmentally sustainable. (Payne, 2000, p.3)

These findings indicate the importance of the government role here. However, other minor factors are also set out in the following figure:

![Figure 6: The Role of government in regional development.](image)

The former analysis indicates the significance of human factors to either achieve the aim of a balanced urban system or to work to widen the differential gap between the cities. For example, all the interviewees across different groups confirmed that the human factors leading to regional imbalance are once again
becoming stronger. They based this view on the continuous concentration of good jobs, investment and services in Tripoli and Benghazi.

Regarding attempts to redistribute the population towards the southern areas, only seven of the interviewees believed this could be done, and only if the government intervened to attract people to these areas. They placed emphasis on the importance of using the natural characteristics to develop these areas, such as the sand and solar power to create new activities and encourage desert tourism. The most important action to achieve this aim would be the provision of the necessary services and facilities to attract the population. In addition, investors could be offered attractive policies, such as tax and customs exemption, to invest in these areas.

Notwithstanding this, 23 of the respondents stated that it was difficult to attract people toward the southern areas due to a variety of reasons; 16 of this group also appreciated the role of natural factors in restricting human activities in these areas. In addition, as can be seen from Figure 7, the lack of government support is a significant factor affecting the attraction of the population to these areas. For example, these locations lack a good transportation system, this constituting the most important reason for the failure of many agricultural projects in the south. Al Ayati, one of the academic people who were interviewed, stated that “many agricultural projects in the southern area did not last long and failed to attract population movement. The reason behind the failure of these projects in achieving their aims was the lack of important supporting factors, such as marketing and an effective transportation system to transfer produce to the market in a good condition: most of agricultural crops were damaged prior to reaching the market. For instance, Al Hamum agricultural project in Al Jifra has failed to attract people for these reasons in addition to the lack of other facilities and services”. Moreover, Brebiesh, from the same group, attributed the failure of economic projects in the south firstly to natural factors as well as to mismanagement and also to a lack of support from the state. In addition to the impact of transport and infrastructure facilities on spatial development, roads in the south of Libya are limited and need to be improved.
Figure 7: Reasons behind the failure of the south to attract people

According to the previous analysis and the theories of development diffusion, human factors also play a significant role in extending development potential. For example, the future implementation of the Man-Made River System and planned transport projects, such as the railway system and the new east-west roads would extend areas with development potential and improve the potential of many existing areas. However, the communication and distribution system was insufficiently developed to afford effective and swift flows within the regions. Moreover, while substantial improvement was planned for the main national highways, progress on the development of a complementary system of feeder roads was slow and incapable of serving new agricultural projects. In addition, the rail network, which was supposed to have been implemented 20 years previously and still, has not implemented and serious gaps persisted in the existing distribution of social services throughout the country. For example, a great number of small villages needed more effective provision of the basic social and technical infrastructure and general improvement of living conditions. Kezeiri (1983) criticised those policies:

By and large the plans did not anticipate such a rapid urban development as observed at present in the urban centres of Libya and
Therefore, they did not take into account decisions which have been taken after their elaboration, i.e. the construction of roads, railways, location of new industries, development of agriculture, development of health, education, housing and the development of airports and ports etc. (Kezeiri, 1983, p.13)

Therefore, human factors, such as the transport system, job opportunities, and services provision could be an effective element in the population redistribution and development diffusion if they were used in an effective manner. However, these factors play an adverse and significant role in the aims of the spatial development policies, by further concentration the population into the major cities. For instance, 12 of the interviewees attributed the heavy concentration of populations in the cities of Tripoli and Benghazi to the fact that these cities provide good job opportunities. It has been said that Tripoli’s urban primacy is manifested in its over-concentration on economic, political, social, cultural and other institutions.

Figure 8: Causes for the polarisation of the population on Tripoli & Benghazi.

Additionally, around five of the interviewees stated that the government devoted and still devotes a higher proportion of government spending on those two cities as a result of the importance of these cities as centres for population attraction.
This has clearly resulted in concentrations on the private sector and further population attraction towards these cities. Similarly, Rondinelli (1985) stated:

If governments in developing countries want to achieve geographically widespread development, they must invest in a geographically dispersed pattern. The concentration of investments in one or a few large cities will not result automatically in the spread of development through trickle-down processes. In most countries the spread effects of investments are highly constrained. At the same time, many of the services, facilities and productive activities that are needed for regional development cannot be provided economically or efficiently to widely dispersed populations living at very low densities. (Rondinelli, 1985, p.1)

4.2.2 The Current Urban System

‘An urban system may be defined as the total set of towns and cities that together make up the settlement fabric of a given area, be it a region, nation, or entire continental division’ (Potter and Evans, 1998, p.53). The urban system concept is used here both as a framework within which to organise and evaluate recent government policies in the country and as a basis for identifying needs and priorities for future research and policy evaluation.

4.2.2.1 The Effect of the Current Urban System on Future Development

As expected, around 27 of the interviewees stated that the Libyan urban system was unhealthy to sustain socio-economic development. In their view, this situation was due to many reasons, as set out in the figure below:
Opinions concerning the over-dominance of the two largest cities of Tripoli & Benghazi on the urban system were supported by the highest number (24) of interviewees. The spatial disparity of service distribution was second in importance, with the second highest number of interviewees (8). Six of the experts considered that there was a concentration of most of the Libyan population in the coastal strip and an imbalance in the distribution of the hierarchy of the Libyan cities. This finding was very significant as it showed how the over-dominance of those two cities in terms of population and service concentration could affect the socio-economic future of the whole country. Additionally, the interviewees considered that the current urban system remained the same, even after the implementation of particular policies, and especially the National Physical Plans for 1980-2000\(^2\), this being due to the above stated reasons. Hence, the causes mentioned above reveal the pattern of the over-dominance of the two largest cities on the urban system, whether by the continuous polarisation of the population, public and private investments, job opportunities and services or by

\(^2\) which is considered to be the most influential one in changing some aspects in the urban system
creating a regional imbalance in the regions. However, three of the experts, these being a minority of government officials, believed that the opposite was true according to the growth of the other medium-sized towns (see Figure 10). However, they were in agreement as regards the urban problems facing Tripoli and Benghazi, such as, the problems of overlapping in land use (especially in Benghazi), with unregulated growth areas that have become a predominant feature in the both cities (as well as their attendant problems) and they considered that these two cities were no longer able to meet the needs of their population.

**Figure 10:** Opinion of interviewees concerning the urban system.

For instance, some of the interviewees claimed that in the past, Tripoli and Benghazi dominated the country for a long time. However, recently, there has been a relative decline in their role as centres for population concentration due to the development of other cities such as Misurata, Al Zawyia, El Bedia, Sebha, etc. Spatial policies placed no limits on the excessive growth of Tripoli and Benghazi, which will continue to dominate the urban system unless the government intervenes. At the same time, these plans were not aimed at taking the pressure off Tripoli and Benghazi, and this goal was not well-planned in advance. This matter has resulted in creating the same problems from which the big cities are suffering. However, despite this view, Al Khikia, a Professor of Population
4.2.2.2 The Excessive Growth of Tripoli and Benghazi Will Pose Potential Problems for National Economic and Social Development

Some scholars believe that the urban primacy of the most populous city is likely to have a disastrous impact on national development (Friedmann and Lackington 1967; Linsky, 1969), some see no negative effects (Mera, 1978), while others have reached inconclusive conclusions (Timberlake, 1987). Here, the researcher is not against big cities, but, within the national Libyan framework, they are a spatial problem in terms of the current social and economic development.

Here, as in the above mentioned literature relating to this point, the interviewees’ views indicated some disagreement but the majority of the interviewees (24) believed that the excessive growth of the largest cities would be a potential problem for national socio-economic development. Kezzeiri, a professor of urban geography and a Manager of the Third Generation Schemes Project-Benghazi Branch, stated at the interview that “the expansion of the cities of Tripoli and Benghazi was surprising since the urban schemes that had been set up before 1970 were not be able to accommodate their growth and therefore new schemes were prepared up to the period of 2000. However, it should be pointed out that the former scheme also failed to contain the increasing population growth. This led to the preparation of the Third-Generation Plans”.

In addition, BenKhyal, a professor of economic development, affirmed during the interview that “the concentration of the population and economic activities in the northern area, particularly in Tripoli and Benghazi, led to an increase of pressure for the available services, such as education, health and housing. This increasing

Geography, and the Head of the Libyan Geographic Association, who was interviewed admitted that “the policies had not produced a balanced urban system because of the lack of proper and effective implementation and these policies should be called spatial mass and random policies because they were unclear and did not achieve spatial balance”.

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In addition, BenKhyal, a professor of economic development, affirmed during the interview that “the concentration of the population and economic activities in the northern area, particularly in Tripoli and Benghazi, led to an increase of pressure for the available services, such as education, health and housing. This increasing
population growth also led to urban sprawl, an encroachment on agricultural
lands, traffic congestion and other environmental problems, which all had a
negative impact on the development of the country as a whole”. Therefore, there
should be a new, effective and clear population policy that takes into
consideration all of these factors. This is view is supported by Portnov and
Pearlmutter (1999):

Overpopulation of core regions leads to a number of distinctive socio-
economic and ecological problems. In developed countries, these
problems are primarily associated with road congestion, environmental
pollution and rapid depletion of land for future development. In less
developed countries, problems caused by overpopulation of core
districts may be more immediate, as water supplies are threatened and
other essential infrastructures are overburdened. (Portnov and
Pearlmutter, 1999, p.240)

On the other hand, a limited number of interviewees (6) did not anticipate a
negative effect on development. According to Figure 11, this ratio is represented
by a minority of government officials. These individuals believed that this further
growth could help develop other cities and potential problems could be overcome
through planning.

![Figure 11: The Interviewees’ opinions on the excessive growth of the largest cities.](image)
Three of academics held the same opinion, these being in support of the ideas of Perroux and Hirschman, who claimed that the extreme growth of the largest cities would diffuse to rural areas later thereby achieving socio-economic development. They argued that although this over growth might cause problems for the urban environment with pollution, problems with the water supply/sewage, congestion and transportation problem, it could be positive in economic terms. According to Attir “this over growth would not be a problem for development, because of the small size of the total population compared to other countries, and as long as the government intervened, it would bring about an even distribution of services” (Attir, Interview, 2008).

However, based on the literature, the development diffusion from the largest cities to other towns could be obtained through providing the necessary factors for this process, such as a communication system; however, there was not enough focus on this and particular obstacles might hinder its role. For example, Porter and Yergin (2006) stated that;

> The current transportation infrastructure in Libya will not support increased commerce and transit trade activities. Ports are substantially smaller and below the standards of other Mediterranean countries, and Tripoli Port is considered dangerous due to several cracks in the breakwater wall. Neither the airport infrastructure - even the Tripoli International Airport - nor the road infrastructure measures are up to regional standards. Despite two decades of planning and discussions, Libya still does not have a railway system (Porter and Yergin, 2006, p. 137).

Clearly, national development planning has come about in response to rapid population and economic growth, massive social change and the unequal impact of technological innovations (Bourne, 1975). In addition, Bennett and Estall 1994 stated:

> Although primacy is not necessary a bad thing, and indeed is not limited to Third World Countries, there are three major negative implications of such a concentration:

1) Is it a problem of regional imbalance?
2) [The]Scale itself;
3) Management: how can urban planning cope with such rapid change? (Bennett and Estall, 1994, p. 181).
Thus, the majority of respondents believed that this further growth would be problematic for Libyan development as a whole, as it would cause the subsequent and serious problems indicated in Figure 12.

Figure 12: Potential problems of the excessive growth of the largest cities.

The creation of serious urban problems was the most important issue for six of the interviewees; another five of the respondents stated that the services in those two cities were no longer sufficient to serve the population. For example, Al Bisari, an urban planning engineer from Urban Planning Egency- Tripoli Baranch, confirmed at the interview that “the population evolution had already exceeded urban development, particularly in Tripoli and Benghazi which lack infrastructure services, around 25 outlets have pure sewage emptying into the sea and sewage purification plants in Tripoli no longer function”. In the same manner, Radown, an urban planning engineer from Urban Planning Egency- Benghazi Baranch, emphasised the same situation in Benghazi stating that “the sewage purification plants not working and pure sewage emptying into the sea as well as in Tibesti Lake in the centre of the city. This matter has caused environmental problems and has distorted the aesthetic qualities of this lake”. Radown also declared during the
interview that “the percentage of implementation of infrastructure projects in Benghazi’s city was only 13 percent of the planned infrastructure”. This view is supported by a survey of the coast in Tripoli and Al Jifarah which showed that the proportion of polluted beaches in these areas has been increasing each year due to increasing sewage at sea. Consequently, most of the beaches are unsuitable for swimming. In order to maintain public health and the environment from pollution, the flow of sewage should be stopped from getting into sea (The Public Organization for Environment, 2007).

For five of the respondents, an unequal distribution of services in the cities is one of the problems that may occur due to the excessive growth of these two cities. Other respondents stated that this growth would make achieving the targeted development in the interior regions difficult to obtain, and four of the respondents supported this view. In addition, the further expansion of these cities, especially Tripoli, would be at the expense of the best agricultural lands, this constituting about 3.6 million hectares, or around 2.5 percent of the total area of the country (Benkhyal, 1995, pp. 545-628).

Moreover, there were further concentrations of population in certain cities, especially Tripoli and Benghazi, and as a result, an unregulated growth pattern would be more predominant.

This finding is very significant because it showed how this over growth can be a real obstacle to achieving targeted development for the country as a whole; it could also explain how this growth would affect future development. The reasons for this can be linked to issues of creating urban problems in these two cities as well as to other medium-sized and small towns that may affect their development. Moreover, this can be related to the whole urban system, which is still characterised by the over dominance of these cities, according to the respondents. Therefore, this over growth should be planned and regulated by government policies if other cities are not to suffer as a result.
4.2.3 The Need to Evaluate the Existing Urban System

According to the information in the previous section, the interviewees agree about the need for Libya to critically evaluate the existing urban system in order to prepare for future challenges. This evaluation, as illustrated in Figure 13, is significant firstly to tackle the problems resulting from the delay in the implementation of the urban plans and schemes, ten of the respondents supporting this view. An example of this is the fact that the growth of two cities has gone beyond the master plan, so resulting in serious problems such as congestion, pollution, housing and sewage problems, in addition to unemployment. Additionally, Al Bishari stated at the interview that “around 2 million people\(^3\) are currently being served by an infrastructure planned for half this amount, which means that the infrastructure in these two cities is no longer sufficient”. As regards unemployment, the ratio was 2.9 percent in 1973; this percentage increased in 1984 and 1995 to 3.7 percent and 11.7 percent respectively. However, in 1999 there was a decrease of about 9 percent (Toboli et al., 2001, p.3). All these problems have resulted in a deterioration of the economic and social conditions for residents in the big cities. However, the small and medium-sized towns also have an insufficient economic base to survive.

\(^3\) The population of Tripoli and Benghazi
Seven of the respondents supported the idea of developing new schemes to meet new challenges:

- The provision of fresh water in the two big cities by means of the Man-Made River Project;
- Turning the socialistic economy into one of free enterprise that would increasingly enhance private investments in these cities.

For example, Kezzeiri, Professor of Urban Geography and the Manager of the Third Generation Schemes Project, called for a reconsideration and update of the spatial policy to meet the new circumstances. These economic and water policies could increasingly accentuate the over dominance of both cities, which need to prepare new urban schemes and plans to avoid potential problems. Five of the respondents argued for the importance of reconsidering a spatial distribution of economic activities, services, and population in order for a spatial balance to be
achieved. Further reasons for reconsidering and updating the spatial policy can be seen in the figure above.

4.2.4 The Excessive Growth of the Two Largest Cities

Most of the Libyan experts (25) believed that the philosophy governing the Libyan government’s spatial policies did not support large cities; however, Tripoli and Benghazi appear to overly dominate the urban system. Thus, the Libyan government should take this urban dominance more seriously so that particular aims can be achieved (see Figure 14).

![Figure 14: Motivations to deal with the largest cities.](image)

According to the responses of the experts, the most important aim is to protect agricultural lands, especially in the case of Tripoli, which is located in the richest agricultural area. These lands are being encroached upon by the extensive growth of the city which needs to re-channel new development. Unfortunately, the
expansion of this city has taken up some of the best agricultural land; the continuing spatial concentration of the population (with its economic activities) on the small originally agricultural region (see Figure 15) with a pleasant climate, is placing a heavy demand on the planning authorities to manage and control settlements and land use development in the region. For example, in 1966 urban lands formed about one tenth of the very fertile arable lands, then increased to 17.6 percent in 1978, and constituted 50 percent of the total arable lands (Brebish, 2006, p. 221). The subsequent figure indicates the areas that have already been converted for agriculture development.

![Figure 15: Areas of agriculture development.](Source: Ghanous, 1994)

In addition, the interviewees emphasised the importance of distribution social amenities and services equally throughout the country. As Al Rajebi, one of the academic people who are interviewed stated that “there is an imbalance in the distribution of services in the small and medium-sized towns, which are also suffering from a shortage of economic activities that are so important to their development”.

Additionally, a need for sustained land use and management was the third aim among interviewees. Four of the experts considered it important to solve the
housing problem, especially in the two main cities. In fact, as it had been stated at the interview by Bulugma that “housing provision is one of the most important challenges Libya faces. For example, there is a big deficit in the provision of residential units, which is estimated to be about 420,000 units in both cities. Hence, 50,000 residential units are being constructed by the government in Tripoli and 20,000 housing units in the city of Benghazi”.

The problems mentioned above constitute a real stumbling block to the process of development. For example, about 24 of the respondents believed that the extreme growth of the largest cities would pose potential problems for national socio-economic development. Moreover, around 24 of the experts confirmed that Tripoli and Benghazi would experience more rapid growth. This view depends primarily on various favourable human and natural factors, which can be rated according to their importance (see Figure 16).

Figure 16: Reasons for the belief about further growth by groups

The first and most important factor is the concentration of good jobs, services, and government investments, with 15 interviewees supporting this view. Secondly, five of the respondents appreciated the significance of their locations for further
growth in terms of transportation and natural resources. In addition, the role of the
economic and water policies adopted by the government came third in importance
for four of interviewees. The former figure indicates that the importance of the
government’s focus was to provide all the elements for further growth: for
example, around 19 of the experts considered that the government sought to
indirectly strengthen the over dominance of these two cities, whether through a
concentration of jobs, services and investments or by adopting implicit policies.
Despite the significance of the natural factors in population and city distribution
since ancient times, a concentration of services, jobs and investments in the
largest cities was considered the main reason for their further growth. The latter
view was supported by most of interviewees, such as business people, six of the
government officials and seven of the academics (see Figure 16). New strategies
that the government had recently adopted, such as water and economic policies,
increased the significance of those two cities as centres for population
concentration even more. This factor was chosen as another reason for their
further growth, being supported by two of the government officials and two of the
academics. These two cities are supplied with fresh water by the Man-Made
River, this being the most important challenge that the cities faced. Moreover,
there a transformation was taking place developing from a socialist economy
(sponsored for many years by the government) to an economy based on private
economy or enterprise. This private sector is concentrated in Tripoli and Benghazi
as they possess all the necessary and required services for productive enterprises.
These will increasingly enhance private investments and population concentration
in Tripoli and Benghazi because of the economy of scale of the economic activity.
Al Modafar, a professor of regional planning, stated during the interview that “the
movement of manpower and capital concentrated in a particular area required the
provision of certain incentives, such as access to border markets, improved living
conditions, investment opportunities and higher social levels”. Such incentives are
available in both cities, particularly in Tripoli, which polarises more people than
any other city, including Benghazi.

The role of natural factors in the further growth of Tripoli and Benghazi was only
supported by five of the academics. They confirmed that both cities possess good
geographical locations in terms of natural resources and transportation. Tripoli is
situated on the edge of the fertile agricultural area of the Jifra Plain, and Benghazi is close to the richest oil fields in Libya. In addition, both are located on the most important routes from the interior to the Mediterranean coast and are linked by the major coastal highway. These transport patterns provide major potential for urban development within these areas, just as the Mediterranean has served to establish them throughout Libya’s long history (Alawar, 1982, p. 346). However, the issue of location was neglected by business people and government officials. This oversight about the impact of natural factors was considered a weak point in the previous plans and schemes (General People’s Committee, 2006).

On the other hand, seven of the experts believed that this growth would not pose a problem as it would be controlled and restricted by the government. This view was supported by some of the government officials, who believed that the new schemes were aimed at developing a wide range of medium-sized towns, such as Misurata, Sabha, Al Zawya, Al Beida, etc. These schemes also tend to control or eliminate the unregulated growth of the two cities, which is considered one of the most serious problems facing urban engineers. However, a minority of academics considered that some of small cities were developing rapidly, as well as, there was a decline in the share of Tripoli and Benghazi of the total urban population (see Figure 17).
However, *can these small cities really compete with the two largest cities?* The experts argued that small cities could compete as long as the government would intervene to provide them with the competitive opportunities for their role. Furthermore, some of the experts emphasised the importance of government policies to control the growth of Tripoli and Benghazi. However, in the literature concerning the possibility of curbing the growth of the large cities there was some controversy among the researchers. Some of them held that:

Discouraging further growth of urban areas or diverting the growth to smaller cities may be difficult to justify in purely economic terms. Indeed, a number of studies have shown that a attempting to change a country’s regional growth pattern may be excessively costly in terms of loss of output presumably from the loss of scale and agglomeration economics. (Bejer, 1984, p. 123)

However, it should be obvious, as indicated by Potter and Lloyd-Evans (1998) that arguments about large cities and urban and regional system cannot be based on economic reasons alone; issues regarding social equity and polity are just as significant when examining the regulation of the urban system. Moreover, it could be argued that this growth should be planned or, more precisely, guided.
rather than left as an outcome of market forces. This is the key argument for a national urban development strategy (Richardson, 1984).

Notwithstanding this, in the case of Libya, Tripoli and Benghazi are growing without guidance, which has led to serious problems. For example, Tripoli has expanded, growing from 30 hectares at the beginning of the last century to 930 hectares in 1988 and then to 19,300 hectares in 2000 - this urban expansion is taking place in a country where most of the land is desert. This therefore indicates a tremendous loss of arable land which the country desperately needs (Al Zanati, 2003).

![Figure 18: Alternative choices for population concentration](image)

With regard to the question - *Which areas can possibly absorb population to alleviate high population concentration in Tripoli and Benghazi?* 17 of the experts recommended the medium-sized cities as an alternative choice for population redistribution, since these cities already have the necessary services and facilities to absorb some of the population. This, in their view, can save considerable money and effort and would help relieve some of the pressure to absorb the redistribution by creating new cities. However, seven of the experts stated that focusing on the medium-sized towns could turn these cities, in a short period, into large cities; they would then face the same urban problems that Tripoli and Benghazi have recently had. In addition, a lack of medium-sized
towns, which predominated in the urban system in 1970s and 1980s, would appear to be an obvious feature of the urban system once again. Hence, they preferred to focus on small cities instead in order to provide an opportunity for further development. Arguable, the following analysis suggests that:

Small towns and cities in developing countries can and do perform a wide variety of social, economic, and service functions that are important to regional and national development, although not all towns perform all of these functions and many do not perform them well.( Rondinelli, 1985, p.20)

Here, Kezzeiri stressed that the development of small towns in rural areas would lead to a reduction in the polarisation caused by the concentration of urban growth in the big cities. This can be done through direct investment to a selection of small towns. Moreover, the success of the strategy to develop small towns in any developing country depends on the development of road networks between small towns and the rest of the cities. However, according to the General People’s Committee for Planning (2006), Libya faces a dilemma in spatial development: it is a country with vast territory but a small sized population. Transport is also difficult and inefficient for modern needs; nationwide, the socio-economic development urgently needs a modernised transport system.

On the other hand, four of them claim that creating new towns could take some of the pressure off Tripoli and Benghazi. However, in their view, this should be done according to the available natural and economic resources. On the other hand, only two of the interviewees recommended satellite towns, which already had the necessary requirements to accommodate people, but 28 of the experts did not agree with this due to the possibility of these towns becoming an extension of the cities.

To sum up, all the groups of interviewees held the same view regarding medium-sized towns as alternatives to population concentration, especially the academics who believed that focusing on medium-sized towns could save considerable time, effort, and money. In addition, they expected that people would move easily from large towns to medium-sized ones more easily than they would move to small towns, especially since the small towns in Libya lacked the necessary elements for
population concentration and suffered from the lack of a sufficient economic base to survive. This idea was supported by the business group who stated that medium-sized towns are the best choice for population concentration and their economic activities. However some of the government officials believed that small cities could also play an important role in attracting people if they were provided with the necessary services for that purpose. Nevertheless, some of academics added that this could only be done only within the Mediterranean strip.

Figure 19: Alternative choices for population concentration according to the group of interviewees.

Here, Al Shaary, a businessman, emphasised at the interview that “larger and more urbanised centres are more attractive than the less urbanised and smaller ones”. However, this trend depends to a great extent on what government intervention can be brought about through policies to enhance their attraction for private investment. It is well known that cities are growing because of two factors: the internal growth factor that depends on their potential for the growth, and the external factor that depends on the government through a diversification of their economic base or functions.
4.2.5 The Role of the Libyan Government through its Spatial Development Policies

The Libyan government understood the emerging spatial distribution of their population and attempted to change such patterns through indirect national policies or explicit spatial development strategies. The main concern of these policies, based on the statements of 12 of interviewees, was firstly the over dominance of Tripoli and Benghazi, followed by the lack of medium-sized towns among seven of interviewees. The category of medium-sized towns was represented in 1984 by only 6 cities. However, this situation changed and the number had almost doubled by 1995. The aim of achieving balance in distributing population and services was supported by five of the interviewees.

![Figure 20: The concerns of the spatial development policies.](image)

As regards the satisfaction of the government in its spatial development policies, 20 of the interviewees revealed that the government was not satisfied with its policies due to the urban system remaining the same. However, 8 interviewees had little understanding of the government aims due to the continuous change in its ideology as regards the current situation of the urban system. On the other hand, a small number believed that the government was satisfied to a certain
extent with the aims, but was not happy with its implementation. In order to establish whether the Libyan system is unhealthy one, it is necessary to answer the following question: *Have the spatial development policies achieved their target regarding controlling the growth of these cities? In other words, have they already achieved balance in the distribution of the Libyan population?*

Some observations and evidence indicated that the government did nothing to control the growth of these big cities. For instance, (27) of the interviewees believed that the spatial policies did not control their growth. This high number can be broken down as follows:

1. 11 interviewees supported the idea of the continuous over-dominance and growth of the two former cities on the system, with their associated problems. Tripoli and Benghazi have been the first ranking cities from the 1954 census until the present time; the population polarisation in these two cities and their uncontrolled growth has increased the spatially disproportionate distribution of the population within the Libyan urban system. According to Kezzeiri (1995), these two cities comprise 50 percent of the total population. Tripoli alone contains 35 percent of the total Libyan urban population and 57 percent of its own region. Benghazi, on the other hand, contains 16 percent of the total Libyan urban population and 51 percent of its regional population (Kezeiri (1995, p.426);

2. Nine of them expressed concern about the continuous concentration of population, jobs and services in these two cities. Excessive concentration has become clear in respect of social, economic as well as investment and development efforts which occur in just few locations, particularly in the two major cities of Tripoli and Benghazi. Examples of this are town planning policies aimed at constructing housing, education and health facilities as well as the roads in the big cities to house the migrants and remove the shantytowns; these present a sharp contrast with the extreme shortage of infrastructure provision in the small and medium-sized towns. The latter is considered the main factor in attracting the population and
reducing the disparity in life quality between these two cities and the other towns;

3. Two of the interviewees stated that there was no attempt to redistribute the services and infrastructure in other cities;

4. Five of the interviewees considered this was due to the implementation of the policies, three believed that urban schemes were not being implemented, and the remainder thought that no actual application of the spatial policies had taken place (see Figure 21).

![Figure 21: Causes of continuous dominance of Tripoli & Benghazi.](image)

However, three of the interviewees believed that these policies achieved their target to limit the extreme growth of the two cities. Nevertheless, one of them stated that this achievement was very limited. For instance, Kezzeiri held that “the spatial policy (1980-2000) succeeded to a small extent in reducing the share of the Tripoli and Benghazi regions of population in favour of the regions of Sebha and
El-Khalij and increasing the growth rates of the medium-sized towns. However, a high proportion of the Libyan population (around 60 percent) was and still concentrated in Tripoli and Benghazi”. Therefore, Kezzeiri stressed at the interview the importance of the role of the government at this stage; should the spatial policy of 1986-2000 be implemented in an effective way due to the power of the government and its influence on every aspect of life in the country, the third planning period requires the powerful intervention of the government. This intervention should not restrict private investment in Tripoli and Benghazi, but rather increase government investment in the small and medium-sized towns, developing the economic base of the other towns and providing encouraging policies for investors in small areas such as tax and customs exemption.

Irrespective of the impact of these spatial policies on controlling the over growth of Tripoli and Benghazi, 25 of the respondents believed that these policies followed the same style in both cities. However, the rest of the interviewees stated that the policies used a different style in each city; an example of this is produced at the interview by Al Hasi who stated that the “transferring of administrative functions from Tripoli to the city of Sirt, definitely affected Tripoli more than Benghazi”, while Al Khikhia, a professor of population geography, argued during the interview that “Benghazi no longer had any political role from the 1970s, it was considered to be the capital of a limited area in the 1990s. However, the city’s port activity was diminished by the development of other important ports in Derna, Tobruq, Al Zwtina, and Ras Lanouf. In contrast, the port of Tripoli still competed with other ports located within the same region, such as Zowara and Ghasir Hamid”. As regards the effect of these policies on the both cities, 23 of the interviewees considered that those policies had the same impact on both of them. However, seven of the respondents claim that the impact was different in both cities due to the following reasons;

- Tripoli attracts more people, including the residents of Benghazi itself;
- Urban management in Benghazi’s region was clearer than in Tripoli;
- Others attribute the variant effects to the difference approaches taken in these cities.
In addition, 18 of the experts stated that Tripoli was less affected by the spatial policies than Benghazi. This matter is attributed to many reasons:

1. A concentration of political elites in Tripoli; this resulted in the following:
   - A concentration of facilities and services in Tripoli, which is greater than in Benghazi;
   - The return of the administrative function to Tripoli;
   - The continuous concentration of government expenditure in the capital city;
2. Its municipality structure - it being the capital city for a long period of time;
3. A labour market and its concentration in Tripoli;
4. The provision of all the facilities for population attraction (see Figure 22).

Thus, as Al Babour, a professor of urban geography, stated at the interview that “the expansion of Tripoli is broader, more serious and has more negative consequences than the expansion of Benghazi, particularly as regards agricultural lands”. This finding is significant because it shows that apart from other cities, the
Libyan government seems to favour Tripoli over Benghazi in providing economic and social facilities as well as investments.

Therefore, for the question - *Have those policies already achieved their objectives for a more balanced urban system?* 24 of the interviewees believed that this objective was not achieved by these policies; this view was undoubtedly derived from the reasons listed below (see Figures 23):

1. 14 experts considered that there was a continued over-dominance of Tripoli and Benghazi. The service sector in the large cities (Tripoli and Benghazi) has consequently felt significantly stretched. During the interview, Ben Zabiah, a professor of regional planning, stated that “state intervention must be called for to adjust the phenomenon of over-population in particular cities while the majority of other urban centres have been very much less developed”;

2. Four interviewees thought there was a spatial disparity in the service distribution.

3. Not all policies have been implemented and the schemes were not renewed.

4. The policies were not concerned with spatial dimension.
Al Toati, an urban engineer and Head of Urban Schemes Department in Urban Planning Agency-Tripoli Branch, argued at the interview that “theoretically the urban schemes were satisfactory in practice but they failed to deal with the dominance of Tripoli and Benghazi on the other cities; therefore, the spatial policies could not create a balanced urban system, as they still focused on Tripoli and Benghazi in the provision of job opportunities and services”.

Moreover, Al Remaly, Head of Statistics and Census Department-Tripoli Branch, held the same opinion and criticised the urban system because of the concentration of the population in Tripoli and Benghazi. He stated at the interview that “these cities suffer from serious problems such as the lack of infrastructure and unregulated expansion. Such problems could be real obstacles to the development as a whole. Moreover, this system lacked essentials, such as infrastructure in its cities, and there was a failure to implement urban schemes, which resulted in serious problems such as unregulated construction and urban sprawl. The urban schemes in Libya could be divided into 3 generations: the first two ended in the year of 2000 and the third will be carried out by 2025. However,
in real terms, the government is still implementing plans designed in the second generation which were supposed to have finished 9 years ago”. Al Remaly also stated that “spatial development policies were not able to achieve a more balanced urban system and all the policies had become mere studies on paper and were never implemented”.

However, six of the interviewees considered that the role of those policies was to create a more balanced urban system. The majority of the people who agreed with this based their views on the distribution of health and educational services over the country. Nevertheless, there was a consensus absolutely believing that the spatial policies had never provided an even distribution of the population due to the reasons mentioned in Figure 23. Moreover, 25 of the respondents stated that the spatial policies had not resolved the excessive dominance of the two cities (see Figure 24).

![Figure 24: Spatial policies have not resolved the extreme dominance of the two big cities.](image)

Around 27 of the respondents believed that this extreme dominance would continue into the foreseeable future due to such favourable conditions as the
natural location, resources, the transport system, services, jobs and inward investment.

