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DISSERTATION

Landscape Planning and Management under the Conditions of Conflict and Instability

The Gaza Strip as a Special Case of the Developing Countries

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Kurzfassung

Landschaftsplanung und Landschaftspflege müssen Entwicklungssituationen begleiten, in denen der Druck auf Freiflächen und natürliche Ressourcen steigt. Besonders dann, wenn zusätzlich eine hohe Bevölkerungsdichte, eine rapide Stadterweiterung, schwierige wirtschaftliche Verhältnisse gepaart mit einer militärischer Okkupation und daraus resultierenden bewaffneten Konflikten vorhanden sind. Einzelne Problemfaktoren kommen speziell in so genannten Entwicklungsländern häufig vor, selten jedoch treffen sie gleichzeitig zu, wie dies im Gaza Streifen in Palästina der Fall ist. Erst seit 1994 gibt es hier Bestrebungen, ein nationales Planungssystem zu entwickeln, in welches Landschaftsplanung und Landschaftspflege integriert sind. Jede Art von Planung wurde seitdem durch die israelische Okkupation oder durch israelische Interessen von außen verhindert oder zumindest in Frage gestellt. Däurnd änderten sich die Rahmenumstände für die internen Planungsvorgaben. Gleichzeitig gibt es intern Diskussionen von Planern und Entscheidungsträgern über die Rolle, Möglichkeiten und Gewichtung von Landschaftsplanung und Landschaftspflege. Dieses Infragesetzen resultiert vor allem aus dem Umstand, dass Resultate der Landschaftsplanung und Maßnahmen zur Landschaftspflege so gut wie nie umgesetzt wurden. Die Aufgaben der Landschaftsplanung und Landschaftspflege haben sich seither vervielfacht und die Umweltbedingungen sind heute schlechter als 1994. Beim Analysieren zahlreicher Fallstudien zur Landschaftsplanung und Landschaftspflege aus aller Welt ist aufgefallen, dass die gegenwärtige Praxis und Forschung, extreme Umstände wie sie im Gaza Streifen vorhanden sind, nicht abdeckt. Ein Versuch mit diesen Schwierigkeiten auf theoretischer Basis umzugehen wird in der vorliegenden Arbeit unternommen. Weiters wird festgehalten, wie die Ergebnisse der vorliegenden Arbeit auf andere Konfliktregionen mit instabilen Verhältnissen übertragen werden können.

Abstract

Landscape planning and management is usually considered in cases where development, and thus the pressure on open spaces and natural resources, increases. This pressure increases further under extremes of conditions such as overpopulation, high urban density, hard socio-economic conditions, and military occupation (armed conflict). Most of these conditions distinguish what are widely known as 'developing countries'; however, there are some places on the planet where these conditions apply at once. One such a place is the Gaza Strip where only since 1994 has the first start been made in developing a national planning system. There, challenges to landscape planning and management have been increasing since that time; sometimes very rapidly. Unexpected scenarios and changes have happened and planning efforts were almost negated due to the Israeli military operations and their socio-economic consequences. At the same time, landscape planning and management and related planning sectors in the Gaza Strip faced internal problems and challenges (some of which are technical problems related to the planning process itself) that contributed to the absence of real implementation of most of the plans produced. Detailed analysis of the Gaza Strip case as well as of several cases from both developed and developing countries, besides investigating the theoretical basis of landscape planning and management, shows that such extremes of conflict and socio-economic conditions have not yet got the appropriate attention they deserve in the process of landscape planning and management. This is true both on the theoretical level as well as on the empirical level. As a result of this research study, a group of recommendations for landscape planning and management in the Gaza Strip are made, together with further recommendations for special similar cases of the developing countries. Moreover, the study also makes proposals for factors to be taken into account in the general theoretical outline of landscape planning and management. Finally, it calls for more research on similar cases in order to construct a solid foundation on which to build more specific theories related to landscape planning and management under conditions of conflict and instability.

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PART I

General Overview

This first part of this research study is an introductory one which presents a bird-eye view of the study from both points of view: objective (essence of the topic and issues discussed) and subjective (characteristics and description of the study itself). In spite of being generally described in the first chapter of this part, the extreme conditions of conflict and instability in the Gaza Strip and the developing countries are detailed in the second chapter. Status of development, consequences from political and socio-economic situations, urban-rural status, demography, and planning issues are all discussed and related to environmental and landscape issues. This overview (or background) is essential to interpret events and / or special behaviours and cultures related to landscape planning and management which will be presented in the other parts of this study. The first chapter shows the relationships among the main issues of this study, the main problems and challenges, aims and goals of developing this study, obstacles and approaches used to develop discussions and build conclusions.

Chapter 1

Introduction

The provision and protection of open spaces and landscape elements are of key importance for the quality of life of inhabitants in all areas of urban development. However, there are several different reasons why landscape and open space and the need to plan for its conservation and development, can become even more than usually important.

- The need for landscape planning and management measures can be regarded as being greater in urban areas as compared to the rural landscape, where the use pressure on open spaces and the environmental threats to the remaining areas of un-built landscape are greater;
- This need for landscape planning is also more acute in urban areas of higher than usual density, where more people will be seeking to satisfy their recreation needs on less open space;
- In situations where a dense urban area is cut off from its natural hinterland, for whatever reason, the importance of careful planning and management of the available landscape resources also becomes more important.
- In the so called 'developing countries', open spaces are also more than usually important because they need to fulfil additional functions as a consequence of extremes of density and overpopulation, poor housing conditions, amongst others.

Under any of the above four 'special' conditions, the need for the considered conservation and development of the available landscape and open space through responsible planning and management is increased. When they occur in different combinations the need for landscape planning increases accordingly. There are, however, luckily few places on the planet where all four of them occur together. One of these is the Gaza Strip, in Palestine, which is no larger than a small city in area (88% the area of Vienna) of highly urban population density (3656 inh./sq.km), it has been cut off from all

contact with the surrounding territories (Egypt and Israel) since; and ranks according to the UN human development index as a developing country (with HDI of 0.729).

This dissertation investigates the situation of and the needs for landscape planning in the Gaza Strip. Despite the urgent need for landscape planning as defined by the above criteria, in fact there was practically no land use planning of any kind before 1994, when the Palestinian Authority was established, with a mandate to develop a planning system and to plan for the future development of the Territory.

Here yet a further challenge to landscape and open space must be faced, namely the fact that the Gaza Strip has been under military occupation for a significant part of the time since 1994. Many troubles, difficulties and obstacles faced this process of planning, and unexpected changes heavily happened, and still happen. In particular, The Gaza Strip (a completely geographically isolated part of the Occupied Palestinian Territories) has been the land where the most significant Palestinian events happened; the establishment of the All-Palestine Government in 1948, the beginning of the civil uprising (Intifada) against Israeli occupation in 1987, and the beginning of the limited self-rule in 1994. Roy (1995) considered that this part of the Palestinian territories is important enough to be examined as a separate entity because it provides a stark clarification of the intentions as well as the consequences of Israeli policy. The situation in the Gaza Strip has, therefore, been further complicated by the conditions of occupation, poverty and low level of life which all affect the existence and quality of landscape and open space as well as the possibilities for rational planning. Uncertainty is thus a factor requiring special consideration in landscape planning in The Gaza Strip although it is a perfectly normal part of all planning processes elsewhere as well.

This document is an academic research study for a doctorate degree in the field of landscape planning and management. The author takes the advantage of being a Palestinian citizen and living originally in The Gaza Strip has the perspective of an insider in order to be able to better recognize the main problems, the necessary aims and objectives, and build the main questions, and thus conclude the appropriate answers. Landscape planning and management in The Gaza Strip has in practice been ignored from all points of view for the whole past, but the concentration in this study is on the recent past; i.e. the period during which the Palestinian Authority has been in existence. Actually, this is also the case of many countries from the developing world. In the few cases that landscape planning has had some attention in these countries, there has been a clear need to develop strategies and planning processes to protect this effort and to suit with the specific conditions and thus the special needs and requirements.

1.1 Scope of the study

As with all similar studies, this study has limited boundaries of space and time; however, one purpose is to develop conclusions that bridge over and beyond these boundaries to a wider context. It concentrates on the landscape planning aspects in the Gaza Strip (also widely known as 'Gaza', the international location of which is shown in figure 1.1). The current round of planning activities started in this area directly after the establishment of the Palestinian Authority (PA) in 1994 as a result of the peace agreements which were accepted at that time and signed by both the Palestinian representative, which was the Palestinian Liberation Organization (PLO), and Israel¹.

The study is thus focused on the period since these agreements have been signed and during which the Palestinian Authority has been established up to the period during which this study has been undertaken (i.e. from 1994-2005). It also looks to the short term future for landscape planning. Policies and regulations were applied during the previous periods to achieve the objectives (usually military) of those who had control of this region (The Gaza Strip has been under British mandate (1922 - 1948), Egyptian administration (1948 - 1967), and Israeli occupation (1967- 2005)². The nature and conditions of instability, uncertainty and ambiguity support the tendency to develop short term plans and strategies, which may take into consideration any other long-term national plans and strategies on all levels. The study focuses on the Gaza Strip case, but also aims to contribute to a wider context, namely landscape planning theory in general and landscape planning issues in the case of developing countries in particular. In fact, the comparison between the Gaza Strip and the developing countries appears to be a valid one, as both exhibit many similar conditions affecting everyday life.

The meanings and conditions of instability, uncertainty and ambiguity support the tendency to develop short term plans and strategies taking into consideration any other long-term national plans and strategies on all levels.

The study avails from the Gaza Strip case to contribute to a wider context which is landscape planning theory in general and landscape planning issues in the case of developing countries in particular. In fact, the relation between the Gaza Strip and the developing countries seems mutual, as both have several similar conditions of living life.

¹The 'Declaration of Principles on Interim Self-Government Arrangements of 1993' which was signed in Washington DC. on the 13th of September 1993 included phases of implementation among which self-rule in the Gaza Strip and the Jericho area was the first phase. Details on the implementation of this phase was agreed upon and included in an agreement (the 'Gaza-Jericho Agreement') signed in Cairo on the 4th of May 1994.

²See appendix A on page 279 which is a brief documentation on the History of Palestine in the last century



Figure 1.1: Geographical location of the Gaza Strip (Source: UN Website[a])

1.2 Key words and terminology

Although meanings of key words are generally well-known for specialists, this study presents more details on such terms to direct thoughts toward the specific requirements of answers to the study questions, and to accommodate with the general status of 'ambiguity or absence' of such terms in many areas under research; i.e. the Gaza Strip and the developing countries. This section, therefore, clarifies and limits the meanings of specific terms which may have several, different and/or confusing understandings; however, generalization of meanings is essential when no specific limitations or interpretations are mentioned. The study context itself presents backgrounds and explains the meanings of the main scientific terms which are generally used in the discipline of landscape planning and management, and which can be also understood from terminology point of view. This group of words includes, for example, 'landscape planning', 'landscape management', 'landscape protection', 'urban growth', 'sustainable development', etc.

The word 'conflict' is usually considered in landscape planning and management to indicate any objection between needs and demands of residents and of nature protection. However, the term 'conditions of conflict and instability' is used in this study to indicate the general status of an area on the political, social and/or economic levels. Several parts of this study show full and complete combinations among these factors; however, aims and objectives of this study are to consider any of them: either individually or combined. These conditions (such as war, military clashes, poverty, unemployment, deterioration, environmental degradation, etc.) are actually considered in many places in this study as abstract qualitative understandings rather than detailed quantitative cases. Much more important is their relation to the main focus of the study which is the issues of environment and landscape planning. In this context, 'uncertainty' is a result of conflict and instability conditions. It implies that both inferential and experimental bases of knowledge are poor; however, dealing with uncertainty is not a byway on the road to responsible governmental decision making but rather central to it (Mack, 1971:30,1). With this meaning of uncertainty, several choices can be made regarding a specific topic, but at the same time, other normally- unexpected possibilities can be generated because of conditions of instability, and those should be discovered, well-studied and planned for by professional planners. 'Ambiguity' is very close in meaning to uncertainty; it results from unstable situations. Therefore, both uncertainty and ambiguity are dealing with more probabilities or scenarios. Increasing uncertainty and ambiguity logically results in more probabilities and thus decrease the weight each probability will gain in any planning process.

1.3 Main aims and goals of the study

The reality of the situation in the Gaza Strip, and of course in many developing countries, presents serious challenges, and generates many questions. This study will address main principal questions on landscape planning and management in these areas. The importance of landscape planning and management has long been accepted in most developed countries, and great progress has been achieved on different levels; however, the challenge to many developing countries is to introduce basic concepts of this discipline in both the governmental and public agendas. There are special needs for landscape planning and management in developing countries, but these needs are also the main obstacles to its introduction. In general, the main aim of the process of landscape planning and management is to protect the natural resources, landscapes and living environments for several social and economic purposes. It is also the main general goal of this study. Gaining better understanding of the main motivation for doing this study can be actually achieved in situation such as the Gaza Strip. **The main issue that this study holds is the Gaza Strip case in landscape planning and management under conditions of conflict and instability and the main purpose of doing this study is thus to construct theoretical basis (strategies, guidelines and/or policies) for landscape planning and management under conditions of conflict and instability.**

This main issue can be divided into several sub-issues to cover all relevant topics and reach the target point. The following is a general description of the main questions, approaches and obstacles followed by more detailed description of each of these sub-issues.

1.4 Main questions of the study

The main questions of the study can be summarized in the following:

- What specific strategies, guidelines and/or policies should be taken into consideration in landscape planning and management under conditions of conflict and instability in general and in the Gaza Strip in particular?
- What planning tools, procedures and approaches will be convenient to realize this system?
- Who should be responsible for this process; i.e. which administrative body? And what is the management system?

- Are these strategies, guidelines and/or policies to be considered as being within the narrow scope of the planning process? Or to what extent should they be considered as relating to issues of society as a whole?

These questions should be considered together as one package. They are more or less for both cases of the Gaza Strip and developing countries, and relevant answers are indeed the main output of this study. But, in order to obtain general answers to these questions, results and conclusions from considerable case, which is the Gaza Strip, is essential. Obtaining results and conclusions from the Gaza Strip case which deserve to be introduced to the theory of landscape planning and management requires full understanding of the future regarding landscape planning and management in the Gaza Strip; at least in the short term. By its turn, this required a complete review and analysis of landscape planning and management and landscape changes that happened in the Gaza Strip in the past (mainly the near past). This analysis should be based on solid theoretical and practical background in subjects with relation to landscape planning and management. The issues that are supposed to compose this background include the main topics of the discipline of landscape planning and management taking into account the actual conditions of conflict and instability that distinguish the Gaza Strip and many other developing countries. This requires a general review of the conditions of the Gaza Strip and developing countries which is considered the springing point of this study.

However, and before going further, it is important here to distinguish and limit the aims and objectives of this study to what has been mentioned above. This means that this study work does not aim to develop any separate political, social or economic plans; these are completely different disciplines with special different requirements. Oppositely, the study relies on current situations and plans, and tries to develop recommendations (with relation to landscape planning and management) that suit with the conditions resulting from these plans and current situations.

1.5 General methodologies and approaches

Different methodologies and approaches have been used to achieve the main goals and objectives of this study.

- Both qualitative and quantitative approaches have been used in developing conclusions; however, qualitative approach have been more highlighted upon when describing conditions of conflict and instability which are steadily distinguishing the cases under research, and this efficiently helps to develop general theoretical answers. For example, deterioration of an item means that a change happened to

this item resulting in a state where it had less quality than before. In some cases, measuring this amount of change is important but in many others, especially for answering questions of this study, it is not; because this case witnesses such deterioration since long time up to the extent that deterioration has become steady state which is distinguishing it. Military clashes have almost the same concept; they may happen once a day, a week or a month; they may look strong or weak, etc. This case is generally a case of instability (where and when it happens) but it is a steady state in its meanings. Development of the study, however, depends in other places on quantitative approach by referring to details and some statistics in order to build stronger foundations for a status of comprehensive understanding. Following these details is, in many times, impossible or at least so difficult to achieve; simply because of obstacles resulting from such conditions of conflict and instability. The amount of instability will not principally affect the problem or the answer to the study questions because the aim is to find more general solutions for more general cases.

- The scenario approach is also considered when future strategies and guidelines of landscape planning are developed. This approach is usually efficient when uncertainty reaches high levels.
- Besides, and from a completely different point of view, the approach to achieve the aims and objectives from more-ecological point of view relies basically on the general approach of promoting the original context of the landscape and the traditional land use practices. However, it considers more specific approaches regarding the specific challenges that face the developing countries. Those are the recognition of the value of urban landscape, the 'compensation areas' concept and the environmental impact legislations.
- Other approaches have been considered during the development of the study work. The study work put much emphasis on literature review and desk studies (theoretical studies, understanding and analysis), which are essential to build theoretical data base, especially when considering the main goals of developing theoretical strategies, guidelines and recommendations, which should be flexible enough to fit to different cases of conflict and instability.
- The case studies and comparison were also relied upon in widening this data base, and a field work in the Gaza Strip (the main case study) also supported the study work particularly in this part by presenting such a real experience.

Composite approach is thus the one used in this study. The scenario approach is considered principally for landscape planning and management under conditions of conflicts and instability. Each scenario is based mainly on ecological approaches which based mainly on qualitative approaches and to some extent on quantitative approaches. Those are based mainly on the desk study and literature and theoretical review, comparison and analysis approaches, and to limited extent on field work approach.

1.6 Obstacles to the study work

Several obstacles and challenges faced this study work, specifically during the phase of developing ideas and building conclusions from the cases of both the Gaza Strip and the developing countries. Presentation of these obstacles will give a preliminary understanding and general overview on the challenges and obstacles that face real planning and implementation processes in both the Gaza Strip and the developing countries. Some of those are presented here.

- In spite of being originally from the Gaza Strip and being involved most of the time with the whole planning process starting with the establishment of the Palestinian Authority in 1994, the researcher faced many troubles to do field work in the Gaza Strip because of the restrictions imposed by Israeli military authorities on crossing the borders and moving along the Gaza Strip itself to visit the different parts.
- The living conditions in the Gaza Strip witnessed rapid changes that were taking place everyday as a result of the Israeli military operations and attacks on people, infrastructure, land, nature, etc.
- Documentation and statistics of these changes had not been yet prepared by responsible bodies because of more than one reason, but basically because of the continuation of the anytime- or anywhere-Israeli attacks.
- This actually affected the idea of obtaining data where no up-to-date data was available. Data on landscape-planning-related issues, which had been gathered few months (or sometimes a couple of years) before, did not make sense in analysing recent situations. This obstacle actually goes much farther when we talk about many publications (books, papers, articles, etc) that discuss a related subject at a time few months before a great change happened to this subject making these publications completely useless.

- But the problem was actually very much bigger and the challenge was to find such old data. Landscape planning as independent and recognized discipline does not exist in the Palestinian planning system; it is hard then to find specific related data that support this field in particular.
- Another main reason for such a lack of data is because of the so called 'Security of Israel' reasons, where maps required for physical planning are usually unavailable to the Palestinian side that does not have the capability (mainly due to technical and financial constraints) to produce maps because of many reasons to be discussed later in this study.
- Too, Palestinians themselves still have problems with understanding the real concept of doing a scientific research and thus with helping and supporting researchers. This is clear when specific materials (where and/or when they exist) are not made available to local researchers without usually any real convincing interpretation, despite the provision of evidence that demonstrates the purpose and the importance of the study and the need of such materials for the development of the study.
- In this context, another obstacle was that Palestinian Authority has changed its governmental organizations several times just before and during the study work causing confusions about responsible bodies with relation to the study subject. Several organizations considered individually their responsibility to this subject and thus their right, and not others', to develop related plans. For local residents, it is not that important except when someone is in a need for some kind of permissions, approvals or information. The Gap between the government and the public is actually great in issues close to the one of planning and environment.
- Finally, and from another point of view, emphasis on living conditions and their relation to study topic has introduced social sciences into considerable part of the study. Recognizing that development in social sciences is very much slower than development in scientific disciplines has actually introduced more challenges to this study work.

1.7 Main sub-issues of the study

The following is a list of the main sub-issues composing this study work and the relevant goals, questions, approaches and obstacles to each of them.

Conditions of conflict and instability

This sub-issue is essential to understand the different conditions (variables) of conflict and instability, which affect the process of landscape planning and management in the Gaza Strip and developing countries. This will help to determine the problems and thus the consequences on the landscapes and landscape planning and management and consequently the theoretical basis and topics to be concentrated upon. It is important, therefore, to answer few questions including the following:

- What is the essence of conditions of conflict and instability in both the Gaza Strip and the developing countries?
- How do these conditions affect daily life and thus living quality in both the short and long terms?
- How much these conditions had been considered in planning in general and landscape planning in particular?

The method considered for dealing with this sub-issue is the theoretical review and personal experiences on conditions of the Gaza Strip concentrating on relations to environmental and natural issues and the political and socio-economic conditions. The theoretical review depends on resources such as books, journals, World Wide Web, etc. The qualitative approach was considered to deal with this sub-issue. The political situation and the rapid changes in all fields in the Gaza Strip is a clear obstacle that is highly considered in this part. Obtaining data happened with extreme difficulties and thus quantitative approach has not been relied upon very much and data from available documented resources (and thus desk study approach) were relied upon much more. Obtaining data on landscape planning and management in the developing countries was also very much difficult mainly because of the lack of awareness towards such a topic on the formal level in these countries. The qualitative approach and desk study were thus considered as well.

Landscape planning and management in theory

At the time that focusing on the actual conditions of the Gaza Strip and the developing countries is essential, it is also important to review the main issues that had already been covered in theoretical landscape planning and management, and later on, those issues that had not been introduced into theory. The purpose is to analyse the cases of the Gaza Strip and developing countries referring to, and then building conclusions relying on, the theory. For this purpose, it is important to answer the following questions:

- What are the meanings of the terms 'landscape', 'planning' and 'management' and what relevant topics and interests they have?
- How could a landscape be planned for and managed in the normal conditions? What processes, methods, approaches and tools can be used?
- Are there any theoretical idea about landscape planning and management under conditions of conflict and instability? If yes, what are those? And how can those be used?

For this theoretical part, review of theoretical concepts on landscape planning and management from many different resources, but mainly books, journals, World Wide Web, etc. was considered. The desk study approach is thus the one used to deal with this sub-issue.

Landscape planning and management in practice

In order to show efficiency of theoretical basics, it is necessary to review different implementations from case studies. Too, experiences usually present, in addition to their relation to the theoretical part, new ideas which may be developed afterwards to theoretical frameworks. The purpose of studying different cases is thus to learn from their experiences how to implement theories and how to introduce new ideas according to the specific conditions each case has. It is important thus to answer the following questions:

- What are similar cases to the Gaza Strip case in the world? What are similarities and/or differences?
- How did these cases implement ideas from theoretical landscape planning?
- What other specific ideas they introduced to deal with their specialities?

This sub-issue is actually considered to fulfil, together with the previous one, the requirements to building referential background. Review of case studies from worldwide depending on documented resources such as books and specialized journals, and relevant web sites was mainly considered. Therefore, the desk study approach is also used to deal with this sub-issue. Too, the comparison approach is considered to compare different cases especially to the case of the Gaza Strip.

Obtaining data on landscape planning and management in the developing countries for the purpose of research and analysis was also very difficult mainly because of the lack of awareness of such a topic on the formal level in these countries.

Planning issues in the Gaza Strip after the establishment of the Palestinian Authority (1994-2003)

This sub-issue is distinct in relation to the main questions of the study. It builds on answers from the previous sub-issues, and constructs a referential background by which reaching the answers to the main questions becomes very much easier. The purpose of this sub-issue is thus to build complete background on planning activities that happened in the Gaza Strip in the period 1994-2005; i.e. when initiatives to construct planning system were considered for the first time. It aims also to develop ideas on the actual landscape and land use changes that happened in this period and the interpretations of such changes with regards to conditions of conflict and instability. The aim, then, is to analyse and compare these activities and changes to theoretical landscape planning ideas and other case studies from worldwide. Answering the following questions is required for these purposes:

- What is the main planning output in the Gaza Strip in the period 1994-2003; i.e. what plans, documents, policies, regulations, etc.?
- How much landscape and environmental planning was introduced in the planning process?
- Who was responsible for this production; i.e. which administrative bodies? Why and how did they manage the planning activities?
- How much of this production was implemented?
- Did any other land use and/or landscape changes happen in this period? What exactly? How and why did they happen?
- How well did landscape planning work in the Gaza Strip during this period?
- What have the actual changes been?

