

The Development of Physical and Urban Planning Systems in Libya Sustainability of Planning Projects

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Abstract:

The planning procedure in Libya, as in other developing countries, has been influenced by various factors. They include the political, economical and social aspects. These factors have had large impact on the quality of planning in general. Libya consists of a variation in climate and topography conditions. They include:

- Coastal area
- Mountainous area
- Desert area

The desert covers more than 94% of the total country's area. The new plans i.e. (regional, sub-regional and urban) are not well adapted to the local environmental conditions of each area.

This paper presents the current planning process in Libya including historical view, planning levels, planning standards and adaptation of new plans to local environments as well as some recommendations to enhance the quality of proper implementation.

1 Introduction

During the last four decades, two main generation-planning schemes have been implemented in Libya. The first planning phase (First Generation) intended to cover the period 1968-1988 and ended in 1980. Master and layout plans for the more important cities and towns were prepared. The early termination of this planning program was due to the dramatic economic and social changes that took place during the late 1970's. The authorities concerned therefore concluded that the re-evaluation of the existing plans was needed.

As a result of the re-evaluation process, a new planning phase emerged namely: the "Second Generation". This planning program covered the period 1980-2000 and included the elaboration of the following plans [1]:

- The National Physical perspective plan 1980 – 2000
- Provision of regional development plans i.e. (Tripoli, Benghazi, Al –Khalij and Sebha regions).
- Preparation of 18 sub-regional plans covered all administrative areas.
- Preparation of (244) two hundred and forty four urban plans consisting of:
 - Master plans.
 - Layout plans and plans for more important settlements.

At the completion of this planning period which was ended by the year 2000, a special attention has been given to the importance of preparing new development plans for the whole country and up to the year 2025. This brought about the third planning phase and thus the “Third Generation Planning 2000-2025 Project” came into existence.

Although the title of the third generation project shows the year 2000 as its commencement date, actual implementation design started only in the beginning of this year (Jan.2005). According to its scope of work, the planning task comprises the following [2]:

- The preparation of the regional and sub-regional plans.
- The preparation and updating of the urban plans for cities, villages and settlements, which include:
 - studying and updating the existing layout and master plans:
 - The preparation of new urban plans for cities and villages.
 - The preparation of action plans according to the specification approved.

In order to avoid the shortcomings of the previous plans, the preparation of new plans will take into account the local conditions i.e. social, economic and environmental factors of the area to be developed and or upgraded.

2 The present planning process:

Libya has adopted in its spatial planning strategy the method of comprehensive planning. This approach is based upon the idea dealing with spatial planning from general concepts to more detailed issues starting from the definition of the National Physical Perspective Plan (long term), continuing them to regional and sub-regional physical development plans and ending in the provision of urban planning at the local level (the provision of Master and Layout plans for cities and towns as well as detailed plans). This process form a comprehensive planning period of time each twenty years. The planning process is supported by an analytical study covering all planning levels (regional, sub regional and urban) with an aim of achieving urban plans that satisfy the spatial needs of the population and attain the social and economic equity among them.

The present planning program (Third Generation Plans 2000-2025) seeks to achieve the following objectives [2]:

- The analysis of the Socio-economic Conditions to determine the development indicators for the target year.
- The identification of the physical development trends according to the outcome of the analysis of the socio-economic conditions.
- Determination of the manpower size and identifying methods of its utilization along with planning of the direction of education to meet the society’s requirements.
- The availability of the land needed for housing and services in accordance with the latest and most sophisticated planning methods and techniques.
- The determination of the rate of population growth and the future urban composition as well as identifying their spatial requirements within suitable urban plans.
- The implementation of the integrated utilities networks through latest techniques.
- The protection of agricultural land from the informal urban growth.
- The development control of the problem of concentration of population in certain cites in the coastal areas especially in Tripoli and Benghazi.
- The protection of the natural environment.