Moreover, 13 of interviewees believed that none of the spatial development policies could influence the excessive dominance of Tripoli and Benghazi. However, the National Physical Perspective Plan 1981-2000 and other development plans showed some degree of success in terms of increasing the size and number of some small and medium-sized towns (Figure 25).

![Figure 25: The most influential policy on urban dominance.](image)

In the above figure, around six of the experts attributed the relative success of policies to the National Physical Perspective Plan (1981-2000), while another six attributed it to the development plans. For example, the spatial distribution of Libyan cities in the 1980s and the 1990s of the 20th century witnessed radical changes that affected the situation and new areas emerged as new centres of concentration of population:

- The emergence of the population concentration areas along a mountainous strip from Gharyian east to west Nalot in the western part of the country.
• The emergence of urban centres along the valleys of the Fezzan Basin Region, in the middle of the desert and particularly in Sebha which is considered the most important of these centres. However, this region had a long history, where the population in the south seemed to be concentrated around oases. Moreover, the population of these oases represented only 7.8 percent of the country’s total population in 2006 (General People’s Committee, 2009).

• The emergence of new centres in the coastal region of the Khalij Sirt, which are represented by the industrial, administrative and services centres as well as the cities of the oil ports. However, these cities contributed a limited percentage to the total population. For instance, the population of oil sea ports only had a very small share (0.8 percent) of the total population in Libya, according to the census of 1984. This ratio slightly decreased in 1995 and 2006, recording 0.6 percent and 0.7 percent respectively (1984, 1995, and 2006 population censuses). These figures demonstrate the important fact that the population in the oil sea cities does not figure substantially when compared to the total population in Libya. The population is simply attracted to the large cities where better services are provided, while the sector of the oil industries depends heavily on the service sector that provides technology as well as human resources. Thus, the government should diversify the economic base of these single-function towns to enable them to develop further. Al Shakmak, the Manager of the Urban Planning Organisation in Benghazi, stated at the interview that “the areas stretching from Al Khalij to Benghazi (Ejdabyia, Ojla, and Marada) are lacking a population size equivalent to the provision of oil wells due to the shortage of other facilities and services. For example, all the oil companies are concentrated in Benghazi instead of Ejdabyia because of the provision of the necessary services in Benghazi”.

• Al Jufrah Basin region, located in the centre of the country, has started to gain increasing importance by increasing the population of its fourth oasis.
However, those new centres owe this population concentration to natural factors. For instance, climatic conditions are the reason for population concentration along a mountainous strip from Gharyian east to west Nalot in the western part of the country. Similarly, the provision of underground water in the Fezzan and Al Jufrah regions is the reason behind the concentrations of the populations in these areas. Natural resources represented by oil constitute the reason why the petrochemical industries are based in these areas. In addition, these new centres attract greater populations from small and other medium-sized towns than Tripoli and Benghazi do, although the latter still are still receiving population numbers from other cities. Moreover, the study shows that spatial policies have changed some issues in the urban system, particularly the evolution of the sizes and numbers of the small and medium-sized towns, and 22 interviewees supported this view (see Figure 26).

Five of the experts considered there was an improvement in the quality of life in the southern areas. However, it was also suggested that these policies did not resolve the over-dominance of the two big cities; rather, this trend seems set to continue into the future.

![Figure 26: Changes in the urban system.](image-url)
This focuses attention because it indicates that significant changes did occur in the urban system as a result of the implementation of spatial policies. However, most of the respondents tended to suggest that the urban system remained largely unchanged, due to the continued the over-dominance of the two former cities on the system. Several leaders in this field clearly believed that the government has made little impact on the control of the growth of these big cities. On the contrary, the government still focuses primarily on those two cities for providing jobs, services and investments. This clearly contradicts the aim of controlling the growth of Tripoli and Benghazi.

### 4.2.6 Future Prospects of Spatial Development Policies As Seen by the Interviewees

This finding appears to indicate that 27 of the experts expected that the government would continue to develop the coastal strip by focusing on Tripoli and Benghazi. This is indicated by the role of natural conditions as well as the potential for exploiting seawater for human consumption in the future. However, Al Hadad, a professor of economic development, maintained at the interview that “this focus would be shared equally among towns on the coastal strip”. Similarly, 22 interviewees stated that the Libyan spatial policy would continue to adopt balanced development⁴ to correct the spatial defect. Nevertheless, some of them considered that the government would adopt selective development along the coastal strip, due to natural factors that would impede the development process over the whole country, and this would cost a great deal of unnecessary effort and money.

Concerning what sort of development would suit the actual situation of Libya, 17 of the experts considered that a balanced development was a suitable direction for the development of the country using an equal distribution of services and investments over the country. This would be in line with the government’s aim of creating balanced growth. However, some experts believed that this approach was

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⁴ This was intended to develop the whole country and has been adopted by the Libyan government since the early 1970s.
no longer beneficial for the country which has a predominantly desert climate in most its territories. Nine of the respondents argued that this effort and money should be directed toward selected development, especially within the coastal strip. Kezzeiri recommended at the interview selected development within the coastal area as an appropriate policy for the third planning period. This recommendation was based on the natural factors that limited the urban expansion in several areas. However, some of the experts believed in selected development to support the areas where development is possible whether they be on the coast or in the interior. This means that the majority of experts were only interested in balanced and selected development, considering this a suitable direction for the country’s circumstances (Figure 27).

Figure 27: New directions for the development of the country.
As far as the lessons that the Libyan government can learn for future plans are concerned, the experts considered that the most important one was following up the implementation of the urban schemes and policies. This was one of the reasons that led to a failure to achieve the desired goals of second generation planning according to the statements of six of the interviewees. A second important consideration was stability in the planning and administrative decisions and in establishing boundaries; this should be accompanied by decentralised decision-making and its implementation. The continuous changes in administrative decisions and boundaries were considered to be the biggest obstacle in making comparisons and evaluating the policies. At the interview, Al Shakmak considered that “there was a big time gap between the approval of the plans and decisions and their implementation, which provided the opportunity for urban problems to emerge”. Some of the planners from Benghazi accentuated the importance of giving planners in other cities (including Benghazi) the chance to contribute towards urban decisions and schemes in their own cities. A continuous evaluation of the plans and their implementation was one of the lessons referred to by some of the interviewees. Others supported the view that the nature of the town to be developed should be considered. When the government was trying to develop small and medium-sized towns by distributing economic activities, the nature of the towns was not taken into account. An example was given at the interview by Al Hasi; “an industrial complex for producing building materials was established in the town of Shahat (formerly Cyrene) despite its appropriateness for nature tourism (with its rich natural and archaeological resources)”. The remainder of the lessons to be learnt is tabulated in the table below, with the number of experts supporting these:
<table>
<thead>
<tr>
<th>Lessons</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following up the implementation of urban schemes and policies</td>
<td>6</td>
</tr>
<tr>
<td>Stability in all planning decisions and administrative boundaries with decentralised decision-making and implementation</td>
<td>5</td>
</tr>
<tr>
<td>An impartial assessment of past experiences and development of new schemes to meet the rate of population increase</td>
<td>3</td>
</tr>
<tr>
<td>Providing the opportunity for national planning cadres and (public-private-and citizens) to contribute to the preparation/implementation of the schemes</td>
<td>3</td>
</tr>
<tr>
<td>Taking into account the potential for growth in each area</td>
<td>3</td>
</tr>
<tr>
<td>Equal distribution of jobs and services over the country and the improvement of the infrastructure in the whole country</td>
<td>2</td>
</tr>
<tr>
<td>Studying the role of natural conditions and the optimum utilisation of water resources and environmental management</td>
<td>2</td>
</tr>
<tr>
<td>Avoiding regional fanaticism of political elites who are unable to absorb the concept of regional balance</td>
<td>2</td>
</tr>
<tr>
<td>Learning and benefiting from other successful international experiences in planning, especially those of Arab Countries with the same natural and human conditions</td>
<td>2</td>
</tr>
<tr>
<td>Considering all the Libyan cities including these two major ones</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

**Table 4:** The lessons to be learnt for future plans.

Similarly, the principles presented by the interviewees to create a more balanced urban and regional system are numerous and various (see Table 5). However, and more importantly, the development of each urban settlement should be carefully planned and consider the following recommendations:

- Availability of resources;
• Equally distribution of services and investment potential in small towns, rather than concentrating too many national resources in favour of service and industrial projects in Tripoli and Benghazi;
• Establishing economic projects in small towns;
• Decentralisation of population and jobs;
• Establishing good transportation;

In assessing, the competitive situation of Libya as stated by Porter and Yergin, the Third Generation Planning Project provides an opportunity to re-establish control of planning in Libya and lay the foundation for the next stages of urban physical development in the country. However, the planning process is facing major challenges; the most important one is a competition for land between agricultural development and urban development. They added that the application of the urban schemes and their implementation did not receive the financial support they deserve, which led to delay in the implementation of projects and contradictions with the schemes. Moreover, the researchers accentuated the importance for the Libyan government to take this opportunity to restore its control over the urban development process, arguing it should focus on improving the preparation of urban plans and schemes as well as its formulation and implementation (Porter and Yergin, 2006).

<table>
<thead>
<tr>
<th>Principles</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving adequate opportunity to other cities to be equally developed</td>
<td>20</td>
</tr>
<tr>
<td>Attention to the tourism sector to create economic resources, independent income and create jobs</td>
<td>2</td>
</tr>
<tr>
<td>Limiting the growth of Tripoli and Benghazi</td>
<td>2</td>
</tr>
<tr>
<td>Creating a clear population policy with clear objectives</td>
<td>1</td>
</tr>
<tr>
<td>Speeding up the implementation of urban schemes and policies</td>
<td>2</td>
</tr>
<tr>
<td>Decentralising planning decisions</td>
<td>1</td>
</tr>
<tr>
<td>The private sector and market should be given an opportunity to play their role freely</td>
<td>1</td>
</tr>
<tr>
<td>Creating new areas located below the coastal strip area</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

*Table 5:* The principles of a more balanced urban system.
It can be concluded from the former table that the government should focus on other cities which should be developed and fully capable of competing with Tripoli and Benghazi. At the interview, Al Khikhia, pointed out that “any proposals to increase the government focus on the major bipolar growth areas (Tripoli and Benghazi) must be rejected immediately, arguing that all the remaining cities would be ‘paralyzed’ and unable to evolve. The disadvantages of this proposal seemed obvious during the 1960s and the 1970s and some negative impacts remain until today”. He added that the focus on Tripoli and Benghazi because of rapid growth of their population is a dubious pretext, as the population size of Libya, predicted to reach 9 million in 2030, would be small compared with the huge area. Accordingly, a sizable city within a sparse population country would lead to many problems and would hinder the development of the other towns, as well as the large cities themselves.

### 4.3 Findings

The aim of the current descriptive analysis has been to work out a statistical framework of the image of the Libyan urban system by Libyan experts in this field. The findings were elaborated upon using 30 samples of government officials, academics, and businesses who specialise in urban and regional planning in Libya; these include town planners/architects, geographical experts and employees in government institutions who are involved in the implementation of spatial policies. The main result of this analysis is that the interviews reveal a series of similar views shared by all the different groups of interviewees (academics, government officials, business companies) regarding the current situation of the urban system and its effect on the development of the country as a whole; these are set out below:

1. It is widely recognised among this group of experts that natural conditions are one of the key factors of the spread of cities and the distribution of the population;
2. It is widely acknowledged in these groups that the hierarchy of the Libyan cities was and is still characterised by the over dominance of Tripoli and Benghazi on the urban system, a situation which remains the same even up to the present time. In fact, most developing countries, including Libya, have adopted their ideas from modernisation theory and introduced a growth pole strategy, this being based on urban industrial development as a tool of economic and social transformation at regional level. For example, after the initial wealth derived from the exportation of oil in the 1960s, the Libyan government undertook a huge investment programmes for the general socio-economic development. The polarisation of such programmes in large cities, which were located in the northern coastal regions and particularly in Tripoli and Benghazi, has resulted in a concentration of activities and the population in these areas. As Myrdal (1986) argued, economic development in urban areas only created further growth in the cities themselves and in their adjacent areas. In general, the existing inequalities between urban and rural areas only exacerbated the situation. Thus, the government has found itself faced with unbalanced development between these two kinds of areas. Hence, ‘in order to serve the main purpose of regional planning today (the regionalisation of national development) growth pole theory should refer to the system of poles, rather than to the single pole’ (Lasuen, 1996, p.44);

3. Spatial policies have changed some of the issues in the urban system, particularly the evolution of the sizes and numbers of the small and medium-sized towns;

4. Despite some significant changes that have occurred in the urban system as a result of the implementation of particular spatial policies, most of the respondents tended to suggest that the urban system remained largely unchanged due to the continued over dominance of the two former cities on the system. Moreover, several leaders in this field clearly believe that the government has made little impact in controlling the growth of these big cities. On the contrary, the government still focuses primarily on these
two cities by providing jobs, services and investments; this, undoubtedly contradicts the aim of controlling the growth of Tripoli and Benghazi;

5. The expansion of Tripoli is broader, more serious and has more negative consequences than the expansion of Benghazi. This can be attributed to factors such as the concentration of political elites, its municipality structure and the location of most of the company headquarter and services in Tripoli;

6. The resulting primate city patterns are therefore unacceptable to most of the Libyan experts;

7. There are major obstacles to development plans in Libya. Moreover, it is clear that, if the present situation continues - with a highly polarised concentration of urban population in just one or two geographical locations - negative effects will exacerbate the situation in the country as a whole; this is because the provision of infrastructure and services will demand a heavy resource allocation in these areas while the small and medium-sized towns will remain even more disadvantaged, financially, socially and economically. Moreover, it will also intensify the relationship of the two largest cities - Tripoli and Benghazi;

8. The continued growth of those two cities would be problematic for Libyan development as a whole, due to its natural and human circumstances;

9. Notwithstanding this, there seems to be a lack of central control over the strategic development of urbanisation as well as over economic and social policies. Most of the interviewees indicated that there were no strict policies specifically related to dealing with urban expansion;

10. Existing policies do not have a significant role in directing the urbanisation process. This may be related to the fact that policies that cannot be implemented due to the lack of follow-up in the implementation process of these policies, since all policies have become mere studies on
paper and have not been implemented. In addition to this, particular schemes have not been renewed to achieve this aim;

11. Although a range of policy views have been reported in these interviews, it is clear that these views are predicated on the belief that the twin cities will continue to dominate Libyan urban development if no action is taken by the government;

12. There is a consensus about the need for Libya to critically evaluate the existing urban system in order to prepare for future challenges;

13. As a result of point 12, the government may be forced to be even more selective in its patterns of investment for the benefit of the population; otherwise small towns will suffer because of this situation. As Peredo et al. (2004) stated:

   First, it sees development as passing through various stages. It implies that in order to progress and develop, traditional societies have to move toward modernity...... Secondly, monetary income and, therefore, economic growth are regarded as key elements in measuring the quality of life. Thirdly, humans are or should be motivated by self-interest and rational economic behaviour. (Peredo et al, 2004, p.7)

14. According to most of interviewees, balanced development is a suitable direction for the development of the country despite the dominant desert characteristics of most of the Libyan lands.

While there are a range of policy views reported from these interviews, it seems clear that all views are predicated on the belief that the twin cities will continue to dominate Libyan urban development if there is no further action taken by government.
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Chapter 5 Urban Systems in Libya

5.1 Introduction

Urbanisation is a global and common phenomenon; each country has experienced this process to varying degrees, irrespective of its political ideology and socio-cultural background. Each country has also experienced the process of population growth, with particular levels of development, a socio-economic structure and particular styles of development, all of which have resulted in differences in the rate of urbanisation. In Libya, urbanisation is not a new phenomenon since Libya’s urban history has developed through different urban systems. The country was influenced at different periods of time by old civilizations which flourished along the shores of the Mediterranean. The Greeks, Phoenicians, Romans, Byzantines, Arabs, Turks and Italians all established their own urban centres according to their different cultural traditions and economic and political aims. Most of these urban centres were located along the coastline, particularly around the two largest cities - Tripoli and Benghazi.

Therefore, in order to achieve the objective of studying the urban systems in Libya in full detail as well as explore the ways in which the current pattern of population distribution has evolved, this chapter aims to evaluate the impact of the spatial policies on restructuring of the urban system, particularly regarding the urban dominance of Tripoli and Benghazi by:

1. Looking at the settlement history of Libya and trace the origins of Tripoli and Benghazi to trace the roots of the urban dominance of these two cities which began such a long time ago; the present urban system patterns were the same in the different urban systems of the past. Additionally, former colonial regimes were also affected by the same natural and human factors in their major urban development;

2. Considering how the other settlements developed;

3. Explaining the patterns of contemporary urban settlements in the light of the above;
4. Evaluating the spatial changes that have occurred in the Libyan urban system in the light of the spatial policies.

Castells (1977) argued that ‘the study of the history of the process of urbanization would seem to be the best approach to the urban question, for it brings us to the problematic of the development of societies’ (Castells, 1977, p. 7)

The first part of this chapter will briefly attempt to trace the similarities that the existing urban system inherited from the past since the main focus will largely be upon the period starting from the independence of Libya and the current political regime.

5.2 Classical Periods

The first town in Libya was founded by the Greeks in 631 B.C. at Cyrene (Elathram, 1975, p.166). This is now the small town of Shahat and is located in the north-eastern part of the country; the town was established to absorb their surplus population of Greeks from around the Aegean Sea. The availability of an adequate water supply and large areas of fertile land had attracted many Greek immigrants to Cyrenaica (in the eastern region) and made possible its subsequent urban development. Little (1978) reported that Cyrene functioned as a religious, political, agricultural and commercial centre and was very important for exporting silphium, which was a popular drug with a royal monopoly. As a result of this significant role, there was an influx of new people and new cities were founded on the rich plain, such as those of Barce, Eusperides and Teucheria (Little, 1978). Barce (the modern El Merj) flourished, despite tension with Cyrene, and it developed trade with the surrounding native population and other settlements, such as Teucheria (now Tokrah) (El Ghane, 1975, p.19). However, Eusperides (the modern Benghazi) was founded by Greek settlers in about 515 B.C. In the third century B.C., settlers moved from Eusperides to found another city nearby which they called Berenice, and this became one of the major ports for the Greek settlements in all of Cyrenaica (Buru, 1965, p.185).
Little (1978) indicated that in any area subject to colonisation and where communications by sea are important, the major urban developments will take place in the vicinity of the best natural harbours. Hence, it was the proximity to the sea and the existence of natural ports that determined the siting of the Greek cities in Cyrenaica. There were three significant ports in the Greek period - Apollonia, Ptolemais and Berenica (Benghazi). Together with other small harbours, such as Ausigda (El Hania), Naustathmos (Ras al Hilal), Phycus (Ras el Hammama) and Erythrum (Al Athrun), they served to link Cyrene itself and the settlements located in the Libyan north-east with other ports in the Eastern Mediterranean.

However, Tripolitania in the north-west was colonised by the Phoenicians who established three ports at Oea (Tripoli) Sabrata and Leptis Magna (Al Khoums) as part of their extensive network throughout the Mediterranean region. These Phoenician trade centres had a limited built-up area consisting mainly of a residential zone and a considerable number of shops and stores (Khuga, 1969, p.30). In 500 B.C., the Carthaginians took over the three centres and although they maintained their rule until 150 B.C. it did not extend beyond the walls of the cities.

The next major stage in the history of Libya’s urban system was after the Roman conquest of Tripolitania in 148 B.C. Accordingly, the two provinces of Tripolitania and Cyrenaica were governed by the Romans. The Roman influence also reached the southern province of Phazania (now Fazzan). The Romans transformed the three major Phoenician settlements in Tripolitania into Roman towns. Sabrata and Leptis Magna were the first to experience major developments, while Oea, the third town, grew very little. Later, however, it was declared a free city by Emperor Augustus. In 193 A.D., Oea became the capital of Roman Africa when Emperor Septimus Severus, a native Libyan, moved the capital from his native city of Leptis Magna. The built-up area increased in size and was composed of private houses, public buildings for government administration and baths. The town also played a very important role as an export centre for agricultural products and other goods from areas south of the Sahara to Rome.
In Cyrenaica, the five major towns, known since the Greek period as the Pentapolis, prospered like the other Roman cities throughout the Empire, but never outgrew their Ptolemaic defensive walls. This factor does not really indicate a decline in the population during the Roman period, but rather the fact that the Ptolemaic planners were over optimistic in their estimates for urban development (Goodchild, 1963, p.17).

Cyrene remained the capital of Cyrenaica until 297 A.D. when it was replaced by Ptolemais and later by Apollonia as the capital of the Pentapolis. Darnies (the modern Derna) then emerged as the capital of Marmarica, in the eastern part of Cyrenaica, and in the late fourth century, the Pentapolis entered a period of marked decline leading to the eventual destruction of the five towns. In 365 A.D., Cyrene was destroyed by an earthquake. The cities were also exposed to the incursions of the Austuriana, a nomadic tribe from the Sirtic Gulf, which caused their decline and depopulation (Buru, 1965, p.185). Despite indications that the urban population experienced a sharp decline, however, rural districts continued to flourish and the countryside gradually changed into a land of castles and fortified churches (Goodchild, 1953, p.30) which could be considered as the nucleus of small village agglomerations. In 410 A.D.,

The Vandals conquered Rome and crossed into North Africa in 429 A.D. bringing with them havoc and destruction; all Libyan towns were seized by the Vandals. In spite of their short stay, these barbarians divested what the Romans had achieved during five centuries. (Hajjaji, 1970, p.86)

Throughout the country the urban population decreased through mortality and out-migration. However, in 533 A.D., Emperor Justinian liberated North Africa from the Vandals and established Byzantine rule in the country. The Byzantines restored the agricultural prosperity of northern Libya together with its trade and commerce, but paid very little attention to the urban development of the towns.

5.3 Islamic Periods

During the Islamic era, three types of settlement can be identified: firstly, the towns of Greek and Roman origins developed under the Arabs as trade centres,
such as Barce (El-Merj), Berenice (Benghazi) and Tripoli; secondly, the major locations that were developed into towns, such as Ejdabiah and Sultan near Sirte; thirdly, minor places, such as Tobruq, Jalu, Siwa, Mekili and Msus.

In Cyrenaica, the Arab period saw a change in the relative importance of the various Cyrenaica towns and a reorientation towards the interior and towards the west of Cyrenaica. This can be illustrated by the decline of centres that had been important during the Roman period, such as Cyrene, Appolonia and Dernis. These were eclipsed by centres such as Barce and Ejdabiah, which then developed rapidly. Two reasons may be put forward to explain this change. Firstly, the Arabs tried to avoid coastal towns because at that time the Byzantines had control of the Mediterranean. Secondly, the main line of overland communication between Egypt and the Magherb (Morocco) passed through the interior along a route from Siwa; this went to Tobruq, Mekili, Msus, Ejdabiah, Sultan and Tripoli and then proceeded to Kairouan (Tunisia) and the Maghreb.

Barce (the modern El Marj) became a very significant military, commercial, agricultural and political centre. Among its major advantages were its position close to the major route from Egypt to the Maghreb, its location in the middle of a fertile plateau, the fact that it was surrounded by mountains and its inland location, which protected the towns from Byzantine naval raids. These characteristics encouraged the Arabs to develop Barce as the main centre for Islamic political and military control in Cyrenaica and as a springboard for their future campaigns in the Maghreb. Barce prospered until the eleventh century, when it declined after the invasion of the nomadic tribes of the Beni Hilal.

The second major centre during this period was Ejdabiah, which had an advantageous location; it was situated at the junction of the caravan route which passed from east to west and functioned as a commercial centre for Sudanese exports and imports. Another significant Islamic town was Sirt or Sultan - a caravan centre and a five-day journey west of Ejdabiah. Other settlements in Cyrenaica, such as Berenica (Benghazi), Darnis (Derna), Cyrene (Shahat) and Appolonia (Sussa) survived in the early Islamic period but declined in the eleventh century.
In the western part of Libya Tripoli became an important centre during the early Islamic period, but Leptis Magna and Sobrata declined. The construction of houses, shops and other mosques followed and there was a major expansion of the built-up area. The city’s population had increased through in-migration from the rural areas and through the arrival of new Arab administrators.

The Turks occupied Tripoli for several centuries and during this period they encouraged the building of houses, shops, restaurants, cafes, baths, mosques and schools. The urban population of Tripoli also increased because of in-migration from the rural areas, the markets resumed their commercial activities and Tripoli became the capital of ‘Wilayat Tarabulus el Gharb’ - the Turkish province of Libya. Consequently, Tripoli expanded and began to emerge as one of the major urban centres of North Africa. Cyrenaica, however, submitted to Turkish rule only in 1640 when most of the country was under Turkish control. The rural population was barely affected by their rule but the urban population was compelled to pay taxes. Benghazi and Derna were administrative towns, while El Merj, Al Qayqab and Sussa were minor administrative centres. No further radical changes took place until the country was occupied by the Italians.

5.4 Colonial Periods

When the Italians invaded Libya, the settlement system created by the Turks was already in decline and only Tripoli, Benghazi, Derna, and Misurata could be considered as towns. In 1911, Tripoli was the capital of the country, with a population of about 29,761 inhabitants. Benghazi, with 16,500 citizens, was the second town, while both Derna and Misurata had less than 5,000 inhabitants (Bulugma, 1964). The Italian invasion and the establishment of colonial rule introduced a new phase of urbanisation into Libya. New extensions were added to the pre-colonial centres: wide streets, roads and piazzas were laid out and municipal gardens and parks were established, as well as multi-storey buildings, modern shops, markets, schools, hospitals and churches were erected.
The Italian occupation resulted in the dominance, both spatially and visually, of a colonial style townscape. The new urban developments undertaken by the Italians represented the first modern departure from the traditional urban fabric of the Arab world. Early European towns were characterised by a particular layout: a grid with streets crisscrossing each other at right angles and at roughly equal intervals. Each town had a central square, a town hall, a church and pavements lined with carefully pruned trees (Lawless, 1979). In addition, there were a larger number of barrack complexes, grain silos, railways and new residential quarters were added, these being villas set in walled gardens. The Italians also improved the water supplies and sewerage systems in the main towns.

The origins of town planning in Libya date from the colonial period; towns had no master plan of any kind before the Italian occupation. Four Italian Master Plans were prepared for Tripoli, Benghazi, Derna and Musrata and for the first time modern European planning ideas were applied in the country, such as in the creation of the garden city. The major towns began to witness a new era of modern Italian urbanisation which had a profound effect upon their morphology (Kezeiri, 1983). Most of the coastal towns developed, but on a smaller scale than Tripoli and Benghazi. Moreover, a large number of settlements, which today are small towns, developed as part of the rural development programmes initiated by the Italians.

In Cyrenaica (in the north-east) the Italians established an organisation named ‘Ente di colonizzazione per la Cirenaica’ in 1932 to encourage mass colonisation and rural development. This ‘ente’ or institution developed the areas around Cyrene, El Beida, and El Merj and started to establish agricultural centres in El Beida, Labraq, Massah, El Gobbah and El Aweliya. The same development was carried out in Tripolitania (in the north-west), where the ‘ente’ also built many rural centres, such as Jud Daiem, El Kararim, Dafiniyah, and Al Azizah. Therefore, by 1940 there were some 15,014 Italian colonists in Cyrenaica (about 2,206 families) and the colonisation schemes had provided 23,919 Italian colonists with farms in Tripolitania (Goodchild, 1963, p.19).
The success of the Italian settlements schemes depended on the development of the country’s infrastructure. The Italian government invested heavily in public works and utilities between 1913 and 1942. During this period, the Italians built the major coastal highway stretching from the Egyptian border to that of Tunisia; they also constructed railways and developed the ports of Tripoli, Benghazi, Derna, Gasr Ahmed (Misurata) and Tobruq.

<table>
<thead>
<tr>
<th>Urban Centres</th>
<th>Libyan</th>
<th>Italian</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1931</td>
<td>1936</td>
<td>1931</td>
<td>1936</td>
</tr>
<tr>
<td>Tripoli</td>
<td>311,184</td>
<td>26,036</td>
<td>2,291</td>
<td>2,420</td>
</tr>
<tr>
<td>Misurata</td>
<td>168,715</td>
<td>1,892</td>
<td>114</td>
<td>111</td>
</tr>
<tr>
<td>Benghazi</td>
<td>100,509</td>
<td>14,494</td>
<td>2,365</td>
<td>382</td>
</tr>
<tr>
<td>Derna</td>
<td>35,706</td>
<td>1,566</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>Libyan Sahara</td>
<td>38,716</td>
<td>612</td>
<td>--</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>654,830</td>
<td>44,600</td>
<td>4,807</td>
<td>2,943</td>
</tr>
</tbody>
</table>

Table 6: The Population of Libya in 1931 and 1936.
(Source: Abdussalam, 1983, p. 160)

Both Tripoli and Benghazi experienced rapid population growth due largely to Italian immigration and the migration of Libyans from the countryside. In spite of the agricultural colonisation schemes, the Italian community, which numbered 112,694 in 1936 (see Table 6) remained a strong urban minority due to their urban lifestyle. Benghazi grew from 16,500 inhabitants in 1911 to about 91,743 inhabitants in 1936. However, Benghazi’s native population declined from 1931 to 1936 and a massive influx of colonials occurred in those 5 years. The populations of Tripoli, Benghazi, Misurata, and Derna also increased significantly from 1911 to 1936, due to the urban development initiated during that time. In short, the Italians intended to develop the country for their own benefit and not for the Libyan people.

During the Second World War, all the towns in Libya were damaged and of all the cities in North Africa, Benghazi suffered the most serious destruction. Under the British Administration, no urban or economic development schemes were undertaken because of the uncertain future of the country, the lack of capital and Libya’s limited resources. Consequently, the urban population declined after the Second World War (Abdussalam, 1983, p.165).
To sum up, this study shows that since early times, Libya has been a desirable country for foreigners due to the importance of the country’s geographic location on the Mediterranean and its links with sub-Saharan Africa. The prosperity and development of the urban centres in Libya therefore depended on the nature of each successive occupation. For example, the Greek, Roman and early Arab periods were all characterised by prosperity and productivity. In contrast, the medieval period experienced considerable destruction and the expansion of the nomadic way of life. At the end of the period of Turkish rule, Libya remained weakly urbanised. The Italians began urban development schemes but failed to complete them before their rule came to an end during the Second World War. Moreover, all the previous civilizations had established urban centres on the coast, which have continued to exist until the present day: they established their ministries, government offices and the attendant services, all of which strengthened the dominance of the colonial capitals and their urban primacy.

5.5 Contemporary Urbanisation

In the first census in 1954 and only three years after independence, the total population was little more than one million in a vast territory of 1.75 million sq km. By 1964 and the second census, it had grown to 1,564,000, an increase of 43.7 per cent. In the third census in 1973, the total population was 2,251,000, an increase of 46.5 per cent and average annual growth exceeded 4 per cent between 1964 and 1973.

It is important to mention that at the time of independence Libya was one of the poorest nations in the world, with a per-capita income of less than $30 per year in 1951 and $100 per year in 1960 (El Fathaly et al., 1977, p.16). This situation of the first period changed rapidly and drastically with the oil discoveries in 1959. For example, following the increase in the price of the oil after 1973, the per-capita income in Libya reached $7,000 per year in the 1990s (Elkahjkahj, 2008, p. 30). The outstanding characteristics of the Libyan economy at this time demonstrated the transformation of the country, going from a stagnant to a rapidly growing economy, this being determined by the predominance of the oil sector.
Accordingly, the country’s income expanded, so enabling the government to establish a development programme, particularly in the big cities. As a result, there was a massive population movement from the rural areas to the cities, and the rural population began to decline.

<table>
<thead>
<tr>
<th>Level of urbanization</th>
<th>GDP/capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>(20-30%)</td>
<td>(60% +)</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>(30% +)</td>
<td>(60% +)</td>
</tr>
</tbody>
</table>

**Table 7: Relationship between the economy and urbanisation in Libya for 1950, 1980, and 1990.**

The table above shows the trends in urbanisation following these shifts in the economic programmes, as well as illustrating how the ranks of Libya changed after 1950 due to the discovery and export of the oil. Consequently, as reported by Al Rejabi (2006), the growth rate of the urban population in Libya exceeded the total population growth rate for the period of 1954-2003. Therefore, urban growth needs to be discussed in some detail.

**Urban Growth**

Libya has experienced rapid and accelerated urban growth since the era preceding the discovery and exporting of oil in the early 1960s. For example, between 1954 and 1966 Libya underwent a marked shift in its level of urbanisation and the major towns clearly began to dominate the country’s political and economic life. In the same period, the percentage of the total population living in settlements of 20,000 inhabitants or more increased from 18 to 25 percent and 80 percent of this increase occurred in the cities of Tripoli and Benghazi (Hartley, 1972, p.325).

Estimates of the rate of growth during the first half of the twentieth century vary. Based on the population of the ten most important urban centres, Attalah and Fikry (1972) calculated that the urban population increased from 31 percent of the total population in 1954 to 34 percent of the total population in 1964, giving an average annual growth rate of 5.7 percent (Attalah and Fikry, 1972, p. 159).
Using a more realistic basis of settlements with populations of over 5,000 inhabitants, Black (1979) estimated the urban population for 1973 as 55.9 percent of Libya’s total population. In comparing the 1966 and 1973 figures, he concluded that the average annual urban growth rate was an astonishing 16 percent.