The methods used to deal with this sub-issue are to study and analyse the landscape planning issues in the Gaza Strip including actual planning outputs, projects and administrative systems under the responsibility of the Palestinian Authority. Along with its several directions and dimensions, different approaches have been used to deal with this sub-issue. Review and desk study of different related documents was essential at the time that field work (including several interviews) took also considerable part. Both qualitative and quantitative approaches were used to describe land use and landscape changes, and comparison to the theory and the practical experiences was relied upon in the analysis process. Political constraints from both the Israeli and Palestinian sides

were real obstacles to develop this part which greatly include the discussion on living conditions and landscape planning in the Gaza Strip. Field work faced the problems of lack of experts and awareness on the institutional level in the Gaza Strip and the constraints on giving data.

Planning issues in the Gaza Strip in the near future

This sub-issue is important in order to form a planning process in the Gaza Strip in the near future, by which it would be possible to exercise recommendations that the Gaza Strip case can contribute to the theory of landscape planning and management. For this purpose, it is important to answer the following questions:

- Is there any opportunity for holding landscape planning process in the Gaza Strip in the near future and under similar conditions of conflict and instability?
- In such a case, what are those opportunities? If not, why, and how can people make living; i.e. what other processes are needed?

The method to deal with this sub-issue is more or less analytical. Benefiting from the previous theoretical, practical, and analytical works, expectations are introduced to the case of the Gaza Strip using scenarios approach and considering the ecological approaches mentioned above which are suitable for the nature of residents and the small area of the region as well. Uncertainty is the distinct feature that this part deals with and this is why scenario approach is used. Obstacles that affected the previous parts also affect this one as this one is depending completely on the previous results.

Contributions and recommendations from the Gaza Strip case to the theory of landscape planning and management

This sub-issue includes answering the greater part of the main questions of the study depending on the previous conclusions and contributions from the Gaza Strip case. It implies arguments to answer two main questions which are:

- What specific ideas (which deal with the conditions of conflict and instability) can be introduced to the theoretical basis of landscape planning and management?
- What are the appropriate systems, methodologies, approaches, tools and instruments, to be considered in such a case?

Once again, the analytical method is essential to deal with this sub-issue in order to conclude concepts and ideas that could be introduced to the theory of landscape planning and management. Desk study, analysis, comparative studies, and ecological

approaches are considered to attain the purposes of this part. Being based on the previous parts, this one is subject to the obstacles they faced including uncertainty, lack of data, political constraints, etc.

Lessons for landscape planning in the developing countries

This last sub-issue fulfils the requirements of this study by answering questions with relation to the remaining part of the main questions which includes:

- What specific ideas produced from the case of the Gaza Strip can be generalized in the developing countries?
- How can developing countries use the new theoretical package of landscape planning and management with the general specific conditions they have?

The method in this last sub-issue is to project the previous conclusions on the case of developing countries. The previous approaches of the last two sub-issues continue to work in this part where analytical desk study work depending on comparisons and ecological approaches is principal in this part. Obstacles are also because of those which faced the previous parts going back to obstacles faced the first sub-issue including the lack of awareness and lack of data in the developing countries.

1.8 Structure

The study structure can be divided into four main parts:

- **Overview: introduction to the problem;**
- **Theoretical background and practical and empirical experience;**
- **Landscape planning and management in the Gaza Strip from 1994-2005; and**
- **Conclusions and recommendations**

At the same time, the study has been arranged into ten chapters which are distributed over the mentioned parts as follows:

- The first introductory part includes chapters 1 and 2. Chapter 2 emphasises the introduction to the problem by presenting the actual situation and living life conditions in both developing countries and the Gaza Strip with a description of the existing landscapes and related impacts.

- The second part (which deals with theoretical and practical background) includes chapters 3, 4 and 5. Chapter 3 presents theoretical review to understanding aspects of planning and landscape planning, management and protection, landscape ecology, and sustainability. Chapter 4 presents a theoretical review of planning under extreme conditions, while chapter 5 considers the practical experience as a reference for understanding and describing landscape planning, management and protection, thus presents several general experiences in this field from worldwide. In addition, it describes few cases in more details.
- The third part includes chapters 6, 7, 8, and 9. Much emphasis has been put on this part being the one that deals with issues of landscape planning and management in the Gaza Strip over the study period. Chapter 6 presents landscape planning aspects and outputs done in the period 1994-2005. Chapter 7 analyses the outputs presented in chapter 6 by making comparisons between the plans and analysing the reflections obtained from meetings and interviews in Gaza in February 2004. Chapter 8 presents and analyses the actual landscape and land use changes and implementations in the Gaza Strip. Chapter 9 makes comparisons between concepts of landscape planning and management in theory and practice (which developed in part 2) and landscape planning and management in the Gaza Strip.
- This leads to the last part which attempts to draw conclusions relating to the main goals and aims of this study and answering the main questions by doing more analytical arguments and conclusions. Chapter 10, consequently, presents contributions and recommendations to the Gaza Strip case in landscape planning and management. This includes future aims and objectives of landscape planning and management, the administrative bodies, approaches and tools, etc. Other general recommendations are then developed to accommodate the general conditions of the wider context concentrating on the conditions of the developing countries.

Chapter 2

The Gaza Strip as a case of the developing countries

This chapter builds on the general introduction and highlights both the problems and main questions of the study, concentrating on its boundaries of time and space in both the wide context (the case of the developing countries) and the narrow one (the Gaza Strip case). As mentioned in the previous introductory chapter, the questions of this study are with much relation to the real conditions of living life: political, social and economic. Environmental aspects, and thus landscape issues, are very much connected to the quality of life as well. The following background will focus on the relationship between the developing countries and the Gaza Strip, and demonstrate specific similarities and/ or differences. Being in the focus of this study, the existence of environmental and landscape aspects among the many other hot issues in these areas are frequently highlighted upon.

2.1 Developing countries background

The term 'developing countries' or 'developing world' (composing Approximately 187 of the 244 countries or areas of the globe [UNDP, 2005]) is being used today to denote the poorer countries in the world (socio-economical perspective), but it has originally been used with a purely political meaning using the term 'the third world' to denote countries which were not aligned to any of the eastern or western blocks after the Second World War. 'Less developed countries' (LDCs) is an equivalent term which is being used to compare and, in many times, to increase convergence with the other part of the world which is 'more developed countries' (MDCs). Developing countries may actually be developing, but the term is often used to include those which are not, but which are simply at an earlier stage of development; usually expressed in terms of industrialization and living conditions. Therefore, basic knowledge with relation to developing countries mainly emphasises the main topics in political and socio-economic status. The term

'least developing countries' indicates a group from the developing countries which are the poorest, and those compose 50 countries or areas (UNDP, 2005).

As mentioned above, developing countries are in an earlier stage of development expressed in terms of economy and living conditions, which can be distinguished according to the Human Development Index (HDI) created by United Nations Development Programme (UNDP) in 1990. According to UNDP (2005:21), 'the HDI is a composite indicator, which covers three dimensions of human welfare: income, education and health. Its purpose is not to give a complete picture of human development but to provide a measure that goes beyond income. The HDI is a barometer for changes in human well-being and for comparing progress in different regions'. Rubenstein (2003) classified these dimensions as economic, social and demographic, and considered other indicators including economic structure¹, worker productivity², access to raw materials, and availability of consumer goods as economic indicators; quantity and quality of education and health and welfare as social indicators; and infant mortality, natural increase, crude birth rate³, and mortality rate of women in childbirth as demographic indicators. Table 2.1 on page 20 shows these indicators for both developed countries and developing countries based on Rubenstein's (2003) data. Developing countries can also be defined by their location on the planet. Potter and Lloyd-Evans (1998:17) generalize the locations of the developing countries by drawing a line around the globe at about 30 north latitude resulting in what is known 'North-South divide' (see figure 2.1 on page 21), where most developed countries are located to the North, while all developing countries are located to the south of this line, with some exceptions including Israel, Hong Kong and Singapore as developed countries located in the southern part.

2.1.1 Relations among development factors

Generally speaking, development in developing countries is greatly connected to developed countries because both two groups are in the need of each other. Development demands in developing countries require internal or international financial resources; development is strongly connected to economic growth. Economic development fosters greater levels of industrialization and urbanization, and any increase in industrialization and urbanization tends to generate a higher standard of living (Shandra et al., 2003). Industrialization is connected at the same time to other social indicator of development such as raising educational level. Education, no doubt, plays essential changing role

¹Types of economic activities (jobs) can be: Primary (directly extract materials from Earth through agriculture, mining, fishing, and forestry), Secondary (transform materials into useful products) and Tertiary (involves the provision of goods and services to people in exchange for payment).

²The value of a particular product compared to the amount of labour needed to make it.

³Number of children dead per 1000 at birth.

2.1 Developing countries background

Development Factors	Indicators	Sectors	Developing countries	Developed countries
Economic factor	GDP per capita		About and mostly less than \$1,000	Exceeds \$20,000
	Economic structure	Primary	People engaged are more than 75%	People engaged are less than 5%
		Secondary	Moderate ++	Moderate - -
		Tertiary	Least	Most
	Productivity		Less production with more effort	More production with less effort.
	Raw materials		Dependent on materials that are cheaper and not critical any more (copper)	Dependent on materials that are more expensive and critical (petroleum)
Social factor	Consumer goods		Ratio of people to motor vehicle and Tel. exceeds 100:1. The ratio to TV varies from 10:1 in China to several hundreds:1 in Bangladesh and several African countries.	Ratio of people to motor vehicles, Tel., TV is almost 1:1
	Literacy rate		Less than 33% Much lower for F than for M especially in Middle East and South Asia.	Exceeds 95% Almost the same for both F and M
	Amount of education.	Quantity	Average number of school years attended is low (two years). F: M is 60:100 in Higher Edu. Publish less books, magazines, etc. Less expenses on pupils.	Average number of school years attended is high (10 years). F: M is 99:100 in Higher Edu. Publish more books, magazines, etc. More expenses on pupils.
		Quality	More student/ teacher (double no. of students in Developed countries). Less advanced.	Less student/ teacher (half no. of student in Developing countries) More advanced.
Demographic rate	Health and Welfare		Low or mostly no public assistance payments. Health care is generally not available at little or no cost. Less calories and proteins compared to UN recommendations.	Considerable or high public assistance payments. Health care is a public service that is available at little or no cost (except US). Enough (or even more than enough) calories and proteins compared to UN recommendations.
	Life expectancy		Early forties F are expected to live 13 years less than in Developed countries	Mid seventies M are expected to live 9 years longer than in Developing countries
	Infant mortality		About 90% of infants survive	More than 99% of infants survive
	Natural increase		More than 2% annually.	Less than 1% annually.
	Crude birth rate		Exceeds 40 persons/ 1000	Less than 15 persons/ 1000
	Mortality rate of women in childbirth		Several hundreds / 100,000 babies	Fewer than 10/ 100,000 babies

Table 2.1: Development factors and indicators for both Developing countries and Developed countries (Based on Rubenstein [2003:285-294])

2.1 Developing countries background

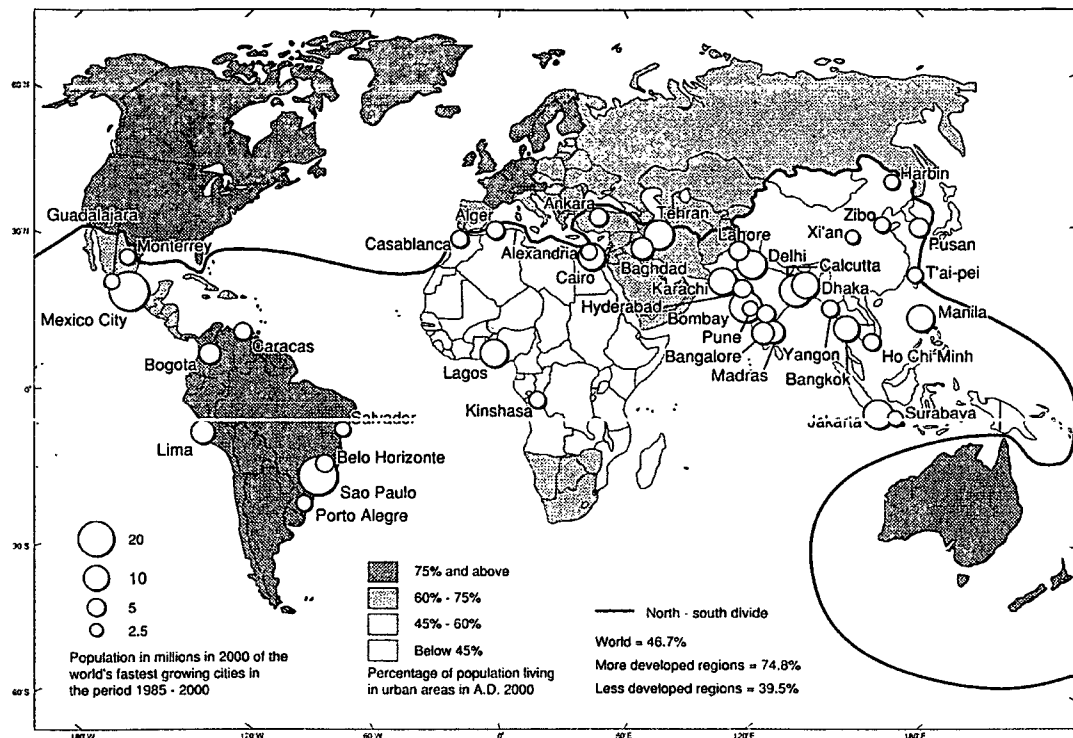


Figure 2.1: North-south divide line (Source: Potter and Lloyd-Evans [1998: 17])

among the other indicators. It indeed increases industrial development at the time that this may result in higher rates of unemployment because of the dependence on using more technical and less manual methods. Too, education will decrease infant mortality and mortality rate of women in childbirth and crude birth rate resulting in a clear increase in population growth. Increase in population growth may affect the economic growth and quality of social life as there will be limited access to health care and other basic social services. Oppositely, industrial development will increase economic welfare and quality of life, which will affect positively the demographic dimension. More complicated relations will result when considering all variables; however, relations can be grouped into four main categories:

1. Tendency to increase with positive effects or results; e.g. higher rates of education increases industrialization resulting in economic development.
2. Tendency to increase with negative effects or results; e.g. higher rates of education increases industrial development resulting (in many times) in higher rates of unemployment.
3. Tendency to decrease with positive effects or results; e.g. higher rates of education decreases infant mortality resulting in higher levels of health and quality of life.

4. Tendency to decrease with negative effects or results; e.g. higher rates of education decreases infant mortality resulting in higher rates of population growth

Supporting and enhancing the relations that offer positive results is thus principal way of thinking to planning for social and economical welfare. The environmental issue (due to further discussion in section 2.1.4 on page 25) is another one that has big relations to the mentioned dimensions and indicators.

2.1.2 Mutual political and socio-economic consequences

Political issues in the developing countries are subject of great discussion, which principally, does not have enough space in this study. Most developing countries are newly independent nations escaping from colonialism; mostly, after World War II (Potter and Lloyd-Evans, 1998: 24); however, many of these countries are still far from having real and fair internal governance. Many shapes of the governance of such nations can be described as dictatorial, authoritarian, centralized or totalitarian where the whole power is in the hands of few persons (usually military officers). Interests are then on the control of population and on the protection of the system from both internal and external forces. Corruption is the main character that distinguishes many of these countries affecting, in addition to the political life, the social and economic welfare of the public. On the other hands, democracy and fair local governance, with different forms, are the shape of governance in a considerable number of the developing countries.

The political situation, in many cases, affects negatively the socio-economic conditions of life, which in turn have much clearer consequences on quality of life. Population growth surely influenced, and is influenced by, persistent widespread poverty as well as serious social and gender inequities (Source: IISD Website). The developing countries are still facing serious economic difficulties and an unfavourable international economic environment, and the number of people living in absolute poverty has increased in many countries. Poverty is often accompanied by unemployment, malnutrition, illiteracy, low status of women, exposure to environmental risks and limited access to social and health services, including reproductive health services which, in turn, include family planning. Weak economies usually fail to offer investments in fields important to the eradication of poverty, such as basic education, sanitation, drinking water, housing, adequate food supply and infrastructure, especially with rapidly growing populations. In the period of the decade starting in 1987, the developing world needed to increase its capacity to produce and manage its urban infrastructure, services, and shelter by 65% to simply maintain the existing conditions, but unfortunately, this challenge could not be met (Hinrichsen et. al., 2002).

A society with unusual high number of young people (a consequence of high fertility rates) requires that jobs should be created for a continually growing labour force under conditions of already widespread unemployment. The numbers of elderly requiring public support will also increase rapidly in the future. Sustained economic growth in the context of sustainable development will be necessary to accommodate these pressures (Source: IISD Website).

In general, population growth, poverty, patterns of production and consumption and the environment are closely interconnected to each other, and unsustainable consumption and production patterns are contributing to the unsustainable use of natural resources and environmental degradation. These are the very issues with which landscape planning is concerned. Environmental degradation, from its side, directly impedes socio-economic development. Air, water and soil pollution, for example, impose costs on business and industry, and on households as well as public services. Inefficient use and depletion of natural resources raises input prices and operating costs throughout the economy, and deters new investment. Moreover, failing to deal with the problem today, leads to much greater problems and costs in the future (Source: GDRC Website). So, developing landscape planning and management approaches is with high importance in developing countries.

2.1.3 Urban-rural status and population-urban growth

The developing countries had actually been predominantly rural but they are quickly becoming urban. A great increase in the demand for labour occurred in the towns, and technical developments in agriculture allowed for rural population to lose job opportunities (Potter and Lloyd-Evans, 1998:9). In 1950 only 17.8% of population in developing countries lived in urban settlements, 27% in 1975, and 40% in 2000, while in 2030 the developing world will have 56.4% of population in urban settlements (Source: UN Website[b]). The United Nations expected that in the next quarter-century, 90% of world population growth will occur in urban areas of developing countries (Population Council, 1999). In spite of the fact that the developed world is more urban (estimated at 75.4% of the population living in urban areas in 2000), developing countries have now much faster urban and population growth; an average annual population growth rate of 1.24% and annual urban growth rate of 1.11%, which far exceeds the developed world's annual population growth rate of 0.07% and annual urban growth rate of 0.31% (Source: UN Website[b]). Hinrichsen et al. (2002) expected that over the next 30 years virtually all population growth will take place in urban areas of developing countries at an average annual rate of 2.4% twice the overall annual population growth of 1.2% in the developing world. In 1950, the largest four cities in the world (New York, London,

Rhine-Ruhr and Tokyo) were all in the developed world and only 5 of the largest 15 cities in the world were in the developing country (Potter and Lloyd-Evans, 1998:16). Since 2000, 11 of the largest 15 cities of the world have been in the developing world (Source: UN Website[b]). The largest three populations living in urban developing places in 2025 are expected to be in South America with 87.5%, Central America with 80.5% and Western Asia with 76.3% of the total population (Potter and Lloyd-Evans, 1998:19). Also, by 2015 an estimated 564 cities around the world will have 1 million or more residents; of those, 425 (75.4%) will be in developing countries (Hinrichsen et al., 2002). However, the most basic attempts to measure what proportion of a country's land is urban encounter enormous problems of definitions and units of measurement. Shortcomings in the data of the developing countries, and sometimes in the developed countries (Kivell, 1993:43), make it more difficult to calculate and estimate figures for the future population and urban growth where the collection of adequate data on urban land use and land use changes is always likely to present difficulties. Thus, it is coming more difficult for governments of developing countries to produce successful long-term and sustainable development. Although this issue is dealing with more economic and social topics, it is very much a matter of physical planning as well. The most important to be mentioned and studied, however, is the resulting and accompanying hazards relating to the global struggle to achieve better living standards; generating jobs and providing the services, infrastructure, and social supports required to sustain livelihood and stable environments.

Extension and growth of urban areas is indeed an international phenomenon world-wide. It occurs in developed as well as in developing countries, but with much higher rates in the later. Growth was once applauded and still in economics; however, recently it carries dangers, and some argue for 'zero growth', but still absolute stability is hard to maintain (Lynch, 1994). Urban growth is greatly connected to the population growth rates rather than any other factor (especially in the developing countries), and therefore, it can be mentioned as 'population-urban' growth; in the developed countries, urban growth is not necessarily related to population growth as several developed countries almost reached a population-steady-state while urban development and growth is still happening. Pianin (2001) mentioned that 'among developing countries, excluding China, an estimated 60% of urban growth between 1960 and 1990 was from natural increase and 40% was from immigration from rural areas'. Immigration from rural to urban has also relations to environmental degradation which is responsible, for instance, for the vulnerability to food shortages because of the ecologically degraded and drought-prone regions (Henry et.al., 2003); these topics are due to discussion in the next section. Population-urban growth does not necessarily mean a real development;

it is not always an indicator of political, economic or social development. The result of this population-urban growth in many developing countries is a great lack of facilities and institutions. Too, implications of urban growth in existing open spaces and lands within cities are a landscape planning issue. Therefore, developing countries still have much to do against the reasons causing this unplanned growth in and around cities.

2.1.4 Development impacts on the environment and landscape

Population-urban growth has many consequences on the components of its surrounding including nature, environment, and landscapes. The clearest is depletion of natural resources (water, soils, biodiversity, etc.) which are principally composing landscapes. Population-urban growth usually results in environmental deterioration, but that is not a necessity (Source: GDRC Website). When happened, it appears in different shapes. The clearest is pollution (mainly of air, water and soils). Hinrichsen et al., (2002) concentrated on this topic and gave many figures including the following:

- Pollution is responsible for killing nearly 3 million people every year (about 6% of all deaths annually) and 90% occur in developing countries.
- As cities grow ever larger, they consume more and more natural resources to meet the rising demand for food, water, energy, and goods and services for both people and industry. Cities generate close to 80% of all carbon dioxide emissions and account for three-quarters of industrial wood use.
- Polluted water, improper waste disposal, and poor water management cause serious public health problems where such water-related diseases as malaria, cholera, and typhoid harm millions of people every year; dirty water is the largest environmental killer around the world, claiming 5 to 12 million lives a year.
- According to the World Health Organization (WHO), the majority of urban populations in developing countries do not have access to proper sanitation facilities (a flush toilet, sanitary latrine, or a pit that can be covered over), about half lack a regular supply of potable water, and 70% of the water pumped into cities is lost before it can reach consumers, leaking out of faulty water mains, pipes, and faucets.
- Some 60% of all freshwater withdrawn for human use ends up in urban areas (either directly for use in factories and for drinking and sanitation, or indirectly through the consumption of irrigated crops. There are so many other consequences of population-urban growth on environmental and landscape-related features; those include the following (based on Upadhyay and Robey [1999]):

2.1 Developing countries background

- About 70% of the world's urban residents breathe air that is unhealthy at least some of the time.
- A country is considered to face water stress when annual water supplies drop below 1,700 cubic meters per person and water scarcity when annual water supplies are less than 1,000 cubic meters per person.
- Today, 31 countries face water stress or water scarcity, and by 2025 population growth alone is expected to add another 17 countries to the list.
- Water shortages would then affect 2.8 billion people, or 35% of the world's projected population compared with 8% today.
- One common characteristic of societies that are vulnerable to conflict is extreme scarcities of such non-renewable natural resources as water, farmland, fisheries, and forests; as more and more people compete for these resources, some gain more than others, while some people become marginalized, setting the stage for unrest and conflict.
- In some countries population-urban growth is outpacing agriculture production; despite increases in food production, food output per person has fallen: between 1985 and 1995, for example, food production lagged behind population growth in 64 of 105 developing countries studied by the UN Food and Agriculture Organization (FAO).
- Demanding too much from the soil causes it to lose nutrients and to erode, so that its food-producing capacity decreases. Nowadays, in some countries farmers already are cultivating areas that are dry, hilly, or rocky or that have thin, weak soils; Population pressures have degraded some 2 billion hectares of arable land an area the size of Canada and the US.
- Rapid population growth in rural areas forces each generation to subdivide family agricultural plots into smaller and smaller parcels and to expand farming to increasingly marginal lands.
- With time running, pressures on agricultural land can become so great that many rural families cannot support themselves by farming. Many move to the city to search for jobs.

2.1.5 Planning issues in the developing countries

Potter and Lloyd-Evans (1998:25) mentioned that, in developing countries, planning and development initiatives have to be premised on different foundations including the view of Taylor and Williams (1982) who noted 'planning in developing societies needs to stress social planning rather than physical (land use) planning, and is more likely to be based on local initiatives, rather than comprehensive master plans'. For Koningsburger (1983) and Potter (1985), planning in developing areas has to be predicated on the fact that people are having to rely on self-help much more than in developed countries, and that the employment and housing markets are as a result, far more informal in these contexts (Potter and Lloyd-Evans, 1998:25). In many developing countries family planning programmes help to slow population growth, which in turn is an important way to protect the environment and preserve natural resources; easing demand for water, preserving arable land, limiting air and water pollution, reducing the burden on cities and averting conflicts over resources (Upadhyay et.al., 1999). Urban growth boundary is a well-known planning tool usually used to control urbanization in a double-purpose way where it offers areas with low landscape quality for development and, at the same time, prevent development in areas with high quality; saving the main activity to protecting the natural resources and consequently the landscapes.