3 The planning levels

The planning process in Libya includes the preparation of development plans for all physical planning levels as follows:

- National Physical Perspective Plan – Long term.
- Regional planning level: (preparation of development plans for all regions).
- Sub-regional planning level.
- Urban planning level which entails, preparation of master and layout plans for cities and towns as well as action development plans. (See Fig 1)

4 The planning standards:

Libya has passed through the influence of various foreign dominations. Each of them was trying to apply their own ideas in planning, design and implementation processes according to their thoughts and needs. However, regarding this situation, the planning and housing authorities created new standards for Libya. These standards were amended several times. The construction and urban planning laws of 1969 were passed mainly to control the informal growth of settlements and were concerned with minimum plot dimensions, frontage depth, minimum street dimensions, etc.).

The last physical planning standards were approved in November 22, 1982. They are quite general and for the whole country. Libya consists of various local conditions, even within the same planning region. In most Libyan cities and towns, especially smaller ones, there are lack of planners and other professionals who can adopt these standards to local conditions. In addition, the foreign consulting offices that were invited to study and prepare the various regional, urban plans and other projects could not properly adopt these standards to local conditions. The similarity of various plans and proposed standards makes this clear as seen from Table 1, [6].

The approved housing and community facilities planning standards for Sirt, Ghadamis, Ghat and other cities and towns are almost the same as those which have been approved for the whole country. They concentrate on quantitative rather than qualitative needs. Regarding housing standards, the master plan of Sirt 2000 for instance concentrates mainly on the creation of low and medium housing densities. However, protection against the hard ecological problems (i.e. solar radiation, hot winds, dusty winds, etc.) is very difficult and expensive. In addition, such planning standards have helped break down the strong social fabric and relations which have existed in the past.

As for housing, the social infrastructure standards of the new towns contain the same site sizes and the same plans which have been implemented in other areas. The creation of huge open spaces with a lack of greenery and plants and wide, uncover streets have participated in creating very poor spaces which are used less often by pedestrians, especially during the daytime when the external air temperature is high. In addition, there is a lack of pedestrian safety needs; Wide streets are one of the main features of the new town. There is no attention given to the creation of a cul-de-sac system of roads.

The physical planning and architectural standards must be provided for each sub region and even for each city or town, which have different local conditions from the others. They should fit with the local socio-economic conditions as well as the geographic and climatic conditions for the area in need of development and/or upgrading.

Table 1: Presents the rates of the net residential density for LIBYA applied in all cite and towns throughout the country.

TYPE OF HOUSING	PROPOSED RESIDENTIAL DENSITY	
	No. OF UNITS /HECTAR	No. OF INHABITANTS/HECTAR
SINGLE HOUSING UNITS		
N1	FROM 10 TO 14	FROM 50 TO 70
N2	FROM 15 TO 20	FROM 75 TO 100
N3	FROM 21 TO 26	FROM 105 TO 135
N4	FROM 27 TO 40	FROM 135 TO 200
COMPLEX HOUSING UNITS		
N5	FROM 40 TO 80	FROM 160 TO 280
N6	FROM 70 TO 100	FROM 280 TO 400
N7	OVER 100	OVER 400

Source: Physical Planning, Standards, Report No. 2, revised edition, 1982, P.9

5 The adaptation of new plans to local environmental conditions:

As presented in Table 2, Libya consists of various climatic and topographic regions. Each of them has different local environmental conditions and natural features.

The coastal region and Jafara plain are characterized by the hot and humid climate. However this area is distinguished by the best soil conditions and is the most economically developed part of the country. While the high mountains region is distinguished by a cold climate. Al-Gabal Al-Akhdar and Gabal Nufussa are associated with great agricultural activities and water resources.

Table :2 Description of the main climatic and topographic characteristics of the various regions.