Attir (1983), for his part, argued that the urban population increased steadily during the era preceding the discovery and exportation of oil. However, he pointed out that the rate of urban population growth hit 7 percent during the period of 1966-1978 (Attir, 1983, p. 157). On the other hand, Misrati (1983) maintained that between 1911 and 1954 the annual growth rate of the urban population was 8.1 percent as a result of the worsening economic situation in rural areas, whereas the growth rate of the total population was only 0.5 percent per annum - probably due to the casualties of the Libyan Italian war, the Second World War and the high rate of migration to neighbouring countries (Misrati, 1983, p. 187).

During the second half of the twentieth century, despite the existence of population census data for 1954, 1964, 1973, 1984, 1995 and 2006, there were still widely differing estimates of the rate of urban growth, mostly due to the adoption of different definitions of urban population. An example of this was Alawar (1982), who used occupational criteria: he calculated that 1954 had an urban population of 235,000 (12.0 percent of the total population), 1964 had an urban population of 385,239 (24.6 percent of the total population) and 1973 increased to 45.5 percent of the total Libyan population.

On the basis of the 1954 census, Misrati (1983) identified nine centres with more than 5,000 inhabitants as being urban, giving a total urban population of 270,000 or 25 percent of the total population. For 1966, using surveys carried out for urban planning purposes, he identified 14 such towns giving an urban population of 674,000 or 40 percent of the total estimated population in that year. Finally, he estimated an 8 percent per annum increase for the urban population between 1954 and 1966, corresponding to a 307 percent increase of the total population, and for 1973, an increase of the urban population to 62 per cent. The result is an average
annual rate of urban growth between 1966 and 1973, which was higher than 11 percent (Misrat, 1983, p. 188).

Attir (1983) estimated that the urban population – in settlements of 5,000 inhabitants or more - increased from 24.8 percent in 1954 to 39.8 percent in 1964 and from 60 percent in 1973 to 81 percent in 1980 (Attir, 1983, p. 159).

Kezeiri (1984), in his study on the small towns in Libya, identified all settlements with 2,000 inhabitants or more as urban. Using the population census, the following percentages were calculated for the urban population: 24.7 percent in 1954; 45.7 percent in 1964; 68.7 percent in 1973; 78.3 percent in 1984. These correspond to the following numbers of urban centres: 9 in 1954; 18 in 1964; 46 in 1973; and 93 in 1984 (Kezeiri, 1984, p. 147).

On the basis of the 1995 population census and the administrative criteria, the urban population percentage increased to 85.4 percent of the total population. This percentage reached 90.6 percent according to the 2006 population census. Of great importance from these figures is the overall picture of a country experiencing rapid and large-scale urbanisation and the fact that the rates of population and urban growth in Libya are among the highest in the world (Elkahjkah, 2008).

### 5.6 Settlements’ Network

Rapid urban growth has been unequally distributed throughout the Libyan urban system, and has been unevenly peopled, with the population heavily concentrated in the most fertile north-west and north-east coastal regions. This contains the two largest cities, - Tripoli and Benghazi, these being the two primate cities of the former provinces of Tripolitania (northwest) and Cyrenaica (northeast). They also possess the two major ports - as well as being the industrial, commercial, administrative and educational centres - and have become increasingly predominant (El-Mehdawi and Clarke, 1982; Black, 1979; Lawless and Kezeiri, 1983). Thus, the pattern of urbanisation in Libya during the last forty years has been characterised by concentrating a high proportion of the population into one
or two cities. This spatial duality has been sharply intensified in recent years by strong rural to urban migration, but also by an increase in inter-regional migration (Al Juhaimi, 2007). Furthermore, urban expansion in the northern part of the country has been stimulated by the rapid exploitation of the country’s mineral resources, especially petroleum, and by the subsequent development programmes which have accentuated the already dominant position of the two big cities.

Hence, an understanding of the settlement system in its spatial and hierarchical dimensions at national and regional level is vital for the formulation of strategies on spatial development, as well as to evaluate the spatial consequences of the alternative national policies.

### 5.6.1 The Urban System in 1954

In 1954, the number of cities with a population size of over 5,000 people reached nine in number, the total of their joint populations constituting about 269,568 people and accounting for 25 percent of the Libya’s total population (see Table 8).

<table>
<thead>
<tr>
<th>Size order</th>
<th>Urban centre</th>
<th>Population size.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tripoli</td>
<td>129,728</td>
</tr>
<tr>
<td>2</td>
<td>Benghazi</td>
<td>69,718</td>
</tr>
<tr>
<td>3</td>
<td>Ejdabyia</td>
<td>16,336</td>
</tr>
<tr>
<td>4</td>
<td>Derna</td>
<td>15,891</td>
</tr>
<tr>
<td>5</td>
<td>El Marij</td>
<td>9,982</td>
</tr>
<tr>
<td>6</td>
<td>Misurata</td>
<td>9,000</td>
</tr>
<tr>
<td>7</td>
<td>Al Zawia</td>
<td>8,000</td>
</tr>
<tr>
<td>8</td>
<td>Soiq Al Jomah</td>
<td>*5,932</td>
</tr>
<tr>
<td>9</td>
<td>Tobruq</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>269,568</strong></td>
</tr>
</tbody>
</table>

**Table 8:** Urban Centres in Libya in 1954.  
(*) Soiq Al Jomah is now part of the urban boundary of the city of Tripoli after its recent expansion).

The table above demonstrates that the cities of Tripoli and Benghazi possessed the majority of the urban population in Libya, representing about three-quarters of the population, while, Tripoli alone represented around 48 percent of the total urban
population. This situation can be explained by the high rates of migration from the rural areas or the smaller cities which played an important role in the growth of the two main cities. As explained in the section on the colonial period, the period between 1911 and 1943 witnessed the development of specific cities which were inhabited by the Italians settlers. This was especially the case for Tripoli and Benghazi and enhanced their importance as attractive centres.

Figure 28: Urban Centres in 1954.
(Source: This figure was compiled by the researcher according to the 1954 population census).

In Table 9, the hierarchy system is used to demonstrate the size distribution of the urban areas (see below).
<table>
<thead>
<tr>
<th>Size category</th>
<th>Number</th>
<th>Size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 20</td>
<td>7</td>
<td>70,122</td>
<td>26</td>
</tr>
<tr>
<td>20-50</td>
<td>-------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>50-100</td>
<td>1</td>
<td>69,718</td>
<td>25.9</td>
</tr>
<tr>
<td>100-500</td>
<td>1</td>
<td>129,728</td>
<td>48.1</td>
</tr>
<tr>
<td>500-1000</td>
<td>-------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>1000 +</td>
<td>-------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>269,568</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 9: Categories of size distribution in the Libyan urban centres in 1954.

These sizes can be divided into four categories:

**Category 1: small towns (5000-20,000):**

This group included seven urban centres: Ejdabyia - with a size of about 16,336 people; Derna - with a population size of 15,891 people; El Marij - with around 9,900 people; Misurata - with around 9,000 people; El Zawyia - inhabited by about 8000 people; Soiq Al Jomah - populated by 6,000 people; Tobruq - with approximately 4,995 people. The total size of this group was about 70,122 people, constituting about 26 percent of the country's urban centres, while the other ratio was composed of a small scattering of populations spread about the regions of the country in that period. It can be noted here that the category of 20,000-50,000 people did exist at that time. Figure 4 indicates that the urban centres in Libya in 1954 were all located along the Mediterranean coast.

**Category 2: medium-sized cities (50,000 to 100,000):**

This group is represented by the city of Benghazi, which was home to about 69,718 people, with an estimated 26 percent of the total urban population. It was considered the second city in the country in this period.

**Category (3): (100,000 or more):**

This category is represented by Tripoli, which is considered the most important city as it accommodated about 129,728 of the population and around 48 percent of the total urban population.
5.6.2 The Urban System in 1964

The census 1964 showed that seventeen cities had a population over of 5,000 people, which represented the total urban population in the country at that time, this being 620,700 (see Appendix 2).

Figure 29: Urban Centres in 1964.
(Source: this figure was compiled by the researcher based on the 1964 population census).

The following categories in Table 10 illustrate the urban hierarchy in 1964:

<table>
<thead>
<tr>
<th>Size category Per thousand</th>
<th>Number</th>
<th>Size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 20</td>
<td>14</td>
<td>164,760</td>
<td>26.5</td>
</tr>
<tr>
<td>20–50</td>
<td>1</td>
<td>21,400</td>
<td>3.4</td>
</tr>
<tr>
<td>50–100</td>
<td>-------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>100–500</td>
<td>2</td>
<td>436,540</td>
<td>70.1</td>
</tr>
<tr>
<td>500–1000</td>
<td>-------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>1000 +</td>
<td>-------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>622700</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 10: Categories of size distribution of the Libyan urban centres in 1964.
Category 1: small-sized cities (from 5000 to 20,000):

With the continued growth of the cities of Benghazi and Tripoli, a number of other small cities also started to grow, such as Misurata, Zwoira, Tobruq, Al Zawyia, and Ejdabyia. Other new cities also appeared in this period, such as El Beida, Sabhe, Zlitan, Nalout, Gharyian, and Al Koufra (see Figure 29). This group includes 14 urban centres, in contrast to the seven of 1954. However, their contribution to the growth of urban population in Libya was limited due to the fact that these cities constituted only 26.5 percent of the total urban population.

Category 2: medium-sized cities (20,000-50,000):

This category was represented for the first time by the city of Derna, which had belonged to Category 1 in 1954. However, with the increase in its size to about 21,400 people in 1964, it fell into the category of a medium-sized city and comprised 3.4 percent of the total urban population.

Category 3: large cities (100,000 or more):

This category contains the two main cities of Tripoli and Benghazi, their populations being 296,740 and 139,800 respectively, with respective percentages of 47.8 percent and 22.5 percent; together they constituted 70.3 percent of the country's total urban population. It was also noted that this group contained only one city in 1954; however, in 1964 the number rose to two. Urban pull factors attracted much of the rural population to these two cities because more jobs were available there than in other Libyan cities. This was in addition to external migration towards the two cities, as a result of the concentration of government departments, factories and economic institutions, especially in the early stages of the process of social and economic transformation following the discovery and export of oil. There were high population growth rates in both cities: Tripoli grew about 8.6 percent during the period of 1954-1964, while Benghazi grew about 7.2 percent during the same period.
5.6.3 The Urban System in 1973

After the discovery and export of oil, Libya witnessed an economic boom that moved it from being a poor country, where its population was dependent on the life of nomads, to belonging a group of rich countries. Investments resulting from the oil revenues were focused on the cities, leading to considerable internal migration from rural areas to the cities. Therefore, the urban growth rate of the Libyan population continued to increase, recording the highest levels during the period 1964-1973 - this rate reached 8.9 percent during the period of 1964-1973, while it was 8.7 percent between 1954-1964 and the number of people living in the cities increased from 269,568 in 1954 to 1,358,820 people in 1973 (see Appendix 3). It should be noted here that internal migration was not equal in all Libya cities, the movement being mainly to the cities of Tripoli and Benghazi. For example, it was found that the total number of migrants in the city of Benghazi was about 61,000 in 1973. However, only Tripoli acquired about 45 percent of the volume of internal migration in the period of 1964-1973 (Secretariat of Planning, 1979).

Therefore, it is increasingly clear that Libya’s settlements pattern in that period were marked by a high degree of spatial disparity among regions, with Benghazi dominating the north-eastern region, and Tripoli being dominant in the north-western region and both cities thereby dominating the country overall. The two cities jointly accounted for about 35.2 percent of the total population and 58.9 percent of the total urban population in 1973. According to El-Shakhs (1975): ‘If Tripoli and Benghazi were to be removed from the city-size distribution analysis, Libya’s settlement pattern would show hierarchical qualities close to those of Zipf’s “Rank-Size Rule” ’ (El-Shakhs, 1975, p. 377).

Figure 30 illustrates the growing number of the cities falling within the category of more than 5,000 people; this number increased from 17 cities to 36 cities in 1973. The rapid growth experienced by many Libyan cities during the period 1964-1973 was a result of the administrative boundary changes. The previous division divided the country into 10 provinces. However, in the early seventies the country was divided into forty-six municipality or administrative divisions and
160 municipal branches. Because of the new divisions, many Libyan cities have been transformed into regional capitals and have been provided with particular and necessary services, such as educational and health services and infrastructure. This helped to develop some of rural areas and increase the number of urban centres (Brebish, 2006).

Despite the dominance of the main cities on their regions, however, the north-east (Benghazi region) displayed a relatively more balanced settlement hierarchy in which the city of Benghazi, the medium-sized towns, and small towns represented effective functional units (see Figure 30). In contrast, in the western part of Libya (the Tripoli region) the patterns of location and settlement distributions reflected an overly strong dependence on the city of Tripoli (Kezeiri, 1982).

In addition, as regards the size categories of the Libyan cities in 1973, there was obvious dominance of the two main cities on the first and second ranks of the urban system. In 1973, there was a wide gap in the city size distribution below the
cities of Tripoli and Benghazi and four hierarchical levels can be identified (see Table 11):

<table>
<thead>
<tr>
<th>Size category Per thousand</th>
<th>Number</th>
<th>Size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 20</td>
<td>25</td>
<td>246,740</td>
<td>18.4</td>
</tr>
<tr>
<td>20-50</td>
<td>9</td>
<td>305,720</td>
<td>22.7</td>
</tr>
<tr>
<td>50-100</td>
<td>-------</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>100-500</td>
<td>1</td>
<td>239,170</td>
<td>17.8</td>
</tr>
<tr>
<td>500-1000</td>
<td>1</td>
<td>552,700</td>
<td>41.1</td>
</tr>
<tr>
<td>1000 +</td>
<td>-------</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>1,344,330</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 11: Categories of size distribution of the Libyan urban centres in 1973.

In 1973, there was no other urban centre with more than 100,000 inhabitants. Al Zawyia, the third town in Libya, with a population of 46,890, was the largest of a group of eight towns with 20,000 - 50,000 inhabitants (Misurata, Ejdabiah, El-Beida, Derna Tobruq, Sebha and El Merj), five of which are in the north-east. Lower down the urban hierarchy was a group of settlements with 5,000-20,000 inhabitants in 1973, six being in the north-west. These urban patterns reveal a split in the Libyan settlement system into two separate urban systems polarised on Tripoli and Benghazi. El-Mehdawi and Clarke (1982) argued that these two cities have served as regional economic capitals of western and eastern Libya respectively, and this role will continue for the foreseeable future (El-Mehdawi and Clarke, 1982, p.72).

The uncontrolled growth of these two cities has created severe imbalance in the population distribution among the different regions; this can be illustrated by the fact that coastal regions around the Tripoli and Benghazi accounted for 95 percent of the population and much less than 7 percent of the land area (Kezeiri, 1982, p. 357). Moreover, as elucidated by El-Shakhas (1997), the high degree of spatial imbalance created by the two coastal regions around Tripoli and Benghazi cities is geographically exemplified by the fact that less than 10 percent of the Libyan area was settled by around 92 percent of the total population. In contrast, 13 southern and largely deserted municipalities, such as Kufra, El-Joufra, Tobruq, Ubari,
Murzuq, El-Shati, Ghadams, Mizda, Jalu, Bani Walid, Ejdabiah, Ben Jawad and Ghat have average densities of less than one person per sq km.

5.6.4 The Urban System in 1984

The number of Libyan cities increased from 36 to 61 in 1984, and the urban population grew to around 1,366,774 people during the period 1973-1984, with a growth rate about 6.7 percent (see Appendix 4). This increase in the number of Libyan cities, according to some researchers, is due to attempts made by the government to develop these towns in order to achieve a comprehensive regional development and to reduce migration to cities, especially the major ones (Brebish, 2006).

According to the following figure, 25 towns emerged in that period as local service centres which had received planning schemes in the second planning period of 1980-2000. Some of these were in the western areas, such as Raghdalean, Misda, Msilata, and Almayia, while others were located in eastern areas like Tokra, Sousa, Masha, and Alabrag, or in southern areas such as Tiworgha, Obari, Ghat, and Traghin.
Figure 31: Libyan Population Distribution Pattern.
(Source: Compiled by the author based on the 1984 census).
According to Table 8 (see below), Tripoli and Benghazi continued to dominate the urban system and accounted for 35.2 percent and 16.5 percent of the urban population respectively. As Black (1979) argued, the urban hierarchy in Libya had long been dominated by its capital city of Tripoli. In 1984, five hierarchical categories could be identified:

<table>
<thead>
<tr>
<th>Size category Per thousand</th>
<th>Number</th>
<th>Size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 20</td>
<td>39</td>
<td>390,313</td>
<td>14.2</td>
</tr>
<tr>
<td>20-50</td>
<td>13</td>
<td>398,620</td>
<td>14.5</td>
</tr>
<tr>
<td>50-100</td>
<td>6</td>
<td>415,520</td>
<td>15</td>
</tr>
<tr>
<td>100-500</td>
<td>2</td>
<td>580,880</td>
<td>21.1</td>
</tr>
<tr>
<td>500-1000</td>
<td>1</td>
<td>968,227</td>
<td>35.2</td>
</tr>
<tr>
<td>1000 +</td>
<td>-------</td>
<td>--------</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>61</td>
<td>2,753,560</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 12: Categories of size distribution for Libyan urban centres in 1984.

**Category 1: small towns (5000-20,000):**
The number of the cities belonging to this category in 1954 amounted to seven cities, this constituting 77.8 percent of the total numbers of cities. This number then increased to 14 cities, with a growth rate of around 100 percent during the period of 1954-1964. The number of towns rose to 25 city in 1973 and then to 39 cities in 1984. The importance of this group size can be seen in the increases in the numbers of the Libyan cities during the above mentioned time periods; for example, there was an increase of 87.5 percent during the 1954-1964 periods, about 58 percent during the 1964-1973 period and 56 percent for the period 1973-1984.

Kezeiri (1984) showed that these towns grew rapidly in size and number, and he partially attributed the rapid growth of many small towns to the impact of government investment programmes in urban areas resulting in the acceleration of rural to urban migration and the arrival of large numbers of foreign workers.

**Category 2: small cities (20,000-50,000):**
This category includes cities with a population ranging between 20,000 and 50,000.
In 1954, none of the Libyan cities fell into this category which did not occur until 1964, when the city of Derna increased in size. However, the actual increase in the number of small towns started in 1973, when there were 9 cities of this size; this then rose to 13 in 1984.

**Category 3: medium-sized towns (50,000-100,000):**

Benghazi was the only city in this category in 1954. Since then and with the growth of Benghazi, the size of this category did not reappear until 1984. The major change that occurred in the Libyan system was the emergence of a group of medium-sized cities, this being one of the defects facing the Libyan urban system previously. Lawless and Kezeiri (1986) indicated the lack of middle-sized towns in Libya during this period. However, according the 1984 census, six cities appeared to occupy this category, these cities being; Sebha, El Beida, Ejdabyia, Tobruk, and Derna and together constituted 15 percent of the total urban population.

**Category 4: large cities (100,000-500,000):**

In 1984, two large cities in Libya represented this category: the first was Benghazi with 449,849 people. However, in 1984 the population census showed that Benghazi had become increasingly predominant; this contrasted with its status in 1977 when it had a relative balanced settlement hierarchy. Conversely, in the western part of Libya (the Tripoli region) the patterns of location and settlement type distributions have always reflected an overly strong dependence on the city of Tripoli (Kezeiri, 1982). The other city in this category was Misurata, with 131,030 people, the rapid growth of which was due to its role as a development pole to take the population pressure off Tripoli and Benghazi.

**Category 5: major cities (500,000-1000,000):**

This category was not represented in Libya until 1973 since Libya did not have a city with a population of half a million people until Tripoli passed this limit, recording 552,700 people in 1973. This city continued to represent this category in 1984, with a population size of 968,227 people.
5.6.5 The Urban System in 1995

The 1995 population census showed that the populations of the cities in Libya increased by 138,864 during the period 1984-1995, with an annual rate of 3.7 percent, of which the population numbers of the cities accounted for about 411,4240 people. Therefore, the percentage of urbanisation reached 85 percent, and the number of Libyan cities increased to about 83 cities with an increase of 22 cities during the same period; this reflects the expansion of urban base in Libya (Appendix 5).

However, many of the Libyan cities, during this period, witnessed a slowing in the growth rate of their population, which is mainly due to:

1. The noticeable decrease in the overall rate of growth of urban population in Libya since the early eighties of the last century, after hitting its highest level in the period 1964-1973, which is 8.9 percent;
2. The increasing number of cities and urban areas which has resulted in a distribution of the urban population among them, so reducing the size of migration to the main cities;
3. A decline of the general population growth rate across the country.
Figure 32: Libya Population Distribution Pattern.
(Source: compiled by the author and based on the 1995 census)
As can be seen in Table 13 and according to the population census for 1995, Libyan cities can be divided into several groups:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 20</td>
<td>50</td>
<td>481,000</td>
<td>11.7</td>
</tr>
<tr>
<td>20-50</td>
<td>15</td>
<td>459,010</td>
<td>11.2</td>
</tr>
<tr>
<td>50-100</td>
<td>12</td>
<td>840,648</td>
<td>20.4</td>
</tr>
<tr>
<td>100-500</td>
<td>4</td>
<td>586,175</td>
<td>14.2</td>
</tr>
<tr>
<td>500-1000</td>
<td>1</td>
<td>589,850</td>
<td>14.3</td>
</tr>
<tr>
<td>1000 +</td>
<td>1</td>
<td>1,157,557</td>
<td>28.2</td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>4,114,240</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 13: Categories of size distribution of the Libyan urban centres in 1995.

**Category 1: small settlements (5000-20,000):**
This group comprises fifty small towns with 481,000 people and around 11.7 percent of the total urban population. This category witnessed a continued evolution from 1954 to 1995, and, in terms of numbers, recorded 7, 14, 25, 39, and 50 respectively.

**Category 2: small cities (20,000-50,000):**
This group contains fifteen cities with 459,010 people and contributed around 11.2 percent of the total urban population. However, the cities in this group are not distributed equally over the country, as 11 cities are located within the western area, and only two are situated in the eastern area - Alabyiar and Albraigha – and two are in the southern area - Brak and Al Koufra.

**Category 3: medium-sized cities (50,000-100,000):**
The population census in 1995 showed an evolution in the medium-sized category of cities, which rose to 12 cities with an increase of 836,060 inhabitants, this being equivalent to 20.3 percent of the total urban population. Six of these cities are located in the western area - Zlitan, Alajelat, Sorman, Gharyan, Aljimale, and Sobrata, while five are in the east - El Beida, Ejdabyia, Toburq, Derna, and El Merj; the last one – Sirt - is located halfway between Tripoli and Benghazi.
Category 4: large cities (100,000-500,000):
This group includes four major centres - Misurata, Elzawyia, Sebha, and Al Khomis – and has a total population of 586,175 people, this being about 14.2 percent of the total urban population.

Category 5: major cities (500,000-1,000,000):
Benghazi is the only city in this category - with a population of 589,850 people, this having previously been the category of Tripoli in 1984. Benghazi contributed at 1995 to 14.3 percent of the total urban population.

Category 6: million cities (1,000,000 and more):
The continued growth of the population size of Tripoli enabled it to move to the million cities category with more than one million people. This population size was not represented by a Libyan city through all the different stages of growth, until the population of Tripoli reached 1,157,557 in 1995; this came about as a result of its continued expansion and the annexing of nearby urban centres until they became an urban agglomeration.

The tables above show that Tripoli and Benghazi have been the first ranking cities since the 1954 census.

5.6.6 The Urban System in 2006

The total population of the country, according to the population census for year 2006, was about 5,439,900 people, while the urban population reached about 5,128,317. The striking feature here is the continuing and increasing rate of urbanisation in the country; for example, it was 85.7 percent in 1995 and then increased to 94.3 percent in 2006 (see Appendix 6).
This continuing process of urbanisation indicates a continual rise in the number of urban centres in the different hierarchical groups, as can be seen in the following table:

<table>
<thead>
<tr>
<th>Size category Per thousand</th>
<th>Number</th>
<th>Size</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 20</td>
<td>59</td>
<td>623,327</td>
<td>12.1</td>
</tr>
<tr>
<td>20-50</td>
<td>19</td>
<td>562,531</td>
<td>11</td>
</tr>
<tr>
<td>50-100</td>
<td>11</td>
<td>834,186</td>
<td>16.3</td>
</tr>
<tr>
<td>100-500</td>
<td>8</td>
<td>1,153,525</td>
<td>22.5</td>
</tr>
<tr>
<td>500-1000</td>
<td>1</td>
<td>629,597</td>
<td>12.3</td>
</tr>
<tr>
<td>1000 +</td>
<td>1</td>
<td>1,325,151</td>
<td>25.8</td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>5,128,317</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 14: Categories of size distribution of the Libyan urban centres in 2006

Figure 33: The urban system in 2006
(Source: compiled by the author based on the 2006 census)
Category 1: small settlements (5,000-20,000):
This class witnessed continued increases from 1954 until 2006; for example, it rose to 59 cities, constituting 12.1 percent of the total urban population, and giving credibility to this kind of city. Abou-Lugud (1976) anticipated an increase in this kind of small town, with an emphasis on their importance for the national interests since they play a significant role by functioning as a link between the larger cities and villages. The literature review indicated that small towns could be seen as centres that distribute goods, services and innovations to the rural areas. Elkahjkahj (2008), for example, believes that concentrating on and investing in small cities is of great importance in creating an urban balance in the human settlements of the entire country; this, in turn, ensures the success of the process of economic growth. Improved services and job provision in the small towns could attract rural migrants from the surrounding areas and thereby alleviate the pressure on the largest cities. Small towns therefore operate as a spatial connection point between the large cities and other settlements through the various services provided by the small towns to the areas nearby. Therefore, the small towns play an important role in the development process of the big cities and the villages and, accordingly, create the possibility of achieving urban balance.

Category 2: small cities (20,000-50,000):
This group size increased from 1973, as the 1954 had no city in this category and there was only one city of this size in 1964. However, by the time of the 1973 census, there were six cities in this group, and this number grew to thirteen in 1984, then to fifteen in 1995, until there were nineteen cities of this size in 2006. However, despite their increase in number, they still only contribute about 11.0 percent of the total urban population.

Category 3: medium sized cities (50,000-100,000):
No change has occurred in this group since 1995; the cities of this size are Gharyian, Derna, Sorman, Alajelat, Sirt, Sobrata, Baniwalead, Tarhuna, El Merj, Al Jimale and Msilata. This category forms about 16.3 percent of the total population.
Category 4: large cities (100,000-500,000):
This group contains eighth cities such as Misurata, Al Zawyia, Al Khomis, Sebha, Zlitan, Toburq, El Beida, and Ejdabyia. Together, these cities have 1,153,525 people with 22.5 percent of the total urban population.

Category 5: major cities (500,000-1000,000):
Only Benghazi was in this category, with a population of about 629,597 and 12.3 percent of the total population.

Category 6: million cities (1000,000 and more):
Tripoli still is the only city occupying this category, having 1,325151 people and 25.8 percent of the total urban population.

5.7 Conclusions

One of the most prominent phenomena occurring in Libya during the second half of the twentieth century was urbanisation: the growing rates of inhabitants in cities as characterised by the migration of a huge number of the population from the rural areas and small towns or cities to larger ones. This phenomenon has been accompanied by radical changes in the perception of the spatial distribution of population in Libya in recent decades. Whereas previously, the population distribution in Libya was inclined to consistency and balance among rural and urban areas, this balance has been upset because of the economic and social changes brought about by the discovery of oil at the beginning of the 1960s. Oil wealth transformed Libya from a poor and backward society in which the majority of inhabitants were nomadic or semi-nomadic to a country experiencing rapid urbanisation. The eagerness to become modern in the shortest period of time and to increase wealth has therefore contributed to the development of an unbalanced pattern of urbanisation. Kikhia (1995) mainatined the statistics proved that the great and rapid changes in the country population - from a country in 1954 whose rural population represented ¾ of the total population, to a country in 1984 whose urban population represented ¼ of the population - signifies an intensive migration trend from rural areas toward cities. This decrease in the rural
population was accompanied by a decline in rural output. Moreover, the percentage of the urban population, according to the 2006 population census, reached 94.3 percent of the total population.

It is evident that the main characteristic of urbanisation in Libya, as in any developing country, is essentially the concentration of the population in certain cities. Therefore, the size distribution of the settlements in 1954, 1964, 1973, 1984, 1995, and 2006 are characterised by variant degree of primacy. This domination was reinforced during the period of 1964-1973, particularly in the state capital of Tripoli, where most of the population increase occurred.

As illustrated in Figure 34, the study also shows that the spatial policies have changed particular issues in the urban system, particularly the evolution of the sizes and numbers of small and medium-sized towns. This evolution took place in all different regions including the regions of Fezzan and Alkalij, however, many
of these towns still lack the necessary services and activities for the further
growth (Interviews, 2008). Furthermore, these policies have not resolved the over
dominance of the two big cities and this trend seems set to continue into the
future; these two cities still individually occupy the first ranks over the years.
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Chapter 6  State Intervention in Reshaping the Urban System.

6.1 Introduction

Owing to the undesirable consequences of the continued polarisation of population and investment in the early 1970s, the Libyan government began to develop planning policies aimed at reshaping the spatial distribution of the country’s population. The need to intervene and plan in Libya, as suggested by Kezeiri (1983), stems from several factors, such as the rapid population increase, urbanisation and the polarisation of the population in Tripoli and Benghazi; the uncontrolled growth of the two largest cities created a severe imbalance in population distribution in the different regions. All these factors meant that the government had to plan for an increasing population and provide schools, houses, hospitals, jobs, infrastructure and leisure centres by means of urban and regional planning. The government was therefore committed to the reduction of the inequalities between the regions and tried to offset this high degree of spatial imbalance by channelling oil revenues into extensive improvements and the expansion of infrastructures. These had led to three plans in different period: the First Generation Plans (1968-1988), the Second Generation Plans (1980-2000), and the Third Generation Plans (2000-2025).

The aim of this chapter is to evaluate these plans to analysis how these attempts through the first and second generation of the spatial and urban planning have affected in regional planning. Emphasize how did the government policies through these plans deal with the perceptions of regional imbalance and the continued growth of the large cities. In order to evaluate the spatial policies already undertaken in Libya, major aspects of government intervention are considered in this study covering the town and regional planning and their impact on shaping the towns in addition to the restructuring of the urban system. Moreover, some merits and weaknesses of these polices have been identified in this chapter.
6.2 Town Planning

Urban planning has attempted to respond to the problems of urban growth through a series of control mechanisms; urban planning processes can be found not only in the master and layout plans provided, but also in the range of actions designed to improve the physical, social and economic fabric of the towns and cities in the country.

Urban planning is a concept which specifically relates to physical land use planning at the city or town scale, and is concerned with the production of master plans with emphasis being placed on zonation of land in order to achieve a more rational pattern of future development, including policies for redevelopment or the conservation of existing structures. (Clark, 1980, p.155)

The roots of town planning in Libya, as observed in Chapter 6, go back to the Italian period. Libyan towns had no master plans of any kind before the Italian occupation in 1911. The Turkish Administration (1551-1911), for example, left the built-up areas of the towns to expand without any proper planning. Four Italian Master Plans were prepared for Tripoli, Benghazi, Derna and Misurata. Additionally, many layout plans were prepared for the villages and much attention was given to the villages as part of their colonisation programme. New style of houses and building were also devised by the Italians and the water supplies and sewerage systems were additionally improved in the main towns (Khuga, 1969). This was most definitely for the benefit of the Italian citizens and not for the Libyan population.

Since the early sixties of the last century, the planning processes of the cities and villages developed dramatically as a major aspect of government intervention. This was done in order to develop the country and solve the problems resulting from expanding cities. The most important of these was a commission of the Doxiadis Association in 1963 by the Ministry of Development and Planning to study the housing conditions and their problems in Libya. This study was published in two volumes, and contained the policies and appropriate programs to solve the problems of housing. One of the most important proposals was the preparation of urban schemes for most of the Libyan cities and villages; there
were also plans for districts in large cities, the design of housing and public
buildings, engineering designs for public facilities such as roads, the water system
/ sew age, as well as a recommendation to issue legal regulations concerning the
organisation of cities and their planning and standards for construction (Doxiadis

The first town in Libya to have a master plan was the small town of El-Marj,
which had been devastated by an earthquake in 1963. A master plan was therefore
needed to build a new town and this was published in 1964: several ideas for the
new town were based on Western concepts, such as detached housing with front
gardens, and neighbourhood centres with a variety of services and infrastructures.
The new town was designed according to the concept of the ‘Garden City’ which
was based on the theory developed by Howard in the nineteenth century (Al
Asadi, 1975).

In 1964, the government chose the small market city of El Bedia, with 12,800
inhabitants, to be the federal capital. In this way, it became the second town to
have a modern master plan. In 1966 the Doxiadis Association was commissioned
to prepare the master programme and plan for El Beida, providing for a city of
50,000 inhabitants in the first phase with a future extension for a possible 100,000
inhabitants (Kezeiri, 1983).

Moreover, despite the fact that El Beida had lost its political and administrative
importance as a federal capital, its location in the most favourable area of Al Jabal
Al Akhdar, the availability of freshwater resources and its regional role as a
municipality of Al Jabal Al Akhdar led to continued growth. Its administrative
role also overshadowed the importance of other cities in the same eastern region,
such as Derna and El Marij, and its administrative influence extended to the city
of Imsaad on the eastern border, south to Aljaghbob and west to Al Merij. It was
also considered the educational, commercial and health centre for the populations
living in the neighbouring small towns, such as Shahat, Alabraq, and Qrnada.