2.2 The Gaza Strip background

The Gaza Strip is one of the most underdeveloped regions in the world. It is a region of extreme complexity: geographic, demographic, economic, social and political. Society of the Gaza Strip can be described as traditional and religious. It is, to a great extent, dependent on agricultural productions. Geographically, the Gaza Strip is a narrow plain located on the South-eastern cost of the Mediterranean (the base map of the Gaza Strip is shown in figure 2.2). Its coast is about 40 km long and width ranges from 6 to 12 km, while its area is not exceeding 365 km (EPD, 1994). Along with this small area to accommodate the various activities and secure sustainable development, there are significant evidences of conflict (MOPIC, 1996c). The last four decades (distinguished mainly by Israeli Occupation from 1967 to 2005 and the establishment of the Palestinian Authority in 1994) have been more or less unique in terms of exploiting natural resources. The period of the Israeli occupation has left the Gaza Strip in a technical and administrative void creating inadequate capacity in the fields of spatial, strategic, socio-economic and environmental planning and, parallel to this, the ongoing conflicts has resulted in a state of extreme uncertainty. The most significant and unique study regarding issues related to the Gaza Strip is the one written by Sara Roy (1995)

2.2 The Gaza Strip background

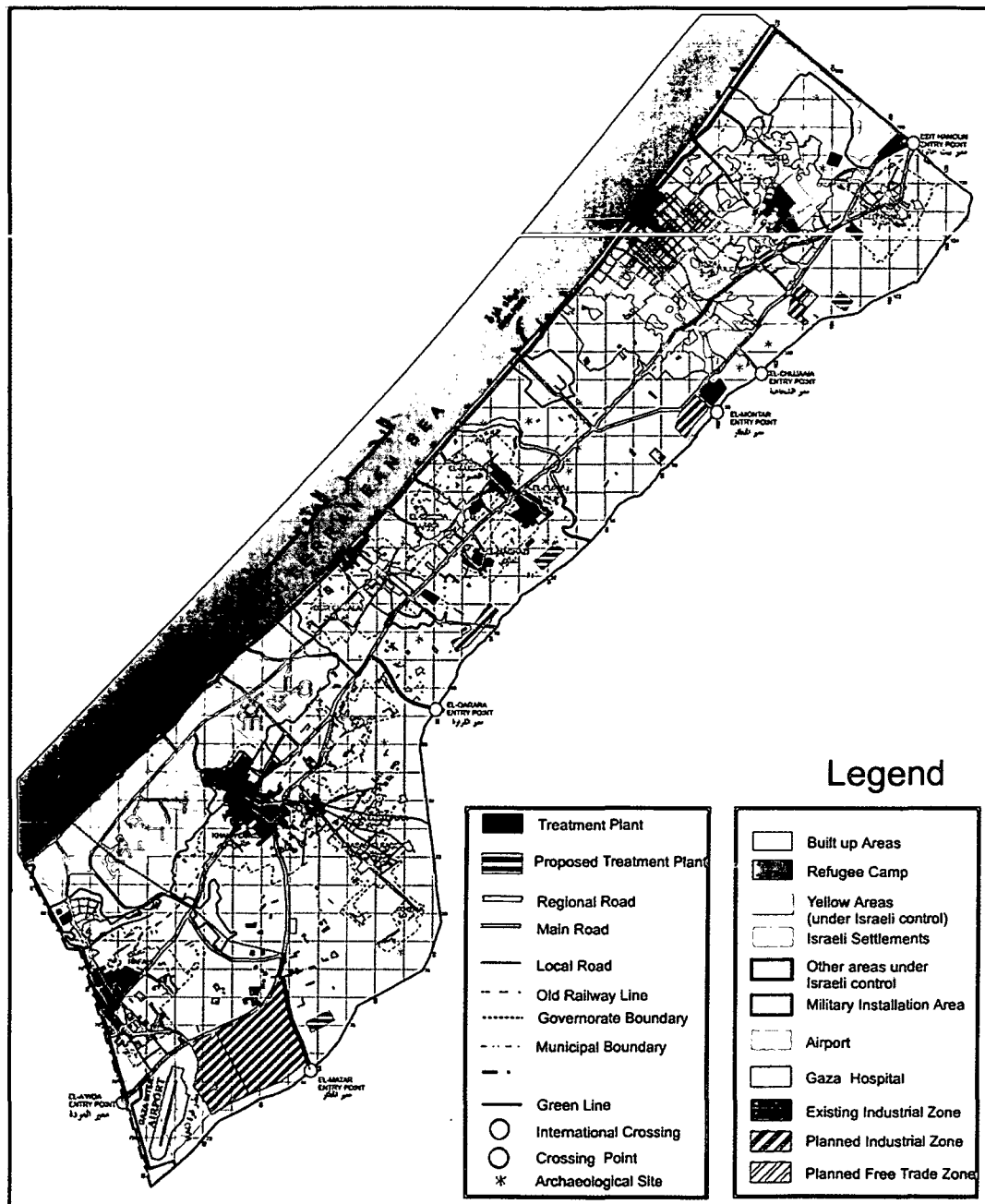


Figure 2.2: The Gaza Strip base map (Source: MOPIC, [1997])

and called 'The Gaza Strip, The Political Economy of De-development'. It includes, among many others, two main points that are of great significance to this study:

1. 'It has been the Israeli's ideological and political goals, which rob the native population of its most important economic resources (land, water and labour) as well as the internal capacity and potential for developing those resources' (Roy, 1995:5,6).
2. 'Palestinians also have not addressed the importance of development and its critical relationship to political change, and just prior to the initiation of the 1991 Middle East peace talks, Palestinian Liberation Organization (PLO) had not considered seriously the question of development' (Roy, 1995:7,11).

The Gaza Strip has had a new situation and ongoing development after the redeployment of the Israeli forces in 1994. A lot of planning works had been done by the Palestinian Authority (mainly by Ministry of Planning and International Cooperation [MOPIC]) in order to control the development process. But, at the same time, a lot of activities took place on ground far from this process.

2.2.1 Demography and population-urban growth

Political development played a significant role in the growth and distribution of population in the Gaza Strip. According to the Regional Plan for Gaza Governorates (MOPIC, 1998), the estimate of the Palestinian displacement in 1948 was about 200,000 refugees, who moved from Palestinian land occupied in 1948 (the so-called Israel) to the Gaza Strip causing a composition of 70% refugees and 30% indigenous at the end of 1948 with a total figure of about 280,000 inhabitants. In 1967, the population figures decreased from 454,900 to 354,700 as a result of the Arab-Israeli war and the Israeli occupation of the Gaza Strip and the West Bank. On the 25 of April 1994, the population figures reached 842,600 inhabitants in the Gaza Strip (MOPIC, 1998). The population figures increased to 1,001,600 inhabitants at the end of 1997 when almost 50.2% were under 15 years and 19.8% were under 4 years old (PCBS, 1998). The population growth rates in this 4-years period (from 1994 to 1997) amounted to 6-7% (MOPIC, 1998). This happened due to two main factors. The first is, of course, the natural birth rates, which slightly increased (from 49.4 new born for each 1000 inhabitants in 1994 to 49.9 in 1995) and, on the other hand, the decrease in death rates (from 4.5 inhabitants for each 1000 in 1994 to 4.1 in 1995). The second factor, which seems more effective, is the migration of Palestinians from throughout the world back to their homeland (in this case, the Gaza Strip) after the peace agreements in 1994. Table 2.2 shows the demographic indicators in the Gaza Strip from the end of

2.2 The Gaza Strip background

year 1997 (when the census of population was carried out for the first, and the last, time by the Palestinian Central Bureau of Statistics (PCBS) under the responsibility of Palestinian Authority) up to the year 2015¹. It also shows indicators of former years (1980, 1992, 1994 and 1996) based on the estimates done by Ministry of Planning and International Cooperation (MOPIC, 1998:17). Future estimates of Ministry of Planning

Year	Mid Year Population	Crude Birth Rate / (1,000)	Crude Death Rate / (1,000)	Natural Increase Rate (%)
1980	449,600	-	-	2.90
1992	747,200	54.0	5.8	5.90
1994	842,600	49.9	4.5	6.80
1996	963,000	-	-	6.00
1997	995,522	45.42	4.65	4.08
1998	1,039,580	45.06	4.51	4.06
1999	1,087,067	44.73	4.39	4.03
2000	1,138,126	44.44	4.27	4.02
2005	1,481,050	42.98	3.85	3.91
2010	1,889,479	39.82	3.47	3.64
2015	2,255,056	35.98	3.20	3.28

Table 2.2: Demographic indicators in the Gaza Strip for selected years between 1980 and 1996 (Source: MOPIC, 1998:17) and from the end of year 1997 to 2015 (Source: PCBS Website)

and International Cooperation (MOPIC, 1998) have significant differences in numbers; however, its estimate of population in year 2015 (which is 2,313,000 inhabitants) is close to the one of PCBS (which is 2,255,056 inhabitants). MOPIC (1998) estimated population growth ratios which reach 8% in 2006 and decrease to 4.8% in 2015.

The distribution of the urban and rural population has changed, mainly due to the movement towards different urban areas. The urban population measured 92% in 1996 (MOPIC, 1998). One main factor should be cleared in this context; it is the refugee camps which had been established close to the urban settlements and included in their statistics. According to PCBS (1998), the urban population at the end of 1997 in the Gaza Strip amounted 636,142 and the camps population amounted 311,316 with a total of 947,458 inhabitants and with a percentage of about 94.6%. The rural population amounted 53,662 inhabitants with about 5.4% of the whole population.

¹ Data for all years from 1997 to 2015 are found in appendix B on page 282

2.2.2 Political and socio-economic issues

Political issues have much significance in the Gaza Strip to the limit that it is not possible to understand any of the main life areas without understanding the politics of the Gaza Strip. Everyone in the Gaza Strip is a political being and every action has a political significance (Roy, 1995:21). Most people follow on TV only political news and they usually divide themselves according to political issues even across the one-family scale and social classes. The Gaza Strip appears, for many, as the least complicated political issues on the current political agenda of the area, while many others see it as the most complicated among many others. Palestinians in the Gaza Strip as well as in the other Palestinian territories would like to liberate their lands soon. The term 'Palestinian lands', on the formal international political level (and even on the 'announced' formal Palestinian governmental level), means lands occupied in June 1967 (i.e. the West Bank, including East Jerusalem, and the Gaza Strip); however, from the informal point of view of many peoples in the world (particularly Moslems who count more than one sixth of world population), this term means all historical land of Palestine, which was very well-known before the Zionist occupation in 1948. Occupied Palestinian Territories is the term that used in many times to indicate the West Bank and the Gaza Strip as one Palestinian entity. However, many differences distinguish the Gaza Strip and the West Bank from Each other. Political as well as socio-economic issues in the Gaza Strip and the West Bank have been different because of the many differences that distinguished their recent history, which goes back to the end of the First World War and the beginning of the British Mandate under which specific changes and differences started to appear. Among these differences is the policy enacted by the British Mandate which prohibited the settlement of Jewish immigrants in the southern part of Palestine (which included the Gaza Strip) at the time that it was allowed in the Northern parts (which included the West Bank) (Roy, 1995:44). Table 2.3 shows many other differences that distinguish the Gaza Strip from the West Bank related to several indicators.

The differences mentioned in this table have been the reasons because of which the Israeli authority treated the Gaza Strip differently; for example, they have been talking on withdrawal from the Gaza Strip since long time at the time that they have been hardly talking on withdrawal from the West Bank¹. In many times, different groups from the different responsible bodies of both Israeli occupation and Palestinian Authority worked for the West Bank and for the Gaza Strip in complete isolation resulting in rules, policies and legislations for each separate from the other.

¹ Withdrawal from the Gaza Strip has become a reality in September 2005 during the final stages of this study.

2.2 The Gaza Strip background

Indicators	The Gaza Strip	West Bank
Main events*	The Gaza Strip was where the All-Palestine Government was established in 1948, Where the Palestinian uprising (intifada) began in 1987, and where limited self-rule for the occupied territories began in 1994	
Religion significance of land	Less significant	More significant as Jerusalem and Bethlehem are located within its boundary
Area (km²)**	365	5655
Topography***	Coastal plain; max. height up to 100 m OSL**	Mountainous: heights mostly between 700-900 m OSL
Tourism*	35 persons / year	Thousands / year
Traditions*	More traditional	More open to the world
Fertility rates*	higher fertility rates	Lower fertility rates
Mortality rates*	lower mortality rates	Higher mortality rates
Native Population *	Majority is refugees 70%	Majority is indigenous
Pop. Density / km² in 2004**	3808	420
Urban / rural population in 1966*	At least 89 % of Gaza's population; 39 % in towns and 50 % in refugee camps.	More than 50% lived in small farms
Average refugee camp in 1993*	40,058 people	6,542
Integration *	Egyptian government never made an attempt to incorporate or annex Gaza territory.	Jordanians incorporated West Bank
Political issues before Israeli occupation *	The Egyptian authorities prohibited both the development of an independent Palestinian political movement and the kinds of institutions needed to sustain it. The government also refused most forms of participatory politics; all Palestinian officials were appointed.	Jordanians allow West Bankers to participate in national and local government. Some held administrative positions in the government bureaucracy and in the Jordanian parliament. West Bankers have thus considerable political experience and consciousness.
Political issues under Israeli occupation*	Israeli exercised much tighter control in Gaza, relied on brute military repression. Easier to be controlled because of small size and location	More indirect forms of cooperation have been the mainstay of control .
Israeli Settlements*	No. of settlements is 17 with no. of settlers of about 8,000*.	No. of settlements is 148 with no. of settlers that exceeds 430,000*.
Economy 1966*	14% of all household had land as a source of income	42% of all household had land as a source of income
Economy: 1987, total industrial revenue*	US\$961 per worker	US\$ 1,650 per worker
Unemployment July- September 2005****	35%	26%

Notes:

* Source: Roy, 1995

** PCBS, 2005a

*** UNEP, 2003

**** PCBS, 2005c

Table 2.3: Differences between the Gaza Strip and the West Bank

Recent political and socio-economic issues in the Gaza Strip can be actually discussed with respect to two main periods: the first is the one before the Declaration of Principles Agreement signed in September 1993; and the other is the one after. This categorization is actually based on the governor of the Gaza Strip who had been non-Palestinian in the first period and has become so, at least from the theoretical or formal point of view, in the second period. Giving importance to the governor of the land is essential when issues of planning and management (mainly physical, land use, or landscape planning) are discussed.

2.2.2.1 Political and socio-economic issues before the peace agreements

The British Mandate (1917-1948)

The existence of what is known 'Palestine' started with the British occupation to the whole area in 1917. Directly after the First World War, the colonial occupation divided the former Ottoman Empire into smaller pieces among which Palestine (with its first appearance as it has been known afterwards) was under the British mandate while the Gaza Strip had not been recognized yet. The immigration of Zionists to the holy land (i.e. Palestine) started few years before the beginning of the twentieth century and increased greatly after the First World War. However, Zionists had not settled the Gaza Strip area (included in the larger Gaza District; a land-division system which was inherited from the Ottomans), because the official British policy prohibited Zionists from using the state lands in the Gaza district for the purpose of settlement (Roy, 1995). The appearance of the Gaza Strip as a separate entity was a result of the 1948 war and the signing of the Egyptian-Israeli General Armistice Agreement on 24th of February, 1949 when Egyptian military administration started (Source: UN Website[a]).

In the periods before, Gaza area, with its predominantly agricultural economy and very small connected industrial activities, was known as a trade centre. The agricultural sector was with low productivity and limited employment and trade continued to form a primary basis of Gaza's economic growth (Roy, 1995:46). By the war in 1948, great changes (mainly socio-economic) happened with the move of about 200,000 refugees from their home lands to the new-founded Gaza Strip area at the time that original indigenous were not more than 80,000 (MOPIC, 1998).

The Egyptian Military Administration (1948-1967)

The situation in the Gaza Strip during this period was extremely difficult; much of the agricultural and grazing land had been lost to Israel, and its port had been closed and the economy collapsed. The Egyptian military administration centralized authority and power in the military and little was done to improve the social and economic

conditions (Roy, 1995:66). The strategy of the Egyptian administration, especially in the first ten years, was to keep the Gaza Strip completely separate from Egypt (to emphasize the Palestinian existence and identity), but this had changed after the first Israeli Occupation of the Gaza Strip in the period from November 1956 to March 1957; exports and trade then were allowed to and through Egypt. UNRWA played a dominant role during the Egyptian Administration period; especially as an employer at the time that it was also considered the main source of aids (including clothes, food and medicine) to many unemployed refugees. However, people needed much more to meet their demands; land and its natural resources was the other main, and free, source of aids to Palestinians, who lived in severe poverty during these times. Agriculture, with its low level of productivity, remained the main economical single activity and was devoted almost exclusively to citrus. Consumption was with high levels, and oppositely, investment in resources was with low levels and the economy in general remained underdeveloped (Roy, 1995).

The Israeli Occupation (1967-1994)

'The land over people' priority, which was first articulated by the Zionists during the British Mandate period, was the one used as a general basis during the Israeli occupation afterwards. Political ideology shaped the relation between the Gaza Strip and Israel. Features of this relation included the establishment of settlements, the intensive use of natural resources, mainly water, and exploiting labour inside Israel at the time that using capitals and investments inside the Gaza Strip was not generally allowed. The relation between the Gaza Strip and Israel has been described as the one of integration; e.g. by reorientation of labour force to labour intensive work in Israel and redirection of trade to Israel (Roy, 1995:130). However, the relation can be also described as the one of both integration and separation at the same time or in other words 'integ-sepa-ration'. The ideology of creating very weak economy in the Gaza Strip to keep it related or connected to Israel is also the one of separating this weak economy from the intended strong economy of Israel. Israel, and according to its primary objective and priority, which is 'land over people', intended to integrate lands but, at the same time, to separate people (i.e. Palestinians), so it is a status of 'integ-sepa-ration'. Since 1967, Israel imposed nearly 1000 military orders in the Gaza Strip regulating all activities in all areas of Palestinians' life resulting in the following general features of life (based on Roy [1995:128-131]):

- Lack of human rights including political dependence and self-determination, control over economic and institutional resources, cultural freedom, and legal protection

2.2 The Gaza Strip background

- Prohibitions and restrictions on a wide range of economic activities including union organizing, creation of industrial zones and establishment of factories, industrial and commercial licensing, agricultural production planning and development, research and training, and employment and investment in the territories
- Presence of a majority of refugee community and absence of a financial support structure at the time that there was little investment in social and economic infrastructure.
- Expropriation of natural resources such as land and water, coupled with restrictions on land and water-use planning and on the development of public and private utilities and infrastructure;
- Ignorance of the long-term impacts of the policies on the conditions of Palestinians' communities;
- The lack of any Israeli interest to formulate a development plan for the Gaza Strip
- Restriction and undermining (by Israeli government) of institutions that could plan for and support productive investment over time.
- Decision-making and control over institutions by the Israeli military authorities
- Restrictions on municipalities to exercise their authorities or to initiate a new project without the approval of the military governor. These restricted authorities include planning, zoning, granting building permits (especially for factories), water usage and allocation, electricity usage and allocation, sewage disposal, public markets, public transportation, public health institutions, and town property and its supervision
- Road construction has been designed to service and promote Israeli settlements, facilitate army movement, and supply Israeli employers with Palestinian labour.
- The education system was plagued by under-funding, overcrowding, inadequate facilities, poor physical infrastructure, and inadequate resources. Under the Israeli rule, education in the Gaza Strip suffered from a variety of government-imposed restrictions on the kinds of textbooks and curricula used
- Closure of Gulf States' markets because of the Palestinian support of Iraq in the Gulf crisis.

2.2 The Gaza Strip background

- Loss of terminations from both governments and Palestinians living in the Gulf states when many of them were sent out of work or even of the country.

- Since December 1987, features of the Intifada¹ distinguished Palestinians' life. Those features included:

1. most populated areas of the Gaza Strip were under curfew or on strike in many days and, thus net real income dropped by 40% to 50% compared to pre-Intifada levels;
2. number of labourers in Israel decreased and unemployment increased gradually;
3. Israeli government required permits and licenses for many basic activities and economic endeavours;
4. Israel prohibited the harvesting and marketing of crops;
5. destruction of tens of thousands of trees and crops by Israeli forces and settlers;
6. restriction on water consumption, planting, and marketing; and
7. decline in industrial output

During the time of Israeli occupation, the situation in the Gaza Strip, therefore, has been deteriorating and aggravating and the natural resources have been depleting. The Israeli Authorities imposed many restrictions in all fields of life and the Palestinians had been denied for their resources. The absence of developed law and regulations had deprived the Palestinians from any real development opportunity. Few master plans for a number of urban settlements were prepared during the Israeli occupation but with little involvement of local councils and with little attention for future problems (MOPIC, 1996a). The institutional system of occupation and its hierarchy and military-dominance weakened the Palestinian society and left it unable to carry responsibility in several areas especially on the national or regional levels. Figure 2.3 on page 37 shows a simple chart of this system where the Palestinian existence can be found only and strictly on the local level.

Palestinians received aids from UNRWA in specific fields; mainly education and health; however, rules and guidelines were also imposed from higher levels which based outside the Gaza Strip. The relationship between UNRWA and Israeli Authorities was weak especially when imposing rules that have relation to the national or regional levels. Local Palestinians organized the system on the local level according to the

¹The civil uprising against occupation

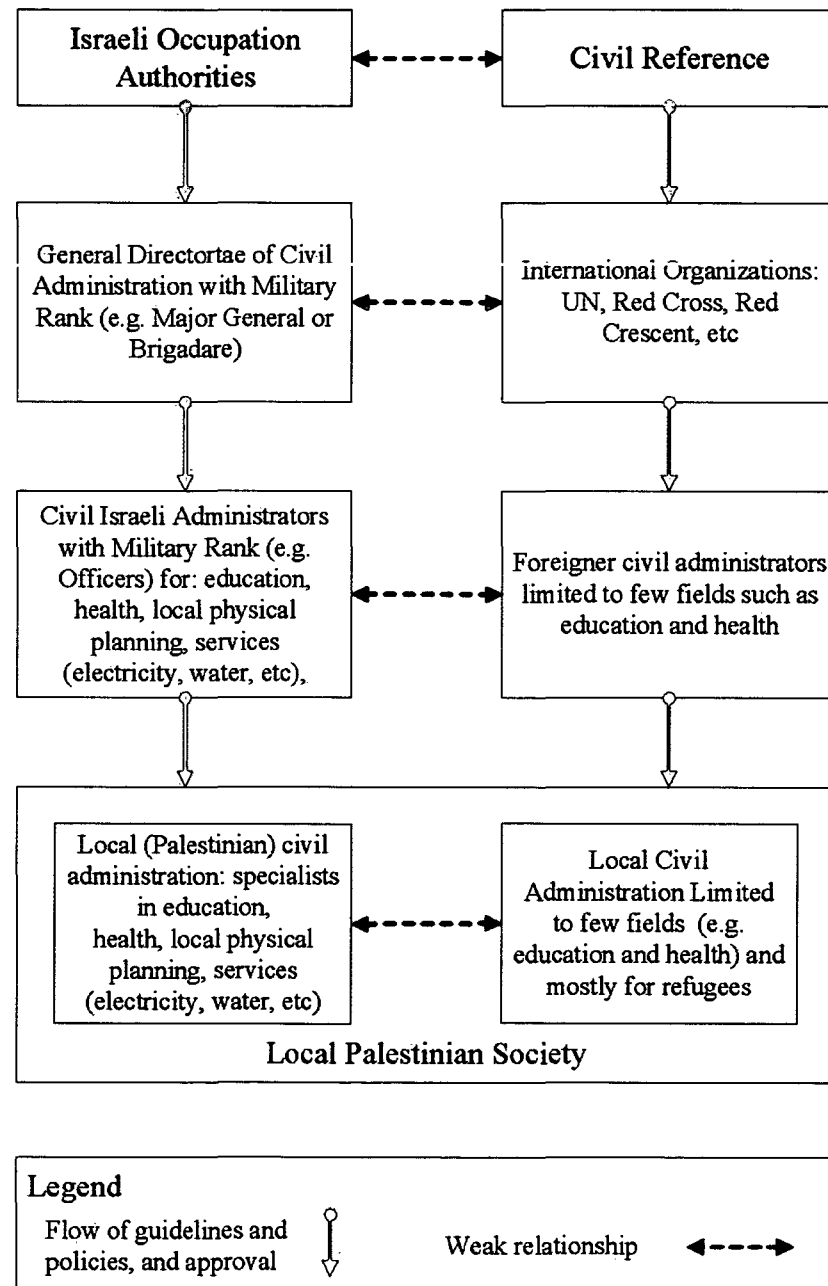


Figure 2.3: Flow of policies and approval procedures during the Israeli occupation in the Gaza Strip

policies imposed from higher military levels. They needed an approval for any change they intend to implement. The Palestinian authority, therefore, inherited a complex and problematic issues on all levels and in all areas but the main is the issue of land and natural resources that can support any economic development in the future.