Region	Climatic Conditions	Topographic Conditions
Coastal	<ul style="list-style-type: none"> - Hot and humid climatic area. - High relative humidity rates. - Dominant of hot and cold winds. - Annual rates of rainfall is about 214mm. 	<ul style="list-style-type: none"> - It accounts about 1.7% of the total country's area. - Mostly flat and recognized by good soil characteristic and agricultural activities.
Mountainous	<ul style="list-style-type: none"> - Cold climatic area. - Annual relative humidity range between 54% to 65%. - Dominant of cold winds. - Annual rainfall rate is about 255 mm. 	<ul style="list-style-type: none"> - The country's most important higher regions. - Several valleys flow from the mountains. - Mostly covered e.g. /the Green Mountain.
Desert	<ul style="list-style-type: none"> - Hot and dry climatic area. - Annual relative humidity rate is about 39.5%. - Dominant of very hot winds i.e. /Gebly/. - Annual rainfall rate is very low. 	<ul style="list-style-type: none"> - It covers about 94% of the total country's area. - It consists of a number of oases developed in valleys. - It contains an important under- ground water resources.

Source: Tradition As Planning Criteria for Contemporary Housing, by: B. Zletni, 1993, P.17.



Figure 1: Planning Levels in Libya

The desert region is distinguished by hot and dry climatic characteristics. It covers the majority of the country's area. The region is considered to be the most arid zone, in spite of the existence of important water resources.

The planning and design process should take into consideration the various local environmental conditions for each region, sub-region and even city or town. Traditional settlements provide us with very worthy solutions in this respect (See Table 3). However, knowledge of the climatic region to which a town or settlement belongs and possession of published regional climatic data does not eliminate the need for careful investigation of site conditions.

Man creates the environment which later influences him. Therefore, the urban environment could be considered as a part of the system of symbols which influences our lives. These symbols express cultural values which are transmitted and stored, producing a sense of unity and security within society and a certain identity of the inhabitants with the environment.

Table 3: Comparative study between traditional and new planning solution in the desert region

Traditional Solutions	New Solutions
<ul style="list-style-type: none"> - Compact system of construction. - Shadow by trees and plants, - Small covered squares and alleys. - Irregular alleys. - Green areas in and around the town. 	<ul style="list-style-type: none"> - Detached and semi-detached buildings, -Lack of shadow, - Wide and uncover streets, - Huge open spaces with lack of green and plants. - Lack of natural or man-made protection, zones.

Source: Tradition As Planning Criteria For Contemporary Housing, by: B. Zletni, 1993, P.131, P139

6 The quality of planning and the implementation processes:

The quality of life is determined by the quality of planning, design and the implementation processes as well as the provision of human needs for settlement according to the local conditions in each area.

At present, due to the dramatic changes and development in all aspects of life, many problems arise regarding the preparation and implementation of new urban plans as a result of many reasons. They can be summarized as follows:

- The insufficiency of local professions in urban planning and urban design.
- The majority of urban plans prepared by foreigners. They have a limited knowledge about the Libyan Society and the local conditions of the country.
- The lack of qualification of local administration, regarding the implementation process.
- The long time-gap between the planning and implementation process.
- The lack of direct public participation in preparing development plans.

Therefore, there is a wide-spread of what so called illegal construction.

The planning process should be with and for the people. Thus to create a successful planning solutions, urban plans should be well adapted to the existing conditions in order to encourage people to settle in the various regions throughout the country.

Conclusion:

The analysis and evaluation of the new urban plans in the various regions of Libya have brought to light some advantages and disadvantages as a result of the impact of many factors connected not only the planning sector.

The most common feature of the new urban plans is their similarity. The lack of environmental treatment, very wide streets, huge open spaces, low densities, high rise buildings as well as the similarity of the physical planning and design standards.

Traditional patterns, in Libya have been put together using various planning solutions and with different techniques. They vary from one place to another according to the existing social, economical and environmental conditions in each area. The ignorance of such solutions which are provided by traditional means of construction has created a set of problems to the new development plans.

At present many plans have not worked out mainly because they did not properly consider the local conditions needs. Consequently if urban environments are indeed an expression of culture, it is necessary for any planner and designer to understand the culture of the people for whom he is planning and designing as well as their various local conditions.

References:

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