The government was satisfied with the two previous master plans; therefore, with
oil wealth flowing abundantly, the Ministry of Planning and Development
initiated an extensive urban planning programme in 1966. This was designed both to regulate urban expansion and to make the benefits of the country’s new found wealth accessible to as many citizens as possible. These programmes are identified by the generations that set out below:

**Figure 35: Timeline of generation plans**

<table>
<thead>
<tr>
<th>First Generation Plans</th>
<th>Second Generation Plans</th>
<th>Third Generation Plans</th>
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<tbody>
<tr>
<td>1970</td>
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<td>2025</td>
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**6.2.1 The First Generation Plans (1968-1988)**

Four separate contracts were awarded to four Western consultants for the preparation of a comprehensive planning programme. The programmes required inventory reports of existing conditions, including resources, population, land use, settlements, community facilities, the economy and transportation investigations, as well as provision for aerial photographs and maps. Hence, field work and analysis were essential in order to collect the required information, not only as a reference for the existing conditions of the country but also as a basis for the preparation of a comprehensive programme.

The consultants were therefore allocated certain areas:

1) Eastern Muhafadat (excluding Benghazi, El Beida and El Merj) were studied by Doxiadis Associates and a master plan as well as layout plans were prepared for nine towns and 65 smaller settlements;
2) McGaughy, Marshall, McMillian & Lucan (UK) carried out a study for the Muhafadat of El Khums and Misurata and prepared 7 Master Plans and 25 layout plans;

3) The Muhafadat of Al Zawyia and Al Jabel Al Gharbi study was conducted by the Architectural Planning Partnership Ltd of Denmark and 8 master plans and 32 layout plans were prepared by Albert Speer, a German company under the aegis of APP;

4) Whiting Associates International (UK) prepared master plans for the three cities of Tripoli, Benghazi and Sebha, in addition to the 26 layout plans for the Southern Muhafadat (Kezeiri, 1983).

By 1970, these consultants had carried out 29 master plans and 148 layout plans; their documents still provide vital information about the urban scene in Libya. The planning horizon for the master plan and layout plans was also extended until 1988. These companies further prepared short-term programmes for executing the plans over a five-year period: April 1968 to April 1973 and April 1973 to April 1978.

The report for each settlement outlined the existing structure of the town or village at that time and examined the future pattern of the economic base, the demographic evolution, employment and income distribution; it also defined the existing problems both quantitatively and qualitatively and estimated the needs for each settlement - so defining the framework for the master plan, the layout plan and the five-year period programme. Maintenance of the old parts of towns was also taken into consideration and the Plans introduced some major observations regarding the old cities cores in Benghazi, Tripoli and Sebha. However, although the physical master plans themselves were instrumental in bringing about modern services (such as sewerage, fresh water and electricity in the small towns) and efforts were made to rationalise road networks and urban land use as well as to build modern housing, they do have particular weaknesses (Blake, 1979).

One of these is that the drawing up of these plans is characterised by an absence of citizen participation in each municipality as it is essentially the work of the
central government and the foreign companies. Blake rightly drew attention to some of these weaknesses:

1) The plans failed to examine the different growth potential of the towns in a national context and to give positive encouragement to those favourably located;
2) 20 years was too long as a time span considering the detailed nature of the plans and the spectacular rate of change brought about by the oil revenues;
3) When the plans were devised, industrial development on a large scale was not foreseen and emphasis on heavy industry was a relatively recent phenomenon;
4) The master plans largely overlooked the possibility of adapting traditional urban styles to the needs of the modern world (Blake, 1979).

In addition, Kezeiri (1983) added that:

By and large the plans did not anticipate such a rapid urban development as observed at present in the urban centres of Libya and therefore they did not take into account decisions which have been taken after their elaboration, i.e. the construction of roads, railways, location of new industries, development of agriculture, development of health, education, housing and the development of airports and ports etc. (Kezeiri, 1983, p.13)

Additionally, these schemes did not consider the spatial relations or economic potential in the region of the cities. In other words, there was an absence of regional or spatial planning in these processes. An absence of popular participation in the planning was one of the weakness for these plans, it being a central planning process instead of a local one; this was the case even though the citizens should have been consulted in the planning processes - at least to indicate if the plans for the urban environment were in accordance with the wishes of the citizens, their social relationships and cultural environment (Kezeiri, 2006).

For these reasons, the government found it necessary to elaborate new master and layout plans for all the settlements in the country up to the year 2000.
6.2.2 The Second Generation Plans (1980-2000)

Before 1973, the Libyan government used sectorial planning as a tool for overall economic growth. During the period 1968-1988, the government concentrated the investment programmes and productive projects on a limited number of the major cities, which led to a concentration of the population and economic activities around the cities of Tripoli and Benghazi.

There had been an increasing awareness on the part of the government about the importance of spatial dimension in the development process, such as the negative aspects of the continued polarisation of the population and investment and the need for achieving greater urban-rural and inter-regional balance (see Figure 36). Therefore, the Spatial Planning Department was established in the Ministry of Planning in the early 1970s. In this way, the late 1970s and the beginning of the 1980s saw a new generation of master and layout plans.

The Second Generation Plans were prepared by consultancy companies and guided by three important studies:

1. The work of the Ital-consult on settlement patterns: in 1973, the Libyan government commissioned Ital-consult to study all Libyan settlement to evaluate regional development in terms of the existing conditions, current government policies and recommended settlement development strategies; this was in addition to the infrastructure requirements for the year 2000 in order to achieve urban rural balance (Ital-consult, 1976);

2. The National Physical Perspective Plan (1981-2000) prepared by the government with the United Nation’s Technical Team - this study contained strategies about the socio-economic development of the country up to the year 2000 (Secretariat of Municipalities et al., 1979);

Hence, Kezeiri (1983) stated that ‘Libya is one of the few countries in the Middle East to have a full coverage of urban plans and two generations of master and layout plans have been provided by foreign consultants’ (Kezeiri, 1983, p.9).

Due to the impact of other factors that could hinder a balanced regional development, it was felt that Libya had to be divided into four major natural planning regions (such as the regions of Tripoli, Alkhalij, Benghazi and Fezzan or Sebha) through second generation planning; this would identify the various environmental problems, the social and functional factors as well as the economic potential of each region to be developed. This regional division of Libya is based on the traditional geographical regions: the Tripoli and Benghazi regions coincide roughly with what were the former provinces of Tripolitania and Cyrenaica and the former Al Fezzan is divided into two regions: Sabha and what is now a part of the Alkhalij region. These regions are described as follows (see Figure 37):
1. The Tripoli Region includes what was called the Tripoli area, extending from Taorgha in the east to Ras Ijdare in the west, and then to the south as far as Al Shourif and containing all the territory of the western region. This region is by far the most important of all the four planning regions: in 2006, it accounted for only 12.7 percent of the national area, but 61.3 percent of the national population. The continuing spatial concentration of the population and economic activities on this small, originally agricultural region have placed heavy demands on the planning authorities to manage and control the settlements and land use development in this region.

2. The Benghazi Region: this includes what was known as Barka and extends from Imsaad in the east to Al Maghroun in the west. In 2006, this region accounted for 7.6 percent of the national area and for 24.4 percent of the national population. The region has good potential for future development, including tourism. However, with the gradual emergence of the Benghazi agglomeration, there is an increasing concern about the adverse developmental impact on the surrounding agricultural lands.
3. The Alkhalij Region: this contains the area surrounding Khalij Sirt, from Ejdabyia in the east to Taorghae in the west, and extends as far south as the southern border. It is the most important area in terms of natural resources, since most of the national oil exports originate from this region, in addition to the underground water resources in the Kufra and Sarir basins for the Great Man-Made River. The region also has plentiful natural gas and mineral resources. In 2006, the region accounted for 7.4 percent of the national population and 41.2 percent of the national area.

4. Sebha or Fezzan Region: this includes what was known as the Fezzan area and accounted for 38.5 percent of the national area and 6.9 percent of the national population in 2006. The region is away from the coastal developed areas and has a harsh desert climate. However, the rate of population growth has been exceptionally high due to high fertility rates and immigration from the adjoining African States (Secretariat of Municipalities and Secretariat Planning, 1996; Al Rejabi, 2006).

The previous figures illustrated the disparity in the regions in terms of the percentages of the population; for example, the regions of Tripoli and Benghazi have the 85.7 percent of the total population and only 20.3 percent of the total area. However, the regions of Alkalij and Sebha contain 14.3 percent of the total area.
population and around 79.7 percent of the total area. Indeed the data seems to suggest that, this trend seems set to continue into the future. Tripoli’s population as a region has started to grow again and the decline of Benghazi region seems to have been arrested, as Figure 38 attests.

It should be noted that despite the relative growth of the Alkalij and Sebha regions, however, the population is still concentrated too much in the coastal area, especially around the cities of Tripoli and Benghazi, while the growth of the southern areas remains quite steady. Clearly, therefore, the provinces located in the north are more densely populated, especially those areas located in the north-west and to a slightly lesser extent, those located in the north-east. However, towards the south and the middle of the country, where demographic rarefaction is noted, natural factors play their role in limiting the demographic concentration. The 1980s was characterised by the implementation of some of the development plans, resulting in an increasing growth rate and a change in the population distributions of the regions. For example, as a result of agricultural and petroleum projects, new urban centres appeared in the middle areas between the two poles. Moreover, some of the existing towns were developed in the south, such as the city of Sebha in 1995. The population distribution pattern remained almost the same except some increase in the middle and southern areas. This increase in the population size encouraged the government to implement further projects in order to attract more people to settle in these areas. For example, the government tried to take some of the pressure off Tripoli city by concentrating most of the administrative services in the middle area, particularly in Sirt. However, the administrative function was concentrated once again in Tripoli in 2000. Furthermore, the north-western cities that have been developed now are more evident on the population distribution map.

The second-generation schemes are characterised by considerations about the regional and spatial dimensions in preparing the plans. Hence, a spatial strategy was prepared for the whole country as it was closely linked to population settlements in different regions - whether urban or rural communities - in order to achieve balanced development for all the regions according to their individual resources. The spatial planning policy was aimed at finding different solutions and
strategies compatible with the geographic and demographic situations in each region; this was in order to determine the factors that increase the production and growing rates of economic growth - taking into account the development of facilities and as one of its main goals.

**Ital-Consult Study**

In 1973, the Libyan government commissioned Ital-Consult to study all the Libyan settlements. Three years later the consultants produced the ‘Final Report of the Settlement Pattern Study’ which is composed of eight separate volumes and two sets of full-scale maps. The first volume contains a summary of the study and a detailed evaluation of the regional development in terms of the existing conditions, current government policies as well as the recommended settlement development strategies and infrastructure requirements for the year 2000. The five Regional Report volumes are concerned with the six planning regions into which Libya has been divided, namely Benghazi, Tripoli, Gherian, El-Khalij and the Sebha region. As far as town planning is concerned, the Reports also contain 36 detailed city profiles, complete with population and infrastructure forecasts, elaborated on at five-yearly intervals until the year 2000. The other two volumes cover the evaluation of the settlements and the appendix (Ital-Consult, 1976).

It should be mentioned that Ital-Consult’s study is very important as it differs from other past settlement studies, which have mainly concerned city or town planning, dealing with local socio-economic analysis and land development possibilities. However, the Ital-Consult study is of a different nature: for the first time in Libya, the development of settlement was considered at regional and national level. It also aimed to distinguish between all the settlements to be upgraded or down-graded, and suggested the creation of new settlements as new growth poles (see Figure 39). Additionally, it established the priorities for the future development of the economic, technical and social infrastructure programmes (Ital-Consult, 1976).
Figure 39: New Growth Centres Recommended by Ital-Consult.
(Source: Ital-Consult, 1976).

Through analysing the trends and policies in 1976, Ital-Consult outlined the main problems concerning the country’s spatial development; it indicated that both the existing and the planned locations of the industrial projects tended to polarise growth in a restricted number of towns, and the employment opportunities in the manufacturing created in the large cities would have to compete with higher paying job opportunities in other urban occupations. In addition to this, the communication and distribution system was insufficiently developed to afford effective flows within the regions. While substantial improvement was planned for the main national highways, progress on the development of a complementary system for supplying roads was slow and incapable of serving new agricultural projects. The port traffic had also been excessively centralised in the congested Tripoli and Benghazi harbours. Additionally, serious gaps persisted in the existing distribution of social services throughout the country, and, crucially for this study, the predominant role of the two major metropolitan centres gave rise to many problems. A larger number of small villages needed more effective provision for the basic social and technical infrastructure and general improvement of their
living conditions. Furthermore, the lack of economic and social opportunities in the rural areas increased the large-scale rural out-migration and gravitation toward the largest urban centres. The shortage of water was also acute in the more settled regions of the country and looked likely to become a crucial negative factor over the next decades, with serious repercussions for programmes to boost agricultural or industrial production.

The Ital-Consult team made the following recommendations:

1) The existing eastern and western urban sub-systems should be integrated through the creation of a star-shaped main communication network focused on a large new city that was to be created in Khalij Sirt;

2) The middle ranking cities should be upgraded, particularly the regional capitals, by decentralising the industrial strategy and the location of specialised social, commercial and administrative facilities;

3) Twenty-four new growth centres should be created to exploit untapped resources, absorb excess population and settle new lands as well as to integrate the settlement network;

4) 159 villages that lacked the natural, economic and physical resources essential for future development and the improvement of living conditions should be downgraded and their populations eventually resettled (Ital-Consult, 1976).

Through its various secretariats, Baladiyas (administrative units) and agencies, as well as with the collaboration of the United Nations team in Tripoli, the Libyan government studied the recommendations of Ital-Consult. Some of the main recommendations were incorporated into the National Physical Perspective Plan (NPPP) published in 1979 as a guide for future development on a national, regional, and local scale to secure coordinated spatial planning (Kezeiri, 1994).


On the basis of the recommendations of the settlement study by Ital-Consult, the Libyan government proposed the ‘National Physical Plan 1980-2000’ in 1979 as
the guide for future development. Therefore, from 1979, the Libyan authorities started regional planning for the economic and social development of the country up to the year 2000. A national framework was set up for short-term plans (five years) and long-term plans (20-years), and regional plans were elaborated on based on the four areas of Benghazi and Al Jabel el Akhdar, Tripoli and the western coastal districts, Sebha (including much of what was the Fezzan) and Alkhalij (extending from the Gulf of Sirte to Kufra) (McLachlan, 1982). Within this regional planning context, Master Plans and Layout Plans were formulated and designed up to the year 2000. Four foreign planning groups were invited to prepare inventories of the existing conditions within each region. A series of reports were prepared by the individual consultants covering the developments of the respective regions up to the year 2000; this included the preliminary and final regional, master and layout plans for particular settlements in each region. In addition, each consultant was responsible for delivering associated aerial photography and maps. The Reports of the master and layout plans analysed the existing conditions, evaluated the resources and constraints and set out forecasts about the population and employment; they also developed a programme for the social and technical infrastructure which was expressed spatially in the physical master and layout plans.

For the third time, the government commissioned Doxiadis Associations International to undertake the development plan for the Benghazi region and to prepare 11 master plans and 55 layout plans (Doxiadis, 1980). In the Tripoli region, Polservice was commissioned to prepare 33 master plans and 46 layout plans (Polservice, 1980), while Speerplan of Frankfurt (West Germany) undertook the study, planning and mapping of all the settlements in the Alkhalij Region with the cooperation of Finnmapi CY of Helsinki (Speerplan, 1980). Finnmapi also carried out work in the Sebha Region, which began rather later than elsewhere (Finnmap, 1981) and the preliminary regional strategy for development was not presented to the Libyan authorities until May, 1982 (McLachlan, 1982). The government further commissioned seven separate consultants to prepare Master Plans for seven new towns at Assarir, Gaser Ahmed, Ras Lanuf, El-Bregah, El-Gwarshah, Hrawah and Az-Zintan.
<table>
<thead>
<tr>
<th>Planning regions</th>
<th>Number of comprehensive plans</th>
<th>Number of general plans</th>
<th>Other plans</th>
<th>New cities</th>
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<td><strong>179</strong></td>
<td><strong>23</strong></td>
<td><strong>4</strong></td>
<td><strong>244</strong></td>
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</table>

Table 15: The plans prepared during the second planning stage. (Source: Omora, 1998)

The table above shows that 244 plans were prepared – i.e. 38 comprehensive plans, 179 general plans, 23 other schemes and 4 schemes for new cities. The regions of Tripoli and Benghazi had 67.2 percent of the total of these plans.

The 1980-2000 NPPP was concerned with the spatially unequal pattern for the distribution of the urban and rural settlements, the dominance of Tripoli and Benghazi, the lack of medium-sized towns, the dispersed geographical nature of the settlements in the south and the disparities in the living conditions and levels of utilities in the settlements. It also aimed to strengthen the economic base in the smaller towns and to prepare the master and layout plans for each town, complete with their development potential. The recommendations of Ital-Consult were reflected in the philosophy of the spatial planning and its strategy, this strategy being included in the NPPP. Consequently, the NPPP constructed and analysed five variant physical models as alternative strategies to meet the development needs of the country (see Figure 40).
1. Extrapolated Trends Model

This proposed a continuation of the present development trends and government policies in the distribution of basic economic activities and employment in the agricultural, manufacturing, housing and manpower sectors, with all the regions
benefiting economically and socially. Here, the progressive development of the existing settlements network and agricultural areas was recommended and the hierarchical system of settlements was applied to stimulate different growth rates and the development trends of the settlements.

2. Intensive Regional Development Model

In this model, the direction of the economic and other activities towards the less developed southern areas and middle sections of the coastal regions was proposed with the aim of achieving a more balanced distribution of the population as well as employment in the country as a whole. In this way, the objectives would simultaneously restrain out-migration from the interior to the coastal areas, (particularly to Tripoli and Benghazi) and provide for substantial increases in the population in the interior and central coastal areas. However, there are environmental and natural constraints in the interior and central coastal regions, which make this policy of strong decentralisation difficult to achieve in the face of the inevitable attractions of the existing large cities. The structure of this model consisted of one primary line of economic activity along the coast and two secondary lines - one from Misurata to Hoon, Sebha and Ghat and another from Ejdabyiah to Jalu, Sarir New Town and Kufra, with new growth centres in Hoon, Brak, Ghat, Sarir and Kufra.

The first and second models would result in dispersing the development efforts, particularly in the southern areas where the population densities are low due to climatic conditions. Thus, the growth potentials for the towns in the southern areas should be taken into account when developing this area.

3. Coastal Belt Model

This recommended a general concentration of economic and physical activities along the coastal belt where the climate conditions are the most favourable. Special attention would be given to developing the towns in the central part of the coastal areas so as to give a more continuous belt of activity along the coast and to secure the maximum benefit from the infrastructure developed, including the piping of water from the interior underground water reservoir. This model provided for the distribution of as many people as possible in the best climatic
conditions of the coastal areas. Former model accentuated the population concentrations and activities in these areas, which would enhance the disparities in the regions. This model, however, omitted the other areas that were characterised by their diversity of natural potential and required investment.

4. Metropolitan Model

This recommended a concentration of development in the two metropolitan areas of Tripoli and Benghazi as well as in some selected towns. It was based mainly on the rapid, unrestrained growth of the largest cities, so creating concentrations of economic and human activities in selected areas, with the remaining areas being developed predominantly for agricultural production and food processing. There are advantages in a concentration of economic and technical activities but this approach accentuates the regional disparities.

5. Bi-Polar Model

This proposes a concentration of the economic and physical activities into the two zones of the north-west and the north-east. In this model, water from the interior underground reservoirs would have to be transported to the northern agricultural areas to supplement the existing water reservoirs, and the development of the interior and the central coastal areas would be limited.

The last two models increasingly emphasised the over domination of the main cities over the other cities; a continuing focus on Tripoli and Benghazi would affect the development of the other small and medium-sized towns in a negative way.

The concentration of the population into a limited number of cities in a country such as Libya, which has a small population size, would cause many economic and social problems. This situation would therefore act as a stumbling block to the healthy growth and development of the other cities and as well as being an impediment to the healthy development of the largest cities.

All five models were analysed and evaluated by the NPPP and each was found to have advantages and disadvantages. The last two models - the Bi-Polar and the
Metropolitan - were rejected, these being in conflict with official policies and development trends. However, the first three were considered the most likely variants as a basis for future development.

A new model was constructed on the basis of the first variant, but this one incorporated particular proposals selected from the second and third variants. The main features of this model are set out in Figure 41 and are summarised below:

1) A primary coastal line of economic activities between Misurata and Benghazi with the location of new sub-regional centres along the central part of the coastal belt. The proposed new capital city was rejected and instead a new service town at Harawah was created. It was envisaged that
Tripoli would remain the seat of government for a long time and it was therefore considered necessary to bring the city centre up to date so that it was adequate for its administrative, cultural and scientific role as the state capital;

2) A secondary line of economic activity linking Misurata, Hoon and Sebha;

3) A secondary line of development, linking Ejdabyiah, El-Bregah, Sarir New Town and Kufra;

4) The piping of water from underground reservoirs in the interior to the northern agricultural areas.

Any plan for spatial development should work on developing all settlements according to their growth potential and resources, with special focus on some of them as major towns. These towns should be distributed in the different Libyan regions, whether along the coastline or on the highlands, such as Al Jabal Al Akhdar and Al Jabal Al Gharbi. The desert region, which contains three-quarters of the total area and a quarter of the total population size, should also be taken in account, especially the series of oases located between Ghadamis and Al Jaghboub, the oases of Maradah and Zala and those of Al Joufra basin in the north desert region. This is in addition to other oases situated in the south of the desert region, such as the oases of Fessan basin and of Al Kofura. The series of borders towns, villages, and oases gaining importance because of their location near the borders, such as, Ras Ijdare, Ghadamis, Ghat, Imsaad and Al Bordi should also be borne in mind.

Further to this, the plan recommended a strengthening of the regional and sub-regional centres based on the following definitions:

1) The regional centre: in the Libyan context this is a major urban centre which has a concentration of economic, administrative, social and cultural activities for national as well as regional purposes;

2) The sub-regional centre; a main urban centre where certain economic, administrative, social and cultural activities are centralised to serve the towns and villages within the boundaries of the sub-region;
3) The main local centre: towns which are centres of a local activity and which coordinate and implement local economic, social and physical planning and development (see Table 16).

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<th>Regional centres</th>
<th>Sub regional</th>
<th>Main local centres</th>
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<td>Al-Zawiyia</td>
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<td>Sarir(planned)</td>
<td>Sirte</td>
<td>Kufr</td>
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<td>Ejdabiah</td>
<td>Jalu</td>
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**Table 16:** Hierarchy of Centres Recommended by NPPP for the Year 2000.
(Source: Secretariat of Municipalities, 1979).

The 1980-2000 NPPP estimated the number of the urban population for the year 2000 to be between 4,500,000 and 5,400,000 inhabitants and assumed that if the strategy of spatial planning proposed by NPPP was implemented, the settlement network would accordingly form a hierarchy based on its size and function. For
example, it defined the ranks by the year 2000 according to the size and function of every town over 7,000 inhabitants:

1) First rank: cities and towns with over 1,000,000 inhabitants. The Tripoli agglomeration (with a projected population of between 1,600,000 and 1,900,000) and the Benghazi agglomeration (with a projected population of between 700,000 and 900,000) would continue to be the largest concentrations of urban population. The highest rate of growth would be achieved by Misurata because of its function as an economic growth pole, and this would reach between 250,000 and 350,000 people by the year 2000. Al Zawyia, though its development, should be planned in close coordination with Tripoli, and had a projected growth of between 150,000 and 200,000 people by the year 2000. The next town of more than 100,000 people was Sebha, with a projected population of between 110,000 and 130,000 people;

2) Second rank: urban centres with a population of between 50,000 and 100,000 inhabitants, such as Zwoara, El Khums, El Garabulli, Zliten, Gherian, El Beida, Derna, Sirte, Ejdabiah, El Bregah and Hoon;

3) Third rank: towns with a population of between 20,000 and 50,000, such as El Aziziah, Bou Kamash, Sorman, Sobra, Tarhuna, Bani Walead, Al Gobbah, Tolmeitha, Tobruq, Ben Jawad, Sarir, Waddan and Brak;

4) Fourth rank size towns: small towns with between 7,000 and 20,000 inhabitants;

5) Fifth rank size towns: small towns with a population of less than 7,000 – with towns and villages serving the rural population. In total it is estimated that the urban population would be between 4.5 and 5.4 million people by the year 2000.

The plan placed no limits on the growth of Tripoli and Benghazi, and they would continue to dominate the urban system in the year 2000. However, below the level of the two major centres, a certain restructuring of the urban system was proposed. Three medium-sized towns were scheduled for rapid growth - Misurata, Al Zawyia and Sebha. Eight small towns were also selected for development as
second rank centres. With the exception of Hoon, Bani Walid, Brak, and Waddan, all the small towns scheduled for development as second and third rank centres were located on the primary coastal axis.

The major features of the proposals incorporated in the spatial model (as recommended by the NPPP) were implemented and a project to pipe water from aquifers in the interior to the primary development axis along the Mediterranean coast was also completed. In November 1983 the Libyan government signed a contract for $3.300 million with South Korea’s Dong Ah Construction Industrial Company to lay a massive Man-Made River from the Sahara Desert to the Mediterranean coastal regions. The water would be gathered from wells around Tazerbo and Sarir. The second phase of the project - the construction of a 400 kilometre pipeline from Hasawna to Tripoli - began in 1985. However, Kezeiri and Lawless (1986) held that ‘this decision must strengthen the already dominant position of the primary coastal axis, where the country’s major agricultural, industrial, and urban developments are concentrated at the expense of the two secondary axes’ (Kezeiri and Lawless, 1986, p.78).

The development of the coastal area between Ejdabiah and Misurata has already begun with the location of the major industrial development at Albraigha, as well as in the new town of Ras Alounof and Gasr Ahmed. Albraigha is experiencing a dramatic transformation from a small dormitory settlement for workers at the oil terminal to a major heavy industrial centre and it is also the location for the Libya’s latest technical university. Ras Alounof, the site of Mobil Oil’s crude petrochemicals centre, is a new town constructed 17 kilometres west of the petrochemicals complex and was planned to house 15,000 people while the new town of Gasr Ahmed (located 9 kilometres to the east of Misurata and 3 kilometres from the harbour) has been built to house workers from the nearby steel complex. However, the industrial activities in this field depend on advanced technology, which does not require a large number of manpower, and consequently there is a limited number of workers because of the lack of services offered here. For instance, the total population of Albraigha and Ras Alounof together contributed only 0.7 percent of the total Libyan population in 2006 (General Authority for Information, 2008, p.10). Moreover, despite the
availability of natural resources in these growth poles, they still do not have a population size equivalent to their resources; this situation has been compounded by a lack of good services and the poor involvement of the private sector in the settlement projects. It was described by Porter and Daniel (2006) as follows:

Libya’s oil wealth has not translated into a high level of productive employment. Outside the oil and gas sector, labour productivity is particularly low. In effect, Libya has two economies: a high value/low employment energy sector and a low value/high employment non-energy sector. While, oil accounts for more than 60 percent of GDP, it only provides employment for 3 percent of the population. (Porter and Yergin, 2006, p. 129)

These towns can be considered as camps for workers since more than a quarter of their populations still keep their houses in Benghazi, which means that they spend around 4 months each year in Benghazi (during the summer) and benefit from its services. This places further pressure on its services and infrastructure (Al Shakmak, Interview, 2008) as these people are not counted within the population size of Benghazi, but use its facilities.

In addition to this, all the new industrial towns have been established along the coastal area, so resulting in a further concentration of the population in this area instead of it being equally distributed in different areas. Barker (1982) argued that Libya’s industrialisation policy effectively limits the possibility of creating new population centres inland. Hence, any future policy should try to establish industrial projects in the central and southern areas.

Another new town under construction was at Kufra. It housed 2,000 people, mostly workers in the agricultural project nearby. Plans are also well advanced for a new town at Sarir, 400 kilometres north of Kufra and 600 kilometres south of Benghazi; it was proposed by Ital-Consult, in their settlement study, as one of the new growth centres. The economic base of the town would depend on agricultural development in the Sarir Productive Project and would also act as a focus for the oil industry in the area, providing leisure and recreation facilities for the oil workers who live in camps in the vicinity. However, the agricultural development, which aimed to develop rural areas, has only contributed to the resettlement of the
rural population instead of achieving food self-sufficiency. For example, the population of nomadic and semi-nomadic people declined from 21 percent in 1964 to 4 percent in 1973 (Secretariat of Planning, 1973, p. 11), while the country still imports a large amount of its basic food from overseas, and this was despite the huge investment in agricultural developments in Libya, which amounted to 4594.7 million LD. For example, the percentage of imported wheat and barley from the available total for consumption was 56 percent and 57 percent in 1988 (General Committee for Housing and Facilities, 1993, p. 9).

Al Garyani (2006) studied two modern villages of the agricultural project of Al Jabal Al Khdar, namely the villages of Wadi Al Qatari and Got Al Sultan. Al Garyani recorded some observations relating to the settlement projects in Libya, which should be taken into account for the implementation of other similar projects:

1. Both villages function on the basis that they are irrigated farms, which should depend on permanent irrigation. However, all the respondents resident in the villages state that water shortage is the major problem facing them, especially in Got Al Sultan where there was 100 percent support for this view. In the future, this problem may cause a new migration of people from the rural areas to the city if there is no resolution to it;

2. The majority of respondents complained about the lack of educational and health services in both villages - as these two villages still depend on the services in Benghazi;

3. The respondents in the both villages also decried the lack of veterinary health services, with 90 percent of the respondents supporting this view. They therefore referred to the decline in livestock production and the death of a huge number of animals, which they held the authorities responsible for;

4. The lack of important administrative services in the villages, such as the mismanagement of agricultural production, the shortage of agricultural engineers, the lack of control seeds and the negligence of the agricultural
associations clearly emerged from the complaints of the respondents with 78 percent holding this view;

The researcher also noted that the bureaucracy of the administrative procedures which reflected the productivity of the farms and could induce many of the people to return to the city in addition to the subsequent failure of the economic and social transformation programs and plans; this was aimed at stopping the immigration to the city and thereby creating a stable rural communities (Al Garyani, 2006, p.220).

Other factors that contributed to the failure of the Al Koufra and Sarir agricultural projects were the lack of government support in providing necessary services such as good transportation and management, as well as the limited natural resources necessary for their growth (Brebish, Interview, 2008).

Sebha, on the other secondary axis, is already developing rapidly as a major growth centre and new modifications have been incorporated into the NPPP with the promotion of the small town of Sirt as the first administrative centre for the country. However, the administrative function here reverted to Tripoli again in 2000 due to the government’s support for this city, which means that the government has not been consistent in implementing its policies. The implementation of these policies was a more significant challenge and lacked attention and funding. For example, only 31 percent of the 1980-2000 plans were completed by the year of 2000 and only 39 percent by 2005 (General People's Committee, 2006, p. 22). In addition, a variety of factors contributed to poor implantation, such as the lack of a clear liability for implementing and monitoring urban plans, institutional instability and the changing of administrative boundaries (Porter and Yergin, 2006).

However, a major weakness in this strategy was that no limitations were placed on the over growth of Tripoli and Benghazi. It remains to be seen whether such decentralisation policies can counter the existing trend towards the two big cities. Consequently, the need to take some of the pressure off Tripoli and Benghazi and move in the direction of decentralisation can best be achieved by limiting the
growth of the two big cities and simultaneously encouraging the expansion of those centres already experiencing strong growth.

Al Tumi and Turkstra (2006) pointed out that although the second-generation schemes were successful in reducing the growth of Tripoli and Benghazi in favour of other regions (so developing the spatial strategy for balanced growth and promoting small towns in areas that have growth potential) the second-generation schemes have been criticized as tools of land-use planning and have become ineffective for three reasons:

1. They were inflexible in responding to social and economic changes as well as the rapid population growth. These schemes, which cost an enormous amount of money to prepare and were time-consuming, did not accommodate the population or economic changes. Moreover, the landowners and private investors had no understanding of the decisions for the selection of the sites and the local planners did not absorb the impact on urban uses due to the technological change and the investment behaviour of the national companies.

2. The plans had been prepared by urban planners with a strong engineering and design background. However, they did not understand other planning data, such as that of urban problems, the labour force, the population, the environment and the protection of agricultural lands. They also distinguished between the public and private sectors, as they did not know about changes of decision: for example, urban development recently relied on the investment behaviour of the private sector and popular participation. Hence, the planning process became a private agreement between the government and the private sector, addressing their different desires on the one hand and planning with its various processes on the other hand.

3. The separation between the preparation of the plans and investment decisions on infrastructure in addition to the implementation of proposals for land use has been a big problem. It was intended, however, that there should be coordination between the preparation of the plans and schemes
and the government’s decisions for the implementation of various investment projects in the infrastructure and housing.