2.2.2.2 Political and socio-economic issues after the peace agreements

The most recent history of Palestine has started on the 9th and 10th of September 1993 when Chairman Arafat and former Israeli Prime Minister Yitzhak Rabin exchanged letters of mutual recognition¹. On 13th of September, the two leaders signed the 'Israeli-Palestinian Declaration of Principles on Interim Self-Government Arrangement' in Washington D.C. These arrangements were to endure for a five-year interim period, during which the parties were to negotiate and implement a permanent status agreement. The Declaration of Principles introduced significant changes in the governance of the occupied the West Bank and the Gaza Strip. Under that agreement, the parties agreed to Israeli military withdrawal from portions of the West Bank and the Gaza Strip, where control was to be assumed by the Palestinian Authority. According to this Declaration of Principles, both Palestinians and Israelis were supposed to negotiate about subjects including Palestinian independence, borders, security arrangements, relations and cooperation with neighbours, refugees and their right of return, east Jerusalem, Israeli settlements, natural resources- mainly water issues, etc. Israeli first military withdrawal (could be more precisely described as 'redeployment'), beginning in May 1994 according to the 'Gaza-Jericho Agreement', ceded control over Jericho, the town in the West Bank, and approximately two-thirds of the Gaza Strip to what has been known afterwards the Palestinian Authority (PA). Israel's agreement with the Palestinians calls for a continued 'sharing' of the land while Israel maintains ultimate control over it while the declaration of principles calls for joint arrangements between Israel and the Palestinians in almost every economic domain: water, electricity, energy, finance, transport and communications, trade, industry, infrastructure, social rehabilitation, business development, agriculture and tourism (Roy, 1995:325). But, indeed, long before the Gaza-Jericho agreement was reached, Israel had already created new integrating ties with Gaza; Israel encouraged the form of agriculture that is useful for its economy and marketing; however, many times this was not useful to Palestinians. Flower growing is a clear example of this strategy. It is a water-intensive activity (i.e. problematic in the Gaza Strip); however, it is very labour-intensive and provides Israel with a cheap labour input into the production of an important export commodity. Little has actually changed under the Gaza-Jericho agreement because of

¹ Refer to appendix A on page 279 for more information on the recent history of Palestine

the Israel's rejection of Palestinian sovereignty and control over foreign policy, security, and the economy, and because of its refusal to transfer decision-making authority over areas critical to development planning where land, water and zoning has remained under complete Israeli control (Roy, 1995:327). Within the period from 1994 up to March 2000, other agreements were signed regarding the withdrawal of the Israeli Army from Palestinian lands, mainly in the West Bank, and to move civil affairs to Palestinian Authority. In September 2000, the second Intifada started, and during the period from Sep. 2000 to October 2004, all negotiations have resulted in nothing and the Israeli army has reoccupied the Palestinian territories in the West Bank and entered Palestinian areas in the Gaza Strip several times with more violence affecting humans, buildings, nature, etc., and causing a lot of damage throughout the Palestinian territories. The Palestinian territories have been cut into small parts by Israeli check points which being established to offer safe passage to the settlers driving from and to Israel. On the other hand, Palestinian Authority has had, in addition to its very well-known positive role, a specific negative role on the political level of Palestinians' life. Palestinian politicians were not able to set active and strong rules, regulations or policies; however, many restrictions in the socio-economic fields in the shape of policies and penalties were composed by the local Palestinian police forces to overcome resistance and objections to peace agreements and to corrupt governmental behaviours on the local levels. Indeed, the peace process has resulted in nothing or, in fact, has retreated. Accordingly, the whole situation has become the most ambiguous since decades, and the members of the Palestinian Legislative Council (PLC) were, to some extent, unable to set rules in the different fields. In addition, on the governmental level, a lot of changes took place since the first government had been established in 1996. Sometimes new ministries had been generated from others. In other times, more than one ministry had been merged in one or converted to departments within other ministries. It had also been normal to predicate responsibility of some fields to a separated administrative body called the Authority; for example: the Authority of Environmental Affairs, the Palestinian Water Authority and the Authority of Energy. This happens at the time that these fields might be represented in other Ministries, mainly in Ministry of Planning and International Cooperation and Ministry of Local Governance. This has not been the problem by itself. The problem is that, in many times, these ministries, authorities and departments did not cooperate to set general curricula regarding their interests. This political situation has been with much connection to other important fields in Palestinians' life, but the clearest are issues of the socio-economy, where, despite the fact that the peace process continues to capture world attention, social and economical issues have been largely ignored. The media and public remain unaware

2.2 The Gaza Strip background

that years of alleged peace have meant a downward spiral of poverty. 79.9% have been living below the poverty line¹ in May 2001, 83.6% in May 2003, and 84.1% in March 2005 (PCBS, 2005b), hardship and misery for the majority of Palestinians as human rights and economic justice throughout the peace process have been ignored (Source: CESR Website). As a result of the Israeli as well as the PA policies, Palestinians face higher unemployment rates, lower household incomes, restricted access to such basic services as health care and education, and severe limitations on freedom of speech and movement; despite over \$ 3,000 millions from international aid since the peace process began (Source: CESR Website). This corrupting governance system has resulted in human rights violations characterized by military courts, arbitrary detention and torture on the allegation of fighting terrorism. Besides, the economical situation is continuously deteriorating, and the PA is responsible for a great part of this deterioration mainly because of the corrupt system established. An audit by the PLC revealed that senior public officials had mismanaged a staggering 40% of aids and funds (Source: CESR Website). Palestinians faced a form of double repression from Israel and their own government. The result was that, at a time when human rights of Palestinians are under attack, there has been no conceptual or practical program to effectively defending these rights.

2.2.3 Development status of the Gaza Strip

The Gaza Strip is actually one part of two (the other is the West Bank) where Palestinian Authority is supposed to take complete control; at least according to United-Nation's resolutions 242 in 1967 and 338 in 1973. Palestinians in the Gaza Strip have been struggling against Israeli Occupation and seizure of their lands at the time that they suffered many scarce deterioration and challenges in all fields of life affecting their existence and their own daily life. In its 'Human Development Report of 2005', United Nations Development Programme (UNDP) ranked Occupied Palestinian Territories in the 102nd position (among the 177 ranked countries) with a HDI of 0.729 which is comparably moderate. Table 2.4 on page 41 shows the Gaza Strip when evaluated using the dimensions and indicators of development mentioned in section 2.1 on page 18. This table shows also whether the Gaza Strip can be ranked as a developing or a developed region.

¹PCBS (2005b) noted that 'professional determination of poverty line and poverty prevalence is usually based on detailed studies about households' consumption and expenditure over an extended period of time using special methodologies and household surveys'. The poverty line here is determined by PCBS on the basis of the information revealed by households about their income. The Estimated Poverty Line for the fourth Quarter of the Year 2003 was NIS 1,934/ month (about US\$ 440) for a household composed of two adults and four children (PCBS, 2005b).

2.2 The Gaza Strip background

Development Dimensions	Indicators	Sectors	Palestine (P)/ the Gaza Strip (GS)	Ranking
Economic factor	GDP		P: \$ 1,260 in 1992 P: \$ 1,360 in 1998	LDC *
	Economic structure	Primary	GS: 50%	LDC
		Secondary	GS: 35%	LDC
		Tertiary	GS: 15%	LDC
	Productivity		Less production with more effort	LDC
	Raw materials		Poor	LDC
	Consumer goods		GS: 48 motor vehicle/1000 (1996)	LDC
Social factor	Literacy rate		GS: Almost 88%	MDC **
			GS: F percentage is 88% (PCBS)	MDC
	Amount of education.	Quantity	Average number of school years attended is moderate (6 years).	MDC
			F:M is 66:100 in Higher Education	LDC
			Publish few local books, magazines, etc.	LDC
			Less expenses on pupils.	LDC
		Quality	50 student/ teacher	LDC
			Advanced Education.	
	Health and Welfare		Low or mostly no public assistance payments.	LDC
			Health care is generally not available at little or no cost.	LDC
			Less calories and proteins compared to UN recommendations	LDC
Demographic rate	Life expectancy		Early sixties	MDC
	Infant mortality			
	Natural increase		More than 3,5% annually. (1997)	LDC
	Crude birth rate		54,6 persons/ 1000 (1993)	LDC
	Mortality rate of women in childbirth			

* LDC: Less Developed Country

** MDC: More Developed Country

Table 2.4: The Gaza Strip development status compared to the human development indicators

Indeed, the evaluation mentioned above concerning HDI for Occupied Palestinian Territories does not reflect the actual Palestinian conditions and daily life in the Gaza Strip. This evaluation considers the Occupied Palestinian Territories (The West Bank and the Gaza Strip) as a whole (i.e. one unity); however, these two parts are completely separate from each other, and there is almost no actual intercourses between them by any means other than media and telecommunications. There are also many differences between the West Bank and the Gaza Strip where the West Bank is the part that is responsible for this comparably-high HDI; population growth in the West Bank, for example, is less than in the Gaza Strip and GDP of the West Bank is double the one of the Gaza Strip (MENA, 1999).

2.2.4 Ownership of lands, land uses and urban-rural status

Land is naturally the main natural resource in the Gaza Strip relating to which (besides other lands of Palestine) the extreme conditions of conflict in the area have been flaming for about one century. It is also what physical planning (and naturally landscape planning) is all about. The Gaza Strip is limited and bounded, and, according to its very small area, it is almost impossible to compare the Gaza Strip with other countries; instead, it is reasonable to compare, when it is necessary, with considerably large cities with limitation or bounding elements represented, for instance, by geographical or strict policies conditions. In this case, we have to take into consideration that the Gaza Strip is not a state or a country by itself. Oppositely, it is one part of the current Palestinian territories where the other one, which is the West Bank, is completely separated from the Gaza Strip according to the political issues controlling this land in this era. Ownership of lands is distributed over four main categories (MOP, 2005): private (63.9%), governmental (15.3%), Beir Es-Saba'a¹ (18.7%), and Waqf² (2.1%). The private ownership of land is accompanied with a strong traditional and religious background which hardly allows people to sell or damage their lands. The whole area of the Gaza Strip is, of course, the result of summing up the different land-use areas, which are rapidly changing. The main variable items are the urbanized areas at the expense of the agricultural areas and the natural reserve. Agriculture was the biggest sector that used almost half of the land with a percentage of 45% in 1996, sand dunes and beaches, which represent main features of the landscape, measured 14%, urbanized areas measured 19% and the fallow land and other minor uses measured 22% (MOPIC,

¹ Governmental lands that have been used by local residents for private purposes since long time going back to the Ottoman Empire period; These lands are also called 'Miri' lands (Gavish, 2005); those who use these lands usually refuse to leave lands they and their father and perhaps grandfathers used for decades.

² Lands that are owned specifically by Ministry of Awqaf (Religious affairs)

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1996a:4). This data were obtained from aerial photographs taken in November 1993, and 'since that year and given the accelerated building activity, areas occupied by urban uses will have increased by more than the 3,5% per year by which the population grew' (MOPIC, 1996a:4). But, a lot of changes happened since that time, and both political and economical situations had different considerations.

Urban and rural areas are not well defined in the Gaza Strip; there are no limiting figures of inhabitants or distances between buildings that define a rural area. Rural areas are traditionally recognized to be the small few villages, and the nearby surrounding which completely depend on agriculture as being the main job for locals and the source of production; for instance, this is the case of Abasan, Khuza'a and Al-Qarara villages east of Khan Yunis. However, natural areas are considered rural according to the recent Palestinian planning classifications when only urban and rural lands are considered and what is not urban is, as a result, rural. The definition of landscape areas or landscapes simply replaces other definitions where landscapes are either natural, agricultural or mixed areas. Completely natural areas are not being found in the Gaza Strip, and Palestinians have produced special kind of landscapes in this small area. The relatively-high population figures in the Gaza Strip have required the main landscape element to be the agriculture; one main human and urban requirement to produce food.

Nowadays, it is possible to distinguish five urban settlements in the Gaza Strip; those are Gaza city, Khan Yunis, Deir Al-Balah, Rafah and Jabalia. Gaza and Khan Yunis had been known as old urban settlements, while Rafah, Deir Al-Balah and Jabalia have been developed subsequently to the annexation of their refugee camps under their local councils. The numbers of urban populations for each of these settlements are shown in appendix B on page 282. Besides, new urban settlements started to appear as small towns in different locations in the Gaza Strip. The clearest is Az-Zahra'a town southern of Gaza City.

Concerning the rural status in the Gaza Strip, the location of the villages found in the Gaza Strip in 1945 was mainly concentrated along the main road or the railway; this concentration was in and around the fertile lands and water supplies (MOPIC, 1998a:18). This can be seen clearly near Khan Yunis, with all villages located to the East of the city. The Western area has been left unsettled because of the sand dunes. During the Israeli occupation, there were some changes in the status of rural settlements, which led to the creation of new villages like Ad-Dahaynia in 1977, Az-Zawaida in 1978, Al-Qarara in 1984 and Al-Musaddar in 1995.

The Gaza Strip has had considerable urban development other than the urban residential settlements. Few main strategic projects, particularly in the central part,

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had been under construction for few years; some have already finished and others have not. Those include the electrical power plant, which had been established on the southern side of Gaza Valley (Wadi Gaza). The area is also supposed to have the main Palestinian harbour to the Mediterranean. These two main projects require special physical planning in order to absorb the huge appearance, traffic and services required in the area and the surrounding. Other projects are the sewage treatment plant for Gaza City and the housing projects mentioned above. The last project, which has been funded by the United States Agency for International Development (USAID) and supervised by United Nations Development Programme (UNDP), was the generation of work opportunities through the development of Wadi Gaza National Park. This project, started to be designed by a local consulting Firm in October 2001, includes the construction of two concrete crossing bridges, four check dams on the Wadi course, agricultural roads and hiking trails, footbridges and observation rooms, exhibition halls and related services for the archaeological sites, and a 'national' park with an area of about 50 acre.

2.2.5 Environmental profile

The Gaza Strip is located in a transitional zone between the arid desert climate of the Sinai Peninsula and the temperate and semi-humid Mediterranean climate along the coast. The average daily mean temperature ranges from 25 C in summer to 13 C in winter and the amount of mean annual rainfall on the Gaza Strip varies from 200 to 900 mm and falls in winter between mid-October to the end of March and seldom in summer between March and September (EPD, 1994).

The Gaza Strip suffers different environmental problems, which threaten the area. Those include pollution caused by solid wastes and sewage water, noise, visual and air pollution, water shortage (it is estimated that the total volume of fresh water is decreasing at a rate of 3- 4% annually [MOPIC, 1995:4]) and the salinity and pollution of groundwater. Concerning the wastewater, it is measured that less than 40% of the total population in the Gaza Strip are provided with sewerage network, while the rest rely on cesspits and open channels for discharge of wastewater. In addition, other problems aggravate the whole environmental situation. Those include rapid population growth, public carelessness and lack of awareness regarding the environmental situation and the absence of regulations and laws, mainly because of the instability of political and governmental situation. This can be understood from O'Connor and Turnham (1992) who mentioned that 'environmental degradation may happen in both developed and developing countries, but with greater frequency in the latter mainly because their

resources are far more constrained than those of developed countries; and they often face problems of weak political commitment and governance’.

Water is generally obtained from the groundwater aquifer for the main purposes such as the domestic use and irrigation in agriculture. The rainfall is the only source of ephemeral surface water. The sand dunes enable rainwater to infiltrate to the aquifer, but there is no balance between the water infiltrated and the water consumed, which is much more. Weak institutional structure resulted in poor services and ineffective management of water resources too. Leakage is one of the problems of the existing water network, where more than 40% of the water supply is lost through leakage (MOPIC, 1996b). Water is very scarce and the quality of groundwater is getting deteriorated. The main concern of both people and Palestinian Water Authority (PWA) in the Gaza Strip is to have sufficient water to assure their economic and social development. Due to the population increase, the water demand increased sharply. The existing situation has led to a descent concerning the available quantities and qualities of groundwater. So, a sustainable management policy of the available and renewable water resources together with developing new water resources should be top priority to the Palestinian Water Authority.

The problem of water resources does somehow have a link to sewerage sector. In the last few years, a great attention has been paid to improve the environmental situation in the Gaza Strip. The sewerage sector got a lot of investment in regard to network and treatment plant. Three central treatment plants will be constructed to serve the entire the Gaza Strip. The effluent is planned to be reused in agriculture or recharged to the aquifer to minimize the deficit in water resources.

2.2.6 Environmental issues in the peace process

Environmental issues have been partially considered in the first peace agreements (Declaration of Principles of 1993). Among several issues, the environmental issues such as water, energy and industry were given some importance from more economical point of view when the parties agreed to establish the Israeli-Palestinian Committee on Economic Cooperation which was supposed to focus on such issues. The 'Interim Agreement on the West Bank and the Gaza Strip of 1995' gave more attention to the environmental protection, and Palestinians were supposed to undertake limited responsibility and environmental activities in the West Bank and the Gaza Strip. Furthermore, Israelis and Palestinians agreed to cooperate, on the basis of mutual understanding and shared responsibility, in virtually all areas of environmental protection in order to (based on Isaac, et al. [2004]):

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- prevent damage to the environment and take measures to ensure that activities in areas controlled or managed by one party do not cause environmental damage to areas controlled or managed by the other party; adopt, apply and comply with internationally recognized environmental standards concerning emissions and effluents;
- prevent uncontrolled discharge of wastewater and effluents to water bodies and promote proper treatment of wastewater, solid and hazardous wastes;
- ensure that a comprehensive environmental impact assessment (EIA) is conducted for all major development program specified in the Accord;
- take precautions to prevent water and soil pollution as well as other environmental safety hazards;
- take measures to prevent noise, dust and other nuisances from quarries;
- implement the internationally accepted principles and standards of global environmental concern, such as protection of the ozone layer, endangered species of fauna and flora, conservation of migratory species, and preservation of existing forests and natural resources;
- develop jointly a mechanism for mutual notification and coordination to respond to events or accidents likely to generate environmental pollution, damage or hazards; and
- promote public awareness of environmental issues, to combat desertification, to carry out environmental studies, and to control transfer of pesticides

To ensure effective collaboration, the parties established several committees including the Joint Environmental Experts Committee (JEEC) and the Joint Water Committee. They also agreed to additional cooperation on economically and environmentally sustainable development. The committees met and cooperated well until the outbreak of the second Intifada in September 2000 when most formal environmental cooperation has effectively been suspended since that time, although the Joint Water Committee continues to meet (UNEP, 2003).

2.2.7 Landscapes of the Gaza Strip

The landscape of the Gaza Strip is distinguished by some visible elements shaping its visual appearance of land including its shape, form and colours. It is also distinguished by invisible elements including geology, ecology, history, etc. There are no real surface

water elements such as rivers or lakes in the Gaza Strip. Wadi Gaza carries water from the Negev Desert and Hebron Mountains east of the Gaza Strip to the Mediterranean for short period in winter. Landscapes of the Gaza Strip have been affected by the different environmental threats. However, some few features and elements of the landscape are still noticeable and combine to form a rich diversity of scenery that is of great value to the Gaza Strip. Those include sand dunes, coast to the sea, topography, flora and fauna, archaeological sites and agricultural land and orchards. But, there is no foolproof that these features will remain undisturbed by many different human activities. Agriculture is a distinct feature of the landscape in the Gaza Strip. Agricultural land, however, is reduced every year by 2-3% (MOPIC, 1998:76). This percent is converted mainly into domestic zones to absorb the population growth. Among the different landscape features, it is clear that the coast to Mediterranean is the most resourceful asset for recreation. However, it suffers some threats such as pollution by sewage water and solid wastes, increasing erosion of the cliffs, sand quarrying without permission, and constructing buildings randomly on the beach. Concerning recreation, there is also a problem with the capacity and transportation facilities along the coast road. A serious problem may occur by constructing the Gaza Harbour on the coast south of Gaza City without the appropriate environmental plans that take into consideration the landscape quality. The Landscape Assessment of Gaza Governorates (MOPIC, 1996) classified the landscape of the Gaza Strip into grades of three levels and suggested different sites to be protected as natural landscape areas. Some sites especially from the first level, e.g. Wadi Gaza area, contain archaeological remains that represent old and very important historical sites. These sites are supposed to be sensitively developed to get the benefits as natural and archaeological sites for both the people of the Gaza Strip and also for other recreation and tourism purposes. Comparing to the six categories of protected areas described by The International Union for the Conservation of Nature (IUCN), Wadi Gaza area, as a landscape protected area, can be categorized to meet the characteristics of the fifth category¹. Different factors affect the landscape protection in the Gaza Strip and each can be considered as a topic by itself for a wider research and investigation process. This study discusses and investigates the possibilities to conserve the landscape against, particularly but not exclusively, the urban growth, which is considered one main 'human-activity' threat (Kendle and Forbes, 1997) resulting in other minor, but still effective, impacts such as the environmental degradation.

¹ See Appendix C on page 284 for more details on these categories

2.2.8 Threats and impacts on the landscape

Landscape has great relations to many other sectors in the Palestinian life; however, public have never recognized and appreciated neither these relations nor the benefits that landscape presents to quality of life in the appropriate manner. Palestinians have not actually got the real chance to do this and to protect their landscapes or to develop ideas with relation to life welfare in general. Among the clear threats affecting the landscape in the Gaza Strip are the political situation (i.e. the Israeli occupation), the small area of land, the strategic projects and development pressures in addition to the mentioned social and economical challenges such as population growth and poverty. The following is an attempt to show impacts from these topics on each other with concentration on landscape-related issues.

2.2.8.1 Impacts from the political situation

The clearest feature in Palestinians' life is the political issues which have negative influences on the landscape both directly and indirectly. Directly, it is now much more obvious than any time before, where large green areas (mostly agricultural lands) were cleared and/or destroyed; in many times, to construct settlements and/ or highways and safe passage for settlers, and too for establishing check points and military sites for the Israeli army. Besides, large agricultural areas, mainly citrus and olive orchards, were destroyed on the allegation that Palestinian resistance men come from or hide in. Settlers have also attacked Palestinian lands and destroyed considerable agricultural areas just for aggression to enforce Palestinians to leave their lands. From another point of view, landscape is being affected indirectly where interests of Palestinian Authority towards the peace process and the negotiation with the Israelis have unfortunately lead them to greatly support the governmental bodies dealing with related issues on the expense of other bodies related to general human welfare. Accordingly, issues of environment, agriculture, natural resources, landscape, cultural heritage, and infrastructure have not got the appropriate interests that they really deserve. Among these sectors, it was more difficult to develop items that need more financial resources and expenses as well as a lot of planning works. All the entire mentioned sectors are actually in a need for such financial resources, but with varieties from one to the other. The development of landscapes have faced this problem and usually got financial support from Non-Governmental Organizations (NGO)s, but this still does not fulfil the demands. In addition, multitude of administrative bodies regarding one field has, in many times, resulted in loss of real responsibility towards this field and, sometimes, in a collision. In particular, the responsibility of the environmental affairs and protecting landscapes changed more than once during the Palestinian governance period.

It started as a 'Palestinian Environmental Protection Authority (PEPA)' directly after the Declaration of Principles (i.e. in September, 1993). 'Environmental Planning Directorate (EPD)' was then created under the umbrella of Ministry of Planning and International Cooperation, and in December 1996 Palestinian Environmental Authority (PEnA) was established. Then, both EPD and PEnA were merged and the Ministry of Environmental Affairs (MENA) was established in 1998. Once again, MENA had been moved to Environmental Quality Authority (EQA) in June 2002.