There were also other disadvantages facing these schemes:

1. Population growth exceeded expectations;
2. There was a lack of time and spatial coordination between the spatial planning studies and the execution of the periodic statistics, as well as being continuous change in the administrative structure;
3. There was an absence of standards and definitions for many of the planning foundations and subjects;
4. There was a need to consider and link the spatial planning as a translation of the settling projects of the sectoral development planned;
5. There was inconsistency between the targets in the central administration and in the implementation of the decisions in provincial and local departments;
6. Land acquisition posed a problem for how it could be obtained as a base for spatial planning;
7. Funding was lacking and there was a conflict of priorities;
8. There was a lack of clarity in the concept of spatial planning for citizens.
9. There was a need to continually follow-up and develop new schemes so that changes could be taken into account;
10. There was a need to adhere to the scheme and its legislation, with emphasis being placed on creating legal sanctions and having a legal deterrent for any planning breaches (Hilmi, 1994).

It is the researcher’s view that the second-generation plans have not achieved their required aims due to the following shortcomings:

1. In the various stages of preparation, the plans relied on dated information which produced changes that did not correspond with Libyan society and its lifestyle, nor with its relationship with its surroundings;
2. There were significant time differences between the survey and the preparation of the cadastral maps as well as between the preparation and approval of the plans.
3. There was a large time gap between preparations of these plans and their implementation, which created inconsistencies with new circumstances;
4. An agricultural feature was not taking off most of the lands and this allowed individual farmers to construct wherever they chose, so creating underdeveloped residential areas;
5. There was a failure to complete the planning stages of the complementary schemes, such as the design of the integrated facilities or urban design, which resulted in the random implementation of some these facilities; this clearly led to visual pollution in the cities because of the multiplicity of unplanned urban patterns and architectural forms.
6. Many of the schemes on the ground were not implemented, especially those of the road networks, public utilities and other facilities as specified in the scheme;
7. There was a lack of trained technical personnel capable of running and managing these schemes;
8. There was a delay in issuing the technical regulations which contained the controls for implementing these plans;
9. The schemes were not updated in the specified time period (every 5 years), which resulted in an inability to deal with the latest circumstances that periodically emerged;
10. There was a delay in the completion of the application of some of the schemes;
11. The local authorities failed to follow up infringements and control the amendments to the schemes.

In addition to this, the sub-report of the 2nd Generation Plan Evaluation (2006) criticised the plan, as shown below:

1. It lacks recommendations on how to reduce the effects of harsh weather in the area and, consequently, it is devoid of future planning visions connected to the weather conditions;
2. The urban sprawl in the larger cities is still a significant problem, and has severely affected land use;
3. Few new development areas have been established to ease the pressure on the coastal belt;
4. There is no protection for agricultural lands, such as limiting the areas for urban development or establishing tree planting and forests;
5. Very few scenic and ecologically valuable areas have been protected;
6. A number of the proposed new centres and settlements have not been established. Moreover, none of the proposed six new towns or development centres have been implemented, as is also the case for the new town of Wadi Al Sharqi, proposed in the 2nd Plan to ease the pressure on Tripoli;
7. Some reasons for this limited implementation are summarised below:

- The economy did not develop as expected and infrastructure investments had to be postponed;
- The plan was formed by central bodies and may not have gained locally support;
- There was a lack of supervision for the plan and enforcement;
- The time factor was lacking - a plan must be implemented in stages, not piecemeal and randomly - this demands a degree of discipline;
- Institutions did not take responsibility for finishing the street constructions and common space;
- The local authorities lacked the power of implementation;
- The country lacks experience in large-scale planning and projects, requiring foreign expertise (General People’s Committee, 2006, p. 75).
6.2.3 The Third-Generation Plans (2000-2025)

After finishing the second planning stage, there was an urgent need to reconsider and update the spatial strategy, and then to prepare and design schemes for the cities and villages; this became increasingly important for several reasons:

1. The rate of population growth: the Libyan population in 1995 amounted to almost 5 million and this was expected to reach to between 9 and 12 million people by 2025;

2. A complete shift towards urbanisation and the settling of the cities, which created many problems, such as unemployment and difficulties with infrastructure and services. There was therefore an urgent need to develop housing and services schemes and to provide employment opportunities;

3. The polarised growth of Tripoli and Benghazi had suggested the need to limit their excessive expansion and to direct the population to other small and medium-sized cities;

4. The transfer of water from the south to the north and its impact on creating new growth centres as well as developing particular population settlements where the Man-Made river system passes through their lands;

5. Changing the priorities of economic and social policy: for example, focusing on the tourism and fisheries sectors and the development of the economic bases of cities, especially small ones;

6. Promoting the socialist economy by the government and mitigating the dominance of the state as regards economic and service activities, which requires urban land for future development;

7. The need to focus on developing cities with a growth potential, especially small and medium-sized cities;

8. The optimum use of space within the cities and reducing urban growth towards the agricultural lands;

9. Libyan Cities are considered to be subsidised towns which entirely depend on the public treasury of the state for the conduct and maintenance of administrative and service affairs and for their future development. This dependence is a negative trend as they must rely on their own resources
which should be developed to sustain them. Otherwise, the Libyan cities will not be able to survive in the post-oil period;

10. The urgent need to diversify the economic base of the cities, especially cities with a single function, such as oil and industrial cities, e.g. Albraiga, Ras Lanouf, Ghasir Hamad, Sidra and Alzwaitina. This could be achieved by creating new functions such as those of education or tourism. (Established in a visit to the Al Imara Office for Engineering and Consultancies in 2008).

The process of preparation for the Third-Generation Plans was supposed to begin in 1996, but was delayed for nine years; this resulted in haphazard construction and many irregularities in the schemes. In fact, the department of urban planning addressed the General People's Committee for Housing and Utilities in 1995 and urged them to start the project and make provision for the financial coverage (the letter from the engineering, Mailoud Hilmi, Secretary of the Administration Committee of the Department of Urban Planning, to the Secretary of the General People's Committee for Housing and Utilities on 2.9.1995 - reference no. 5-6-132). Al Shawish (2004) stated that the period of 2000-2005 had not witnessed any preparation of the schemes; this was considered a planning gap period, where urban development spread randomly and without any controls in the cities or schemes. This contradicted the standards of planning and was incompatible with the development systems and the proper use of the areas. These conditions made it difficult to deal with these irregular planning patterns, which reflected on the population communities, the urban life and the safety of the environment. For example, there was a shortage in the supply of land for construction due to price increases, transportation congestion, the accumulation of irregular buildings, as well as the lack of sites for infrastructure projects, network supplies and the facilities of public services (Al Shawish, 2004, p.8).

After years of work in the preparation stage, (in 2005) the Fourth Consultative National Offices were commissioned to prepare the third-generation schemes: 135 million Libyan dinars were devoted to this project for a period of 48 months. The four planning regions were distributed over four national offices: the Office of Al Imara for engineering Consultancies was responsible for the region of Benghazi,
the National Consultative Office was responsible for the region of Tripoli, the Advisory Office of utilities for the region of Fazzan and the region of Khalij Sirt was shared by the Research and engineering Consulting Office (University of Al Fatih). These offices were asked to undertake the following tasks:

1. The preparation of regional plans;
2. The preparation of sub-regional plans;
3. An update of the urban schemes;
4. The preparation of urban schemes for all the population settlements;
5. The implementation of plans;
6. The use of recent methods in the preparation of maps and schemes, such as visual space, remote sensing techniques and aerial photography;
7. The use of GIS (Geographic Information System) in the preparation and analysis of studies and the setting up of information and plans;
8. The training of the national competent authorities on the implementation of plans and the provision of necessary equipment (established in a visit to the Al Imara Office for Engineering and Consultancies in 2008).

Hence, the work includes the preparation of 4 regional plans, 18 sub-regional or local schemes and more than 800 comprehensive plans for all the Libyan territories.

The Urban Planning Department was commissioned to oversee the preparation of the project and its follow-up through its departments, branches and offices in cooperation with the United Nations on population settlements (UN-HABITAT); work was also carried out with the Commission for the revision of plans, which was formed as a result of national experience to revise schemes prior to their adoption. To facilitate a successful implementation of the third-generation plans, many meetings were held between the Department of Urban Planning, the four advisory offices and the commission for reviewing the schemes sponsored by the General People's Committee for Planning. In the light of this, the following points need to be considered carefully for a successful implementation of the plans:
1. The positives and shortcomings of the second planning stage should be taken advantage of, dealing with its shortcomings through the implementation of the third planning stage;

2. The new circumstances that have developed in some areas in Libya should be taken into account as well as the administrative division that may have an impact on the implementation of the project;

3. National expertise should be used, especially that of lecturers and faculty members in the universities who have lived through the previous planning phase but were not engaged in the earlier processes;

4. There should be a focus on the management of land within the schemes, dealing with them according to the adopted classifications of the scheme and the legislation in force for the benefit of the whole country.

Additional recommendations were also made; there needs to be:

1. Consideration of a draft for a long-term Physical National Plan as an index of regional and sub-regional plans, as well as the adoption of a parallel planning approach and work to revise and add any new developments that occur in the preparation of the regional and sub-regional plans;

2. The use of modern technologies in the field of planning since they save time and effort;

3. A mechanism for involving the departments and relevant authorities in the implementation of the project through the provision of information as well as responding to inquiries in a timely manner;

4. Exploitation of all the available local possibilities/organisations contributing to the implementation of the project, such as the National Organization for Information and Documentation, the Survey Department and remote sensing centres;

5. Training of national operators, especially those who will take over the project after it has been adopted and who will oversee the implementation, e.g. training on the use of the digital system in dealing with the schemes;

6. The commitment of local authorities to complete the accompanying planning stages, particularly the designing of integrated facilities, urban
design, the implementation of key elements of the scheme, opening new streets, and documenting the areas and uses of the plan;

7. An establishment of intensive awareness programs in various media in order to publicise the importance of this plans and create awareness among the citizens and general planning culture;

8. Completion of the remaining legislation for urban planning, especially the technical regulations, taking into account the circumstances and nature of the schemes and identifying the planning context for them;

9. Work on the standardisation of the geographic information system and issuing of organiser legislation for use among the actors and the relevant authorities, in addition to the preparation of a consolidated database to be used in all areas and for all purposes;

10. A recommendation to the Department of Urban Planning to adopt the prepared context and programme of the United Nations as regards following-up the adoption of the third generation plan with all its stages, as well as the supervision of its implementation;

11. Attention given to urban development and design as complementary schemes for achieving the plans for modern cities and populations;

12. An urging of the relevant and competent authorities to understand the importance of urban plans and their positive role in developing the community, as well as the need for cooperation: the efforts to implement such schemes should be reflected on the ground according to the adopted form and based on the governing legislation for their use.

13. A recommendation concerning the importance of the completion of the specialised, technical and qualified cadres in the Department of Urban Planning and its branches to perform tasks and duties at the required level (Al Omran Magazine, 2005, pp. 10-11).

6.3 Challenges for the Future Planning Stage

The third planning phase depends on the spatial strategy which came in the long-term National Physical Perspective Plan of 2000-2025. However, this scheme needs to be updated due to the successive rapid changes in the country, which
could be challenges for the future planning stage. Some points to consider have been raised by the researcher for updating the scheme:

1. Any proposals for the formation of the spatial strategy should be modifiable for a period of time in order to adapt to the changing social and economic conditions; such flexibility should be considered thoughtfully as long-term strategic planning is subject to many unforeseen factors at the planning stage;

2. In order to achieve the strategic objectives of spatial development, it is imperative to address problems carefully and to choose the appropriate tools in order to achieve the desired goals. The preparation of the spatial strategy up to the year 2025 will provide a foundation for future development. In addition, the spatial strategy of 2000-2025 should take into account the development activities that could be achieved in the future according to the sectoral policies;

3. The spatial strategic for the period 1980-2000 partially succeeded in the following areas:
   a. There was an increase in the share of the least urbanised regions of the population, such as Khalij Sirt and Sebha;
   b. The growth rate of medium-sized cities was one of the major aims of the 1980-2000 spatial strategy;

4. The situation in the country is as follows:
   - The population is concentrated in urban centres;
   - It is difficult to attract people to rural areas because of the severe constraints in agriculture;
   - There are limited water resources which also have to be conserved; a water policy needs to be developed in order to maintain this precious resource and it is also necessary to move towards the desalination of sea water;
   - More than 36 percent of the total population is concentrated in the cities of Tripoli and Benghazi, which has brought in serious
problems such as congestion, pollution, housing problems, increased sewage, and unemployment. For example, around 2 million people (the population of Tripoli and Benghazi) are currently being served by an infrastructure planned for only half this number. The service supply in these two cities is no longer sufficient and population growth and urban expansion have resulted in a deterioration of the economic and social conditions for some residents in the big cities.

- There is a functional deficiency in the infrastructure system in all the Libyan settlements, which have become unable to continue performing their roles. This has raised the urgent need to maintain and expand these services, a view supported by Porter and Yergin (2006); Libya’s physical infrastructure is weak in many areas and does not provide adequate support to society and commerce (Porter and Yergin, 2006, p. 129).

- There is a housing problem and a significant lack of housing units - now amounting to more than 420,000 housing units. This situation was illustrated by Porter and Yergin (2006):

  Public housing programs were a key feature in the 1970s, but these programs were suspended in the 1980s when low oil prices reduced government funds. Poor urban planning and, in particular, poor implementation of agreed plans has reduced the supply of land available for urban development. At the same time, the uncertain legal position on property ownership makes private individuals and companies unwilling to invest in residential property construction, either for personal use or for the rental market. (Porter and Yergin, 2006, pp. 131-132)

- There is a problem with unemployment and increased numbers of job-seekers. The ratio of unemployment was 2.9 percent in 1973, whilst in 1984 and 1995 this increased to 3.7 percent and 11.7 percent respectively. However, there was some improvement in 1999 (see Al Tabouli et al., 2001, p.3);

- The small and medium-sized towns lack a sufficient economic base for survival. Many small population communities cannot continue in an
isolated environment without economic and social aid. As Kezeiri (1994) stated, the lack of economic and social opportunities in rural areas and small towns increased the large-scale rural out-migration and gravitation towards the largest urban centres (Kezeiri, 1994, p. 226).

5. The third generation plan (2000-2025) will face serious challenges in limiting the growth of Tripoli and Benghazi and there are several important reason for this:

- The provision of freshwater to the two big cities by means of the Man-Made River Project;
- The fact that the Libyan government changed its economic policy from a socialistic economy to one of free enterprise that is largely concentrated in the largest cities;
- Due to breadth of the economy of scale in the two large cities, particularly as regards commerce, services, industry and transport, private, domestic and foreign investors have concentrated in the cities of Tripoli and Benghazi. Therefore, the government should intervene not to control or reduce private investment in the two cities, but to tilt the balance in favour of other small and medium-sized cities. This can be achieved by increasing government investment and expanding the economic base and services of these urban centres. It can also be achieved by adopting encouraging policies for investors, such as tax and customs exemptions and the provision of raw materials, instead of forcing policies through.

6. A number of significant questions need to be raised here. Will the spatial strategy for the country continue to adopt a balanced development point of view? Why would they continue in this direction? Why do we not rethink this strategy, especially as it is expensive and probably the spread of development will lead to a dispersal of efforts and investments? This is particularly the case in a vast country with limited natural resources
(especially water and good soil) such Libya. The best strategy for Libya’s natural situation is one of selected development policies.

Other points made by Kezeiri (2006) should also be considered when updating this scheme:

1. Libya's economy is still enjoying the dominance of the oil sector. It was noted that the policies carried out to diversify the national income from the developing industrial and agricultural sectors have not achieved their desired aim. Other sectors may be developed to facilitate an increase in the national income, such as tourism, marine resources, transport services, financial business and commercial investment;

2. According to the National Physical Plan (2000-2025), Libya's population is expected to reach about 9 million by the end of the first quarter of the 21st century (2025). This situation requires changes the overall situation of the country, as well as the implementation of much of the construction and many of the networks, especially in the light of the pace of growth prior to the planning processes;

3. The hydrological and geographical situations play a role in the state of the country's water supply: 95 percent of the water resources come from an underground supply. This is therefore of prime concern in the preparation of a spatial strategy; a water policy that aims to achieve the best use for each litre of water would therefore determine the success of the development programs. There is also some inconsistency, especially between agricultural developments and the establishment of industry. Libya, as a country that suffers from a scarcity of water, is facing a big dilemma, which must be addressed and resolved in order to achieve the aims of future development. This dilemma lies in the fact that the advance of the current economic and social development has led to severe damage, and has, in some cases, had devastating effects on water resources and other environmental resources. A balanced policy must be devised between the management for water demand and efforts to find alternative
water resources; water shortages will continue even though the Man-Made River Project provides water in the north of the country. This must be taken into account, with priority given to water management as well as the continuous coordination between the different sectors consuming the water.

4. The agriculture and livestock sectors have had a great significance in the life of Libyan society and the national economy as they represent an essential source of food for the population and jobs. However, the difficulty of the natural environment conditions, as manifested in the harsh climate and the scarcity of water resources, are some of the problems that impede agricultural development as well as limit the size of arable land and soil quality (Kezzeiri, 2006).

Since the seventies, the focus has been on the agricultural sector for achieving food self-sufficiency, hence the economic and social plans focused on establishing productivity agricultural projects across the whole country. As a result of this, the National Physical Plan (2000-2025) must coordinate the contradictory policies of development, while the aim of the agricultural policy is to increase agricultural production and provide food so that it is not necessary to import food from abroad. The aim of the water policy, on the other hand, is to reduce the amount of water consumption. Therefore, there is an urgent need to review these policies with regard to agricultural development and to propose an appropriate strategy to bring about development that is more compatible with the environment and so ensure its sustainability. In addition to this, there is a need for an agricultural policy that would preserve the water resources and ensure lasting development.

Although the Man-Made River is available for industrial, urban, and agricultural consumption, it seems difficult to achieve food self-sufficiency in the light of the limited natural resources for agriculture, such as water and arable land. Moreover, the Man-Made River will result in depleting the most valuable resources of the southern areas in favour of the largest urban centres along the coastal area, instead of using them to develop these southern areas: the water of Al Koufra, Murzug and Al Sarir basins, which the water project depends on, is non-renewable water.
Thus, the Man-Made River will reduce the level of water every year. After 50 years of water withdrawal from the Murzug basin for the Man Made River, it is expected that the decline in the water level in the central area of the basin will amount to 100.85 metres, and this level will reach less toward the sides of the basin recording 55.25 meters (General Committee for Housing and Facilities, 1993, p. 13). Therefore, it is sensible to maintain the valuable water resource rather than pursue an aim that is difficult to achieve in light of the lack of necessary resources.

Furthermore, the rapid economic, social, and political changes in the country, have led to economic openness, for example, the end of the siege and sanction by resolving the Lockerbie issue, agreement with the countries of the European Union and resolving the outstanding problems with the United States of America. These circumstances have allowed the private sector and foreign companies to invest freely and have facilitated urban development programmes and housing loans. Hilmi (2006) emphasises that development precedes planning. Thus, the Department of Urban Planning tries to create a favourable atmosphere for ambitious development plans, which have started very quickly in recent years, e.g., activating contracts of third-generation schemes to achieve an outline of paths for different development plans. Hilmi (2006) suggested a range of procedures that could be helping to achieve this situation through:

1. Choosing one of the alternatives of the proposed growth trends in the long-term National Physical Plan (2000-2025), such as:
   a. Developing the coastal strip
   b. Focusing on the second axis and interior cities
   c. Continuing to encourage reverse migration (see Figure 42);
2. Applying the legislation in force and laws involving construction work in order to reduce unregulated construction;
3. An emphasis on the role of the Urban Planning Department for the implementation of state policy in urban planning; this also involves not allowing other authorities to prepare schemes without this department's permission;
4. Making use of the indicators of second-generation schemes when settling the various development projects;

5. Adhering to planning standards in the preparation of development plans or when approving new projects;

6. Coordinating with the Department of Urban Planning in approving development projects and identifying their location, technical specifications, and functional requirements;

7. Developing a specific policy for land management so that the areas of space within the master plan are considered as public property to be managed by specialised committees, or determining the value of the land and the adoption of the principle of compensation (Hilmi, 2006).

Notwithstanding the above, Hilmi (2006) added that a set of measures should be taken into account regarding the contracts of third-generation schemes in order to save time and obtain early results in support of the various development plans; these measures should be as follows:

1. Counting and reviewing the recommended schemes in the second-generation stage, which have not had any previous urban schemes, as well as granting permission to prepare the schemes that are still to be approved;

2. Prioritising the updating of the approved plans, especially those that are still to be completed;

3. Speeding up the preparation of the population predictions for the next five years at the level of the Shabyais in order to specify the needs of the population development;

4. Using the available cadastral maps in the scheme reports of each zone, including the sub-zone, and transferring the information by the end of the project;

5. Using images of space in the preparation of regional and sub-regional studies as well as in that of the initial urban plans;

6. Allowing the consultative offices and the Department of Surveying to sub-contract with local advisory offices to complete some tasks, such as the updating and preparation of plans for small population towns;
7. Considering the required geographical information systems in the plans of the third-generation stage as a means of using modern techniques and not as a goal; in this way plans can be produced according to this system at the end of the project ((Hilmi, 2006).

Porter and Yergin (2006) believe that the third-generation project provides an opportunity to once more control the planning in Libya, and lay the groundwork for the next stages of urban development in the country. However, the planning process is facing major challenges, the first and the most important one being the great competition for the land between agricultural and urban development. Moreover, successful planning necessitates extensive coordination and data sharing between institutions and government agencies as well as non-governmental sectors at national and local level. However, this is difficult to achieve in Libya (Porter and Yergin, 2006, p. 123). In addition, the preparation of the schemes suffers from a poor definition of lands roles and a lack of information, since it does not take into account the needs of economic development. Moreover, the implementation of such schemes have not yet attained the financial coverage they require, so leading to delays which contravene the demands of the schemes (Porter and Yergin, 2006, p. 124). The aforementioned researchers stressed that the Libyan government must seize this chance to regain control over urban development processes and to improve the preparation and formulation of the project plans, in addition to implementing them. Further to this, the third-generation schemes provide a unique opportunity for the four consultative offices to work with each other in implementing the system of geographical information; this will lead to the preparation of accurate maps for the existing land use and the available public services and infrastructure. However, Porter and Yergin (2006) have criticised the delay in the preparation of population censuses, which will lead to the difficulty of predicting the future needs of housing and economic development.

To sum up, due to environmental conditions, most of the population concentration is found in the northern part of the country. This area is considered the richest region - especially the north-west and north-east - as well as containing the largest and the most important cities, such as, Tripoli, Benghazi, Musrata and
Al-Bedia. This spatial dualism has been accentuated in the last few decades because of the huge flow from the rural areas to the large cities and among regions. This is clearly due to investment and development programmes focusing on the large cities.

Consequently, there has been a growing awareness in the Libyan government regarding polarisation in the large cities and the spatial dimension is therefore being taken into account in the economic and social development process. Before 1970, the government was interested in sectoral planning, i.e. the social and economic development programmes did not consider the spatial differential or the various abilities in the regions. Additionally, government intervention was largely confined to the commissioning of a series of physical master and layout plans and to the equitable distribution of services and development benefits throughout the country: every citizen would be provided with adequate services in the fields of education, health, housing and transport. However, integrated planning for the development of Libya’s network of urban centres was given serious consideration after 1973. This can be seen in the government’s attempt to locate manufacturing industries in a large number of towns, the adoption of growth pole policies and the development of the southern regions. The aim of urban planning in Libya - as part of the national economic and social planning – has been to try to reduce the inequalities between the towns. There have also been tremendous opportunities for a range of dynamic urban planning policies as a result of the increase in the oil revenues.
6.4 References


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Chapter 7  Evaluative Analysis of the Spatial Policies

7.1  Introduction

The existing knowledge acquired via personal observation and published materials as well as official documentation have jointly formed the further evaluation basis alongside pilot interviews with the aforementioned experts. This chapter will assist the evaluation of the theme for the doctoral study and the thesis discourse, namely the author’s argument that the current urban system in Libya has remained the same due to the continuous dominance of the two cities within the geomorphologic feature of the urban system. Whether the government has achieved the aim of controlling the growth of the two big cities, Tripoli and Benghazi, effectively, is currently open to debate as far as urban and regional interests are concerned. Hence, to illustrate the extent to which the spatial policies have succeeded in controlling the growth of the large cities, as well as to test the hypothesis that there is still an unbalanced urban system, Tripoli and Benghazi will be taken as case studies. These two large cities have chosen a spatial policy to cope with the continuous population growth within particular physical development constraints and both cities have been chosen as case studies because they have experienced large-scale urbanisation. However, the remaining Libyan cities were also taken into consideration in analysing the urban system, in order to present a true image of the impact of these policies on the urban system as a whole. The findings of this study will therefore be a significant guide for future urban and regional planning.

In focusing on the limitations of these two cities, the subsequent criteria will be used for evaluation:

1. The population growth of the cities;
2. The physical expansion of the cities;
3. The concentration of business headquarters and other important services;
4. The concentration of the fiscal activities of the government.
This chapter tries also to assess the impact of some factors, such as demographic factor, government expenditure, transportation, and natural conditions on the spatial distribution of cities and population.

7.2 The City of Tripoli

This city has special importance among the Libyan cities by the virtue of its favourable location: Tripoli is located in the northwest of the country, has a Mediterranean climate and is at the top of the fertile agricultural Alfara plain. Therefore, it is situated in the centre of several agricultural and urban regions, which are located on three of its sides: Tajora to the east, Janzour to the west and the area of Alsoany and Ghasir Ben Ghasheir to the south. Moreover, its morphological coastal nature has resulted in the development of the most important port in the country (Secretariat of the People's Committee of Facilities, 1973, pp.17-18). In addition, the site of the city on the coast as well as its morphology have a direct impact on its climate in terms of the moderate climate characteristics, especially the rainfall, temperature or wind: the average annual rainfall is 365 mm per year and the average annual rates of temperature range between 21.7 and 30.8 degrees (Meteorological Department, 1995).

Additionally, this geographical location, has been and is still of great importance owing to its clear impact on the economic and social aspects of life; this factor has allowed extensive commercial relationships between the city and other Mediterranean countries to be established, from ancient times until the present. The trade vitality of the city has also contributed considerably to its importance as a centre, with modern road networks to all parts of the country in addition to neighbouring countries, and this has inevitably increased its population size.

7.2.1 Population Growth of the City of Tripoli During the Period of 1954-2006

To many researchers, the modern concept of urban dominance has only been connected with population size, since a capital city or a commercial or industrial
centre attracts large numbers of the population from rural or small towns. Hence, the size of a city’s population and its functions can increase and multiply until it becomes a dominant city containing the largest proportion of both the national and urban population of the whole country (Abou Aianah, 1984).

From the a demographic point of view, the city of Tripoli has been considered the main city in the country throughout its historical stages; for example, its population recorded around 30,000 people in 1911, but it took more than twenty years to triple that number to 81,438 in 1931 (Attir, 1995, p. 146). However, Tripoli was particularly characterised by rapid population growth during the 1970s and the 1980s, which could be attributed to several factors:

- A flow of migrants from rural areas and the neighbouring cities towards Tripoli in order to take advantage of the services provided there;
- The return of Libyan migrants from abroad;
- The high rate of natural population growth due to the beginning of improved health and living conditions (Ibid, pp. 109-110).

By tracking the statistics for the population censuses it is possible to follow the evolution of population expansion in Tripoli from 1954 to 2006 (see Figure 42).
The figure above shows that the population size of Tripoli city has been increasing over the years, while the percentage of increase has been decreasing. However, the decline of the ratio of increase could be attributed to particular national issues, which had the same influence on Tripoli and Benghazi rather than being due to the planned impact of the spatial policies. For example, in 1954 there were 129,728 people, and this rose to 296,740 people in 1964 with an increase of 167,012 people - this being around 128.7 percent more than it was in 1954. This high ratio is attributed to the stability of the security situation in the city after the departure of Italians, when the population started to grow and the flow of the Libyans began from all areas, including the rural population who came looking for good jobs (Attir, 2005, p. 170). Additionally, there was a return of Libyans migrants to the country after an improvement in the domestic situation; this witnessed stability after the declaration of independence and the beginning of the formation of the modern state. Most of the migration flow was towards the main cities, particularly Tripoli.
Similarly, the population increase in 1973 amounted to 552,700 people as a result of the discovery of oil in the 1960s and the use of its revenues (particularly in the main cities such Tripoli and Benghazi). This resulted in an increase in the population and urban growth, this mainly being due to the influx of migrants from rural areas and nearby cities to the city of Tripoli. As one example, Tripoli alone acquired about 45 percent of the volume of internal migration in the period of 1964-1973 (Secretariat of Planning, 1979, p. 46).

The population size continued to increase in 1984, recording 968,227 people with a percentage increase of around 75.2 percent between the periods of 1973-1984. The highest amount of increase recorded 415,527 people from 1973 to 1984; this was due to the continuing trend of immigration to the city of Tripoli, resulting in an increase in the economic activity due to oil exports and was additional to the increasing proportion of migrants coming from outside the country to work. For example, at the beginning of the 1970s, the percentage of foreign workers was 17 percent of the total employment figure; by 1975, this figure rose to 32 percent and then increased to 40 percent of the total employment by the end of the 1970s (Statistical Series, 1980, p. 189). Additionally, improved health conditions in the seventies led to a reduction in child mortality rates and a rise in the proportion of older persons.

However, when comparing the statistics of the population census for the years 1984-1995, it was found that the amount of increase in the population was 189,330 people in 1995 while the percentage of increase had shrunk by 19 percent compared to what it had been in 1984. Attir (2005) attributed this decrease to several factors, such as the reduction in migration to Tripoli and the impact of the sanctions imposed on Libya in the 1980s, which affected all the economic and social aspects of the country. The late age of marriage was also an influencing factors contributing to the decreasing rates of fertility. For example, fertility rates were high in the previous census, the average age of a person marrying for the first time being not more than 24 years. However, the age for this has risen in recent years to nearly 34 years, and has consequently been followed by a diminution in the birth rate (The General Organisation for Information, 2008, p. 2). Similarly, the population of Tripoli city in 2006 reached 1,325,151 with an
increase about 167, 594 or 14.5 percent. It is worth noting that a different data source from the National Organization for Information and Documentation showed that the number of births had reached about 24,854 in 1997 in the Shabia of Tripoli, and this number increased to 26,981 in 1998. Following this, the number started to decline in 2000, reaching 23,147 births, with a difference of 3,834 compared to the figure in 1998. The decline in this number was more pronounced in 2005, which recorded 17,374, a difference of 5,773 births compared to the number of births in 2000 (the National Organization for Information and Documentation, 1997, 1998, 2000, and 2005, pp. 19, 19, 21, and 24).

As regards the birth rates reflecting the actual image of the increase in the region, the birth rate in 1997 was about 19.4 per thousand, and then reached 20.5 per thousand in 1998; this increase was associated with a significant increase in the number of births, as well as the remarkable increase in the number of the population. In 2000, the population rate reached 21.4 thousand, despite the decrease in the number of births that was connected with the declining population, and this was due to changes in the administrative boundaries of the shabia. However, this rate decreased in 2005 to 15.4 thousand (Ibid), which mirrored the declining number of the births and could be attributed to the late age of marriage, and may also be ascribable to the decrease in the fertility rate. This confirms that the city of Tripoli is located within the demographical stage characterised by the decline in birth and death rates (Al Mahdewi, 2009, p. 45).

According to the statistics of the population censuses for the years 1973, 1984, 1995 and 2006, the size of Tripoli has been growing in spite of these issues. For example, it had a population of 552,700 people in 1973; this number then rose to 968,227 in 1984 and has exceeded one million since 1995, reaching 1,157,557 inhabitants and then 1,325,151 in 2006.
7.2.2 Physical Expansion of the City

Natural factors, such as its advantageous location on the Mediterranean coast and the middle of North Africa, its moderate climate, as well as its topography, have resulted in the significant commercial and marine importance of Tripoli. These factors have additionally had an impact on the growth of the city over the years, whether spatially, demographically or developmentally. Further to this, Tripoli has passed through several historical stages like many other Libyan cities, and this has affected its morphology and expansion (see Chapter 2). This rapid growth experienced by Tripoli caused an expansion of the city from 30 hectares at the beginning of this century to 475 hectares in the beginning of 1950s. Further expansion occurred in 1988 and 2000, with increases of 930 hectares and 19,300 hectares respectively, this expansion occurring in a desert country where the vast majority of the land is also controlled by the desert. The fertile lands are located in the north-western and north-eastern areas of Libya, where the cities of Tripoli and Benghazi are located; these have undergone a large reduction with the concentration of a large proportion of the population in a very small area compared to the vast size of the country.

During the period of 1954-2000, a big difference could be seen in the amount of increased area. For example, in the period between of 1954-1988, the area of Tripoli increased by only 455 hectares, while in the period of 1988-2000, (a period of only 12 years) the total area of Tripoli increased to 19,300 hectares. This means that the city was expanding and growing faster than in previous years, and mostly at the expense of the agricultural lands. Such expansion can be attributed to the increasing demand for land for urban use. Al Zanan (2006) considered that this came about as a result of the lack of real policies and strategies which could direct and organise the process of planning and control the physical expansion of the largest cities.

This growth was partially due to the expansion of administrative boundaries which extended the cities outside their previous geographical borders. This added new areas to the cities, as well as bringing about the growth of new quarters on the outskirts of the cities. For instance, Tripoli had a small number of hectares
until the middle of the last century, but later expanded to the west, south and east, where the area reordered 1,648 hectares in 1966. This area continued to increase, registering 10,271 hectares and 19,290 hectares in the years of 1980 and 2000 respectively (Brebish, 2006, p. 138). Brebish attributed this increase to the expansion of the city which included new areas.

7.3 The City of Benghazi

The natural location of the city of Benghazi has also played a major role in its origins and growth economically, demographically and physically. The city is located in the centre of Benghazi's plain which is characterised by the slight declivity of its surface. This plain is considered the second of the Libyan plains in terms of its breadth and economic value. Most of its surface is covered by limestone rock and shallow red or reddish brown soil with high fertility. This area is located to the south of the city in the Hawwari area, which supplies the city with vegetables and agricultural products. Additionally, the plain has particular edges, such as the one situated near Benina, and some valleys in the form of meandering gullies which stretch to the sea. Further to this, the city has a warm and moderate climate (Mediterranean climate), which has an important role in attracting the population and economic activities. The city of Benghazi, as a developmental, trade, education and social services centre, has easy access to other parts of the country, whether from Al Abyar and Al Merj in the east, Ajdabyia in the west, or Solouq in the south.

These natural environment conditions, such as a moderate climate, a strategic location, the geomorphology, water and other natural resources have helped in attracting and establishing several activities and has made it a magnet for the population, especially from the eastern areas.
7.3.1 Population Growth of the City of Benghazi during the Period 1954-2006

The city has seen rapid population growth, particularly in the period following the discovery of oil and the investments and entry of foreign firms in this field in 1955. Additional to this has been the availability of employment opportunities resulting from development programmes.

![The Evolution of Population Size in Benghazi](image)

**Figure43:** The evolution of the population size in Benghazi. This graph is based on the available statistics in the following sources:

1) The Department of Statistics and Counting, 1954 Population Census, Tripoli, p. 11
2) The Department of Statistics and Counting, 1964 Population Census, Tripoli, p. 16
3) The Planning Secretariat, Department of Statistics and Counting, 1973 population census, Tripoli, p. 45
4) The Secretariat of the People's Committee for Economic Planning, Department of Statistics and Counting, 1973 Population Census, Tripoli, p. 102
6) General People's Committee, the General Organization for Information, the final results of the 2006 Population Census, Tripoli, p. 74

According to the above figure, the size and percentage of the annual increase has varied from time to time; for example, in the first period (1954-1964), the city had a population of about 69,718 in 1954, while, in 1964 this amounted to 139,800 people, with an annual increase of 100.5 percent. This considerable increase was due to the stability of the country and the improving economic circumstances after the discovery of oil, both of which resulted in an increase in the flow of internal
and external immigration. In 1973, the city size increased to 239,170 people, but with a smaller annual increase than in the previous period, this being 71.1 percent. In the period of 1973-1984, the ratio of increase started to rise once again to 88.1 percent; this increase could be attributed to the attention paid to the registration of statistics during that period, which made results more comprehensive. In addition to this, there was increased attention to improving living conditions as well as the economic, social and health conditions of the population, these factors resulting in an increase in the growth rates of the population. However, in the period of 1984-1995, the city witnessed a relative decrease in the annual percentage of population growth, recording around 31.1 percent. This reduction was due to the economic circumstances faced by the whole country during the previous two decades; an example of this is the difficulties of the economic conditions resulting from the rise in world oil prices in the eighties, which led to a rise in prices in the country. This ended in a decrease in the level of income growth: for example, an individual’s income was reduced from 3,350 L.D in 1979 to 1,550 L.D in 1988 because of the decline of the oil revenues in the eighties (Al Ghadamsi, 1998, p. 141). Consequently, there was deterioration in living conditions and problems with the lack of employment opportunities and housing. A housing crisis had come about as a result of an imbalance between housing supply and demand - a number of houses - 90,000 - were to have been provided in the period of 1973-1975, but the actual number provided during that period was 76,000. The shortage in the provision of these housing units reached 14,000 houses with 84.4 percent of the total number being achieved (Almgarhy, 2000, p. 348). However, in the period of 1991-1996, the total number of the houses was 324,000, with the actual number being provided standing at 52,730. In this case, the shortage of houses during this period amounted to 271,270 houses with an execution ratio of 16.3 percent (Ibid).

The city witnessed further decline in the annual percentage of population growth during the period of 1995-2006, which recorded 6.7 percent. Several factors contributed to this situation, such as a high educational level among women and the late age of marriage affecting the total fertility rate. In addition to this, there were adverse political conditions in the nineties as a result of the economic sanctions imposed on the country and this directly impacted on the social and economic conditions of the country, leading to a decline in foreign workers. As
indicated by Al Rajebi (2006), the decreasing number of foreigners could be a result of the sanctions imposed on Libya by the UN, which began in April 1992 and continued until 1998. These sanctions resulted in a temporary suspension of development plans and the cancellation of jobs for many foreign workers. The remaining jobs were marginal and concerned handcrafts, which could not meet the standard of all the employers. Moreover, there was a low exchange rate of the Libyan dinar against other currencies during this time, and the emergence of the black market was causing many foreigners to leave the country (Al Rajebi, 2006, p. 93).

7.3.2 Physical Expansion of the City

The city of Benghazi has had several stages of urban growth and development up to the present date. According to the results of the 1954 population census, the city witnessed particular population and economic changes. The city was a centre for 69,718 people with a limited number of facilities and services in a specific geographical area, this being around 256 hectares. The city has links to a marine front, especially around its core which is adjacent to the port. However, during this period, the city spread to the interior along the two axes: one from the city centre to the area of Al Berka and Al Foyhat, the other, albeit a small extension, from the centre towards the Al Sabri area (Al Halak, 1992, p. 202).

From the beginning of the sixties, the city of Benghazi witnessed rapid growth, with the area of the city amounting to about 1,093 hectares in 1964; since then it has grown by about four times. This growth was due to the economic and social changes which accompanied the extraction and export of oil and resulted in an increase in the activity of trade, transportation, administration and the availability of services. The city has a specific plan for the use of its lands, this scheme being linked to a range of concentrated economic elements where various economic activities are practised, such as productivity, commercial, public and private industries and housing, etc. The former planning, concerning the use of the lands of the city, was offset by another scheme concerning prices; the later was connected to the size of the city, its density and growth (Darkazinli, 1988, p. 58).
As a result of the urban growth of the city, some of the existing districts were divided into three areas: the area of Al Birka grew and extended to include new areas such as the Al Birka districts in the north, west and south. Moreover, urban and population growth have led to the further expansion of the city to its suburbs, this being considered as the urban sprawl of the city towards its outskirts. Therefore, the city of Benghazi started to expand beyond the old borders and the city extended in several directions, such as the south, south-east, and south-west, where the urban expansion included new areas like Al Salmani, Dawoud Al Bahri, Dawoud Al Ghabli, and Al Andalis (Whiting Associates International, 1966, p.5).

According to the 1973 population census statistics, there was a continued extension and expansion of the area of the city in the districts of Hay Alsalam, Al Mukhtar, 2 March, Ali Ben Abi Talib, Khalid Ben Al Walid and Al Zetouni. This further expansion was matched by the increasing the size of its population to 239,170, a rise due to the natural growth and migration towards the city which coincided with the revival of the city's physical, social and economic development. The city witnessed the prosperity period of the post-1969 revolution and economic development supported by the oil wealth and development projects, which focused particularly on major cities such as Tripoli and Benghazi. Therefore, some of the districts were divided into new areas, for example, Al Sabri was split into two districts (Al Sabri Al Shargi and Al Sabri Al Gharbi); in a similar manner, Al Fouhat was divided into three areas (Al Fouhat Al Shargya, Al Fouhat Al Gharbya, and Al Fouhat Al Bahrya). The emigration of population from the heart of the city to its suburbs also led to the emergence of other new districts, such as Garyounis, Al Jazira, Al Mheshe, and the two parts of Al Salmani (Al Shargi and Al Gharbi). Here, Al Jahaymi (2007) attributed the growth of the city to the high rate of natural increase and immigration, which led to the encroachment of the city towards the surrounding areas and combined them with its borders. It is worth pointing out that the growth of the city was limited and slow until 1973. However, after the mid-seventies, this growth started to quicken and was non-limited. As Al Sharkisi (1989) indicated, in 1978 the Doxiadis Association prepared a general plan of the city of Benghazi indicating that the growth percentage of the total area of the city was about 360 percent.
during that period, while the annual growth ratio was about 30 percent (Al Sharkisi, 1989 p. 221).

The economic and social changes in the city attracted a population aged between 15 and 64, which contributed to the city’s work force. This labour migration formed the backbone upon which the economic and social transformations of the city relied in the seventies and early eighties, when the city expanded its industrial base and diversified its industries. For instance, the city contained 95 industrial firms and companies in 1971 and had about 27 percent of the total number of Libyan firms. This then grew to 1978 companies in 1977 (Al Halag, 1992, p. 223). The city continued to grow, with an area of 4,000 hectares of the built area in 1978, this extending from the city centre towards the east by about 8 km and from the north-east to south-west by 13 km. Hence, the area of the city increased to approximately three and a half times the area covered by city in 1966 (Al Halag, 1992, p. 208). The expansion of the city in the east and north-east was demonstrated by new areas such as Hay Alsalam, Al Mukhtar, Al Askan Al Sinai, Boatni, Subkat Al Salmani, Al Fouhat Al Shargyai, and Garyounis. The growth and extension of the city during this period was due to migration from the countryside to the city and the shift towards the development of industry and the sectors of services and construction.

This rapid growth of the city could, in fact, be attributed to several factors: the growth of the urban population, industries and trade, as well as the development of road networks and transportation. During this period, the population of Benghazi represented 16 percent of the total urban population, which showed the dominance of the city on the eastern region of the country in terms of the concentration of the population and services. In 1984, the area of the city was 8,734 hectares and it retained the same number of districts, these being included in the 1973 census; however, there was a continual increase in the city’s population, which reached 449,849 people, and the area grew between 1966 and 1980 by 312 percent and with an annual rate of around 22 percent. In the period of 1978-1984, the city extended in several directions: to the south, south-east, east and north-east. In other words, the extension went beyond the urban area of 1978,
with third, fourth and fifth ring roads and in accordance with the urban scheme of the city (Al Halag, 1992, p. 210).

During the early nineties and specifically 1995, the city saw substantial urban population growth due to the dramatic expansion of various sectors since the early seventies which came about as a result of the increase in oil revenues. Therefore, new areas emerged, such as Benghazi Al Jaded, Garyounis, Hay Alsalam, Al Mukhtar, Al Ansar, Al Lathie and Ali Ben Abe Talib. The 1995 population census indicated that the migration to the city of Benghazi was still continuing, this amounting to about 34,300 migrants. Salih (2000) stated that the more the city of Benghazi grew and expanded, the more the built-up area was widening and therefore causing a change of particular functions. For example, its administrative and commercial heart was moving and housing was shifting from the centre to the suburbs (Salih, 2000, p. 552). This common phenomenon of function transition from one link to another accentuated the dynamism of the city in terms of its population and functions and in 2003, the area of the Benghazi exceeded the limits of the scheme, forming an area of 16,000 hectares (Kezeiri, 2003, p. 259).

To sum up, the administrative boundary changes of some quarters in the city demonstrate the urban growth of the city. However, this growth was slow and limited until the mid-seventies, when the city entered a new phase characterised by unlimited and rapid urban growth. For example, the period between 1954-1984 witnessed an increase of 8,478 hectares in the total area of the city of Benghazi, while the period of 1984-2003 saw the city expand by another 7,266 hectares in 19 years; this accentuates the continued growth of the city in recent years. Hence, demographic and urban growth, as well as the diversity of its economic, social, and administrative functions have resulted in its increasing importance, and it has come to play a more visible and effective role in the region than in the past.

7.4 The Share of the Total Population and the Total Urban Population for Tripoli and Benghazi

The spatial expansion of the cities of Tripoli and Benghazi over the periods set out above shows the importance of these two cities as attraction centres for two-thirds
of the population of Libya. As reported by El Mehdawi (1984), Tripoli and Benghazi control the urban system in Libya as each city has its own areas of influence and imposes its urban dominance on the rest of the surrounding urban areas through the commercial and administrative services provided in the two centres (El Mehdawi, 1984, p. 55). The following table shows the extent of the size disparity of population growth on the level of Libya as a whole and the cities of Tripoli and Benghazi in particular.

<table>
<thead>
<tr>
<th>Year</th>
<th>Libyan total pop</th>
<th>Growth Rate</th>
<th>Tripoli pop</th>
<th>Growth Rate (*)</th>
<th>Benghazi pop</th>
<th>Growth Rate (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>1088889</td>
<td>------</td>
<td>129728</td>
<td>------</td>
<td>69718</td>
<td>------</td>
</tr>
<tr>
<td>1964</td>
<td>1564369</td>
<td>3.6</td>
<td>296740</td>
<td>7.8</td>
<td>139800</td>
<td>6.6</td>
</tr>
<tr>
<td>1973</td>
<td>2249237</td>
<td>4.4</td>
<td>552700</td>
<td>6.7</td>
<td>239170</td>
<td>5.8</td>
</tr>
<tr>
<td>1984</td>
<td>3642576</td>
<td>4.1</td>
<td>968227</td>
<td>5</td>
<td>449849</td>
<td>5.5</td>
</tr>
<tr>
<td>1995</td>
<td>4799065</td>
<td>2.4</td>
<td>1157557</td>
<td>1.6</td>
<td>589850</td>
<td>2.4</td>
</tr>
<tr>
<td>2006</td>
<td>5439900</td>
<td>1.8</td>
<td>1325151</td>
<td>1.2</td>
<td>629597</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Table 17: The evolution of the population of the cities of Tripoli and Benghazi / Libya in the Period of 1954 – 2006.
(Source: the table was compiled by the researcher based on the population censuses for the years 1954, 1964, 1973, 1984, 1995, and 2006 (*) the growth rates being calculated by the researcher).

From the statistics above it is clear that Libya has passed through two stages in its population growth:

1. The first stage covers the period from 1954 to 1973 when the country witnessed the rapid growth of its population to about 2,249,237 people (4.4 percent) due to the developments that took place in Libya in the fifties, such as its independence and the discovery of oil as well as the start of its exports at the beginning of the sixties. For example, the first shipment of oil was exported from the port of Albraiga in Libya on 12/09/1961 (El Mehdawi, 1984, p. 230). The discovery of oil was then followed by improved economic conditions in the country, the return of Libyan migrants from outside the country, and the increased numbers of Arab and foreign workers who were attracted by the development projects implemented by the state during the second half of the sixties.

2. The second stage covers the period from 1973 to 2006; this stage saw a relative drop in the population growth rates, for instance, this was 2.8 percent from 1984 – 1995. In this former period, the Libyan population
experienced the stability resulting from the decline in the birth rate, so reducing the size of the families. For example, according to the statistics, the birth rate was 41.4‰ in 1970, but decreased to 20.3‰ in 2004. The decline of the growth rate continued in the period of 1995 – 2006, reaching 1.8 percent. This decrease was also due to the sanctions imposed on the country and it associated results, such as the departure of foreign labour because of the suspension of development projects.

As regards the two cities, a relative decline can be noted over the years. The cities differed from the whole country in the first stage, as their growth rates were high in the period 1954-1964 compared with those of the whole country. This increase can be attributed to the previously mentioned circumstances that took place in the country. Additionally, while the country witnessed an increase in growth between 1964 and 1973, these two cities experienced a slight decrease for the same period. However, this cannot be considered a real decline in their dominance, but can rather be explained by the huge amount of in-migration and immigration in the 1960s. This was because of the discovery and export of the oil, which gave the period of 1954-1964 a high rate of growth. However, later periods in Benghazi and Tripoli followed the same trend as the rest of the country for the second stage, as a decrease in their growth rates can be attributed to the same factors that affected the whole country; examples of this are the difficult economic conditions resulting from the rise in world oil prices in the eighties and the sanctions enforced on Libya at the beginning of the nineties. This had a double effect by influencing economic and social situations and resulting in the departure of a huge number of the foreign workers, as well as helping to settle most of the Libyan people. Additionally, these political and economic circumstances impacted by causing the discontinuation of most of the development plans and housing projects at that time. As reported by Al Daghari (2002), these economic and political conditions led to the suspension of development plans, especially as regards the housing projects and large capital projects; for example, the projects of the plan of 1986-1990 were never been implemented, which led to a reduction in the growth rate of labour in these activities. In addition there was a continued shortage in providing the required amount of housing units from the eighties to the present time (Al Daghari, 2002, p. 89). He also added that despite the attempts
of the development plans, especially (those of 1994-1996) which devoted 19.8 percent of allocations to the housing sector to solve this problem, it did not succeed in finding a solution (Al Daghari, 2002, p. 257). Salih (2000) also concurs with the negative impacts of the sanctions as they made the implementing of many of the productivity projects difficult in addition to the necessary provisions for industrial and housing projects (Salih, 2000, p. 39). Hence, internal migration did establish a kind of a relative stability under these conditions, which clearly influenced the movement of people over the whole country. As argued by Al Jhaumi (2007 p. 77), migration rates stabilised after 1973 and maintained the same pace for 20 years between 1973 and 1995.

It is interesting to see how government policies affected the urban system and it is also important to establish whether the growth of the small and medium-sized towns was purely because of migration or natural growth. If this growth had come about because of natural growth, this would mean that it was not affected by the government. Moreover, if growth crosses regions because of migration this also means that the government was not having an effect. The same can be said of Tripoli and Benghazi in establishing whether growth rates decreased because of the decline of the natural increase or the decreasing volume of in-migration.

Notwithstanding this, access to migration data is difficult even for developed countries and this is the case in developing countries as well, where it is more difficult, especially for data migration to and from the cities (Ismail, 1993, p. 105). Unfortunately, there were no statistics about migration and the natural increase for the Libyan cities, except for some studies conducted on one or two particular cities. Nevertheless, there were statistics for the shabyias (regions) which provide an idea about the trend of natural increase in these regions, including in Tripoli and Benghazi. For example, with the statistics for the period of 1997-2005, it can be seen that there was a decrease in the number of the births in the Shabyia of Tripoli, this number being around 24,854 births in 1997 (The National Organization for Information and documentation, 1997, p. 19). However, that number decreased to 17,374 in 2005 (The National Organization for Information and Documentation, 2005, p. 24), the difference amounting to 7,480, which is an indicator of a decline in birth numbers. The latest study on the city of
Tripoli by El Mehdawi (2009) underlined the fact that the birth rate in the shabyia of Tripoli was 19.4‰ in 1997 and this rate increased to 20.5‰ in 1998. She linked this increase to the growth of the birth numbers and the total population size. In 2000, the birth rate reached a peak at 21.4‰ despite the decline in births connected to the decline of the total population which resulted from changes in the administrative boundaries of the shabyia (El Mehdawi, 2009, p. 49). In addition, she added that the positive difference between the birth rate and death rate reflects the natural increase, which was 0.0129 in 2005; this accentuated the fact that the city of Tripoli is located within the demographic stage that is characterised by low birth and mortality rates (El Mehdawi, 2009, ibid, p. 52).

Furthermore, the general census of the population of the city of Tripoli during the years of 1973, 1984 and 1995 reveal an important fact, namely the high proportion of the population who had never been married - whether male or female - during the period above. In fact, the percentage of unmarried males increased from 31.5 percent in 1973 to 59 percent in 1995, and similarly, the proportion of females rose from 15.0 percent to 50.1 percent for the same period (Al Zaide, 2004, p. 68). These figures were caused by particular social reasons, such as the high cost of dowries, the late age of marriage and the desire for access to higher education and better opportunities for work in order to improve living conditions, these being common characteristics in all Arabic countries. Additionally, the percentage of people between 15-64 increased from 51.7 percent in 1984 to 63.3 percent in 1995, while the ratio of people under 15 years old decreased from 45.6 percent in 1984 to 33 percent in 1995 (Al Zaide, 2004, p. 57). This indicates the impact of the declining rate of natural increase in the growth rate of the city instead of the decline in the volume of in-migration.

In the same way, the natural rate of increase in Benghazi fell from 40.0‰ in 1984 to 23.8‰ in 1995. This sudden decrease in the natural population growth rate is attributable to the bad economic and health conditions of the country which occurred from the late eighties until the mid-nineties, and resulted from the global economic downturn that came about as a result of the sharp fall in oil prices and the embargo imposed on the country in 1992 (Al Jahimi, 2007). She added that these factors led to a slowdown in the growth rates of the national economy and a
diminution of the development expenditure allocations. Hence, many consequences came about, such as a decrease in the level of income, high prices and the lack of employment opportunities. These resulted from decisions that prohibited appointments in the administrative posts while guiding people to work which did not provide employment opportunities or accommodate the large number of graduates and job seekers. This was in addition to the lack of proper housing, which led to lower standards of living and poor health conditions. Further to this, social customs and traditions represented by high dowries and marriage requirements also posed problems and brought about lower rates of marriage, and hence, low rates of natural population growth in the city (Al Jahimi, 2007, p.26). In addition to this, the percentage of young people under the age of 15 years decreased from 47.1 percent of the city’s total population to 35.6 percent in 1995. However, the percentage of people aged between 15-64, which constituted the people capable of work, increased from 50.2 percent in 1973 to 61.7 percent in 1995 (Ibid, p. 30); this demonstrates the increasing rates of immigration despite the spatial development plans during the 1970s and 1980s. Such plans sought to limit migration to the cities through the establishment of agricultural, industrial, service and housing projects in remote areas to improve the living conditions in these areas and create spatial stability in them. However, the plans could not stop the trend of internal migration towards the cities, which is still continuing at the present time (ibid, p. 32).

Additionally, the average age of a first marriage used not to exceed 24 years, but, this age has risen in recent years to nearly 34 years (The public Organization for Information, 2008, p. ii), which has meant a further decline in the birth rate in Tripoli and Benghazi.

Therefore, a decrease in the growth rate of the population could be attributed to a large extent to the decline of the natural increase rather than to the decrease in the volume of the migration, as the growth rate in the whole country decreased from 3.6 percent to 1.8 percent during the period 1964-2006. This idea is supported by Al Aghori (2006) who stated that the low rate of growth in Benghazi was the same as the decline in all the Libyan cities and resulted from the low population growth in the country as a whole. For instance, the percentage of people younger
than 15 years of age declined from 39.0 percent in 1995 to 32.4 percent in 2006 (Al Aghori, 2006, p. 55).

However, with some of the other medium-sized cities, for example, the study carried out on the city of Tobrouq in 2008, (showing that the population growth of the city increased due to natural increases in the first years), the natural increase had the largest share in population growth of the city, accounting for about 76.6 percent of the total growth, while migration contributed only about 23.4 percent in the period of 1973-1984. Similarly, while the role of migration in the growth of the city was negative between the periods of 1984-1995, the city lost about 1620 people of the population, which means that the population increase was due to the natural increases rather than migration (Al Khalidi, 2008, p. 97). Although the proportion of migrants out of the city was not large during this period, the city of Tobrouq is considered the centre of Al Batnan Shabia (province), and cities always have greater attraction for populations than neighbouring areas. This evidence therefore indicates that the city of Tobrouq became an expelling area of population in that period. Al Khalidi (2008) attributed this to the following reasons:

- The halt to planning for the whole country from 1985 to 1994 and the inability to complete the existing projects, especially in the area of housing;
- The city of Tobrouq was not included in the second planning stage of 1984-2000 for security reasons; therefore, the scheme was delayed until 1995.

As a result, Tobrouq faced the following problems:

- The city was confronted with a water crisis after the water desalination plant was unable to cover the needs of the population for drinkable water;
- Al Horeya Hospital ceased to perform necessary medical services for the population of the city (Al Khalidi, 2008, p. 98).
However, during the period of 1995-2006, the natural increase of the population rose to 93.2 percent, which meant that the contribution of migration in population growth did not exceed 18.2 percent; however, this percentage does indicate that the city of Tobrouq reverted to being a magnet for the population as it is one of the border located on the Libyan-Egyptian border (Al Khalidi, 2008, p. 98).

In addition, an increase of the population concentration in the major cities, especially Tripoli and Benghazi, is not attributed to the annual growth by natural increase over their ability to attract people; the evidence is that at that time (1954) the population of the two cities did not exceed 18.3 percent of the total population, while their populations captured 35.9 percent of the total population in 2006 (see Table: 22). In addition, the 1984 population census showed that 10 percent of Libyan people living in the city of Tripoli were born in other areas, which means they migrated to the city. Additionally, the planning department in Tripoli (1989) illustrated that during the period of 1985 to 1989, the city received about 22,804 persons from other parts of the country (Mukhtar, 1997, p.179). Moreover, net migration was not in favour of Misurata city in 1984, as it was one of the areas that were losing its population to other cities; for example, the total net migration was 8573 people. Similarly, in 1995 net migration in Misurata was still negative, and it lost about 7,505 people to of Tripoli and Benghazi, which captured 80.5 percent of the total out-migration. However, Benghazi alone, which is located 800 km away east of Misurata, had the largest share, with 44.5 percent. This means that distance does not have an influence on this movement. Likewise, Tripoli, situated 210 km from Misurata, had 36 percent of the total out-migration (El Sharkisi, 1998, p. 118). Additional to this, one of the most important findings of the study conducted by Saleh (2002) was that most of the out-migration from the three oases (Jalo, Ojla, and Ijkhara) to Benghazi and Ajdabyia were due to social reasons and because of job opportunities in Benghazi.

Additionally, Al Jahumi (2007) stated that net migration in the city of Benghazi is still positive; this indicates that the incoming people exceeded the number of leaving people, which accentuates the role of the migration in the growth of Benghazi. She added that the different population censuses showed that there was a massive influx of people from the south to the north and the flow was
particularly towards Tripoli and Benghazi, as they are considered the most attractive cities for the population (Al Jejumi, 2007, p. 82).

<table>
<thead>
<tr>
<th>Year</th>
<th>% of the total population</th>
<th>% of the total urban population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>18.3</td>
<td>73.9</td>
</tr>
<tr>
<td>1964</td>
<td>27.9</td>
<td>70.3</td>
</tr>
<tr>
<td>1973</td>
<td>35.2</td>
<td>58.3</td>
</tr>
<tr>
<td>1984</td>
<td>38.9</td>
<td>52</td>
</tr>
<tr>
<td>1995</td>
<td>36.4</td>
<td>42.4</td>
</tr>
<tr>
<td>2006</td>
<td>35.9</td>
<td>38.1</td>
</tr>
</tbody>
</table>

Table 18: The percentages of the population of Tripoli & Benghazi from the total urban population and the total Libyan population.

As indicated in the Chapter 3, these two cities were and are considered the most important cities in the whole country; for example, after the Second World War, Tripoli contained about 100,000 inhabitants and Benghazi 60,000. By 1964 these figures had doubled to 296,740 and 139,800 respectively and by 1973 they had again more than doubled to 552,700 and 239,170 respectively. By 1984, the numbers had jumped to 968,227 and 449,849 and in the previous year, both cities together contained 39 percent of the total population, which was considered the highest share. Following this, their share of the total population witnessed a slight decline, recording 36.4 percent in 1995 and 35.9 percent in 2006. However, the relative decrease of the population ratios of Tripoli and Benghazi in the total population does not imply the success of the government policies to control their growth, as the amount of decrease was very limited. For example, their population percentage reached the highest ration in 1984, where Tripoli alone captured 26.6 percent and Benghazi had 12.3 percent. However, in 2006, their share was 24.4 percent and 11.6 percent, respectively. Thus, the amount of decline for their population in 2006 was less than 2.2 percent in Tripoli, and 0.7 percent in Benghazi, which means that the relative decline of their share of the total population did not negate the idea of the over domination of these two cities over the whole urban system.

As regards their share of the total urban population, Table 22 indicates a decrease of their proportion of the total urban population over the years. The two cities
constituted three-quarters of the total urban population in 1954, but this ratio began to decline as a result of the widening of the urban base in the country, which was brought about by an increase in the number of cities and the growth of their sizes. This occurred even though most of these towns lacked the essential elements for an urban lifestyle and the former towns were classified as urban centres, merely because their population sizes exceeded 5000 people (see Table: 23). For example, there were 98 Libyan cities in 2006 instead of the nine cities of 1954; this was reflected in the decline of the population proportion of the total urban population for Tripoli and Benghazi to 38.1 percent in 2006.

<table>
<thead>
<tr>
<th>Year</th>
<th>Urban population</th>
<th>Cities (number)</th>
<th>Tripoli %</th>
<th>Benghazi %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>269,568</td>
<td>9</td>
<td>48.1</td>
<td>25.9</td>
</tr>
<tr>
<td>1964</td>
<td>620,700</td>
<td>17</td>
<td>47.8</td>
<td>22.5</td>
</tr>
<tr>
<td>1973</td>
<td>1,358,820</td>
<td>36</td>
<td>40.7</td>
<td>17.6</td>
</tr>
<tr>
<td>1984</td>
<td>2,725,594</td>
<td>61</td>
<td>35.5</td>
<td>16.5</td>
</tr>
<tr>
<td>1995</td>
<td>4,114,240</td>
<td>83</td>
<td>28.1</td>
<td>14.3</td>
</tr>
<tr>
<td>2006</td>
<td>5,128,317</td>
<td>98</td>
<td>25.8</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Table 19: The evolution of the total urban population / the percentage of Tripoli and Benghazi / the number of Libya cities in the period from 1954-2006.

However, despite the relative decline of the population size of the two cities, and as Lawless and Kezeiri (1986) stated, Tripoli contained 57 percent of the total urban population of its region, while for Benghazi this was 51 percent, the two cities still providing more than three-fifths of service sector employment (Lawless and Kezeiri, 1986, p.36). In 2006, the population of Tripoli amounted to 44 percent of the total urban population of its region (General People’s Committee, 2006, p. 140). However, the population size of Benghazi represented 92 percent of its municipality (Baladyia) in 1984, and this ration increased to 99 percent of the total population of Benghazi’s municipality in 1994 (Kezeiri, 2003, p. 256). This figure shows the over dominance of the city of Benghazi on the settlements’ network in the Benghazi’s municipality, whether this is urban or rural. For example, the second town in the former municipality, which was considered to be a small town, accommodated 17,000 in 1984, while other small towns did not exceeded 10,000 people for the same year (ibid). This means that these two cities still dominated their regions excessively. Boughrara and Barakat (1994) attributed
the failure of other towns to attract people and eliminate the pressure on Benghazi’s city to the following reasons:

- The concentration of most of the economic activities in Benghazi’s city and its suburbs;
- The low-level of services in the rest of the towns in the Benghazi region;
- The lack of attention to the agricultural sector and the lack of necessary services in agricultural areas to enable them to develop into areas that attract population;
- The concentration of industrial activities solely in the city of Benghazi (Boughrara and Barakat, 1994, p. 227).

Modafar (Interview, 2008) stated that although the government encouraged some small and medium-sized towns to develop, Tripoli and Benghazi still continue to grow, as the government has not established controls to manage their excessive growth. He added that no a proper planning was carried out to develop these small and medium-sized towns, which have grown randomly. Consequently, uneven growth and the population polarisation in Tripoli and Benghazi have increased the need for a more elaborate regional policy in order to guide the development of Libyan cities and towns better. If this does not occur, the government will be unable to employ its resources in an efficient manner.

Al Khikhia (Interview, 2008) also pointed out that enlarging other cities, such as Misurata, Al Zawya, ElBedia and Sebha was not aimed at taking some of the pressure off Tripoli and Benghazi. This was not well planned in advance and resulted in creating the same problems from which the big cities are suffering. In addition, the growth rate of the urban population exceeded the growth rate of the total population; Brebish (2006) attributed the difference between the two rates and the increase in the number of urban centres to two reasons;

1. The spatial spread outside former geographical borders and the inclusion of new areas;
2. The evolution of an administrative system and its importance in the development of many urban centres, particularly after the partition of the country into 46 administrative districts in 1979; the country witnessed a broad geographical spread and a large numerical increase in its administrative and service units, which resulted in transforming some of rural centres into urban areas, with the growth of many cities across the country (Brebish, 2006, p. 139).

Administrative changes also affected their share of the total population as well as the urban population. Tripoli and its region underwent such changes, with the creation of the two shabyias of Al Jfara and Tajora (ibid, p.140). In addition to this, there was a re-classification of rural communities by the state whereby any population settlement of 5,000 people was eligible for city status. Here, the registration system is another problem that fails to provide an accurate account of the urban population for the two cities, as many of the residents who live in these cities are still registered in their places of origin (Al Zanati, 2003, p. 16).

7.5 Concentration of Headquarters in These Two Cities

Since urban growth is directly related to economic activities and services which are dominated by economic rules and mechanisms as well as by the principles of economies of scale and agglomeration economies, these activities and services tend to be located in large urban centres and primate cities. In fact, the concentration of new development programmes in the urban centres of certain regions has been the main cause of the development differential in the regions. As a result, the regions - which include the most important urban centres - became the most prosperous areas and others became less developed or even depressed; this was the main cause of the rapid increase in rural to urban migration and inter-regional migration. In addition, the inhabitants of the less developed regions continued to move in increasing numbers to those areas which were more developed. As internal migration continued to accelerate, its effect has become increasingly pronounced; the gap between the developed and the less developed regions therefore became larger. The great majority of migrants who moved from
the less developed regions to the developed ones are rural people who have changed their place of residence and their occupation. They have therefore left their work in the rural sector to seek employment in the industrial and services sectors (Khikhia, 1995). As a result, agricultural production has declined while the consumption of agricultural products has increased dramatically. Agricultural employment in 1985 constituted less than a quarter of the Libyan workforce and the percentage of nomads and semi-nomads declined from about 30 percent in 1954 to under 10 per cent in 1973 (Lawless and Kezeiri, 1986). However, according to the 1995 population census, the percentage of the population working in the agricultural, pasture and fishing sectors was about 11.0 percent of the total Libyan workforce due to some interest in the fishing sector.