2.2.8.2 Impacts from the socio-economic situation

Social and economic sectors have been affected by the political situation and, at the same time, affected the landscape greatly. Productivity of sectors of agriculture and fishing have been affected when, as mentioned earlier, the Israeli army and settlers destroyed large agricultural areas, and forbade Palestinian fishers from fishing in the Mediterranean for long periods. The Israeli army also destroyed many industrial workshops on the allegation that these workshops produce arms, and in many times, the Israeli authority forbidden the import of construction materials affecting the construction field. Too, by establishing check points, the Israelis affected the transportation sector, and consequently many related social and economical activities. The Palestinian Authority has had almost no financial resources other than foreign grants to pay wages for those in the Palestinian police sector and sometimes for those in the sectors of health and education. PA has not received these grants regularly and thus, more economical troubles happened. The percentage of non-working population of those who were over 15 years reached 46.5% in the third quarter of 2002 and declined to 39.7% in the second quarter of 2004 (PCBS, 2005c). This percent includes those who worked in Israel for long time and got high wages according to the level of the Israeli market. By the current political status, they are not allowed to return to their jobs in Israel anymore. As a result, they, by themselves, are unemployed, and the Gaza Strip, in general, lost this economic national income. The clear result of all of this is that the economical situation is terrible and both the people and Palestinian government in general could be described as poor. Many, according to this situation, worked with jobs with relation to natural resources as they do not have to offer any capitals for buying any raw materials at the time that they, by selling these materials, get money to keep themselves survived. Others used natural resources, such as woods from cutting trees, as free sources of fuel, and others used underground water as a free source of water for household using and irrigation, others depend completely on grazing in the natural areas, and many dump solid wastes and let the sewage water to flow in the natural landscapes. Palestinian Authority is unfortunately unable to

control any of the activities that occur in the natural areas and deteriorate the quality of the landscapes because of its self weakness and corruption in addition to the poverty of its institutions that are not able to finance activities of protection, and also because of the poverty of people whom can not be forced to stop looking for sources to meet life demands without offering other alternatives. Not less important in this argument is the fact that prices of land increased inside urban settlements (cities and towns), and it was not that beneficial to buy land for new residential buildings, particularly under these conditions of poverty. People preferred, when it is necessary, to add new stories to the existing buildings, and in case of constructing new buildings, Palestinians constructed many high-story buildings, that had not been socially accepted for long time, and many of these buildings, or at least many flats, are still empty and in many cases unfinished. The Palestinian Authority itself does not have the financial resources to establish its own governmental buildings in anywhere, and the different ministries are still distributed in rent residential buildings throughout the main cities increasing demands for housing units. In this case, land, to some extent, has been kept where it is expensive (i.e. inside cities; when exists), and people bought the cheapest outside cities in the agricultural and semi-natural lands and started constructing their own residential buildings composing new urban settlements and creating many impacts on the landscapes. One main reason of these cheap prices of agricultural lands is that the production is usually not allowed to be exported, and capitals from local trade are not enough to hold the agricultural works and activities. So, owners prefer to sell these lands with cheap prices which in anyhow more beneficial than selling agricultural products in the local market.

2.2.8.3 Impacts from the small area of land

The limitation of the Gaza Strip area has resulted in limitation of land for almost all land purposes including land for urban growth which is supposed, in this case, to be developed at the expense of other land uses. Usually, different land uses limit each other as they are situated directly adjacent to each other; like a puzzle, with no other possibility. Land uses also merged, as a result, with each other to achieve temporary residential needs resulting in other problems including deteriorating of environmental status. It is also important to pay attention to what had been mentioned earlier that cities of the Gaza Strip had never known as industrial. That means that vacant and derelict lands resulting from old industrial sites inside the cities' borders, to be reused for new urban development, do not exist. This last result can be surely confirmed by the figures (mentioned above) representing the land required for urban development resulting from the increase in population figures. Kivell (1993) set this relation saying:

'as the population size of a settlement increases, the land provision (in ha/1,000pop.) declines exponentially'. The extension of urban areas will take place on the expense of other important land uses like the agricultural land and natural reserves. This threat is, if has not been treated sensitively, the most harmful as it engulfs the land, and then there will never be any possibility to rescue land that had been already and completely turned into another essence.

2.2.8.4 Impacts from strategic projects

The strategic projects, particularly in open natural areas, will result in great pressure affecting the status of these areas as a place for recreation and tourism and will affect the agricultural land as well. Recreation and tourism are also important components of the social and economical development of the Palestinian society. In fact, the recreation and tourism branch tend to view the landscape as a "common good". This makes landscape maintenance a difficult national task designed to serve the common public interest. The development trends can significantly affect the environment, since they impact habitats and sensitive natural area. In addition, infrastructure facilities including traffic routes, power supply station, the port to the sea and the proposed sewage treatment plants are subject to considerable burdens. Wastes are also one kind of the pressure that may occur as a result of the tourists' existence and may appear as a great problem in the peak seasons. The dimension of this problem can extend to the waste disposal facilities and the waste disposal system in the different areas. This problem may be reduced or moved to implementation and education (culture and education) of visitors. Besides, pressure from traffic seems to be great. The overuse of open areas will result in more traffic on the overcrowded regional and local roads. The challenge is with preventing any exploitation or overuse of the nature. Parking spots and violation of the rules will be an additional problem in this natural area; people in the Gaza Strip used to have traffic violations frequently. Wadi Gaza area is due to a development project for recreation purposes. This project includes some constructions such as dams, roads servicing the neighbouring agricultural lands, hiking trails and crossing concrete bridges and wooden bridges. The sewage treatment plants are supposed to be a positive factor in the developing procedure when treated water replace rain water in the Wadi bed during dry seasons. The cultural pressure is also existent in the area through the archaeological sites. Sensitive solutions are supposed to be prepared to these sites as they are considered as one of the main purposes of visiting the area as a whole. The services and constructions for protecting these sites in addition to the pressure from visitors may affect the natural and landscape essence of the area. The activities of

the residents of the surroundings also create pressure when these activities affect the landscape character; one example is grazing in the neighbouring fields.

2.3 Conclusion

Groups of problems and challenges face development in the developing countries, and most of those are with economic and social features, where development status of countries is generally measured according to indicators with relation to their socio-economic status and classified according to the resulting HDI, which decrease to 0.28 in Africa south of the Sahara but increase in other parts such as Latin America to more than 0.85. The different dimensions and indicators affect each other strongly; sometimes positively but in many other times negatively. Among the different indicators, amount of education and raising public awareness has obvious relations to the others; particularly and positively on both economy (industry) and demography (population growth rates). At the same time, many complicated relations exist among the other dimensions and indicators making the attempt to development a big complicated process. Types of production and consumption are in the focus of the problems and challenges facing the developing countries. Production does not meet the consumption measures which, therefore, rely on natural resources to meet demands of the increasing population. These are the main issues that planning in the Gaza Strip should focus on because most of the conditions of developing countries match those of the Gaza Strip resulting in rapid deterioration of economic and social conditions affecting very much natural resources and thus future welfare. Additional obvious conflicts and special considerations distinguish the Gaza Strip case, where the main interests of protecting the landscape make it necessary to highlight issues related to the living conditions including the political and socio-economic conditions. Political issues have great influences on these dimensions and indicators; especially in the developing countries. Foreign occupation and/ or corrupted local governance systems are very much responsible for the absence of socio-economic welfare. Among the many consequences, population-urban growth is obvious and can be considered as a distinct character in most developing countries. It occurs rapidly comparing to the developed world; however, urbanization is still considered in both developed and developing countries, but mainly for residential, and not industrial, purposes and with much higher rates in the later. Population-urban growth results in many challenges and affects seriously the socio-economic, environmental conditions and quality of natural resources; especially when considered parallel to other factors, such as absence of good education and low levels of health and welfare. Landscapes in both the developing countries and the Gaza Strip are highly influenced by population-urban

growth. Politic and military conflicts besides the several socio-economic issues have great negative influences on the landscapes and natural resources. Landscapes of the Gaza Strip have been greatly influenced by the whole deteriorating situation, and clear consequents and impacts of the political, social and economical conditions have affected the environment, the natural resources and, most importantly, human life. Impacts on the life of local Palestinian residents occurred directly in the form of loss of life caused by the Israeli military, and indirectly by degrading the environment and the depletion of natural resources which represent the only resources available to the Palestinians to carry out their daily lives. Political situation affects, therefore, all conditions of life; however, there are still narrow margins that planning (particularly, socio-economic planning) can fill and thus improve local conditions. Planning in general and landscape planning in particular should pay much attention to socio-economic issues especially when extreme conditions distinguish and affect the whole life. At this point, therefore, it is necessary to find out what landscape planning can present to the cases of the developing countries and the Gaza Strip from its theoretical and practical knowledge. This is the main focus of the next part of this study.

PART II

Theoretical Background and Practical and Imperical Experience

This part constructs the basis according to which landscape planning and management can be studied and developed. It included three main aspects each of which is presented in a separate chapter. The first of these three chapters focuses on general or theoretical understanding of issues related to landscape planning and management. However, the extreme and special conditions of the Gaza Strip (as well as of many developing countries) require putting more emphasis on planning under such conditions. Another chapter, therefore, presents concepts related to planning and management under extreme conditions of conflict. But still, theories of different disciplines explain, and are widely applicable to, daily-life events. At the same time, theories need to be tested in different situations, where life experiences and scientific experiments are usually the base for most social and scientific theories. Theories are logically more successful when they are applied to more cases and show more success; however, theories related to social disciplines in particular may not cover all cases from all cultures throughout the world; because of the wide range of cultures and related conditions of each society. Therefore, several cases from worldwide are presented in the last chapter of this part to widen the horizon of understanding landscape planning and management through real experiences that might either coincide to existing theoretical basis or construct new foundations for new concepts.

Chapter 3

Theoretical background on landscape planning and management

This chapter is essential to interpreting the concept of landscape planning as being commonly used in planning debates, but more important is the understanding of this term as being used in this study. The lack of awareness regarding this topic in many developing countries including the Gaza Strip increases the need to clarify its theoretical principles and related debates. The first part of this study showed that there is a need to include the extreme conditions of the developing countries and the Gaza Strip in landscape planning because of the many threats, and impacts of these conditions on natural resources, environment and the landscapes. The relationship between the environment and the landscape and the concepts of 'environmental impacts', 'integration of environmental concerns', and 'environmental planning' have been focussed upon as being principal to understanding the term 'landscape planning'. In this context, the purpose extends to interpreting the meanings of 'landscape ecology' as being one of the most recent terms used in landscape planning. Other related issues such as sustainability and sustainable development are discussed afterwards.

3.1 Development of 'landscape' perception

Landscape aspects have been presented in both theory and practice in almost all ages. Landscape in practice, or what was called 'gardening', was known in the old world in Egypt and Mesopotamia since long time going back to thousands of years. In this respect, it is important to mention that gardening is not a permanent art that can be preserved for hundreds of years. This is because its essential biotic components and elements are not durable, but changeable within time. For this reason, information and ideas about the old gardens and landscapes are being obtained from paintings, relieves, frescos, excavations, carvings, etc. Since the 15th century, these resources have presented great ideas concerning the change of the garden concept from being a private art

3.1 Development of 'landscape' perception

and ownership with small area to bigger and, after few times, to very large area limited to and accessible by few persons. The change continues to emphasize the public interest and ownership, but it took long time for this change to take place. Besides, landscape aspects including landscape design, planning, management and protection were not actually being used, but mostly the visual aesthetic aspects. The start of defining landscape as a discipline was in the early 19th century by Alexander von Humboldt, the great pioneer of modern geo-botanic and physical geography, who introduced the landscape as a scientific-geographic discipline defined as 'the total character of an earth region or a given territory' merging both the perspective and natural aspects (Naveh and Lieberman, 1994:4; Ingegnoli, 2002:7-8; Farina, 2000:12; Makhzoumi and Pungetti 1999:12). Turner (1998:8,9) presented other definitions of the term 'landscape' in a historical sense, but from different points of view, including:

- The definition of The Oxford English Dictionary, published in 1886, which has been the first document in which the word 'landscape' was used in its predominant modern sense as 'a tract of land with its distinguishing characteristics and features, especially considered as a product of shaping processes and agents (usually natural)'.
- Towards the end of the 19 century:
 - biologists and geographers used the same definitions
 - artists used the word 'landscape' to mean 'a picture representing natural inland scenery',
 - designers used the word 'landscape' to express an ideal place where the owner could live in harmony with nature

The real understanding of landscape as a scientific discipline has come later and the most important theories, methods and approaches to planning, management and protection have been formulated within the last few decades when other important disciplines such as environment and ecology have been introduced. The result has been that there are several available definitions for 'landscape' as either a theoretical concept or a reality; however, those could be classified into four main groups, which could be titled by 'aesthetics and beauty', 'culture', 'ecology', and 'wholeness or totality'. The first two are clearly distinguished from each other and can be more differentiated by the vision of Small and Witherick (1995) who clarified that 'natural landscape signifies physical landscape, referring to the physical effect of the land form, soil, and vegetation, while cultural landscape denotes humanized landscape including the modification made by man in agricultural land, settlements and infrastructures'. The visual aspects

3.1 Development of 'landscape' perception

in landscape perception were emphasised by the definition of Hartshorne (1959:168) 'the external visible surface of the earth' (Makhzoumi and Pungetti (1999:5), and Goulty (1991:158) 'a view of prospect of scenery, such as can be taken in at a glance from one point'. The last two aspects can actually be reorganized reciprocally. 'Wholeness and totality' meaning had been used before the ecological aspects have been developed as a multidisciplinary concept; however, this meaning obviously include the ecological aspects. The original visual-perceptual and aesthetic connotation of landscape is still used by many persons involved in landscape planning and design (including gardeners) with a historical foundations going back to the Renaissance and Baroque periods when the spatial connotation of 'landscape' is experienced as a spatial-visual whole reality of the total environment (Naveh and Lieberman, 1994:4).

The cultural aspects were then involved in landscape definition emphasising the human intervention. In 1975, Vink defined 'Landscapes' as control systems in which the key components are controlled wholly or partly by 'human intelligence' through land utilization and management (Naveh and Lieberman, 1994: 9). Relph (1976:122) defined the Landscape as the setting that both expresses and conditions cultural attitudes and activities (Makhzoumi and Pungetti 1999:4). More recently, 'landscape' had been known to consist of the humanized environments, representing the meeting grounds between the natural and the cultural worlds, and landscape areas are places that have been shaped by human use over the centuries and which contain valuable natural and cultural resources (Phillips, 1997:31,34).

The ecological aspects, which will be discussed broadly later on in this chapter, emphasises that the landscape is a result of the natural processes and interaction among natural elements (biotic and abiotic) and humans in a region of land. Wholeness and totality concept, as mentioned above, was developed earlier; however, it got its real meaning by the development of the ecological aspects. The following is a group of other definitions which emphasize one or more of the previous meanings:

- In 1968, Troll defined Landscape as the total spatial and visual entity of human living space (Farina, 2000:12) integrating the geo-sphere with the bio-sphere and its man-made artefacts.
- Buchwald in 1963 defined 'landscape' as a multilayered interacting system of both the geo-sphere and biosphere (Naveh and Lieberman, 1994:7).
- Jackson (1986:68) defined the landscape as not a natural feature of the environment, but a synthetic space, a man-made system functioning and evolving not only according to natural laws, but also to serve a community (Makhzoumi and Pungetti 1999:5).

- Ingegnoli (2002:3) considered the definition of landscape which means both a 'perception of aesthetic view' and a 'mosaic of interacting natural elements'.
- Farina (2000:11) defined landscape as 'a piece of real world in which we are interested in describing and interpreting processes and patterns'.
- Pungetti (1996) defined it as 'a dynamic process developing on the visible earth surface, resulting from the interaction between biotic, abiotic and human factors which vary according to site and time', where ecology deals with environmental processes which are not necessarily visible, while landscape is a visible result of these processes (Makhzoumi and Pungetti 1999:7).
- Turner (1998:vii) emphasized the good-feature and summarized the definitions of the 'landscape' to be 'good outdoor space: useful, beautiful, sustainable, productive and spiritually rewarding'.
- It is also defined as 'an area that is spatially heterogeneous in at least one factor of interest' (Turner et al., 2001:7).

Definitions are thus differentiating in the levels of details and the levels of integration of other disciplines. However, visual and aesthetic issues have, no doubt, got considerable amount of interest, and have been concentrated in the core of many 'landscape' definitions. This is, on the other hand, the reason standing behind the fact that landscape could be spoiled or disturbed by human intervention (e.g. by solid wastes and garbage, sewage water or burned trees). The result in this case is still a kind of landscape, but it is then 'bad landscape' or 'spoiled landscape'.

3.2 Landscape planning

The main goal of landscape planning is to ensure that land is protected and used in the most appropriate manner to make harmonious places by fitting land uses together at the time that flexible guidelines are provided for both policy makers and environmental managers, especially, and as with all other planning processes, when considering that legislation is at the base of landscape planning process, and each plan has to conform to any related national and/ or local laws (Makhzoumi and Pungetti, 1999:41,42). Planning in general, involves the deliberate consideration of alternatives in seeking the most desirable course of action to be taken by developing a set of objectives and seeking the best means to reach them (Miller and de Roo 1999: 7, 8). Steiner and van Lier (1984:2) defined planning as 'the use of scientific and technical information to provide options for decision makers, as well as a process for considering and reaching consensus

on a range of choices'. In the first half of the twentieth century, physical planning had an engineering and architectural bias (city beautiful), where in 1920s and 1930s, planners produce master plans, zoning plans and land use plans; they paid less attention to the biology of the environment than to its physics (Turner, 1998:10). Recently, spatial land use strategies increasingly understand the need to reinforce landscape features (Hawkins and Selman 2002), and landscape planning has got a new perception as 'the emphasis on landscape resources and environmental attributes as the primary determinants in decision-making' (Cook and van Lier, 1994:3).

Von Haaren (2002) emphasised that 'landscape planning must focus on and understand the multi functionality of the landscapes and direct the changing relations between human kind and nature'. However, a status of balance among all intersecting disciplines must be addressed in order to overcome the consequences of the recognition of human issues in most planning interests including landscape planning. Human related issues strengthened the relations to social issues and, as a result, the planning profession has been recently engulfed by practitioners from social sciences backgrounds who know about geography, politics, economics and statistics, while physical planning and design became, in many times, neglected arts (Turner, 1998:11). For Marsh (1998:2), landscape components are: topography, soils, hydrology, climate, vegetation, and habitat, and landscape planning is therefore a title applied to planning activities regarding fields such as geography, landscape architecture, geomorphology, urban planning and other macro environmental components. The 'whole' and 'totality' meanings create the necessity to integrate the different fields in the process of landscape planning, but as separate disciplines where it is difficult to include one item within others, or to create a 'container' within which all related arts and sciences are included. Consequently, landscape planning should be connected to planning for the environmental public good including the natural and socio-economic, where driving forces of change are mostly socioeconomic: population growth and movement, human settlement patterns, policies or laws, capital accumulation and industrial activity, etc. (Machlis and Soukup, 1997:162). Changes in most cases are certainly because of the urban development or growth, and therefore, landscape planning concern planning for the urban environment.

Basically, it is also important to realize that the term 'landscape design' means a change, which is, in a way, landscape 'planning'; especially if we essentially consider the scale issue of space and time. The process is usually called 'design' when the space is small, while it is a process of planning when the space is large taking into consideration the time scale in each case where both consider sustainability, but more principally in planning processes. Landscape design is thus a profession which combines scientific

expertise and creativity in order to give shape to the future physical and cultural landscape (Makhzoumi and Pungetti, 1999:74). Therefore, every landscape design is actually a process of landscape planning, but the opposite is not necessarily true.

3.3 Planning sectors related to landscape planning

There are several types of planning which have strong relations to landscape planning. Few of those planning types replace or cover landscape planning in many countries. Among those are the following:

Comprehensive planning

A comprehensive land use plan is a broad-based strategy for managing changes and coordinating the multiple issues, goals, and policies of a community for general purposes such as economic development, environmental quality, and infrastructure programming with the least amount of conflict among policies and actions (Godschalk et al., 1998:102). The more a plan is comprehensive (integrates more issues), the less conflict appears. A comprehensive plan may, therefore, include sections on industry, agriculture, transportation, environmental quality, housing and community development, cultural heritage, land use, urban and rural development, etc. The comprehensive land use plan also offers general guidelines or policies rather than specifying a course of action to be taken (Godschalk et al., 1998:102).

Physical planning

Physical planning is more about land than socio-economy. A physical plan therefore deals with land use, landscape, transportation, infrastructure, etc. For this reason, it is possible to innovate a comprehensive physical plan which deals with these issues and excludes (from the planning process, but not from the context viewpoints) the strategies related to social and economic planning, for example. It hence accepts the already existing socio-economic plans and relies on their principles and proposals in developing a plan that deals with physical components of land.

Land use planning

Land use planning is the planning of land to be used in the future to provide for people's needs (van Lier et al., 1994). It basically regulates the land in terms of functions and different uses to be considered for all areas or plots which are covered by the plan. Zoning planning is another title under which the same purposes are considered. United Kingdom has the longest established land use planning system in the world yet (Hawkins and Selman, 2002).

3.4 Environmental concerns in landscape planning

A land use plan is usually based on the demography, the built environments, and the many natural and geographic features of the area (Tweedy, 2000). A land use plan, in this meaning, sets specific rules for both the public and private sectors about where development will be allowed and how development (or redevelopment) is to take place (Burby, 1998:2). Land use planning, therefore, has much public interest as it includes regulating properties where people use to live and practice their main living activities. Land use planning meets landscape planning in many points as both target land as a primary element in the planning process.

Urban and rural planning

From terminology point of view, urban and rural planning is equivalent to 'Town and countryside planning' which is mostly used in the United Kingdom. In principle, urban planning is thinking about and preparing the urban areas and the urban facilities and services to work efficiently and to reach high levels of life quality in present and future times. Urban Planning was formulated in a period focused on economic growth, consuming space, emancipating workers and providing them with public housing. It is usually characterized by quantitative thinking. Rural planning, on the other hands, deals with the rural areas which in many cases interfere with urban areas; urban developments usually replace rural areas. For these reasons, urban planning and rural planning are increasingly being recently treated in unity. Landscape planning is very much connected to urban and rural planning where human intervention is very much considered.

3.4 Environmental concerns in landscape planning

Environmental planning is principally not more than a 'catch-all' title applied to the planning process when environmental rather than any other (such as social, cultural or political) factors have central considerations (Marsh, 1998:3). On the governmental level, beginning in the 1960s and early 1970s, many governments have undertaken strategic initiatives to include urban planning and environmental planning into their national planning system in order to improve the quality of life and to conserve natural resources (Miller and de Roo, 1999:vii). Much of these concerns took the form of political movement to protect the environment from the industrial rubbish and wastes and urban sprawl (Marsh, 1998:3). Reaching the 1990s, the co-operation has been oriented in particular towards the 'prevention of disturbance' and on the 'mutual acceptance' of goals and concepts (Van Staalduine and Simons, 1999:39). Included in this integration is the planning for the landscape as being the visible environment which deals with the concepts of beauty, harmony, composition, sustainability, quality of air and water, and

ecology. In general, both the environment and the landscape have mutual interests in resources, land use, and the nature and dynamics of the landscape (Marsh, 1998:2). However, more detailed and scientific is the environment, and more superficial, visible and enjoyable is the landscape. Environment is used to mean surrounding, and a good environment is very easy to recognize or to feel but hard to define. For this reason, planners used to investigate the physical environment than its workings (Turner, 1998:10), and, for long time, this happened because reliable information concerning the nature and effects of these issues were not available, and/ or the responsible governmental agencies did not have staff with the background to apply what was known (Miller and de Roo, 1999:2). However, environmental issues are now more recognizable and peoples are more interested in the natural public goods than any time before; especially when other life challenges and problems decrease. The relation between the environment and the landscape developed parallel with the development of the understanding of the term 'landscape'. As mentioned above, the various understandings of the term 'landscape' still represent a common direction in considering the visual factor and scenery as principal. It is understandable too that the scenery view is supposed to be good due to the 'natural resources' from which nearly all landscapes evolve including the interconnected systems of land, air and water, vegetation and wildlife. This goes parallel with the totality and wholeness meanings by which landscape (as well as the environment) is perceived today and with the landscape definition from Farina (2000) who replaced the 'good feature' by 'reality' meaning and defined landscape as the real world where overlapping and integration of patterns and functions scaled by organisms and/or processes take place. In this context, it is important to realize that however landscape planning may take a comprehensive view to the cumulative effects that urban development can have on the environment and the appearance of landscapes, it is naturally not in a position to solve all the problems affecting the environment (Kiemstedt et al, 1998:15). Related to this argument are the environmental impacts and landscape impacts. Environmental impacts are not more than the external effects that influence the environment. We used to value the good environment only when pollution, noise, and other external effects come and we feel them. These effects can be sub-categorized, as in figure 3.1-A, as environmental impacts, landscape impacts and visual impacts (Turner, 1998:34). Additional to what has been mentioned above, each of these types contains the later; i.e. the environmental impacts contain the landscape impact which, in its turn, contains the visual impacts. However, it is important to realize that each of the inners represents a great portion from the outer to the extent that, sometimes, they represent almost the same thing (Figure 3.1-B). Natural and cultural aspects have to be investigated in order to understand the relationship between man and landscape in

order to explain and understand the impact of human on the environment (Makhzoumi and Pungetti, 1999:44).

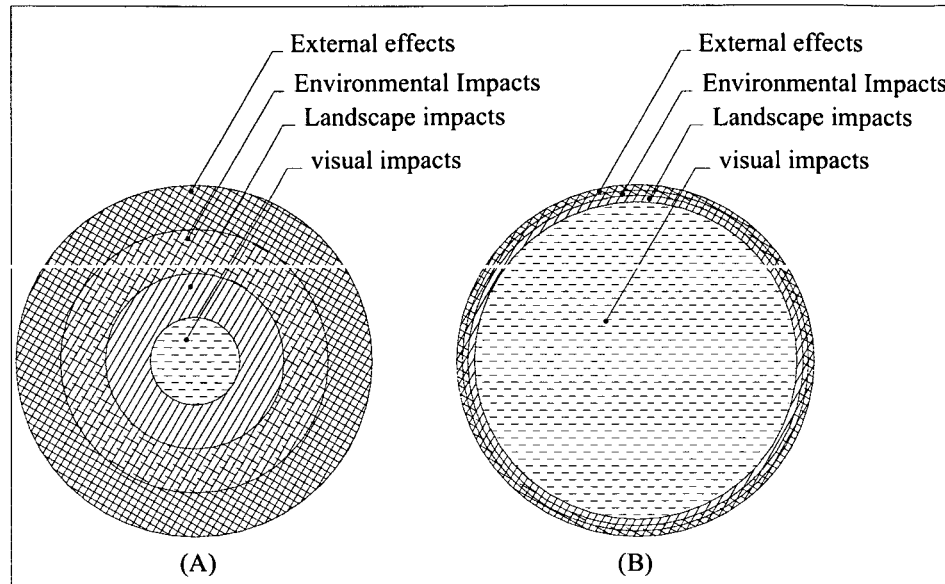


Figure 3.1: The external effects of a land-use

3.4.1 Integration of Environmental aspects in landscape planning

Integration basically concerns the convergence of different disciplines and the removal of all steps which lead to friction or conflicts between planning fields. Integration of environmental aspects in landscape planning is a way of finding a common language and a series of concepts by which the separate qualities of environmental and other planning issues can be better grasped for the planning process as a whole. Essentially, integrating environmental issues is required with all kinds of planning: political, economical, social and physical. However, integrating environmental planning with physical planning or spatial planning, which is concerned with the urban and rural issues, is the most important. Lynch (1994) described the relationship between the urban areas and the natural landscapes to be one unit; unity of exploiter and exploited linked together, socially, economically, and politically. Urban planning has the greatest impacts on the environment, and considering the environmental issues in urban planning in particular is therefore with special interest. The relation between urban planning, in particular, and environmental planning or environmental policy legislation may be clarified simply in table 3.1. Integration, according to this meaning, is one main task of the governments of all countries around the world. Progress in reaching high levels

3.4 Environmental concerns in landscape planning

Item	Urban Planning	Environmental policy (planning)
Starting point	Was formulated in a period focused on economic growth, consuming space, emancipating workers and providing them with public housing	Was passed as a reaction to the economic waste of raw materials, pollution and the effects on health and on nature
Vertical relationship	'Bottom-up' approach; the main spatial decisions are made at the local level	'Top down' approach; environmental policies are formulated principally at the national level
Character	More general	More specific
Approach	Characterized by quantitative thinking	Characterized by normative and qualitative thinking

Table 3.1: The relationship between urban planning and environmental planning (based on Berg [1999])

of such integration varies among countries where some have attained great progress in this field like Scandinavian Countries, Germany and the Netherlands in Europe (Miller and de Roo, 1999; Berg, 1999; and Blanco 1999), while many others have not started dealing with this complicated planning process, and most of those are from the developing countries (Potter and Lloyd-Evans, 1998). Integrating environmental issues in the planning process has not yet resulted in comprehensive models (Miller and de Roo, 1999:1); however, many ideas and programs for this integration are useful and can provide lessons to help in similar cases. What is important is the way to start such a process of integration. Basically, Miller and de Roo (1999:5) argued that the process of integration includes five steps to reach the implementation of the integration idea:

- diagnosis and listing the most important environmental issues including information on the environmental goods,
- the integration of the issues that got previous public and governmental interests as well as those with features affecting health and well being,
- dealing environmentally with the other planning issues,
- building strong and convincing base of information regarding the effects of the environmental issues on public goods which affect health and well being, and

- include a wide range of alternatives and promote public participation

Once again, this process emphasizes the top-down approach in dealing with the issue of integrating environmental concerns in landscape planning.

3.4.2 Ideas of integration approach

There are many ideas which can be applied regarding the concept of integrating environmental issues in landscape planning in order to achieve high levels of life quality and environmental surroundings. They show how spatial and environmental planning can support each other mutually. These ideas include:

- Setting constraints on land use planning by environmental policy.
- Contributing of spatial developments and planning to environmental quality. For example: adopting high density urban settlements or compact cities and concentration of urbanization (Van Staalduine and Simons, 1999:43) and leaving green and natural areas.
- Concentration of waste and waste water treatment.
- Enabling spatial developments to be possible for instance by cleaning up contaminated and vacant lands (Berg, 1999:30); soil decontamination is an integration idea as it is environmentally necessary at the time that it is important for new development projects or housing construction.
- Improving water quality for the benefit of recreational developments.
- Considering the impacts resulting from industrial areas on housing projects and residential areas as well as on the natural surroundings.
- Planning for the natural surroundings in sectoral planning; e.g. in planning transportation networks.
- Considering noise levels resulting from urban developments such as constructing a new airport or siting new housing projects close to the airports (Van Staalduine and Simons, 1999:43).
- Considering environmental impacts such as coast-erosion that may result from constructing seaport.
- Offering the outdoor landscape planning the chance to take precedence over the building design (Turner, 1998:19). This includes the design of flood control works, where it is helpful for the integration idea to let the interests of the river's flora and fauna and of recreational users to be the prime consideration.

3.4.3 Environmental Impact Assessment (EIA)

Environmental Impact Assessment (EIA) refers to the systematic analysis of the effects of an intervention on the social and physical environment (Gaigals and Leonhardt, 2001). It is a planning tool that much used certainly to overcome the previous shortage in environmental concerns in planning issues, especially in planning for big individual projects (such as waterway development, mining, road or industrial plant construction, and local development plans). The main aim of the EIA is to ensure that as little impacts on the environment and nature as possible will result from the construction of these projects to the extent that prevents the construction of any project with deteriorating impacts. EIA is also concerned with the effects that such impacts can have on human health and on cultural heritage (such as historical monuments and buildings). Too, it is essential to determine the appropriateness of sites for special projects and takes environmental considerations into account in approval procedures (Kiemstedt et al., 1998:15).

3.5 Landscape ecological planning

Landscape ecology is usually used to transcend the intersection between the conventional ecological, geographical, and environmental disciplines, thereby helping to bridge the gaps between them (Naveh and Lieberman, 1994:ix). Principally, ecology is the modern science that deals with the relation between human beings and nature (Botkin, 1990:32; Dramstad et. al., 1996:5; and Turner et al., 2001:6). The start of this discipline was before the turn of the twentieth century when the concept of 'plant community' was introduced, and afterwards expanded to include all animal inhabitants (Cook, 1998). The plant organism was transformed into the 'system' and the whole was called 'ecosystem'. The ecosystem exemplifies the very definition of ecology as being concerned with the relationship between organisms and their environment (Makhzoumi and Pungetti 1999:11).

The understanding of ecology can assist landscape architects and planners in their work where a project usually involves a serious intervention and rearrangement of the land. A biological understanding of the consequences of these interventions may thus help the planners to predict and control the outcome, because the ecosystem development is an orderly process of community development that is reasonably directional and, therefore, predictable (Cook, 1998). Unfortunately, the activities of humans, which in many times described as 'development', are not part of the natural world and are often in conflict with its operations. However, this is not an obligatory result. Too, it is not absolutely wrong. Preserving traditional ecological aspects may result in boring

or unexciting landscapes, while new design will present a new aesthetic into old traditional one. Time factor presents and examines the essence of the reality of the output by answering what happens over time.

From ecological point of view, landscape exhibits three fundamental characters which are structure, function, and transformation or change (Forman, 1997:5), where structure is 'elements' forming the landscape, function is the interactions among these elements, and transformation is the evolution and alteration in the structure and/or function of the complex mosaic over time (Ingegnoli, 2002:58) to present a public good; natural and socioeconomic. Makhzoumi and Pungetti (1999:6) generalized that three main factors can be identified in determining and identification of landscape types: physical, biological, and anthropological, while Philips (1997:39) detailed those as physical (e.g. geology, landform, drainage, soils), natural (e.g. ecosystems, species of flora and fauna), human use of land (e.g. farming systems, forestry, settlements, transport systems) and cultural (e.g. visual, historic, artistic).

In principles therefore, landscape ecology focuses on (a) the distribution of landscape elements or ecosystems; (b) the flows of animals, plants, energy, mineral nutrients and water across these elements; and (c) the ecological changes in the landscape mosaic over time (Forman and Godron, 1986:31; Forman, 1997; and Turner et al., 2001:2).

3.5.1 Development of the term 'landscape ecology'

Landscape ecology, from its inceptions in the late 1930s through the early 1980s, had been developing in Europe (predominantly in German and the Netherlands [Naveh and Lieberman, 1994:21]); while the term 'landscape ecology' was virtually absent from North American literature until the mid 1970s (Turner et al., 2001:22). Ecology is generally defined as the study of the interactions among organisms or biological communities and their physical environment (Dramstad et al., 1996:12). Ingegnoli (2002:3) considered the emergence of the concept of landscape, and thus the concept of landscape ecology, very ancient; dating from the period in which humans learnt how to combine diverse landscape element to choose an optimal living site; that was when human populations evolved into agricultural societies, and when man was obliged to gather information on the entire ecological mosaic which formed his territory in order to be able to plan successfully his fields and settlements. The foundations of landscape ecology go back to the first half of the last century and the term was used when aerial photography began to be widely available (Turner et al., 2001:2; Ingegnoli, 2002:8; Dramstad et al., 1996:12). The beginning was with Carl Troll in the late 1930s who, in addition to his idea about the necessity as well as the effectiveness of aerial photos, wrote that all the methods of natural science meet in new discipline named 'landscape

ecology' (Dramstad et. al., 1996:12; Ingegnoli, 2002:8; Farina, 2000:9; Makhzoumi and Pungetti 1999:12). Troll's aim was that landscape ecology would integrate the spatial 'horizontal' approach of geographers with the functional 'vertical' approach of ecologists (Farina, 1998; Naveh and Lieberman, 1990).

However; the real interest in this discipline goes back to the recent past of the last three decades when the integration of geography, biology and ecology played a great role in defining landscape ecology. Langer in 1970 defined landscape ecology as 'a scientific discipline, dealing with internal functions, spatial organization and mutual relations of landscape-relevant systems' while Vink in 1975 defined landscape ecology as 'the study of the attributes of the land as objects and variables, including a special study of key variables to be controlled by human intelligence' (Naveh and Lieberman, 1994: 7,9). Integrating nature and humans is, therefore, essential in this discipline and consequently, principles of landscape ecology work in any land mosaic as diverse as suburban, agriculture, desert, forest, pristine natural areas and areas of intense human-activities (Dramstad et. al., 1996:14).

At present, landscape ecology principles is viewed, and finding increasing application all over the world, but especially in Europe and USA, as the scientific basis for land and landscape planning, management, conservation, development, and reclamation exists (Naveh and Lieberman, 1994:21; Hawkins and Selman, 2002). With the time passing and ideas developing, landscape ecology is recently recognized more as a human ecosystem science drawn from a variety of disciplines including geography, landscape architecture, regional planning, economics, forestry, and wildlife ecology (Turner et al. 2001:7; Naveh and Lieberman, 1994:x).

Conversely, Ingegnoli (2002:10) noted that 'several studies still consider landscape ecology not as a true science, but as a specific outlook of integrated research, since most work is based on borrowing from other disciplines, such as general ecology, physical geography, biogeography, community ecology, sociology, or even applied sciences such as landscape planning or forestry'. The study of landscape ecology should therefore integrate the environment- including all the biotic and abiotic values- as a coherent system, and as a 'whole' that cannot be really understood from its separate components. The urgent need for a sustainable environment has led to the increasing acceptance of landscape ecology by nature conservation and restoration policymakers and territorial planners (Ingegnoli, 2002:13).

3.5.2 Principles of landscape ecology in reality

As presented above, landscape ecology is a discipline that studies the interactions between biotic (organisms or biological communities) and abiotic (their physical envi-

ronment) worlds. The result of this integration is a pattern of landscape or region composed entirely of three types of elements: patches, corridors and matrix creating a mosaic (Forman, 1997). The patches are usually bounded by edges and barriers. All of these elements are considered the reference to compare similar as well as dissimilar landscapes. Too, they are the reference for land-use planning and landscape architecture, since spatial pattern strongly controls movements, flows, and changes (Dramstad et. al., 1996:14:19). The importance of landscape ecology as a discipline is clear when considering actively the natural processes, and studying the effects on the whole biodiversity patterns in the mosaic. Adding, removing or rearranging an element such as hedgerow, pond, house, woods, road, or any other element will change the mosaic by changing the functioning. In such cases, animals, for instance, change their routes, water flows alter direction, and humans move differently (Dramstad et. al., 1996:15).

In general, patches do exhibit a degree of isolation; the effect and severity are dependent on the species present. According to Dramstad et al. (1996:19), vegetation patches may be described as one of four types: remnant (e.g. woodlots in agricultural areas), introduced (e.g. new suburban development in an agricultural area), disturbed (e.g. burned area in a forest), or environmental resources (e.g. wetlands in a city). The shapes of patches, as defined by their boundaries, can be manipulated by landscape architects and land-use planners to accomplish an ecological function or objective (Dramstad et. al., 1996:27). Edges and boundaries may be political or administrative, that is artificial divisions between inside and outside. Edges and barriers increase or decrease the isolation of patches depending on their width and nature. Often, edge and interior environments simply look different from each other. A corridor is a means of landscape connectivity in the form of wildlife movement path. However, corridors may act as barriers or filters to species movement. Examples of such corridors include roadways, railroads, power lines, canals, trails, etc. Mosaic is the overall structural and functional integrity of a landscape. Fragmentation is common in landscape mosaics and patterns, and considered one of several land transformation processes (Dramstad et. al., 1996:41). Elements mentioned above may strengthen or weaken this phenomenon which is considered a result of natural disturbance like fires, but has become a result of human activities worldwide. Protection of biodiversity and natural processes therefore, can be only maximized by recognizing and addressing landscape changes and natural processes across different scales.

3.5.3 Recognition of landscape ecological planning

Ecology and planning have many common interests: ecology concerned with the functioning of resources, planning focusing on their appropriate use for human's benefit

(Botequilha Leitao and Ahern, 2002). Landscape ecological planning offers the opportunity to address sites within their wider context. Industrial countries have suffered environmental and ecological disturbance resulted from intensive farming, river engineering, construction of transport corridors and factories, and pollution of air, water, and soil. The result has been a combination of habitat removal and fragmentation. Planners responded to mitigate the impacts of these forces by planning for nature conservation and development. However, there is a growing acknowledgement of the need to renew ecological integrity and visual coherence of town and country by planning at the 'landscape' scale (Hawkins and Selman, 2002). Landscape ecology has also adopted the landscape as its principle unit of study, and enabled an integrated analysis of the complex human-made landscapes that were fast becoming dominant worldwide. The biotic component is thus studied to provide better insights about human and natural systems to support planning for sustainable use (Botequilha Leitao and Ahern, 2002). Landscape ecological planning is, therefore, the procedure which is geared to connect the physical data of the entire ecosystem to cultural information, in order to suggest opportunities and constraints for decision making about the future of the landscape (Makhzoumi and Pungetti, 1999:74). Landscape ecology pays explicit attention to the spatial dimension of ecological processes, focuses on human ecology, and it is oriented towards planning and management, where human activities were explicitly considered part of the systems, not as a separate component (Botequilha Leitao and Ahern, 2002). It is, therefore, landscape ecological planning that can present the wholeness and totality meanings, and present the best for the sustainability issues. Within this 'whole' meaning, landscape ecological planning has contributions to species and biotopes planning, recreation requirements planning, spatial planning (local development planning) and other planning sectors such as planning for agriculture, forestry, traffic, tourism, water resources and mining (Kiemstedt et al., 1998:13,15). The concept of 'ecological footprint' has recently been developing to indicate the human requirements in a settlement from its natural hinterland. It is another face of the ecological relationship between humans and nature.

3.5.4 Procedures, tasks and contributions of landscape ecological planning

Essentially, landscape ecological planning is a process that involves two phases: formulation of the plan body and implementation of the context and/ or the results. In fact, it is not possible to make a clear distinction between the two since they frequently overlap. However, the process of landscape ecological planning is generally determined

by specific procedures and basic steps and activities that should show a logical sequence in order to develop the final plan in an organized framework. Those include:

- Identification of problems and challenges
- Establishment and formulation of general and clear goals, aims, or objectives: it is essential and principal in the process of landscape planning to establish and formulate general and clear goals, aims or objectives¹.
- Landscape assessment and analysis
- Determination of approaches and methodologies
- Community involvement through education and participation: this step is important at this stage of the planning process because it is important to involve the community in order to make sure that the first attempts done so far are accepted and supported by local community. It also aims to direct, somehow, the design of the plan to meet local needs through participation, while, on the other hand, it reflects any lack of public awareness regarding physical planning and consequently enables to define areas of education required for locals. It is also important to assure that there are no other additions (at least so far) to the problems, challenges, data and information, and approaches which have been already included.
- Design of policies and plans
- Public, local and regional involvement, participation, and revision: this step is different from the one noted above about 'Community involvement through education and participation' and which comes before the design of the plan. This should show the quality and efficiency of the plan. Feedback from the public is consequently required through local and regional involvement and participation. The results are required to be considered in the planning outputs. This stage seems to be with significant importance and difficulty because it is the stage where the variant people's interests are highlighted upon and treated to be included in the plans' design. More investigations, assessments and analysis may also be required to attain acceptable solutions.

¹Longman dictionary of contemporary English online (<http://www.ldoceonline.com/>) defined these synonyms as follows: 'aim' is something you hope to achieve by doing something, 'goal' is something that you hope to achieve in the future = aim. 'objective' is something that you are trying hard to achieve, especially in business or politics = goal

- Approval of plans: approval of the planning outputs according to the legal procedures is required where the planning output is being examined with relation to the guidelines from the higher levels of planning.
- Implementation and administration (management): when approved, implementation according to the management and implementation plan should directly take place.
- Evaluation and modification: regular evaluation and check out is essential in the implementation process. This will usually result in slight changes in the plan design, but in few cases a lot of changes are being required because of different reasons; e.g. more new factors were not previously considered.

With much importance of these in the beginning is the landscape assessment, where the ecological aspects are supposed to appear as principal part. Landscape assessment essentially aims to investigate, depict and document characteristics of the landscape as a whole and to understand the spatial structure of ecosystems and their relationship with humans as well as the current functional capacity of the ecosystem (Kiemstedt et al., 1998:11). It includes all the ways of looking at, describing, analysing, evaluating and classifying the landscape emphasising that man is the element to take into account (Makhzoumi and Pungetti, 1999:60). The process of landscape ecological planning continues with more tasks as it documents the effects of present plans and land uses on nature, environment and the landscapes, and determines areas of significance regarding flora and fauna, the amenity value of nature and landscapes, and natural resources such as soil, water, air and climate. Landscape ecological planning defines recommendations concerning possibilities for mitigation and reducing existing disruptions and impacts, and concerning the qualities to be protected. It helps thus to define environmental quality goals and measures to be used in the Environmental Impact Assessment (EIA) required for other plans and projects (Kiemstedt et al., 1998:9-28).

Being enhanced and achieved, landscape ecological planning provides contributions towards the protection of environment and nature. It provides the local population, planners, and politicians with comprehensive information on the ecosystem, the landscapes and the problems and opportunities involved as a basis for making the right decisions. Landscape ecological planning depicts the interaction of the respective resources such as water, soils, air, etc, and considers aspects of species and biotopes. It makes it possible for other planning sectors to gain an advance idea of possible conflicts with nature-related issues at the beginning of their planning work and, therefore, presents fundamental information and recommendations concerning the development

of forms of recreation that are compatible with nature and landscapes, and as a major result, landscape ecological planning increases the environmental awareness of both public and responsible authorities regarding specific elements (such as old avenues of trees, water meadows and wetlands) and of threatened landscapes and those in need of protection (Kiemstedt et al., 1998:9-10).

3.5.5 Approaches to landscape ecological planning

There are several approaches to landscape planning from different countries where the growth of interest in landscape ecology over the recent past has resulted in the emergence of various directions of thought. The principles look similar; however, the emphasis displayed is different depending on the understanding and interest of each group. Belgian landscape ecologists, for example, have applied the ideas of corridors to the creation of connectivity in commercial and agricultural landscapes (Froment and Wildmann, 1987). In East Europe, especially in Czech and Slovak, planners concentrated on 'stabiliser zones' or patches around which new landscapes could cohere, not only to remedy the severe damage which had arisen from heavy industry and intensive agriculture, but also to maximise the viability of key animal/bird migration corridors (Kubes, 1996). Kuehn (2003) noted that 'successful approaches of landscape protection in city regions have to consider more carefully the concrete local qualities and social uses as a basis for regional design'. Hawkins and Selman, (2002) review a number of approaches from different regions and countries including:

- In North America planners emphasize the role of multi-function greenways or corridors as large-scale conduits for animal migration, recreational use and environmental management.
- Scandinavian practice appeared to be heavily influenced by the retention of traditional land use practices in order to conserve cultural landscapes.
- German researchers and planners have been strongly influenced by environmental impact legislation, and the need to provide 'compensation' areas where valuable sites have been lost to development. At the same time they have had a strong recognition of the value of urban landscapes in delivering a range of environmental benefits.
- Dutch have an approach which rely on reinstating a large scale 'green structure', whilst latterly attempting to relate this to scenarios based on selected indicator species.

These approaches are not limited to any of the countries mentioned, and they have the potential to transfer through other countries, and this is mainly because they have derived from universal ecological principles. However, it is important to consider some basis for selecting a specific approach for a specific region or area including its compatibility with land use planning system, potential for extension from the original context, the degree to which the approach had been tested in the world, existing of sufficient data, and geographical scale at which the approach had typically been used (Hawkins and Selman, 2002).

Among the previous approaches, stabilisation is significant because of its relation to the capacity of a landscape to remain unaltered or to regenerate quickly after any human or natural disturbance, thus conserving and enhancing biodiversity and helping to planning at a range of scales. The basic concept therefore involves retaining existing ecological infrastructure, and then creating more of the same landscape elements in deficient areas (Hawkins and Selman, 2002). The approach of selecting focal species (described also by Hawkins and Selman [2002]) relies on the responsibility of these species to represent a wide range of others as a guide to planning an idealized landscape by considering scenarios as aids to integrated spatial planning.

The ecological greenway planning approach has an important quality that it is essentially a multi-benefit device and, whilst the initial motivation may be ecological, it also supports other objectives such as recreation, visual appreciation, scenic highways and pollution buffering, and it is intended to operate at small, medium and large scales (Hawkins and Selman, 2002).

3.6 Sustainability in landscape planning

Around the world many of the basic resources on which current generations (and future generations will) depend for their survival and well-being are being depleted, and environmental degradation is being intensified. Land use changes have the greatest threats to the sustainability of resources and services that nature offers to societies worldwide. Sustainability in landscape planning is, therefore, connected to the process of development and alteration. According to Jongman (1999:114) sustainability is 'the capacity of the earth to maintain and support life and to persist as a system'. The United Nations Food and Agricultural Organization (FAO) Council in 1988 defined sustainability as 'the handling and conservation of natural resources and the orientation of technological and institutional change so as to ensure the continuous satisfaction of human needs for present and future generations' (Botequilha Leitao and Ahern, 2002). Sustainability due to all of these meanings and definitions is therefore a shared task of all parties

of the community including governors as well as peoples. High levels of awareness regarding natural resources by all parties are thus a basis to achieve sustainability while any ignorance or undervalue of the functions and services of ecosystems by any party will decrease the possibilities for sustainable use of natural resources and ecosystem management (Naskali, 2002).

3.6.1 Sustainable development

The right to development is a universal and an integral part of fundamental human rights; however, it must be fulfilled so as to equitably meet the needs of population, development, and environment of present and future generations. Sustainable development is, therefore, a development with a challenge to satisfy the present necessities, to meet the needs of present generations, and to improve their quality of life, in a way that offers the ability of future generations to meet their own needs as well. Berg (1999:24) emphasized three central aspects of sustainability (which are aspects of the process of change at the same time); those are time, space and management. More detailed is the definition by the Federal Environment Ministry of Germany; it sets sustainable development as 'the protection, management and development of nature and landscapes in populated and unpopulated areas in order to lastingly secure the functional capacity of the ecosystem, the exploitability of natural resources, the survival of wildlife and the diversity, individuality and beauty of nature and landscapes both as a basis of human existence and as a prerequisite for outdoor recreation' (Kiemstedt et al., 1998:5).