The over concentration of social, economic and political investment and development efforts have become obvious in only a few locations, particularly in the two major cities of Tripoli and Benghazi. For example, town planning policies were aimed at building housing, education and health facilities as well as roads in the big cities in order to house the migrants and remove the shantytowns, yet they also presented a sharp contrast to the extreme shortage of infrastructure provision in the small and medium-sized towns. These policies are considered the main factors in attracting the population and accentuating the disparity between these two cities and the other towns. Dr Al Jhawe (2006) stated that most of the towns, particularly the eastern and southern ones, suffer from a shortage of the basics of life and lack good job opportunities. He attributed the concentration of the population in Tripoli and Benghazi to two reasons: the disparity in distributing the development allocations among cities and the high cost of the production and marketing as well as the uneconomic feasibility of establishing industry in particular areas.

El Sharkisi (1990) considered the attractiveness of Tripoli and Benghazi was due to the following factors:

- The provision of employment and social/health services;
• The concentration of educational institutions in the two cities, such as universities, educational institutes and boarding schools;
• Poor economic conditions in inland areas, especially before the start of the development programmes;
• The leading role of these two cities over neighbouring areas as well as the concentration of the whole transport network in Benghazi in the east, Tripoli in the west and Sebha in the south (El Sharkisi, 1990, p.120).

In addition, Al Modafar (Interview, 2008) attributed the continued existence of the two poles in Tripoli and Benghazi to the following reasons:

• The historical origin of the two cities;
• The fact that natural and environmental conditions have restricted urban expansion in other areas;
• The concentration of essential elements for economic activities.

Al Modafar considered the growth of Libyan cities was due to natural growth instead of the role of the migration, the latter having little effect on their growth; in other words, there was no adverse migration from urban to rural areas. In his opinion, spatial balance does not presently exist and the over-dominance of these two cities is still persistent, even if there is a partial decline in their growth rates (Interview, 2008).

As regards the city of Tripoli, this includes the most important and largest seaport, the main international airport, most of the major regional and international communication networks, major banks and hotels as well as key departments of national and global companies. Concentrating these economic, social, administrative, and services activities in the city of Tripoli has caused a further concentration of the population in this city. Others services concentrated into these two cities are as follows:
7.5.1 Educational and Health Services

Despite the policy of the government to distribute the educational and health services equally over the country, these two cities still capture the largest share of these due to the cities’ long history in providing these services. In 2000, the government established the so-called ‘universities of departments’, which amounted to 15 universities divided into 152 departments and contain 15 fields of specialisation (The General People's Committee-Service Affairs, 2002, p. 42). These departments are located in different areas, such as Tobruq, Derna, Al Gobbah, El Merj in the eastern region, Misurata, Al Jfara, Nalout, Sobrata and Sorman, Gharyan, Yefrin, Beni Walid and Al Nikhat Al Khams in the western region, and the southern regions contained Al Wahat, Al Khofra, and Al Jofra. However, Tripoli and Benghazi still have the highest percentage of students. For instance, Tripoli and Benghazi together contain 51.7 percent of the total number of university students of the whole country, 35.3 percent of them being in Tripoli and 16.4 percent in Benghazi, while the universities of departments have 24.5 percent of the total number of students (The General People's Committee-Service Affairs, 2002, p. 42). (This does not include the private universities in Tripoli and Benghazi). Additionally, the faculties in other different towns still rely on the universities of Tripoli and Benghazi in providing lecturers who work as visiting lecturers, which means they are not constantly available for the students. These faculties also lack good libraries and laboratories, a situation which has resulted in their requesting these services from the universities in Tripoli and Benghazi (Al Hasi, Interview, 2008).

As regards primary and secondary education, there was a clear difference in the average class capacity in the shabyias. For example, in 2004, the average class capacity in the whole country for the secondary education was 1:27.1 class/pupil; however, this average considerably increased in some shabyias, these being located in southern areas, such as Wadi Al Haya, Murzug, and Al Koufra, and recording ratios of 1:250.0 class/pupil, 1:138.0 class/pupil, and 1:66.0 class/pupil respectively. This overcrowding in the classes in the former shabyias can be attributed to a decrease in the number of classes used for the students at this educational stage. On the other hand, the averages in the shabyis of Tripoli and
Benghazi were 1:31.2 class/pupil, and 1:37.4 class/pupil respectively (Al Rejabi, 2006, p. 290).

In terms of health services, the cities of Tripoli and Benghazi still have the highest percentages of specialised and central hospitals. For instance, around 84.7 percent of the specialised hospitals in the whole country are located in these two cities, with 92.1 percent of beds provided for these hospitals. Similarly, the percentage of the central hospital provision for these two cities is 44.4 percent of all the central hospitals throughout the country, with 53.7 percent of the total beds being located in this type of hospital (see Table 25). Additionally, the advanced medical equipment in both the public and private sectors (which is used in diagnosis and treatment, such as arteriography, magnetic resonance, radiotherapy and gravel treatment) is mostly concentrated in the cities of Tripoli and Benghazi, which had 74.0 percent of the total in 2004 (General People's Committee for Health and Environment, 2004, p. 91). These ratios imply a concentration of most of these important services in just the two major cities, which means the population of other centres must come to these two cities to take advantage of the services provided here, particularly in Tripoli. As cited in Haggett (2001): ‘A central place is synonymous with towns that serve as centres for regional communities by providing them with central goods such as tractors and central services such as hospital treatment’ (Haggett, 2001, p. 432).

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<th>Hospital</th>
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Table 20: The percentages of the share of Tripoli and other cities of the hospitals and beds in Libya in 2007. (Source: this table is compiled by the researcher based on the General People's Committee for Health and the Environment, the Centre of Information and Documentation (2008) as well as the Annual Statistical Report for Health Indicators, Tripoli, pp. 17 57).

Furthermore, in an attempt to establish the percentage of the total workers working in these hospitals in 2007, the results indicate that 50.4 percent of the
total number of workers in the hospitals was concentrated in Tripoli and Benghazi; these percentages are shown in more detail below:

- 62.2 percent of the total number of doctors was concentrated in Tripoli and Benghazi; Tripoli alone captured 46.6 percent of the total, while Al Zawyia and Misurata, which are classified as third and fourth cities in the urban hierarchy, had 3.3 percent and 3.1 percent respectively;
- These two cities had 51.2 percentage of the total dentists, while Tripoli alone had 42 percent of the total;
- The share of pharmacists for Tripoli and Benghazi was 55.8 percent;
- Both cities have 48.3 percent of the nurses and midwives working in their hospitals; however, Tripoli has the highest ratio with 32.3 percent;
- The percentage of technicians working in the hospitals in Tripoli and Benghazi was around 53 percent of the total, but the highest proportion of 37.3 percent is concentrated in Tripoli;
- Both cities have 46.7 percent of the total number of administrators working in the health sector (these percentages were calculated by the researcher according to the General People's Committee for Health and the Environment, 2008, p. 117-118).

An attempt was made to evaluate these figures via a ratio of healthcare and based on the size of the population, but unfortunately no data was available for this purpose. However, some general statistics might shed some light on the concentration of these services in the largest cities. For example, in 2007, the doctor ratio to each 10,000 people was 17 percent, while dentist ratio to each 10,000 people was 2.7 percent. The ratios of chemists, nurses and beds to each 10,000 people were 2 percent, 50, and 37 percent respectively. Moreover, the rate of healthcare unit centres to each 10,000 people was 2.6 percent (General Authority for Information, 2007, p. 71).

Data regarding the shabyias can also illustrate this issue. For example, shabyis such as Al ghobba, Al Hazam Al AKhdar, Al Wahat, Al Kufra, Al Jofra, Murzug, Wadi Al Haya, Wady Al Shati, Bani Walid, Mizda, Yefrin, Ghat, Shobrata &
Shorman, Al Naqat Al Khams lack combined clinics, which include various medical specialties (General People's Committee for Health and Environment, 2004, p. 48); this occurred despite the size of their separate populations, these being: 82,037, 102,415, 27,465, 46,777, 42,172, 62,784, 87,700, 72,576, 71,727, 38,088, 110,249, 21,002, 144,656, 197,117 respectively (the National Organization for Information and Documentation, 2002, p. 30). Most of these shabyias are located in the south of the country, which reveals the concentration of these medical services in the largest centres situated in the coastal area, particularly in Tripoli and Benghazi. These two cities, for example, contained 43 percent of the total number of combined clinics in 2004 (General People's Committee for Health and Environment, 2004, p. 48).

### 7.5.2 Industrial Services

Despite the achievements of the early development plans in Libya, especially in the sectors of services and transport, these plans did not solve the problem of spatial disparity. Instead, these plans strengthened spatial disparity by concentrating investments and development projects in the largest cities (Al Haddad, 1998).

With the growth of oil revenues, the cities of Tripoli and Benghazi started developing their urban, industrial and service bases which are considered the most important economic and industrial bases in the country. As Al Mukhtar (1993) declared, most of the industrial complexes were established in northern Libya, which brought about a further concentrated population in northern areas and reduced the chance of creating an even distribution of the population in the country’s regions. Al Zanati (2003) holds the same view, arguing that all the new industrial cities have been set up along the coastal area which has led to a further concentration of the population in the region, and there has been no opportunity for the government to implement cities in other regions; this has resulted in an imbalanced distribution of the population among the regions of Libya. Hence, future plans must take into account the implementation of projects in the central and the south regions to maintain their indigenous peoples (Al Zanati, 2003 p. 17).
Despite the creation of growth poles in cities and industrial complexes on the coastal axis which extends from Misurata to Ejdabyia and where there are natural resources such as oil and natural gas, the ratio of the workers in the industrial sector in the whole country was 5.4 percent of the total workers in the economic and urban sectors in 1980; this ratio increased slightly to 10 percent in 2001 (the National Organization for Information and Documentation, 2001, p. 12). In addition, Tripoli and Benghazi still maintain a high proportion of these industrial units and employees. For example, the percentage of factories belonging to the public sector in the cities of Tripoli and Benghazi was around 42.9 percent in 2006 (Brebish, 2006, p. 364) while the percentage of industrial workers in Tripoli was 23.4 percent and in Benghazi was 13.9 percent in 2001 (The National Organization for Information and Documentation, 2001, p. 12). Further, 58 percent of the companies working in industrial production, import, export and tertiary sectors were located in Tripoli and Benghazi from September 2007 to May 2009 (General People's Committee, 2009, p11). Moreover, the contribution of these two cities to the total work force in Libya was 35.8 percent and 15.7 percent respectively in 2003 (Mohammed, 2005, p. 305). As regards the spatial distribution of the workforce in economic activities, most of the workers are concentrated in the area of Tripoli, and the retail and wholesale trade has the highest percentage of the workers in Tripoli, with 45.2 percent of the total workers (Mohammed, 2005, p. 307); therefore, trade and the wholesale trade are the most significant activities in Libya. It should be indicated here that the percentage of the total workers in the service sector was 48.7 percent in 1980, which then increased to 65 percent in 2001 (the National Organization for Information and Documentation, 2001, p. 12). This increase accentuates the fact that the services sector is the most developing sector, and the service function with the most dominating function in around 60 towns, or 72 percent of the total number of Libyan towns (Brebish, 2006, p. 154). However, according to the patterns and functions based on the residence of economic activities in Tripoli, the function of transportation has prevailed over the rest of the functions, which means that this function is considered as the backbone of economic life in the city and can develop other productive and services functions; commerce and industry were classified as second and third functions respectively in terms of their control over other functions, while the most important functions in the city of Benghazi...
were those of commerce, transport and industry (ibid). This reveals that the productive function is concentrated in the cities of Tripoli and Benghazi, while most of the Libyan towns are considered to be consumer towns relying on the services function, particularly educational and the health services.

### 7.5.3 Banks and Insurance Companies

Tripoli alone has 46.2 percent of the total banks, and all the headquarters of the banks are located there. However, Benghazi also has a high share of the branches of banks, amounting to 30.8 percent; hence both cities together have 77 percent of the total number of banks, particularly the most important ones, such as the Development Bank, Real Estate Investment and the Savings Bank. These banks are only located in these two cities, in addition to the Foreign Libyan Arab Bank and the Central Bank of Libya (which also only exist in Tripoli) (Secretariat of the General People's Committee, 2009, p. 3). Additionally, Tripoli has captured the major administrations of insurance companies, while their branches are distributed over only seven cities, including the city of Benghazi (Secretariat of the General People's Committee, 2009, pp. 3 and 4).

### 7.5.4 The Diplomatic and Consular Corps

As in any capital city, Tripoli has all the total number of embassies and 36 percent of the consulates, as well as all the international offices and organisations. Benghazi has 44 percent of the consulates, buts 20 percent of the consulates are in the cities of Sebha and Al Khofra for foreign affairs with Chad, Algeria, Niger, and Sudan (General People's Committee for Foreign Liaison and International Cooperation, 2007).

### 7.5.5 Transportation

Tripoli and Benghazi are the largest distribution centres of public goods and commercial harbours, being 69.2 percent of the national total in 2006. (General
People's Committee, 2006, pp. 5-7). Moreover, there are three international airports in Libya - Tripoli, Benghazi, and Sebha; however, international travel is only allowed at the airports of Tripoli and Benghazi. In 2002, Tripoli had 87.4 percent of the total amount of international travel, while Benghazi had 12.6 percent for the same year. As regards local travel, although many local airports have opened, such as Ghat, Al Kofra, Tobrouq, Ghadames, Hoon, Sirte, Misurata, and Labragh, the airports of Tripoli and Benghazi had 77.1 percent of the total. Tripoli had 67.1 percent of the total amount of air traffic in 2002, while Benghazi had 25.5 percent; the remaining airports had 7.4 percent for the same period. Furthermore, both cities had 100 percent of the total amount of cargo, and 98.1 percent of the airmail (These percentages were calculated according to Ghalouz, (2004)) Regarding the railways lines, these have been envisaged in the 2nd Generation Planning Programs, but until today construction works has not been initiated.

### 7.6 The Problems Faced by These Two Cities

All the above indicators highlighted the continuous over domination of these two cities on the urban system, which has caused problems both for the cities and for the rest of the country; in fact the overwhelming importance of employment and urban growth in the two major centres has overshadowed the growth of the other towns. This growth has gone far beyond the master plan, resulting in serious problems, such as congestion, pollution, housing problems, sewage and unemployment. It is therefore essential to address this phenomenon and to create balanced growth between the cities and the various economic activities. In fact, the huge concentration of population in the city of Tripoli has had a negative impact on the country in general and on Tripoli in particular. For example, Tripoli has evolved and expanded greatly, causing many of the problems that hindered the process of its development. It was confirmed by the Secretariat of the General People’s at its meeting in 2006 that some existing matters reflected the need to develop balanced development over the whole country and create new settlements; this would then eliminate the pressures on the largest cities and solve their problems. These matters are as follows:
• Population concentration in the largest cities, especially Tripoli;
• The deterioration of economic and social conditions for some families living in the largest cities;
• The exacerbation of the problem of unemployment and housing;
• The poor availability of production utilities and services facilities owing to the pressure resulting from the population accumulation in these cities;
• Water scarcity in the densely populated cities.

The increased polarisation of the population concentration upon Tripoli and Benghazi due to the dramatic economic changes in the country has given rise to acute urban problems for national, economic and social development. Moreover, this trend seems likely to continue into the future simply because of the continued attraction of the population and services toward these cities. In addition to this, there are many other reasons to raise the urgent need to control the excessive growth of these two cities:

7.6.1 Service Provision

The large cities are suffering from the pressure on their services; these are not able to perform their functions probably due to the increasing numbers of the population served by these services. For instance, a study was conducted on one of Tripoli’s quarter called Abo-Sleam, which is considered one of the most populated districts. Its population size was predicted to be 140,000 people at the beginning of the 1990s. Therefore, all the health and educational facilities as well as the urban services were established according to this prediction. However, in the mid-eighties, the population reached 190,000, which means that 50,000 people were using the services originally intended for 140,000 people. This resulted in the deterioration of these services and the emergence of many water, sewage, housing and transportation problems (Al Hatab, 1994, p. 86). Additionally, several areas around the city of Tripoli were unplanned, with small and contiguous houses without any space, with the result that the state has been unable to provide all the necessary services to its inhabitants, such as schools and health
centres due to the lack of necessary spaces for these projects. Mukhtar (1993) observed that the city still suffers from overcrowding, a shortage of housing units and schools, the lack of good transportation and green areas as well as public spaces (Mukhtar, 1993, p.10). He also considered that the area of Libya is so vast (estimated at about 1.753.500 million square kilometres) in contrast to a population of 6 million people, and if both cities continue to house nearly half the total of the Libyan population, the state will not be able to invest its natural sources adequately due to the lack of a human element in these resource-rich areas, most of which are situated inland (Ibid, p.11).

As regards sewage, the present situation is very uncomfortable, since only 2 out of 18 sewage works in the region of Tripoli function reasonably well. The rest of these plants deliver unhealthy sewage to the sea and the inhabitants connect their sewage pipes to all kinds of other pipes just to dispose of their used water. Additionally, no authority will supervise this practice (General People's Committee, Urban Planning Agency, 2006, p.66).

Al Jahumi (2007) maintained that the continuation of the city of Benghazi as an attractive centre for people, where there is competition for land, services, and jobs, makes it unable to provide the necessary services. This situation has resulted in the emergence of social and economic problems, and given a new dimension to migration in contrast to previous phases, such as the problem of unemployment caused by the limited absorptive capacity of the city’s economy to create new jobs for new graduates and incoming immigrants.

7.6.2 Urban Encroachment over the Agricultural Lands

Urban encroachment over the best fertile farmland has had a negative effect on agricultural production. In the case of Tripoli, which is located in a rich agricultural area, the protection of agricultural land from further encroachment requires a re-channelling of new developments. Unfortunately, the expansion of the city has taken some of the best agricultural land and the continuing spatial concentration of the population and economic activities on the small, erstwhile
agricultural region with a pleasant climate, is placing a heavy demand on the planning authorities to manage and control settlements and land use development in the region. For example, despite the recommendation by the Consultative Office of Facilities in 1988 to restrict the growth of Tripoli in order to preserve the agricultural lands, urban land development took over about 50 percent of the total fertile agricultural land in 2000 (Brebiush, 2006, p.221). This resulted in the loss of a large amount of agricultural land, where the share of the agricultural lands per capita declined from 4.47 hectares in 1954 to 0.34 hectares in 2000 (Al Jlala, 2005, p. 238). Al Zanati (2003) attributed the former situation to the underlying problems of the urban planning programme at that time with its focus on the largest cities. The impact of urban growth on the agricultural area which surrounds Tripoli was huge and had several local implications, in addition to its direct and indirect effect on decreasing the size of the fertile farmland and damaging the ecological balance of the city.

### 7.6.3 Unemployment

In terms of unemployment, the ratio was 2.9 percent in 1973, while in 1984, this percentage increased to 3.7 percent (Al Toboli et al., 2001, p.3). This percentage grew to 13.0 percent in 1995 (The National Organization for Information and Documentation, 1996, p. 152) and to 20.7 percent in 2006 (The National Organization for Information and Documentation, 2008, p. 162).

### 7.6.4 Slums

Population growth and urban expansion have resulted in a deterioration of the economic and social conditions of some resident families in the big cities. Al Zanan (2006) identified 13 slum areas that appeared inside the master plan of the city of Tripoli. She concluded that the problem of slums, regardless of their nature, is taken very seriously; these are threatening the urban environment of Libyan cities and causing a disturbance and imbalance in the urban structural elements of the plans. This matter was also reflected in economic, social, health and environmental issues for the country as a whole and limited its development.
and growth. Al Zanan (2006) therefore recommends the need for intervention by the government to take urgent and effective steps to handle the problem. If this is not done, it will be difficult to take control and eliminate the slums, especially bearing in mind the duration of the problems up to now (Al Zanan, 2006, p. 184).

Slums in the city of Benghazi are concentrated and have emerged in five residential areas which are characterised by poor housing conditions. These areas are the Alserte Buildings, public buildings in Bouhedima and Alzaytuna, Althama in eastern Sabri, and Al Mukhtar District. Such low level areas also reflect the living standards of their residents. In addition, there are several traditional houses and decrepit buildings in the centre of the city, particularly in the districts of Al Bernig, Sidi Hussein and the western Sabri in the areas of Al Fondg. The problem of the slums indicates the inability of the two cities to accommodate the increasing population growth. In addition, new areas have emerged beyond the master plan of Benghazi’s city due to the absence of new areas within the scheme to house the increasing numbers of population. For example, the district of Buatuni lacks the necessary facilities and benefits of the services offered in the city. Consequently, the Benghazi scheme, for example, can no longer absorb any further demographical increase and has stopped at the sixth ring road prior to the green belt, which has resulted in areas emerging outside the master plan of the city (Al Wrfaly, Interview, 2008).

### 7.6.5 The Housing Provision

Housing provision is one of the most important challenges that Libya faces. The housing policy of Libya has been a stumbling block from the beginning of the 1980s due to a dwindling of the public sector’s role. Its growth rate declined from 5.6 percent during the period of 1975-1984 to 2.9 percent from 1984 to 1995 (Jlala, 2005, p. 235). Moreover, many families that wanted to construct their own houses faced a number of difficulties (see below):

- The high cost of the construction materials, such as the prices of lands and workers;
• The lack of financial resources and housing loans;
• The scarcity of lands dedicated to construction (Jlala, 2005, p. 235).

Therefore, there is a significant deficit in the provision of residential units, which is estimated at about 420,000 units. Currently, only 50,000 residential units are under constructed by the government in Tripoli and about 20,000 housing units are being built up in Benghazi. This is significantly short of the required number to meet the demand of the growth of the two cities (Bulugma, Interview, 2008).

7.6.6 Unbalancing the Urban System

Tripoli and Benghazi have been the first ranking cities from the time of the 1954 census until the present. The population polarisation in these two cities and their uncontrolled growth has increased the imbalanced spatial distribution of the population within the Libyan urban system. The city of Tripoli had 44 percent of the total population size of Tripoli region in 2006, which comprised 62 percent of the total size of the country in the same year (General People’s Committee, Urban Planning Agency, 2006, p. 325). Kezeiri (2003) also confirmed that Benghazi dominated the settlements’ network in the Benghazi municipality, in both the urban and rural areas. For instance, the population of Benghazi city represented around 99 percent of the total population of the Benghazi municipality in 1995 (Kezeiri, 2003, p. 255). This statement shows that Benghazi represents the main city in its municipality as well as in the eastern region. In addition, the trend in urbanisation in Libya is the dominance of the major cities, Tripoli and Benghazi, on other cities. These cities are economical capitals providing services for both the west and east of Libya; for example, Tripoli contained 24.3 percent of the total population by 2006, while, Benghazi accommodated about 12.3 percent of the total population for the same year. As a result of this growth, a number of problems emerged, such as the failure of the housing services, transport and social services to meet the needs of increasing numbers of people. Kezeiri (2003) pointed to the vast differences in Benghazi’s municipality between the sizes of the small towns and the metropolitan city of Benghazi and the absence of medium-sized cities; for example, the size of the population of the second city in the
municipality was 17,000 people in 1984, this being considered a small city. Additionally, the remainder of the small towns in the same municipality accommodated no more than 10,000 people for the same year in each city (Kezeiri, 2003, p. 256). However, the small and medium-sized towns suffer from the lack of a sufficient economic base for survival.

7.6.7 Water Provision

A hydrological imbalance occurred in the coastline area as a result of the concentrations of population and economic activities. The amount of utilised water in Tripoli, Al Zawyia and Al Jafarah Plain, where two-third of the irrigated agricultural lands are located, surpassed the available amount of water; for example, in 1978, the water consumed in this area was 563 million cubic metres annually, of which 120 million cubic metres were for urban uses (Bulugma & Fadil, 1995, p. 217). This amount increased to 1,300 million cubic metres annually in 1999, resulting in a low water level in Tripoli, Al Zawyia, Al Zahra, Sobrata, and Zowara which ranged between 1-7 metres annually (Brebish, 2006, p. 209). This was in addition to the increase in the proportion of salt as a result of seawater intrusion into the water basins, which accounted for between 70 and 250 metres per year, particularly in the area between Sobrata and Tajora and including the city of Tripoli (Ibid). This situation applied to the northern area containing the largest and most important cities, while the southern area, which is characterised by a sparse population density, possesses a large amount of groundwater of good quality. Both Tripoli and Benghazi will witness significant population growth and urban development, which will result in an increasing demand for water. Moreover, although the Man-Made River started to supply water to them in the mid of 1990s, the water shortage problem will still occur if their populations continue to grow. For example, the city of Tripoli is still facing a deficit in the water supply even with the water provided by the Man-Made River which was estimated at 116, 516 cubic metres per day in 2005 (Omran, 2007, p. 228).

There are major obstacles to the development plans in Libya and it is clear that if the situation continues with a highly polarised concentration of the urban population in just one or two geographical locations, the negative effects will
exacerbate the situation in the country as a whole, since the provision of infrastructure and services will demand resource allocation heavily in those areas whilst the small and medium-sized towns will remain even more disadvantaged financially, socially and economically. Moreover, it will also intensify the relations of the two largest cities, Tripoli and Benghazi. These problems have a big effect in confusing the role of the planning process and the implementation of the country's development path, and can only be stopped by planning policies that control the negative urban crawl.

7.7 Concentration of the Government Expenditure

In Libya, as in most developing countries, the burden of economic and social development falls upon the government. It is the government that must stimulate industrial and urban development, build infrastructure and establish welfare programmes; the government is responsible for decisions concerning all aspects of urbanisation, land use, urban location, legislation, economic stimulation and population redistribution. The participation of the government in the development of this oil-rich state has increased steadily with the growth of the oil revenue. By 1967, the public sector had grown dramatically and was more important than the private sector and by 1982 the private sector had vanished with the wide-scale nationalisation of all the economic and social activities. The significance of the state as an external growth factor in the development of Libya’s towns is very clear. As Kezeiri (1994) stated:

By the late 1970s the government had begun to dismantle the private sector progressively so that by the early 1980s even small retailing outlets were nationalized and replaced by large state-owned and state-run supermarkets. By 1984, there were very few opportunities for private investment in the Libyan economy, mainly in the agricultural sector, and the state played a dominant role in all aspects of the country’s economy. (Kezeiri, 1994, p.222)

The government has stepped up working with the private sector to facilitate the creation of wealth in competitive markets. Presently, the Libyan economy is heavily dependent on revenue from natural resources. Porter and Yergin (2006) argued that
‘Libya has been described as a “distributive” state in which national and local institutions emerged not to extract wealth (through tax-gathering mechanisms) but to spend it’ (Porter and Yergin, 2006, p.11).

As in many developing countries, the development policy in Libya has concentrated principally on urban areas and large cities such as Tripoli and Benghazi benefited from the oil economy to a greater extent than other cities. However, through its development plans, the government has endeavoured to create a kind of balance in its regions. For instance, in 2003, the government earmarked 1,455,120 LD, in an attempt to distribute development projects equally in the regions (see Table 21).

<table>
<thead>
<tr>
<th>Planning region</th>
<th>Population size (*)</th>
<th>% of the total</th>
<th>Allocation (***)</th>
<th>% of the total</th>
<th>Per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripoli</td>
<td>3,486,610</td>
<td>61.4</td>
<td>828,861</td>
<td>57</td>
<td>237</td>
</tr>
<tr>
<td>Benghazi</td>
<td>1,375,951</td>
<td>24.2</td>
<td>358,432</td>
<td>24.6</td>
<td>260</td>
</tr>
<tr>
<td>Al Khalij</td>
<td>448,035</td>
<td>7.9</td>
<td>135,673</td>
<td>9.3</td>
<td>302</td>
</tr>
<tr>
<td>Fezzan</td>
<td>367,888</td>
<td>6.5</td>
<td>132,154</td>
<td>9.1</td>
<td>359</td>
</tr>
<tr>
<td>Total</td>
<td>5,678,484</td>
<td>100</td>
<td>1,455,120</td>
<td>100</td>
<td>256</td>
</tr>
</tbody>
</table>

Table 21: The spatial distribution of the population and the allocation

(*) population size in 2006
(**) allocation in 2003 by Libyan Dinar
(The per capita value was calculated by the researcher.)

Data relating to expenditure allocations is only available at the level of the shabyias, which were subjected to constant changes in their numbers and boundaries. It was therefore hard to define population size for the shabyias in addition to their allocations for a particular year. Therefore, these shabyias have been divided into the following planning regions according to their locations (see Figure 37 in Chapter 6):

- The Tripoli Region -15 Shabyias;
- The Benghazi Region -7 Shabyias;
- Al Kalij Region - 5 Shabyias;
- The Fezzan Region - 5 Shabyias.

Although the development plans have aimed to achieve equality in the spatial distribution of the investment, the imbalance in distributing these allocations
continued until the 2003. The table above indicates that the regions of Tripoli and Benghazi, which include the cities of Tripoli and Benghazi, have captured the largest proportion of allocations. This high percentage of allocations in development programmes therefore encouraged the continuation of migration movement towards these cities; Tripoli’s region alone had more than half the total amount, while Benghazi’s region possessed a quarter of the total amount. It could be argued that their huge share of the total percentage of allocation is a natural product of their population size, which for both cities comprised 85.6 percent of the total population in 2006.

However, looking at this situation per capita can also show how much budget was allocated to these regions. For example, the total average per capita was 256 L.D, however, the share of Tripoli’s region was slightly less than this average, which was 237 L.D. The other regions had various amounts per capita, all of which were above the overall average while the Benghazi’s region was not so far from the overall average, with 260 L.D. On the other hand, other regions with small population sizes and a small ratio of allocations, such as Al Kalij and Fezzan, had per capita amounts above the overall average, these being 302 L.D and 359 L.D respectively.

Because the two major cities are expanding greatly, they continually require a high proportion of allocation to deal with their urban problems. It has been argued by Mydral (1957) that primate cities endeavour to convert investment allocations in order to solve their urban problems. This, however, does not apply to Libya; the cities of Tripoli and Benghazi are suffering from a range of urban problems, which could easily affect their development and which requires further allocations to solve. At the same time, despite the huge allocation of government funds to develop urban areas (particularly the small towns) in the areas of the economy, infrastructure, social facilities and agricultural development, this has not succeeded at the required level. The small towns, particularly in the interior regions, are suffering from low levels of services and from a failing of their economic activity (Al Haddad, 1991; Bouhrara and Barakat, 1994; Kezeiri, 2003; Interview, 2008). For example, a survey of the distribution services and facilities in Al Bitnan Shabyia which is located within Al Khalij’s region
indicated that there was a disparity in the spatial distribution of productive activities, services, and infrastructure inside this shabyia. The big city in Al Bitnan shabyia, Toburq, had the highest proportion of development allocation which was allocated to develop the whole shabyia; this created spatial inequality in the living standards between the city and the other small towns. In 2000, Toburq alone contained 63.1 percent of the total population of this shabyia. A good example for low level of services is the difference in the quality of housing; it was found that 16.7 percent of Toburq’s population was living in slums, while this ratio increased in the other small towns within this shabyia, by 32.8 percent. The percentage of people living in decrepit houses in the big city amounted to 16.7 percent of its population, while this ratio was 40.0 percent in other towns within the same shabyia (the National Organization for Information and Documentation, 2000, p. 7). This shows the disparity not only among shabyias but within the same shabyia.

Additionally, it is important to note that this distributional picture of the financial resources can also be attributed to the decline in oil revenues during the 1980s, which affected the low spending on development in the whole country. The fluctuation of oil prices in the world market has affected spending on development in Libya over the past four decades, which has consequently been characterised by an oscillation. For instance, while the total expenditure on development programmes was 57 milliard L.D during the period of 1970-1985, the period of 1986-2003 received only 25 milliard L.D, which comprised 20 percent of the total expenditure for the period 1970-1985 (General People’s Committee, 2008, p. 8). The decline of the development spending amount was associated with the increasing demands for health and educational services as well as infrastructure as a result of the accumulation of those needs over the years. This apparent decline in development expenditure during the period of 1986-2003 led to the deterioration of the social facilities and infrastructure that were established before 1986. It can therefore be assumed that the increase of expenditure during the period of 2004-2007 could not even handle this situation, and required fresh public investment during this period (Ibid, p. 6). This problem has affected the whole country including the two largest cities, which are also
suffering from poor conditions of infrastructure and services due to increase of the population which is using them (see Table 26).

Another way to clarify the former ratios per capita can be found in the proportions of local revenue or income for each shabyia in the total development expenditure. In 2001, the national rate of local revenues for the different shabyias amounted to 19.78 million L.D. It was also found that there was a huge difference among the shabyias in creating local income. For instance, Tripoli’s city recorded a local income ten times greater than the overall average, with 189,512 thousands L.D. The second city was Benghazi which created 76,019 thousand L.D. However, many of the towns, such as Al Koufra, Al Ghobba, Beni Walid, Yefrin, Murzuq and Al Jofra recorded percentages of revenues of less than a quarter of the national average and less than 3 percent of the production of Tripoli’s city (the National Organization for Information and Documentation, 2001, p. 28).