3.6.2 Sustainable development related to environment, ecology, and socio-economy

Human beings are at the centre of concerns for sustainable development. They are the most important and valuable resource of any nation. Peoples are usually entitled to a healthy and productive life in harmony with nature. Countries should therefore ensure that all individuals are given the opportunity to make the most of their potential. They have the right to an adequate standard of living for themselves and for their families, including adequate food, clothing, housing, water and other services.

Environmentally sustainable development is the development of both an economical and a biological field of study that does not destroy the natural support (Ignegnoli, 2002:237). Having been a means to ensure human well-being, sustainable development requires that the inter-relationships between population, resources, the environment and development should be fully recognized, properly managed and brought into a harmonious, dynamic balance. To achieve this kind of sustainable development and a higher quality of life for all people, states should reduce and eliminate unsustainable

patterns of production and consumption and promote appropriate policies, including population-related policies. The everyday activities of all human beings, communities and countries are interrelated with population change, patterns and levels of use of natural resources and the status of the environment. Environmentally sustainable development, therefore, implies long-term sustainability in production and consumption relating to all economic activities including industry, energy, agriculture, forestry, fisheries, transport, tourism and infrastructure in order to optimize ecologically sound use of resources and minimize waste. Sustainable development, therefore, involves the maintenance of natural resources and spatial patterns of land use that are ecologically, socially, and economically beneficial (Botequilha Leitao and Ahern, 2002). Too, it requires that the economic, social, and ecological developments are accorded equal weight and not played off against each other (Kiemstedt et al. 1998:17).

Unsustainable consumption and production patterns are contributing to the unsustainable use of natural resources and environmental degradation. The new social values recognized in the recent past, such as solidarity between present and future generations, and the need to balance development with nature, are increasingly being introduced into planning methods and legislation (Botequilha Leitao and Ahern, 2002).

3.6.3 Principles of sustainable development planning

Creating more sustainable systems has become a leading objective for all scientists and researchers involved in planning for future land uses and for conservation and protection of landscapes and natural resources (Forman, 1997). Sustainability concept is relevant to systems from the global to the local scale (Botequilha Leitao and Ahern, 2002). In order to achieve high levels of sustainability, it is important, therefore, to fully integrate population concerns into development strategies, planning, decision-making and resource allocation at all levels and in all regions; Kiemstedt et al. (1998:5) paid much attention to the participation of all social groups, especially in the implementation process.

The spatial dimension of sustainability engages processes and relations between different land uses, ecosystems and biotopes at different scales and over time. When planning for sustainable development is focused upon, ecological knowledge is essential and planning must succeed in a mosaic of different land uses that not only conserves biodiversity, but also allows people to make a living (Botequilha Leitao and Ahern, 2002). The emphasis is on reducing both unsustainable consumption and production patterns as well as negative impacts of demographic factors on the environment in order to meet the needs of current generations without compromising the ability of

future generations to meet their own needs. There are general basics for implementing sustainability meanings in planning issues including the following:

- Sustainable development strategies must realistically reflect the short, medium and long-term consequences of population dynamics as well as patterns of production and consumption.
- Demographic factors should be integrated into environmental impact assessments and other planning and decision-making processes.
- Governmental and non-governmental organizations and other concerned parties should undertake timely and periodic reviews of their development strategies to assess progress towards integrating population into development and environmental programmes that take sustainability into account.
- Unsustainable consumption and production patterns should be modified through economic, legislative and administrative measures, fostering sustainable resource use and preventing environmental degradation.
- Policies should be implemented to address the ecological implications of inevitable future increases in population numbers and changes in concentration and distribution, particularly in ecologically vulnerable areas and urban settlements.
- Measures should be taken to enhance the full participation of all relevant groups, especially women and young people by increasing their contribution to sustainable development at all levels in order to achieve sustainable management of natural resources.
- It is required to integrate strongly population and development strategies by public education and information programmes, and by improvement of the basic knowledge through research on the linkages among population, consumption and production, the environment and natural resources, and human health as a guide to effective sustainable development policies, etc.
- It is also important to reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies benefiting from the experience of developed countries.
- Recommended ideas for sustainable development include also using various approaches to the sustainability question, obtaining experience from implementation projects, emphasizing the operational implementation level rather than all encompassing strategic plans, and recognizing the responsibilities of regional and

local authorities in solving the sustainability question. Building a bridge between urban planners and environmental experts to achieve sustainable urban quality is strongly required too (Berg, 1999:30).

- Besides, actions can be taken including using energy more efficiently, managing water resources and protecting freshwater sources, forests, and biodiversity hotspots, preserving arable land and increasing food production, managing coastal zones and ocean fisheries, and adopting an international convention on environment protection (Hinrichsen and Robey, 2000)

3.7 Landscape management

The previous sections presented completely theoretical concepts regarding issues with relation to landscape planning. This section concentrates on the last part of the planning process; i.e. 'landscape management', which includes implementation and evaluation without which the planning process will never be completed. Management is thus essential for the implementation process; however, its foundations should be included and organized in the design of any plan as well as in the administrative system. Local authorities usually play an important role in achieving good urban quality of life, and even when talking about global goals, no doubt that great efforts are required at the local level to achieve this quality (Dal Cin, 1999). Managing the landscapes concerns the principal type of action to be taken and, thus, it involves the main aim of the process of landscape planning. This action may be one of several including protection, improvement and/ or development, but the first is mostly highlighted upon even when any of the other actions is basically considered because, although landscape is somehow disturbed in such a case, there is still a need to protect undisturbed landscapes. It is important, therefore, to clarify meanings of landscape protection, the functions and services landscape protected areas present to societies, the threats that affect them and the requirements and principles for planning and managing the landscape protected areas.

3.7.1 Recognizing the meanings of landscape protection

In general, protection, conservation, and preservation of nature, wilderness, biodiversity, or landscapes is the planned and managed process which being implemented to the natural and/or lived-in areas that still keep valuable quality and still have potential to bring many benefits to societies. The term 'protection' is usually used when the process is implemented based on strict policies, regulations, restrictions and penalties

while the terms 'conservation' or 'preservation' are used when management is essentially controlling the landscape planning process. In this study, 'landscape protection' is used to indicate the tendency to enact policies, regulations, restrictions and penalties at the time that active management is being implemented. In fact, landscape planning, in addition to policies and laws, are recently considered the instruments used to achieve protection (Kiemstedt et al., 1998).

Landscape protection is a process that has been rarely implemented in less developed countries, but broadly in more developed countries which consequently presented the scientific basics to this field. Interests in protection have been for many years for the protection of wilderness and pristine nature (i.e. species and habitats) (Philips, 1997:37,31). In the late 1860s and early 1870s, Fredrick Law Olmsted¹ felt the great moral appeal in natural landscape beauty and wilderness and the necessity to preserve natural areas. The first preservation area of natural wilderness and scenic landscape was created in Yosemite Valley, in California in 1864 (Ingegnoli, 2002:7). Interests in protection, therefore, have gradually changed and recognized the value of the cultural and humanized landscapes; especially in long settled parts of Europe (Philips, 1997:37,31). Protection of a species requires the protection of its habitat among a network of suitable ones; i.e. ecologically-valuable landscapes, including humans as a component of nature (Niemeijer, 2002). Supporting 'focal species' idea is with relation to the protection aspects where the concept is to choose certain vital landscape species or elements whose life and requirements are the most useful for the survival and protection of the overall landscape (Sanderson et al., 2002). Those would be helpful afterwards to keep other species survived achieving the main goal of the protection process. All landscapes evolve from natural resources, and their protection and ongoing management require a comprehensive, multi-disciplinary approach. In some countries, landscapes and parks belonging to the fifth category in the classification of International Union for Conservation of Nature (IUCN)² are considered the most practical and effective method of protecting both landscape and wildlife (Denisiuk et al. 1997:146). The fifth category has been set as a 'Protected Landscape' and defined as 'Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area' (Source: UNEP-WCMC Website). Therefore, effective protection has recently

¹Frederick law Olmsted (1822 - 1903) was one of the greatest champions of the City Beautiful movement and the leading landscape architect of the post-Civil War generation in the United States. He has long been acknowledged as the founder of American landscape architecture.

²See Appendix C on page 284 for more details on this classification

been developed to integrate as diverse contrasting land uses as natural reserves, parks, agricultural land and urban areas (Sanderson et al., 2002). This indeed creates the management challenge to offer the possibility to improve the socio-economic conditions of locals and, at the same time, continue to maintain their own landscape creating.

3.7.2 Landscape Protected Areas (LPAs)

Landscapes, which resulted from the protection of cultural and humanized landscapes (described above), are generally known as landscape protected areas (LPAs). These should possess high scenic quality and unspoilt character with wide range of biodiversity associated with traditional land use patterns and cultural features such as historical monuments, and with opportunities for public recreation and tourism. Landscape protected areas (LPAs), strongly carry the meanings of particularity of human society, living way and density (Phillips, 1997:40). Emphasizing on keeping this particularity requires supporting of certain traditional land use practices while, changing features of this particularity do mean changes in the landscape itself affecting its value and quality and threatening resources, research and education, ecotourism, and other services that landscape offer to societies all over the world (Nelson et. al., 1997). Conversely, supporting landscape particularity (certain traditional land use practices, for instance) may be appropriate in some instances where land users should be free to do their own things in their own way, but 'when it is necessary, they should be regulated in the public interest' (Turner, 1998). It is important thus to pay much attention to the selection of a protected landscape, where protection, and/or development of landscapes generally create restrictive conditions for some of the planning sectors, particularly with regard to the planning of traffic routes and of industrial, energy production and defence facilities (Kiemstedt et al., 1998:14).

3.7.2.1 Figures and facts about landscape protected areas

Phillips (1997:36) presented some figures concerning the protected areas and landscape protected areas from year 1994. He mentioned that about 9832 protected areas (from which some 2273 are recognized as landscape protected areas) are recognized by World Conservation Monitoring Centre (WCMC). Of the 2273 landscape protected areas, some 1814 are found in North America and Europe covering 1.1% of the area of North America (this includes 507 sites with an area of about 269,000 sq. km), and 6.6% of the area of Europe (this includes 1307 sites with an area of about 657,000 sq. km)¹. The other 459 landscape protected areas (with a percentage of 20% of the whole landscape

¹Area of Continent of North America is app. 24,474,000 sq. km, and of Europe is app. 9,938,000 sq. km. (Source: Worldatlas Website)

protected areas around the world) are distributed all over the world with different scales. Among those, North Africa and Middle East have only 0.39% of their land as landscape protected areas (Phillips 1997:36-37). However, the percentage of lands of landscape protected areas of any country comparing to its area is not an absolute indicator that some countries have more or less interests of protection than others. This is mainly because countries, in addition to their varieties in the political, social and economic conditions, are also different in areas as well as in ecological conditions and ecosystem components that deserve protection. In general, landscape protected areas are widely distributed in Europe comparing to other places in the world. But many of these landscape protected areas are not well managed, and integrated into larger planning framework with a lack of policies which might encourage and include partners in establishment and management (Marija, 1997: 152). It is more realistic here to mention that these statistics are related to the protected areas that are already registered at the IUCN. Other areas throughout the world, especially from the third world, may deserve to be considered as well, but it requires a lot of time as well as great efforts and interests from local, regional, national and international communities. The most important for these areas is to receive the appropriate interests from the local communities which will transfer these interests gradually to the world.

3.7.2.2 Functions, services and values of landscape protected areas

Protection of landscape and open spaces in and around urban areas is universally recognized as an essential precondition for healthy cities and good quality of life. Dramstad et al. (1996:9) see this purpose essential to conserve biodiversity 'as a matter of principle, as a matter of survival, and as a matter of economic benefit', and therefore to practically eliminate and prevent, where necessary, land uses and activities that are inappropriate with the quality of the place. In this context, it would be useful to clarify meanings and norms of such a quality. Rolston III (1994) listed several values that compose this quality including natural and cultural values, diversity and wildlife values, and ecosystem integrity and health values. Landscape protected areas also present many functions and services to many indigenous peoples and to local, national, and global societies who have increasingly recognized them. These functions and services include conservation of water, forest and other natural resources; protecting Archaeological, cultural, and historical resources; providing opportunities for recreation and tourism purposes; and supporting education and research.

3.7.2.3 Threats affecting landscape protected areas

Concepts of landscape protection should be directed towards the most threatening factors. Among the many others, population-urban growth resulting in urbanization the landscapes is distinct. Urban growth boundary is often the planning output facing this problem. The urban growth boundary is a dynamic changeable line (delusive in reality) drawn on planning maps to show where a city expects to grow on a population-requirements basis. The purpose of this line is to offer areas with low landscape quality for urban growth, but more important is to protect other landscapes with higher qualities from being urbanized randomly.

Landscape protected areas are exposed to many other threats that result from different mostly-human activities which may vary from one region to another, but still the driving forces are socioeconomic (Machlis and Soukup 1997:162). Land use changes together with their influences are considered main threats to the sustainability of services and natural resources. Landscape protected areas usually offer these services to communities and societies in all parts of the world. It is possible thus to list some obvious threats as follows:

- Population growth and movement.
- Human settlement patterns and land use changes.
- Policies or laws (e.g. governing development and private property rights).
- Industrial activities and urban development and growth.
- Development of services and land use activities such as agricultural development.
- Military activities, war and conflict.
- Over-grazing and hunting.
- Water extraction or pollution.

3.7.3 Relationship between 'landscape planning' related issues and management

As mentioned above, planning is a well-known instrument to protect the landscapes. It is simply a way of thinking and preparing for the future, and can never be isolated from other terms like management and decision making; otherwise, the result will be a case of disorder. The task of management and protection of the natural resources (soil, water, air and climate) includes developing or restoring the prerequisite that ensure

the functional capacity and interaction of these resources in the ecological balance (Kiemstedt et al., 1998:28).

Management is essentially required to achieve protection; to realize objectives of planning for protected landscapes. The objective of protection as a management aspect is to maintain the harmonious interaction of nature and culture, the continuation of traditional land uses, and thus the economic activities, which are in harmony with nature (Philips, 1997:37).

There are numerous different kinds of planning; however, little research has been unfortunately done on management and making decisions about land use in and around landscape protected areas (Nelson et. al., 1997:55). Management deals with the controlling or direction of activities, and implies care, responsibility, and accountability. As a result of the previous arguments about the relationship among people, landscape and protection, the management of landscape protected areas should necessarily include the management of people; visitors, employees, tourism operators, nearby communities, interested groups, etc (Machlis and Soukup 1997:161). Urban planning, for sure, does not aim to deter urbanization which builds diversified and dynamic economies; raise productivity, create jobs and wealth, provide essential services, and absorb population growth. Oppositely, urban planning aims to make urban regions more liveable, and to protect the environment by a number of steps including effective zoning, more public transportation, better sanitation and rational water-use policies, energy conservation and waste recycling, etc. This effective planning requires strong local government supported by active citizens working for improving the quality of life. This quality of life is with relation to resources (human resources, sunlight, land, water, etc), processes (which convert these resources into various other useable products and services), and effects of these processes, which may be negative (such as pollution, waste generation, congestion and overcrowding) or positive (such as increasing production, increased knowledgebase/ education, access to resources and better services) (Source: GDRC Website).

Unfortunately, the management of many landscape protected areas is not as strong as it needs to be: to stand in the face of (and perhaps overcome) the powerful threats that these areas now face (Marija, 1997:151). Local authorities usually play an important role in achieving good urban quality of life, and when talking about global goals, no doubt that great efforts are required at the local level to achieve the quality of the landscape protected areas (Dal Cin, 1999).

In principles, planning and management require that many questions are answered including (according to Machlis and Soukup, 1997:165) questions on visitors and their

numbers and impacts on the resources, the relation between the landscape and its surrounding communities including local, regional, national and international economies. The plans should also show methods of mitigating threats, improving responsible organizations and agencies and educating and outreaching public. The plans should also answer the question on the relationships between management of landscape protected areas and sustainable development.

There are actually some approaches and kinds of planning and management of landscape protected areas. In the past, stress has been placed on rational or synoptic planning, which is thinking in terms of goals and objectives and the use of scientific and related knowledge to attain them, and on corporate management, which is controlling a group in accordance with a set of goals and objectives set by law, policy, and/or a Board (Nelson et al, 1997:56). Brown and Mitchell (1997:106) mentioned that, in North America over the past century, the focus has moved from preservation (i.e. setting aside blocks of land) to protection (i.e. establishment of enforcement of capacity) to management (i.e. introduction of sustainable uses of some resources) to integrated management (involving greater management of resources in lands within, as well as outside of, protected areas). The recent past has witnessed a growing interest in ecosystem management, protection of greenways and biological corridors and landscape protection. In North America, for example, methods generally focus on encouraging landowners- individuals as well as businesses- to manage areas to protect working landscapes and biological resources, or to allow others to manage the resources (Brown and Mitchell, 1997).

Another approach, which is the stewardship approach in protecting landscapes, relies on both private initiative (e.g. individual landowner, a resource-user, a business and/or an NGO) and governmental control, which provides a framework in the form of a tax and other incentives, land-use planning, and a supportive climate for private organizations, in addition to a third necessary element which is the local-level and traditional resource management system (Brown and Mitchell, 1997:106).

3.7.4 Requirements and principles for landscape management

Management of landscape protected areas requires especial concerns and interests as well as general principles according to which they are supposed to be managed and developed. Protection, first of all, requires policies and legal basis (national and local) and strong economic and political body with good understanding of the socio-economic and environmental conditions of the surroundings (Nelson and Serafin, 1997). Essentially, the management of a protected landscape is the management of change. The basic resources are natural and cultural; thus traditional knowledge of local people

should be respected and supported. Existence of management bodies with professional expertises at all levels (local, regional and national) is necessary (Philips, 1997:41). It is principal also to provide a two-way communication between people and the managing body (i.e. public participation and support; this may require special educational and financial incentives) and a continuing monitoring and feed-back process (Philips, 1997, 41).

For purposes of management for sustainability, it is necessary to note that sustainable development has two sides: preventing the shift of pollution (in space, in time, and to other environmental compartments) and providing development opportunities (Van Staaldune and Simons, 1999:38). From the management point of view, municipal, regional and national authorities each play a role in achieving sustainability in the cities. It is unfeasible to speak about sustainability for a region without including the spatial structure of the region itself, and viewing it as part of a much larger region, and due to the interdependencies of ecosystems, a planning approach that examines a site in its broader context is needed. The contribution of citizens, businessmen and agencies are of decisive importance in this respect, and shifting problems to some other management level is not a viable option in sustainability thinking (Berg, 1999:24).

3.8 Conclusion

Landscape can be understood in several meanings depending on the angle from which one looks at its characteristics and too according to the personality of this one. In general, specialists (landscape architects, gardeners, planners, etc) will concentrate on the totality meanings while public will appreciate the visual aesthetics and functionality. This totality includes its main meanings related to aesthetics, culture and ecology. Landscape has strong relations to environment. It can simply be defined as 'the physical environment'. For a specific site and within a specific time, and in normal conditions, physical landscape or elements (i.e. landform, soils, drainage, etc) as well as natural or biological landscape (i.e. ecosystem, species of flora and fauna) are more or less 'constant'. Too, ecological processes usually occur slowly and regularly resulting in natural good landscapes.

Indeed, landscape ecological planning is recently considered the formal response and the control instrument to any transformation or change. Planning in theory has meanings which have relation to goals and objectives, alternatives and option, strategies, policies, and regulations. Landscape planning can be defined as **'a purposeful development activity in that it explicitly develops a set of objectives and seeks the best means to reach these objectives focusing on the multi functionality**

of the landscapes and direct the changing relations and processes among biotic and abiotic ecosystems, human, and ecological processes emphasizing the totality meanings by integrating the different related fields in the process of planning in order not to stop or slow down land development, but oppositely to develop a site but with no, or with the least, damage for the environment'. Approaches to landscape ecological planning vary relying on the understanding of and interests in the ecological principles (patches, corridors, matrixes). However, it is important to consider some basis for selecting an approach including its compatibility with land use planning system, potential for extension from the original context, the degree to which the approach had been tested in the world, existing of sufficient data, and geographical scale at which the approach had typically been used.

Landscape protection is actually 'an activity' that might be, or usually being, aimed from the processes of landscape planning and management. It is more recognized now that planning and management (particularly, landscape planning or related land use planning) are instruments which are being used to apply protection to landscapes. Landscape planning, management and/or protection are activities that all have recently recognized the need to include human activities and cultural landscapes as a main factor in any related process; especially when recognizing the many benefits to humans' life and existence. The ecological concern and its concepts of components, resources and processes generate new ideas regarding the necessity of people's involvement. This has extended to broadening the processes of landscape planning, management and/or protection to include the rural landscapes as a whole. For landscape planning, management and protection to be socially as well as ecologically sustainable, the output must succeed in a mosaic of different land uses that not only conserve biodiversity, but also allow people to make a living. However, care should be taken that activities which do not meet the required purposes of these processes should be limited as much as possible.

Based on the principles included in this chapter, it is convenient to distinguish and describe the original context of the landscapes of the Gaza Strip as a mosaic of agricultural lands and orchards, sand dunes, Mediterranean coast, urban settlements and little corridors such as Wadi Gaza in central Gaza Strip with natural vicinity. However, there is no any interactive system for real landscape and/ or land use planning in the Gaza Strip to which any approach to landscape ecological planning may refer, but this does not mean that any of these approaches can not be used within a special framework or arrangement that may be developed afterwards to a planning system. Many threats among those which were mentioned above can be seen in the case of the Gaza Strip as

well as in many other developing countries because of the extreme political and socio-economic conditions they have. However, real solutions and approaches to overcome these threats are lacking, and strong connections between this theoretical part and the real conditions on ground are still missing. The theoretical emphasis of landscape planning, management and protection is much more on normal conditions where normal civil and safe societies are considered as a field for implementing these theoretical ideas. There are no explicit signals to issues with relation to the extreme conditions of life like those which were mentioned in the first part from developing countries, and from the Gaza Strip in particular. The following chapter will, therefore, concentrate on issues related to these extreme conditions in order to support and deepen some related thoughts and ideas.

Chapter 4

Landscape planning and management under extreme conditions

Landscape planning usually aims to create as harmonious a situation as possible regarding the relationship between landscape and land use.

Understanding the main items and key words of this study is going further in this chapter by concentrating on issues related to landscape planning and management under extreme conditions; e.g. conflict and/ or disasters. The last chapter concentrated on issues related to landscape planning and management in more or less 'a typical situation'. However, this is not the case everywhere and of course not in the developing countries or in the Gaza Strip in particular.

Overlapping and/or sharing characteristics of both conflict and disasters may happen in a few cases when conflict becomes serious or progressive to the level that it is accompanied by disaster features; the Gaza Strip is an example. The following is an attempt to show general features of these extreme conditions and the relationship among them putting emphasis on the role that landscape planning and management takes to deal with and solve problems of such conditions.

4.1 Conditions of conflict

Generally speaking, landscape planning faces some troubles that have origins in the meanings of conflict which usually involves two groups or parties. The natures of the groups or parties and the reasons that generate conflict have a wide range of possibilities.

4.1.1 Reasons of conflict

There are several reasons that lead to conflict including socio-economic inequalities, the absence of opportunities for political participation, fragile government structures and inadequate civil structures, political violence and repression and competition for scarce

resources such as land, water, etc. (Klingebiel, 2002). For these reasons and many others, it is possible to distinguish between two main kinds of conflict: the armed conflicts of war times and the civil conflicts of peace times.

4.1.1.1 Conflict of war times

In war-conflict situations, the conflict is characterized by armed activities, which grow between the country (government and people) on one side and an external enemy on the other side. The country will then pay much more attention to win the war, save freedom for the country, present aids to afflicted areas and residents, etc. The most attention would be then on issues related to human conditions; aids and refugees and returnees settling and supporting, for example. Another case can also be considered here: it is the case of civil war when two or more parties from the same country severely fight for whatever reason; in many times more volcanic than fighting against external enemies; in countries where there is no effective state monopoly on the use of force (e.g. Somalia, Sudan, Liberia, etc.). Klingebiel (2002) says that groups often have economic motives for perpetuating unstable conditions and violent conflicts. This second case in general should, in the typical situation, take into consideration the internal development and welfare of residents (civilians) including the issues related to the environment and the natural resources; the thing that rarely happens because of more than one reason but the main is that in war conditions, defeating the enemy and winning the war are the most important goals to the extent that no time or money is being spent for other issues.

4.1.1.2 Conflict of peace times

Conflict in peace times completely differs from that in war times. Nowadays, and in many parts of the world, a lot of changes are happening regarding the biological and physical environment and socio-economic conditions. Therefore, studying conflict with relation to the title of protecting the environment and the landscapes usually highlights issues of internal conflict between the government (or the responsible administrative bodies) and the local residents regarding issues such as ownership of lands; traditional activities such as agriculture, grazing, local industries and cutting woods; building private constructions and infrastructures; supplying of services; etc. Conflicts thus relate to the lack of attention to the process of involving local people in the landscape planning and management and making decisions for an area, and/or to the lack of attention to people's needs (e.g., grazing, firewood, building materials, fodder, medicinal plants, hunting, etc) that conflict with the main aim of landscape planning and management.