Spatial disparity can also be noted when comparing the percentages of the contribution of local revenues to the local development budget in each shabyia. For instance, the highest ratio was found in Tripoli’s shabyias, where 56.5 percent of the development budget depended on local revenues. The shabyias of Benghazi and Misurata came second, with 40 percent each; these shabyias exceeded the overall average, which was 26.3 percent. A smaller amount than the overall average was found in Murzuq, Wadi Al Haya, Nalout, Beni Walid, Tarhuna and Msrlata, with less than 12 percent of its revenues (these ratio calculations being based on the National Organization for Information and Documentation, 2001, p. 28).

The shabyias of Tripoli and Benghazi were characterised by a high percentage of created local income in 2001. This income was extracted from the economic activities that support the growth of the city, such as trade, transportation, construction, insurance services, banking, and manufacturing. Hence, the high ratios of these shabyias show the biased tendency of the government in providing funds for services and development. However, the other shabyias depended on the sectors of health and education, these being consumer services which contributed nothing to the development of their regions and confirmed the
dependence of these regions on the central budget. For example, the dependence ratio of the Libyan cities on the central budget was 71 percent in 2000 and exceeded the same ratio in other developing countries, such as those of Latin American countries, this being 30 percent. Hence, the fiscal decentralisation policy in Libya will not currently be able to achieve its desired objectives because of its limited impact on the shabyias (The National Organization for Information and Documentation, 2002).

7.8 The Spatial Disparity in Population Distribution among Shabyias

Despite all the efforts that have been made over the past three decades to achieve the balance of population distribution, the hierarchy of distribution in the population sizes of different groupings is still characterised by a high degree of vertical hierarchy, which reflects the acute spatial disparity in the areas and shabyias (see Table 22).
<table>
<thead>
<tr>
<th>Administrative Region (Shabyia)</th>
<th>Population in 2001</th>
<th>% of the national total</th>
<th>Area (km²)</th>
<th>Density (% of)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benghazi</td>
<td>596,792</td>
<td>11.3</td>
<td>800</td>
<td>746</td>
</tr>
<tr>
<td>Tripoli</td>
<td>1,104,972</td>
<td>20.9</td>
<td>1,830</td>
<td>603.8</td>
</tr>
<tr>
<td>AL-Jfara</td>
<td>270,152</td>
<td>5.1</td>
<td>1,940</td>
<td>139.3</td>
</tr>
<tr>
<td>Al-Zawyia</td>
<td>185,842</td>
<td>3.5</td>
<td>1,520</td>
<td>122.3</td>
</tr>
<tr>
<td>Misurata</td>
<td>314,305</td>
<td>5.9</td>
<td>2,770</td>
<td>113.5</td>
</tr>
<tr>
<td>Shobrata &amp;</td>
<td>144,656</td>
<td>2.7</td>
<td>1,370</td>
<td>105.6</td>
</tr>
<tr>
<td>Al-Merghib</td>
<td>305,873</td>
<td>5.8</td>
<td>3,000</td>
<td>102</td>
</tr>
<tr>
<td>Tarhuna &amp; Mslata</td>
<td>277,606</td>
<td>5.2</td>
<td>5,840</td>
<td>47.5</td>
</tr>
<tr>
<td>Gherian</td>
<td>151,162</td>
<td>2.9</td>
<td>4,660</td>
<td>32.4</td>
</tr>
<tr>
<td>AL-Naqat AL-Khams</td>
<td>197,117</td>
<td>3.7</td>
<td>5,250</td>
<td>37</td>
</tr>
<tr>
<td>Al-Jabal Al-Akhdar</td>
<td>182,271</td>
<td>3.4</td>
<td>7,800</td>
<td>23.4</td>
</tr>
<tr>
<td>Derna</td>
<td>78,116</td>
<td>1.3</td>
<td>4,908</td>
<td>15.9</td>
</tr>
<tr>
<td>Yefrin &amp; Jado</td>
<td>110,249</td>
<td>2.1</td>
<td>9,310</td>
<td>11.9</td>
</tr>
<tr>
<td>Al-Merj</td>
<td>109,830</td>
<td>2.1</td>
<td>10,000</td>
<td>11</td>
</tr>
<tr>
<td>AL-Hazam AL-</td>
<td>102,415</td>
<td>1.9</td>
<td>12,800</td>
<td>8</td>
</tr>
<tr>
<td>Sebha</td>
<td>117,202</td>
<td>2.2</td>
<td>15,330</td>
<td>7.6</td>
</tr>
<tr>
<td>Nalot</td>
<td>79,434</td>
<td>1.5</td>
<td>13,300</td>
<td>6</td>
</tr>
<tr>
<td>AL-Ghobba</td>
<td>82,037</td>
<td>1.6</td>
<td>14,722</td>
<td>5.6</td>
</tr>
<tr>
<td>Bani Walid</td>
<td>71,727</td>
<td>1.2</td>
<td>19,710</td>
<td>3.6</td>
</tr>
<tr>
<td>Wadi AL-Haya</td>
<td>66,698</td>
<td>1.3</td>
<td>31,890</td>
<td>2.1</td>
</tr>
<tr>
<td>Ejdabyia</td>
<td>144,850</td>
<td>2.7</td>
<td>91,620</td>
<td>1.6</td>
</tr>
<tr>
<td>Sirt</td>
<td>138,964</td>
<td>2.6</td>
<td>77,660</td>
<td>1.8</td>
</tr>
<tr>
<td>Bitnan</td>
<td>138,719</td>
<td>2.6</td>
<td>83,860</td>
<td>1.7</td>
</tr>
<tr>
<td>Wady AL-Shati</td>
<td>72,576</td>
<td>1.4</td>
<td>97,160</td>
<td>0.7</td>
</tr>
<tr>
<td>Mizda</td>
<td>38,088</td>
<td>0.7</td>
<td>72,180</td>
<td>0.5</td>
</tr>
<tr>
<td>AL-Jofra</td>
<td>42,172</td>
<td>0.8</td>
<td>117,410</td>
<td>0.4</td>
</tr>
<tr>
<td>Ghadamis</td>
<td>18,089</td>
<td>0.3</td>
<td>51,750</td>
<td>0.3</td>
</tr>
<tr>
<td>Ghat</td>
<td>21,002</td>
<td>0.4</td>
<td>72,700</td>
<td>0.3</td>
</tr>
<tr>
<td>Al Wahat</td>
<td>27,465</td>
<td>0.5</td>
<td>108,670</td>
<td>0.3</td>
</tr>
<tr>
<td>Murzuq</td>
<td>62,784</td>
<td>1.2</td>
<td>349,790</td>
<td>0.2</td>
</tr>
<tr>
<td>Al-Kufra</td>
<td>46,777</td>
<td>0.9</td>
<td>483,510</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>5,299,942</td>
<td>100</td>
<td>1,775,060</td>
<td>3</td>
</tr>
</tbody>
</table>

**Table 22**: The population densities according to each shabyia.


According to the table, population density in Libya can be divided into the following five regions:

- **Region of very high density (604.0 km² - 746.0 km²):**
  
  This region occupies 2630 km² and 0.14 percent of the total area, and has 32.1 percent of the total population. This region is represented by two shabyias:
the first is Benghazi, which is located on the northeast coast, with a density of 746.0 km²; the second is Tripoli which is situated on the northwest coast, with 604.0 km². The very high density for these regions can be attributed to their small areas as well as the fact that they include the most important and largest cities.

- **Region of high density (102.00 km² - 139.25 km²):**
  This region is located in the northwest area and has about 10,600 km² and only 0.6 percent of the total area. The population concentration in this region was estimated at 1,220,828, and represented 23.03 percent of the total population. This region includes the shabyias of AL Jfara, AL Zawyia, Misurata, Shobrata and Shorman, Al Merghib.

- **Region of medium density (23.36 km² - 47.53 km²):**
  This region is distributed between the areas of the northern highlands and the coastal cities. It accommodates 808,156 inhabitants, which constitutes 15.2 percent of the total population and it occupies an area of 23550 km² with 1.3 percent of the total area. This region is represented by the shabyias of Tarhuna and Msleta, Al Naqat Al Khams, Gherian, and Al Jabal Al Akhdar.

- **Region with low density (5.57 km² - 15.90 km²):**
  This region contains a group of shabyias which are located within the cities in the mountainous areas in the north-west and north-east; it constitutes 4.5 percent of the total area and contains 12.8 percent of the total population. The region consists of the shabyias of Derna, Yefrin and Jado, Al Merj, Al Hazam Al Akhdar, Sebha, Nalot, and Al Ghobba.

- **Region with very low density (0.10 km² - 3.363 km²):**
  This region covers the largest part of the total area, which is 93.4 percent and it accommodates 16.8 percent of the total population. The density in the region is less than 5 people per square kilometre and is represented by the shabyias of Bani Walid, Wadi Al Haya, Sirt, Al Bitnan, Ejdabyia, Wady Al Shati, Mizda, Al Jofra, Ghadamis, Ghat, Al Wahat, Murzuq, and Al Koufra.

According to the table above, the spatial distribution of population in Libya was marked by a scattered pattern in comparison with the huge total area in 2001; for instance, the national average of the population size in one shabyia was 170,966
people in 2001; however, the difference between the smallest shabyia in terms of population size (Ghadamis 19,000 people) and the largest one (Tripoli 1,105,000 people) was more than 61 times. In addition, Tripoli is the second smallest shabyia in terms of area and yet contains the highest amount of population; this gave a density of 604 person/ km², while the population density reached to 0.30 person/ km² in Ghadamis. Similarly, the difference between the smallest shabyia in terms of area (Benghazi 800 km²) and the largest shabyia (Al Koufra 483510 km²) was 604 times.

Moreover, around 50 percent of the total population were living in five shabyias - Tripoli, Benghazi, Misurata, Al Merghib, Tarhuna and Mslata. On the other hand, only 2.8 percent of the total population was concentrated in five shabyias - Ghat, Mizda, Al Wahat, Al Jofra, and Al Koufra. The first group represents the coastal cities, while the second group signifies the southern cities. This matter confirms the role of natural conditions on the image of the population distribution, especially with the lack of incentives for living there. As stated by Ravallion (2007), governments have had little success in their population redistribution due to influential incentives to move to areas where there are good opportunities for people to improve their living standards (Ravallion, 2007, p. 16).

Bulugma (2004) argued that despite the growth of some of the small and medium-sized cities, Tripoli and Benghazi are still considered to have the foremost concentrations of population, thereby creating an unusual situation in the distribution of construction, both in terms of size and location. He also attributes the decline of the total density of population in other regions to the effects of natural factors. Notwithstanding this however, human activities are considered to be the most significant reasons for the density increase in the areas of Tripoli and Benghazi.

Zeidan (2006) confirmed that despite the effort and funds in the preparation of plans and the legislation issued by the authorised bodies, there is nevertheless a growing negative phenomenon, such as the spreading of unregulated construction and encroachment upon the schemes; land use is becoming a crucial issue. Al Modafar agreed with this, arguing that the dominance of the urban cities is still
ongoing, and the effects of the polarisation of these two cities are resulting in further activities with professional people moving to these cities (Interview, 2008). This has resulted in greater social problems, traffic congestion, and high rents in the two cities. Kezeiri and Yousif (2003) concluded that, although the government attempted to create a balanced spatial development via many development plans for the less developed regions, they did not achieve the objectives of reducing internal migration towards these cities. On the contrary, the cities are still growing at the expense of rural areas. They also referred to a lack of continuous evaluation for such plans (Kezeiri and Yousif, 2003, p. 77).

7.9 Conclusions

The Libyan urban system has experienced spectacular growth, accompanied by a rapid rise in urbanisation, this developing from about 25 percent to 94.3 percent. Although restricted by government policy, the development of large cities prevailed in the 1980s (as shown in Chapter 5) and this process of predominantly large city growth appeared to continue into the 1990s through to 2006. According to recently published demographic and government data, this chapter demonstrates the growth and concentration of population, headquarters/services, government expenditure, and employment availability in the large cities in contemporary Libya. Accordingly, this would seem to establish in general terms that government policy did have the effect of slowing down the growth of Tripoli and Benghazi for a period. However, this effect was not enough to eliminate the over dominance of Tripoli and Benghazi since no other city could compete with them. For example, the population of Tripoli today amounts to nearly 1.5 million, while Benghazi has 629,597 citizens. Misurata, however, which is considered the third city in the urban hierarchy, accommodates only 268,000 inhabitants, while, Al Zawya, the fourth city has 140,000 people. Thus, the urban hierarchy of the cities has remained the same with no considerable change, since there is still a population difference between the two largest cities and the others. Nevertheless, studies to date also indicate that the spatial structure of development in Libya is a product of environmental conditions and socio-economic factors. In this way, the geographical situation of the country does not allow for choices as regards a wide
range of population concentrations, rather the process of urbanisation will increasingly prevail in most of the country.
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Chapter 8  Conclusion and Recommendations

This study addresses the phenomenon of urbanisation in Libya and its impact on the spatial distribution of the population. The main aim is to evaluate the attempts that have been made by the Libyan government to produce a more balanced urban system for the benefit of the spatial socio-economic development of Libya. Special attention has been given to their effects on reducing the over domination by the cities of Tripoli and Benghazi within the whole urban system.

The following are major findings of this research:

1. Current pattern of the Libyan urban system has a long trace of colonial development influence through different periods by Greeks, Phoenicians, Romans, Byzantines, Arabs, Turks and Italians, typically represented along the Mediterranean coastal region in the north (please refer Chapter 5).

2. The urban environment in Libya was experiencing rapid urbanisation in terms of both the urban population size and the number of urban centres within urban systems. For instance, the statistical evidence stresses that the urban population in Libya reached 94.3 percent of the total population in 2006, this being only 24.8 and 60.4 percent in 1954 and 1973 respectively. The number of urban centres also increased from nine centres in 1954 to 36 centres in 1973 and reached 98 cities in 2006 (see Figure 34 in Chapter 5).

3. It has become evident that the main characteristic of urbanisation in Libya, as in any developing country, is basically the concentration of the population in a few large cities. Therefore, the size distributions of urban centres in 1954, 1964, 1973, 1984, 1995, and 2006 are characterised by a variant degree of primacy, but the general patterns remains more or less the same. It is possible to establish in general terms that government
policies did have some effect in slowing down the growth of Tripoli and Benghazi. However, this effect was insufficient to eliminate the over dominance exhibited by the cities of Tripoli and Benghazi.

4. Urban hierarchy structure remain more or less the same except the lower part of the hierarchy structure witnessed increasing the number and size of towns and cities.

5. The share of Tripoli and Benghazi’s total urban population decreased from 58.3 percent in 1973 to 38.1 percent in 2006. This decline can be attributed to the widening of the urban base in the country because of an increase in the number of cities and the growth of their sizes. Although their population size exceeded 5000 people, many of such urban centres lack of the essential elements for the urban life style. Despite this fact, the city of Tripoli was still occupied by 44 percent of the total urban population of its region in 2006.

6. Libyan urban policies have not totally resolved the over dominance issue by the two big cities. On the contrary, this trend seems set to continue in the future due to the different natural and human factors.

7. In addition to being the seat of many government organizations and departments, Tripoli has been enjoying better investment opportunities and provision of service, which consolidates further its over-dominance status in the urban system and brings more negative effects such ever increasing population pressure.

8. Tripoli and Benghazi contain the highest percentage of higher education institutions and health care establishment than anywhere else in the country. For instance, Tripoli and Benghazi contain together 51.7 percent of the total universities students of the whole country, being 35.3 percent in Tripoli and 16.4 percent in Benghazi. For the health service, around 84.7 percent of the specialized hospitals in the whole country are located in the cities of Tripoli and Benghazi. In addition, most advanced medical
equipments in both the public and private sectors can only be accessed in these two cities of Tripoli and Benghazi.

9. Most business and industrial support services are over concentrated in the cities of Tripoli and Benghazi, which include 58 percent of the total companies that are working in industrial production, import, export, and tertiary sectors from September 2007 to May 2009.

10. Lack of adequate attention and funding remain a serious barrier to implementing the urban plans. There is always a long hiatus between the approval of a scheme and its implementation; for example, the intervening years between the approval of the Third Generation Schemes and their implementation have created serious planning problems such as the diffusion of unregulated construction in the major cities.

11. It is evident that the population growth of the cities of Tripoli and Benghazi has been exerting extreme pressure upon infrastructure provision. The cities are having the problems of housing, unemployment, and the loss of agricultural lands.

12. Polarized concentration of urban population in just one or two geographical locations can have negative effects that disadvantage small and medium sized towns in government’s resource allocation.

13. The urban system in Libya is still imbalanced, and still characterized by the over domination of the largest cities, especially, Tripoli. The spatial and development policies were not effective enough, especially in its urban framework that aimed to create a balance in the urban system and reduce the population over-concentration in the two largest cities.
8.1 Conclusion and Recommendations

By the end of the last century, the rapid urban growth became the dominating phenomenon in Libya, resulted from the process of development accompanying the extraction and export of oil. The main issue behind urban growth in Libya is concerning the accelerated growth of large urban centres. Over-urbanization and primacy, in turn, is among the main factors contributing to the state of imbalance in the urban system, in terms of growth rates of urbanization in relation to the system of cities. Libya, as most of developing countries, oil-exporting in particular, is suffering from the consequent urban problems as it is passing through economic and social transformation leading to continuous changes in its urban structure.

There have been two different views about the pattern of urban system development in Libya. Group of studies (Blake, 1979; Bulugma, 2004; Kezeiri, 2007) criticised the trend of urban growth, which had led to a polarisation of the population in the two cities. He suggested that expansion plans should take some of the pressure off Tripoli and Benghazi and move in the direction of decentralization. While Janet Abu-Lughod (1976) believed that larger towns and cities will experience more rapid growth at the expense of small towns. She had drawn attention to the fallacy of expecting a balanced hierarchy of settlement in the Middle East with a broad base of small towns.

This study addressed the phenomenon of urbanization in Libya and its impact on the spatial distribution of the population by examining the characteristics of the urban systems over the years and offering an analytical account of the over-domination of Tripoli and Benghazi on the urban system. The aim of the study was to critically evaluate the attempts that have been made by the Libyan government to produce a more balanced system for the benefits of spatial socio-economic development of Libya. To achieve this aim, both secondary and primary data were used. The methods characterised the analysis for this research as descriptive-analytical and evaluative.
The study showed conflicting views about the effects of these policies in controlling the growth and over-dominance of Tripoli and Benghazi on the urban system. Some studies believe that these policies, particularly 1980-2000 policy, succeeded in controlling the growth of the big cities (Tripoli & Benghazi) (Breabish, 2006); while several leaders in this field clearly believe that the government have made little impact on the control of growth of these big cities (pilot interviews). However, a closer examination of the data, concerning these two cities, tends to suggest that the urban system remained largely unchanged, due to the continued the over dominance of the two former cities on that system. Furthermore, evidences have already shown that the over dominance of the largest cities would be the root to the spatial problems, especially within the national Libyan framework. Hence, it has become increasingly important to consider the future of major cities and to face the challenges of their urban growth and development. This can be done by searching for policies which improve the control of the growth of the largest cities and which move towards the development of medium-sized and small towns. In this way, regional inequality can be alleviated as far as population distribution and economic activities are concerned. It is generally accepted that urban development should be subsidised by the government to produce the major restructuring of urban system.

On the other hand, some degrees of success have been achieved in bringing about changes of the urban system. For example, the spatial distribution of the Libyan cities in the 1980s and the 1990s of the 20th century, witnessed radical changes affected that picture. For instance, by increasing the national population share of less urbanized regions like the regions of Alkalij and Sabha.

The study confirmed that the geographical situation of a country does not allow for many choices as regards a wide range of population concentrations. The study further asserted that the process of urbanisation would continue as a result of natural and human factors. However, natural factors, such as geographic location, climatic characteristics, topographical nature, and water resources are considered to be the most influential in the distribution and growth of Libyan cities. Hence, the Libyan population distribution is a reflection of the natural environmental conditions rather than the government’s spatial policies. However, despite the
impact and essential role played by natural factors on populations and city distributions in the different regions, human factors have played a significant role in increasing the population densities in the largest cities.

The predominance of these two cities is already created by the natural and historical factors. However, the over-dominance of these two cities is a cause for concern and is not healthy for socio-economic development. Therefore, the researcher stressed that the best way to understand urbanisation process in Libya is to set it in the context of the overall changes taking place domestically. In this vein, the academic debate stressed on the reasons for the continuing uneven development, which is increasingly persistent on the local dimension and on the comparative advantages held by each area.

The researcher’s recommendations are as follows:

1. All the development programmes and plans depended on oil wealth, and therefore the decline in the price of the oil affected these plans and their implementation; oil revenues should be supplemented by wealth created in other parts of the economy.

2. It is considered crucial that the administration for implementing urban plans, schemes and programmes be enhanced and relevant staff development must be encouraged, including active community participation.

3. Continuing changes in administrative system and its boundaries has resulted in hindering many of development projects and plans as well as the research studies. To avoid this, the government needs to consider how to maintain a consistent unified administrative system.

4. The government can seriously consider that the natural physical conditions of the central and southern areas of the country could be taken advantage of to facilitate the ease of population pressure upon the northern coastal part of the country (the cities of Tripoli and Benghazi in particular), via
developing solar arrays in desert, the Glass manufacturing, airports and promoting desert tourism, and other projects that could impact socially and economically.

5. Libya needs to look at some alternative measures and incentives when targeting at the development of cities other than Tripoli and Benghazi. For example, policies to encourage more entrepreneurship and investment in infrastructures and service provision in small and medium sized towns and cities can prove to be effective diversion of the population pressure upon the largest cities of Tripoli and Benghazi.

6. It is essential that attention should be given to improving the domestic situations within the cities themselves, so that they can play their national and regional role, and even keep pace with the development process.

7. It is imperative that the land use policies at the national level be reviewed holistically with a view to rationalizing the land use for development, curbing excessive urban sprawl of the largest cities and achieving the best value of land use in the national interests.

8. Clear accountability for implementing and supervising urban plans should be given more attention by the government.

9. From the sustainability point of view, the government really needs to think hard when the large project has been underway of providing the north strip with fresh water from the sources of the south, which is, in long term, depriving the south of the most valuable resource for its urban development. It is recommended that more investment is needed to set up more desalination plants of sea water to alleviate long term pressure of fresh water supply.
8.2 Limitations of the Research:

A number of limitations of the research had been discussed in the methodology chapter (please refer Chapter 3). It is, however, worthwhile to point out again the major limitation by this research, which also turned out to be one of the major contributions to knowledge as a result. There was very limited access to government data sources, as it is still the same as of today. The collated data from these limited sources sometimes mismatched the reality considerably in many cases and also exhibited enormous difficulty for conducting critically synthetic analysis without making tremendous efforts. The boundary re-defining by areas and regions accompanied by varied definitions of urban settlement over the decades are largely to blame. Much of these had been overcome by the supplementary data from substantial interviews with government officials and academic experts. That was partially, too, where one of the researcher’s original contributions to knowledge comes in subsequently.

8.3 Contribution to Knowledge

Despite of the limitations, this thesis is considered to have made several considerable contributions to the existing knowledge of the recent Libya:

1. First and the foremost is the significance of this thesis as this is the first of its kind to examine in a critical and consistent way the Libya’s spatial urban system and the government’s spatial policies over several decades. Some of the findings by this research have already caused the interest of Libyan official organisations.

2. The thesis synthesized in one place large amount of unpublished and published data relevant to the urban spatial system with the most authoritative views and perspectives among the Libyan experts, which offers a unique approach to understanding and appreciating the urban development in the country. In a country like Libya, the access to official data is notoriously difficult. There are not many sources of data to tap for the studies of this sort. In urban dimension, various boundary changes,
politically and administratively, within a short historical span of time has made it mysterious to the outside world to appreciate the fairly recent urban changes in the country. This thesis has filled in the gap of knowledge and enhanced the understanding in this regard.

3. The thesis has made an outstanding revelation in relation to the primacy and over-dominance issues of the urban hierarchy structure. The government and the media had claimed that the spatial policy resolved the major issue of over-dominance by the two largest cities in Libya, Tripoli and Benghazi. The thesis, however, cleared this miscomprehension and revealed a true picture of the reality that the two cities still remained its tendency to overgrow in spite of the government’s efforts for a balanced urban system over the last decade. This revelation is sending a signal to the authority that continuous efforts with alternative thoughts and strategies are needed to resolve urban problems due to the over-dominance urban phenomenon.

The knowledge created by this thesis will undoubtedly prove to be significantly useful to the current implementation process of the Third Generation of spatial policies and urban programmes. As indicated by some institutions already, the thesis will also serve as reference to a further critical evaluation of the latest urban programmes in Libya.

8.4 Recommendations for Further Studies

There are some areas that further research can be recommended.

1. Libya needs to look at urban registers more closely. Currently there appears no proper register or other means of recording internal migration. Lack of data about the internal migration within the country and between the regions has posed a major problem in drawing urban plans and implementation of urban programmes.

2. This research has been focusing on the spatial policies with particular reference to the over-dominance issue of the urban hierarchy. Further
studies are recommended to look at those small and medium sized towns and cities, the southern part of the country in particular, to examine the urban spatial phenomenon from a different perspective.

There are many other areas of studies can be proposed to extend the results and recommendations of this research. The above two appear to be of more meaningful and necessary for immediate consideration, as they can significantly enhance the examination of the urban system in Libya and evaluation of the effectiveness of the government spatial policies.
Appendices
(Appendix 1): Doctoral Research Instrument

Interviews Questionnaire

This questionnaire aims to obtain views and opinions on the Libyan urban system and the role of the government by spatial policies to control the growth of the big cities and produce an even distribution of the population. Your kind provision of the following profile information may help us and differentiate our analysis of views and opinions:

(1) Are you:
   1) Male
   2) Female

(2) Which age group are you in?
   (1) 20-29
   (2) 30-39
   (3) 40-49
   (4) 50-59
   (5) 60+

(3) What types of organization will you categorise your employment:
   1) Education establishment
   2) Business company
   3) Central government organization
   4) Local government organization
   5) Foreign company
   6) Others

(4) What is your post in this organization?
   (1) Senior position
   (2) Ordinary position

(5) What level of education have you obtained?
   (1) No education
   (2) Primary
   (3) High school
   (4) Undergraduate
   (5) Post graduate
   (6) Others

(6) Which of the following would you agree that the current pattern of population distribution is a reflection of:
1) natural conditions
2) government policies
3) socio-economic factors
4) historical factor

(7) If your answer to Q (6) is “natural conditions”, which one is the most effective?
   1) topographic factors
   2) climate
   3) water resources
   4) soil
   5) economical resources

(8) If your answer to Q (6) is “government policies”, which one of the following do you think is most effective and why:
   1) Sectoral planning plan (before 1973)
   2) Italconsult study (1973-1980)

(9) The current Libyan urban system is a healthy one that is sustainable for the intended socio-economic development of Libya
   1) agree (why)
   2) disagree (why)

(10) There is a need for Libya to critically evaluate the existing urban system in order to prepare for the future challenges
    1) Agree (why)
    2) Disagree (why)

(11) Does Libya need intervention by the government for regional development or population redistribution?
    1) yes (why) and (how)
    2) no (why)

(12) The real motivation of the Libyan Government to deal with regional growth of the large cities is:
    1) protect agricultural lands
    2) equally distribute the social amenities
    3) solving the housing problem
    4) sustain social and economic development
    5) land use and management
    6) others
(13) Are the human factors that led to regional imbalance getting stronger again?
   1) Yes (how)
   2) No (why)

(14) The spatial policies have successfully achieved its objectives for a more balanced urban system
   1) agree
   2) disagree

(15) The spatial policies have successfully achieved its objectives to limit the growth of Tripoli and Benghazi
   1) agree
   2) disagree

(16) On what ground do you believe Libyan spatial policies did or (not) fully succeed in controlling the growth of Tripoli and Benghazi?

(17) Do you think that the philosophy of the Libyan government spatial policies favours large cities?
   1) yes
   2) no

(18) Which areas do you think can absorb population to alleviate high concentration of Tripoli and Benghazi?
   1) Small cities
   2) Medium-sized cities
   3) New cities

(19) Is there any possibility of redistributing population towards the southern areas?
   1) yes (how)
   2) no (why)

(20) Do you agree that any substantial investment attempts in southern areas of the country will result in much less beneficial returns as they would in the north?
   1) yes
   2) no

(21) Do you think that the Libyan Government is satisfied so far with their spatial policies?
   1) yes
   2) no
(22) Do you agree the statement that the Libyan spatial policies have addressed the dominance of largest cities in its urban system?
   1) agree
   2) disagree (why)

(23) According to the published census data, the urban population of Tripoli and Benghazi has been declining. However, based on your observation, do you think that these published censuses data reflect the true reality of Tripoli and Benghazi?
   1) yes
   2) no (why)

(24) Are you aware of the changes in administrative boundaries for Tripoli and Benghazi over the years?
   1) Yes
   2) No

(25) Do you think that the boundaries change partially contributed to the population decline of these cities?
   1) Yes
   2) No

(26) Libyan spatial policies has provided an even distribution of population among regions
   1) agree
   2) disagree

(27) Do you think that the infrastructure and the housing provision are at a satisfactory level in Tripoli and Benghazi?
   1. yes
   2. no

(28) Are you pleased with the current level of provision of social amenities in Tripoli and Benghazi?
   1. Yes
   2. no

(29) Do you think that larger towns (Tripoli & Benghazi) will experience more rapid growth at the expense of other towns?
   1) yes (why)
   2) no (why)
(30) Polarization of population concentration upon Tripoli and Benghazi is due to:
   1) dramatic economic changes in the country
   2) government expenditures
   3) development plans
   4) job opportunities
   5) natural conditions

(31) The over- growth of Tripoli and Benghazi will pose potential problems for national economic and social development
   1) agree (go to question 32)
   2) disagree (why)

(32) What sort of problem do you mean?

(33) Libya will continue to develop the coastal strip focusing on Tripoli and Benghazi:
   1) agree
   2) disagree

(34) Which of the following factors would you considered to have been the most influential in new spatial policy to produce a balanced urban system?
   (1) limiting the government investment in the large cities
   (2) increasing the government investment in small and medium cities
   (3) expanding and diversifying the economic base in small cities and medium ones
   (4) environmental factors
   (5) control migration
   (6) others

(35) Will the Libyan spatial policy continue to adopt the balanced development to correct the spatial defect?
   1) Yes (why)
   2) No (why)

(36) Which policy has been on the most influential to the dominance of Tripoli and Benghazi?
   1) Development plans
   2) Sectoral planning plan (before 1973)
   3) Italconsult study (1973-1980)
(37) The Libyan government has followed the same style and policies in controlling the growth of Tripoli and Benghazi
   1) agree
   2) disagree (how) & (why)

(38) The spatial policies achieved the same effect on Tripoli and Benghazi
   1) agree
   2) disagree

(39) Is there resistance to these policies in one or both of those cities?
   1) yes ( go to question 40 and 41)
   2) no

(40) Which one:
   (1) Tripoli
   (2) Benghazi
   (3) Both

(41) Why:
   (1) because of cultural indicators
   (2) because of municipality structure
   (3) others

(42) Is there conflict between the explicit policies and implicit policies regarding to the limitation of these large cities
   1) yes ( how)
   2) no

(43) The spatial policies was concerned with
   1) the spatially unequal pattern of distribution of urban and rural settlements
   2) the dominance of the Tripoli and Benghazi cities
   3) lack of medium-sized towns
   4) the dispersed geographic nature of the settlements in the south
   5) and disparities in the quality of life among cities

(44) The spatial policies have changed some issues in the urban system such as:
   1) the evolution of the sizes and numbers of the small and medium sized towns
   2) controlling the growth of Tripoli and Benghazi
   3) improving the quality of life in the southern areas
   4) others

(45) The spatial policies have not resolved the dominance of the two big cities
   1) agree
2) disagree

(46) The dominance of these cities seems to continue in the future.
   1) Agree (why)
   2) Disagree (why)

(47) The intervention by the government to solve this problem out is by:
   1) restrict the private investment in Tripoli and Benghazi
   2) increase the government investment in the small and medium sized towns
   3) developing the economic base of the other towns
   4) Grant encouraging policies for investors in small areas such as tax and customs exemption.
   5) the provision of infrastructure in the small and medium sized towns

(48) The continuous growth of Tripoli and Benghazi and the accompanying social problems are the major obstacles to the development plans in Libya
   1) Agree
   2) Disagree

(49) What should be the new direction for the development of the country?
   1) Balanced development
   2) Selective development
   3) The coastal strip development
   4) The southern areas development
   5) Others

(50) What lessons Libyan government can draw for future plan?

(51) What should be the principles that direct towards a more balanced urban and regional system?
(Appendix 2)

<table>
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<tr>
<th>Size order</th>
<th>Urban centre</th>
<th>Population size</th>
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Table (6): Urban Centres in Libya in 1964.  
(Source: Ministry Of Economy and Commerce, Bureau of Statistics and Census (1966) the population Census of Libya in 1964, Tripoli)  
(*) Janzour was followed the former province
### Table 8: Urban Centres in Libya in 1973.

(Source: Secretariat of Planning, Department of Statistics and Census (1979) the Population Census of Libya for the Year 1973, Tripoli).
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Table (10): Urban Centres in Libya in 1984.
(Source: Secretariat of Planning, Department of Statistics and Census (n.d) the Population Census of Libya for the Year 1984, Tripoli).

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Table (12): Urban Centres in Libya in 1995.
(Source: the National Organization for Information and Documentation. (1998) the Final Results of the 1995 Population Census, Tripoli.)
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*Table (14): Urban Centres in Libya in 2006.*