If a good public-involvement is incorporated into landscape planning and management, many conflicts may be avoided.

4.1.2 Planning and management process of conflicts

All kinds of conflicts have to be resolved through a process of planning and management in order to come over some of the resulted difficulties and disasters on the different levels; as mentioned earlier, through programs of relief, development and rehabilitation. Planning and management process related to conflicts require general ideas and steps to be considered when implementing the different programs; however, there are still many differences that should be considered for each kind relying on the nature of the conflict itself. Among the general concepts that should be considered in planning and managing conflicts is the tool of conflict impact assessment (CIA) which was originally conceived to assess the impact of development projects and programs on the social and political environment (Gaigals and Leonhardt, 2001). CIA is an evaluation methodology which helps to mitigate conflict and reduce the unintended negative consequences of any external engagement (relief, development and rehabilitation programs). More recently, the concept of CIA has been expanded to encompass the range of activities which support peace, thus it is now more usual to apply Peace and Conflict Impact Assessment, or PCIA (Gaigals and Leonhardt, 2001).

4.1.2.1 Planning and management process for armed conflicts

Planning and managing armed conflicts which are related to war (either external or internal) is usually out of control and expectations of what development cooperation can achieve should not be pitched too high as the responsibility for preventing or ending conflicts rests mainly with the parties concerned (Klingebl, 2002). What may be considered is the planning for the post-conflict situation in addition to any program of relief, rehabilitation, and/or development; Hawaii (2003) considered that rehabilitation should integrate both relief and development programs. Other activities or programs are also required including reconstruction and reintegrating of refugees or returnees and their participation in development programs. Those programs are not following one another, they are coexisting, with changing importance not only in time, but also in space and they should start before repatriation or demobilization (Bruchhaus, 1999). Hijazi (2003) was more realistic when he said that those programs should start as early as possible concentrating at the same time on other relative issues including the following:

- There is a need for a minimum amount of stability and cooperation to be achieved through well-targeted policies.

- There is a need for multi-dimensional and strategic planning, but this is best served by a broad framework approach not by a detailed one. This framework should be flexible to allow for quick response to what are often rapidly changing situations.
- At the same time, there is an essential need for a participatory approach, technical and financial assistance, as well as humanitarian relief, which all have to be directed mainly through local 'non-state' actors; however, a political body should take part as development cooperation cannot and will not replace other political actors (Klingebiel, 2002).
- There would be a need for building this local structure when it is difficult to find the suitable local actors (due to damage done to the capacity and functioning of civil society organizations during conflict).
- A regional scope should be generally considered in these programs.
- There is a need for institutional arrangements and a structure which shows flexibility, effective response to changing situations, and very high levels of coordination between units and between policy-makers at different levels
- There is a need to ensure a system which mitigates any effects generated between the local political body and any foreign and donor countries.

4.1.2.2 Planning and management process for conflicts in civilian societies

Conflicts may be planned to be resolved and managed more easily in peace times; i.e. when this conflict is more or less the internal one in a civilian society. In such a case, planning and managing conflicts is in a need for a staff that has credibility, a mandate, and power in order to initiate a process. Besides, Lewis (1996) emphasized the need to choose a neutral mediator who can be trusted by all sides and can understand the various interests. The intended conflict resolution should be the one in which all parties really understand each other's needs, and direct their efforts toward informal, voluntary and collaborative approaches that can be used either by itself or to supplement a formal process (Lewis, 1996). All affected stakeholders¹, individuals, and groups should also be involved in a fair and respectful process and all underlying interests, local traditions and institutions, and different levels of powers should be considered including those with the least power.

¹ Individuals or groups who are directly involved in the conflict, or who may be affected by how the conflict is resolved

The process of resolving a conflict may thus concentrate on determining the conflict reasons, involving all groups, establishing a communication system, creating a conflict resolution framework, building alternatives, analyzing and/or running a Conflict Impact Assessment, finding solutions, and implementation and evaluation (management).

4.2 Conditions of disasters

A 'disaster' can be recognized in different societies by different meanings; however, there is still a common understanding that directly comes to mind when issuing this term. By editing a book named 'What is a disaster? Perspectives on the question', Quarantelli (1998:3) shows several past, current, and future views about the concept of disasters. In general there are two main types of disasters: natural (e.g. floods, earthquakes, hurricanes, storms, wildfire, landslide, volcanoes, etc) and man-made (e.g. wars, terrorist attacks, etc); however, man-made disasters are not very much concentrated upon in dealing with this issue. It is because the impacts of natural disasters are usually very much greater (as they are the results of God's powers and acts). Voogd (2004) tried to interpret the relation between natural and man-made disasters in a thought-change sense as they were seen as 'Acts of God', 'Acts of Nature', disasters now being seen as resulting from 'Acts of Society'. Nevertheless, acts of God are still happening at the time that acts of the society increased. Natural disasters in particular are not possible to be prevented from happening; nature is an uncontrollable force that can catch even the most well planned community (Tweedy, 2000). However, it is, and must be, possible to reduce their impact if the past is to have a future (Look and Spennemann, 2000). Disasters are related to risk (uncertainty) which can be seen from different points of view; e.g. 'engineering' point of view where risk can be measured independently from social and cultural processes, 'sociological' point of view where risk is inevitably mediated through social and cultural processes, or 'postmodern' point of view where risk can be understood according to the historical, social, and political atmosphere of the society (Voogd, 2004). Usman (2000) considered that a disaster must have a human impact in order to be viewed as a disaster; mostly pronounced in areas where the population lives in conditions of high risks. This is actually a point of disparity because it is hard, and almost impossible, to consider the human existence without considering all surrounding biotic and abiotic elements on which humans depend to keep survived, and any disaster impacts on these elements would result in other impacts on humans. This response is supported by Voogd (2004) who see disasters to have several and different types; however, they have one thing in common: all relevant disasters imply the loss of human life and/or important ecological values, economic damage, and social

distortion while often also destroying important parts of the built environment. In any case, disaster management specialists see disasters to be major contributors to underdevelopment, in the same way as underdevelopment is one of the major contributors to disasters (Barakat and Davis, 1997). Disasters, therefore, signal a serious breakdown in sustainability while by planning for and managing land use to enhance sustainability, it is possible to reduce vulnerability to disasters (Burby, 1998).

4.2.1 Actions against disasters

Response to disasters is a natural behavior worldwide to save humans and properties. The majority of work and funds is usually spent during and after disasters; i.e. fighting the disaster (e.g. fighting fire or floods), emergency relief (e.g. medical, food, shelter, and clothing), clearing and repairing circulation infrastructure such as roads, bridges, railroads, airports, and hospitals (Look and Spennemann, 2000). Nevertheless, before-disaster actions are being recently more recognized and included in the planning activities. Disaster preparedness is the first step in disaster management for Look and Spennemann (2000), while Voogd (2004) categorized actions of disaster management as follows:

- Disaster prevention which can be subdivided into mitigation and preparedness
 1. Mitigation includes the policies and actions undertaken at a time before an actual disaster situation occurs. Examples are land use regulations, building codes, engineering solutions, education and training, etc.
 2. Preparedness has to do with the steps and measures planned for, and undertaken when, the probability of a disaster in a particular locality is immediate. Examples are the reservation of space for rescue work, the communication of warnings and the preparation of strategies for evacuating people from a disaster area.
- Disaster control focuses on response and recovery.
 1. Response refers to actions taken during and immediately after the period when the disaster occurs. Examples of this are measures to deal with acute problems that arise during the crisis such as the necessary collaboration between the emergency services such as the fire brigade and hospitals.
 2. Recovery deals with activities carried out after the crisis caused by the disaster is over. Examples of such activities include, rebuilding dwellings and infrastructures.

4.2.2 Considering a disaster management plan

Obviously disasters are not 'planned', they just occur¹, and managing disasters means preparing a management plan to prevent or to mitigate the impacts of disasters. All national, regional and local levels should be involved in this process by forming partnerships to provide a medium for sharing ideas, developing mitigation strategies, and enhancing response and recovery coordination capabilities in the event of a disaster; however, it is important to focus on local level both in the process and strategies to be considered where local governments and communities must be the driving force and the 'first responders' to disasters (Godschalk et al., 1998:118 and Tweedy, 2000). The plan can be 'Pre-disaster' management plan, 'During-disaster' management plan or 'Post-disaster' management plan (Bahrainy, 2003 and Godschalk et al., 1998:87). The first is a plan which must go to its end (i.e. implementation and evaluation), while the other two will be implemented only when disasters happen. Actually, the first also motivates the society to take action while there is still time, and this is a main reason to consider strongly the 'pre-disaster' plan. It is recommended also to consider these three types as parts of one plan. In this plan, the first part, and the most important, deals with preparedness before disasters. The second part is the one that describes actions to be taken during disasters, while the last one concentrates on after-disasters actions. Estes (2000) considered these three 'major elements' in addition to another one to be previously taken which is survey and includes the initial survey as well as frequent reviews. Barakat and Daher (2000) see the disaster management as a cycle including actions before and after an event. Preparedness and mitigation can prove to be more effective and far more important in mitigating the negative impacts of a disaster and, therefore, the methodology will incorporate pre- and post-disaster mitigation strategies and be based on proactive rather than reactive mitigation measures (Barakat and Davis, 1997).

4.2.2.1 Goals and objectives of adopting a disaster management plan

Enhancing and adopting a disaster management plan is principal for all societies. Doing basic research and preparing data-base on possible disasters in a specific area will help to concentrate on specific topics related to disasters. A disaster management plan is then essential to service for many goals and objectives including (based on Bahrainy [2003]; Estes [2000]; Barakat and Daher [2000]; and Godschalk et al. [1998:85-119]):

- Producing a document that clearly states what needs to be done to avoid or mitigate harm from any type of disasters, and for recovering from disasters.

¹ Exceptions to this rule are disasters caused by terrorist actions.

- Reducing the level of vulnerability of cultural resources and the impacts of disaster.
- Predicting the post-disaster effects and impacts.
- Preparing data-base including locations of supplies and where to obtain assistance necessary in order to reduce the loss of life and property.
- Capacity building and preparedness of national, regional, and local institutions, and nongovernmental organizations (NGOs) to reduce disaster risks through required policies and actions.
- Delegation of authorities and duties to the different institutions and include specialized organizations.
- Finding financial resources to cover the losses in the damaged areas.
- Enhancing public awareness and including disaster considerations in all planning efforts and at all levels.
- Organizing appropriate involvement of volunteers and NGOs when needed.
- Transferring knowledge to specific groups such as developers, engineers, managers, etc.
- Providing cohesion and coordination in the system, along with decentralization.
- Paying attention to the relationship to other issues such as environment, and sustainable development, and ensuring widespread understanding of the way that future development will be directed; i.e. away from high-hazard areas.

4.2.2.2 Challenges to prepare a disaster management plan

Disasters, when happen, usually touch all fields of human life and this will result in several challenges which face the preparation of a disaster management plan. Above, the main goals and objectives of a disaster management plan were mentioned. Achieving these goals will naturally face several challenges and difficulties. Main challenges are related to the responsible bodies where many problems rise to surface such as confusion regarding structure and responsibilities, overlaps, gaps, and/ or repetitions of activities. Weakness of database and pre-disaster research studies is a big challenge in addition to the lack of relationship between theoretical knowledge and practical application of the management techniques, lack of pre-disaster public awareness, and lack of post-disaster relief instruments and materials (Bahrainy, 2003).

4.2.2.3 Principles and criteria for preparing a disaster management plan

Preparing a disaster management plan should be based on explicit principles and criteria to achieve goals and objectives and overcome challenges and difficulties. These principles include (based on Godschalk et al., [1998:115-117]; Burby [1998:18]; Look and Spennemann [2000]; Tweedy [2000]; Eck [2000]; Estes [2000]; Gleeson and Jones [2000]; McLane and Wuest [2000]; and Voogd [2004]):

- Solid data-base: the plan should be built on a solid database foundation based on a survey (both historical and field) of any plans and emergency supplies already in place and any experiences from other countries.
- Building capacity: the plan should be developing by local professional capabilities.
- Clarity of goals and objectives: the plan should clearly identify and explain the desired mitigation issues and outcomes.
- Preventing or mitigating rather than responding: the plan should emphasizing on preventing or mitigating the effects of disasters more than responding to disasters: for example, planning to move the archives from the basement to a higher level in a museum, for example, should be considered more than treatments of the basement against water flood.
- Impact Assessments: The plan should consider different types of impact assessment including hazard impact analysis (HIA) and environmental impact assessment (EIA).
- Compatibility with the nature of disasters: The plan should deal with and manage the lands subject to disasters in a manner compatible with the type, frequency or probability, and damage potential of the disaster or the vulnerability of the land and natural resources.
- Considering costs and benefits: The plan should deal with and managed the lands subject to disasters with regard to the social, economic, aesthetic, and ecological costs and benefits to both individuals and community.
- Public participation: the plan should be based on explicit procedures for involving different groups and stakeholders and taking into account the rights of private landowners. Public involvement also includes that information on the nature of possible future disasters is available to the public.

- Policy specification and integration: the plan should provide specific policies to guide decision making and planning, and integrate them with those of other relevant issues.
- Presentation: the plan should be available and understandable to most readers and should also convince the community to carry out its proposed actions.
- Internal consistency: the plan should ensure consistency among its various parts.
- Specializing the plan, coordination and cooperation: It is applauded to consider specialized planning and management for different issues such as cultural or historical sites; however, it is important to share knowledge, consider other interests, write clear documents so as others will understand the specialized plans, learn from the overall strategies and techniques, and understand the whole effects on all other disciplines. It is important to consider that responsive actions cannot be achieved with one guidebook, one research project, or one strategy.
- Involving advisory group: the planning team should include advisory group which might include environmental resource organizations, representatives from civil defense departments, and interested institutions and organizations as appropriate.
- Professional education: The plan should consider the role and responsibility of governmental bodies and universities for initiating special graduate courses in disaster mitigation and management. Such courses should target planners, enforcement officials, engineers, urban designers, and other segments of professionals.
- Periodic review: The plan should be periodically and totally reviewed to make sure of its compatibility with any new conditions.

4.2.2.4 The process of making a disaster management plan

Preparing a disaster management plan is, therefore, a process which mainly consists of the following steps (based on Voogd [2004] and Godschalk et al. [1998:85]):

- Establish a committee which includes representatives from all related disciplines.
- Define problems and describe the plan objectives and goals.
- Disseminate information to the community through a public awareness and education programs.
- Conduct survey and build data-base on local land use patterns and on community vulnerability to hazards by type, location, and intensity.

- Conduct assessment and analysis and identify and delegate duties and responsibilities to the different institutions
- Prepare the main body of the plan (and involve locals and stakeholders in the process). This includes:
 1. discussion of the issues, problems, special features, and values specific to the areas covered by the plan;
 2. discussion of hazard mitigation policies and a future schedule of specific hazard mitigation measures to be undertaken;
 3. description of several alternatives on how hazardous areas are to be used and managed over the next 10 to 20 years;
 4. description of the means and timing of implementation, including designation of responsible individuals and agencies, specification of costs and financing, and specification of any necessary legislative changes; and
 5. discussion of approaches to monitoring the implementation and impacts of the plan and specification of procedures for periodically updating the plan (e.g., every five to ten years)
- Implementation, evaluation, and revision; all planners citizens and stakeholders are involved in evaluation procedures which are conducted at the specified five-to ten-year intervals for formal revision of the plan, and when an event such as a disaster or a major change necessitates a revision. Consensus building is conducted again when necessary to gain agreement on desired modifications to the plan.

4.2.3 Relationship between land use plans and disaster management plans

As mentioned earlier, land use planning basically regulates the land in terms of different uses to be considered for all areas or plots which are covered by the plan. The general features of both a disaster management plan and a land use plan are with several similarities. Both have a future orientation, combine professional analysis and public participation, and deal with and integrate multiple issues such as social, economic, and ecological issues (Godschalk et al., 1998:85).

When considering natural hazards in specific regions or areas, a land use plan can minimize vulnerability to natural hazards and mitigate risks to life, property, environment, and to the resulting impacts (Tweedy, 2000 and Voogd, 2004); however, land use measures are of little help with some events because locations with high vulnerability

to natural hazards cannot be located accurately enough or adequately distinguished from areas of lower vulnerability (Burby, 1998:14). In such a case, the land use plan is not sustainable and, therefore, it must integrate hazard reduction with other social, economic, and environmental goals and introduce a pattern of human settlement that can withstand effectively natural hazards (Godschalk et al., 1998:118).

4.2.4 Relationship between comprehensive plans and disaster management plans

A comprehensive land use plan includes and coordinates the multiple issues, goals, and policies of a community. In this sense, goals, policies, and programs of a disaster management plan can be integrated with other community goals, policies, and programs for general purposes such as economic development, environmental quality, and infrastructure programming with the least amount of conflict among policies and actions.

The comprehensive land use plan may, therefore, show classification of lands including areas highly vulnerable to hazards within which minimum urban development will occur, compatible land use activities will be considered, and appropriate development and construction standards and policies for future development will be issued. On the other hand, the comprehensive plan will identify areas less vulnerable to hazards, where development such as urban growth will be encouraged and supported.

4.3 Conclusion

Extreme conditions that face societies are many with different features; however, they may share the impacts on the development of any community. Natural-disaster case is the worst, especially when the natural reason of the disaster is stronger; in this case, there is nothing that can prevent disasters. Armed conflicts, which can be considered as man-made disasters, result also in a variety of challenges to the development of communities in the form of explicit impacts on the social, economic, environmental, and ecological structures. In such a political conflict, issues of the environment and the landscapes are usually less considered. All societies must be, therefore, interested in considering the possibilities of matching conditions of conflict and/ or disasters in their future planning. Conducting a survey process and building data-base is basically responsible to identify types of disasters or conflicts and probabilities to have any of them.

Mediterranean region in general, and the Eastern coast including Palestine in particular, has been subjected to various disasters such as wars, political conflicts, and

earthquakes (Barakat and Daher, 2000). However, Political conflict is the most notable in the last century and the beginning of the third millennium. Development in this region faced challenges such as lack of funding, absence of a clear methodology for planning and management, deterioration, exploitation, and misuse of many of the natural resources in addition to the military operations and conflicts. The nature of conflict in the Gaza Strip, in particular, is unique. It is the composite one that includes both external and internal armed conflicts at the time that natural disasters (e.g. earthquakes) are also considered (the last two earthquakes, which struck the region, were in 1996 and 2004). Unfortunately, the Gaza Strip suffers more and more as the conflicts come stronger and stronger, but that does not mean that nothing can be done in advance to plan to mitigate their impacts and/or to plan and manage the relief activities and responses. Other activities or programs are also required including reconstruction and reintegrating of refugees or returnees. The uniqueness of the case of the Gaza Strip can also be seen in the fact that, at least, one alternative in any plan should consider a state of peace, and thus programs of relief, rehabilitation, and development are required with a participatory approach. In any alternative, however, a minimum amount of policies and rules should exist, general and flexible strategies are required, and local professionals should take the majority in the process. Landscape planning should have a considerable part in this process as it deals with natural resources, and environmental and ecological issues.

Preparing a stand-alone management plan to overcome these conditions might not be the most appropriate solution in Gaza case because all social, economic, environmental, and ecological structures in the Gaza Strip have been (as mentioned earlier in chapter 2) affected by these conditions. Adding a separate part on disaster management to a comprehensive plan might be regarded as something appropriate; however, integrating the conditions of conflict and disasters in all parts appears to be the most appropriate.

Chapter 5

Lessons in landscape planning and management from worldwide

The last two chapters concentrated on theoretical issues related to landscape planning and management. This chapter continues building a corresponding base of knowledge relating to practical applications by considering a range of international case studies. The intention has been to study and analyse real examples of landscape planning and management practice, and to assess the actual implementation and the progress, success, or failure which has resulted. The examples selected cover projects, policies, institutions and organizations. The case studies include those from both more and less developed countries, but the concentration is on those from more developed countries for several reasons. First of all, many developed countries suffered from problems and faced challenges in the past that developing countries face today. The developed countries started from the point where most developing countries stand today, and struggled against what developing countries struggle against now. Hence, time can be saved and successful approaches, usually from experiences of developed countries, can be adopted and adapted to fit to local conditions. In doing this, cultures and traditions of developing countries should never be ignored. Cases from developing countries are, therefore, considered in this study to learn how it is possible to fit different modern approaches to their own conditions. Unfortunately, information available on the different cases has strongly restricted the decision on which cases could be selected, especially for cases from developing countries where landscape planning and management enjoys less interest on both the theoretical and practical levels.

5.1 General classification and selecting cases

To be of value, case studies must mirror the situation in the study area as closely as possible. The problem is that there are few territories where the conditions of the

Gaza Strip are reproduced exactly. For this reason it makes sense to consider the characteristics separately.

5.1.1 Factors and considerations for selecting cases

Few cases come directly into mind when landscape planning and management is studied; however, case studies may also be selected according to several factors which are with special significance to the Gaza Strip case. These factors include:

- **Conditions of instability:**

Many places in the world suffer from conditions of instability: political, economic and/ or social. Most of them can be found in the developing world in the southern hemisphere; mainly in Africa, Southern Asia, and Central America. Appendix D on page 286 lists 79 countries or areas which have been characterized by at least one kind of conflict and instability feature. Definitions of conflict vary from one source to another; however, general features of political conflict dominate these definitions. The countries with conflict characteristics are mostly from the developing countries such as Afghanistan, Burundi, India, Iraq, Philippines, Sri Lanka, Sudan, etc. beside the main case of this research study which is Palestine. but still there are very few from the developed countries such as Israel, Russia, and USA which are usually drawn in conflict against different parties from the developing countries, for example, in Palestine, central Asia and Iraq respectively.

Conditions of instability are greatly related to landscape planning and management as they directly influence (usually negatively) the natural elements. They also impacted the landscape indirectly as they aggravate socio-economic conditions, institutional arrangements, local public awareness and interests, etc. Conflict in many cases is related to lands and natural resource, all landscape planning and management is about.

- **Development levels¹:**

The Occupied Palestinian Territories (OPT)² have a HDI of 0.729, and have been ranked in the position 102 among the 177 countries and areas³ considered by the Human Development Report of UNDP (2005). All countries and areas have been ranked in three main categories (high, medium and low human development)

¹Based on the human development indicators described in section 2.1 on page 18

²The West Bank and the Gaza Strip together

³Including 175 countries plus Hong Kong Self Administrative Area (HKSAR) of China, and the Occupied Palestinian Territories

according to their HDIs. The OPT have been categorized in the medium level together with other 87 countries and areas whose HDI ranges from 0.799 to 0.505¹.

Development indicators usually influence landscape planning and management; e.g. economic indicators influence the use of land and natural resources; literacy rate influence the perception of and awareness towards environmental and land-related issues; and demographic indicators (such as population growth) intensify the use of land and natural resources to meet population demands.

- **Cultural and ethnic aspects:**

The Gaza Strip is located in the heart of the Arab World. Too, more than 96% of Gazans are Moslems. These two indicators shape the cultural aspects of the Gaza Strip. In total, 56 countries are Arab and / or Moslem countries. The Gaza Strip as a result, shares relatively high levels of unity of cultural and ethnic aspects with the Arab World and to less extent with the Moslem World which include countries and regions from South and Southeast Asia peoples of which have their own traditions and cultures. Rubenstein (2003:295) links, to some extent, areas of similar HDIs in one region to similarities in cultural aspects. He distinguished 9 major development regions in the world where cultures in each region have clear similarities 'despite the considerable diversity within these regions'. These major regions include Anglo-America, Latin America, Western Europe, Eastern Europe, East Asia, South Asia, Southeast Asia, Middle East (Southwest Asia and North Africa), and Africa south of the Sahara. Language, religion and natural increase were in the focus of this division.

The cultural and ethnic aspects influence the way in which people perceive and hence use the landscape and natural resources. They also influence the perception of the meaning and the process of landscape planning and management.

- **Climatic conditions and geographical locations:**

The climate of the Gaza Strip is generally described as a Mediterranean climate. As shown in figure 5.1, five regions in the world (which represent 29 countries) have, more or less, the same conditions; those are Mediterranean basin, California western cost, Central Chile western cost, South Africa Cape, and parts in south and south-western Australia (Source: MGS Website).

This factor is of relevance because it determines environmental context within which landscape planning and management has to operate. The influence of the climatic conditions and geographical locations is obvious on, for example, the

¹See appendix D on page 286 which shows all HDIs for all countries and areas categorized in the Medium Human Development

biodiversity of flora and fauna which is a central component of any landscape and consequently of any landscape planning and management process.

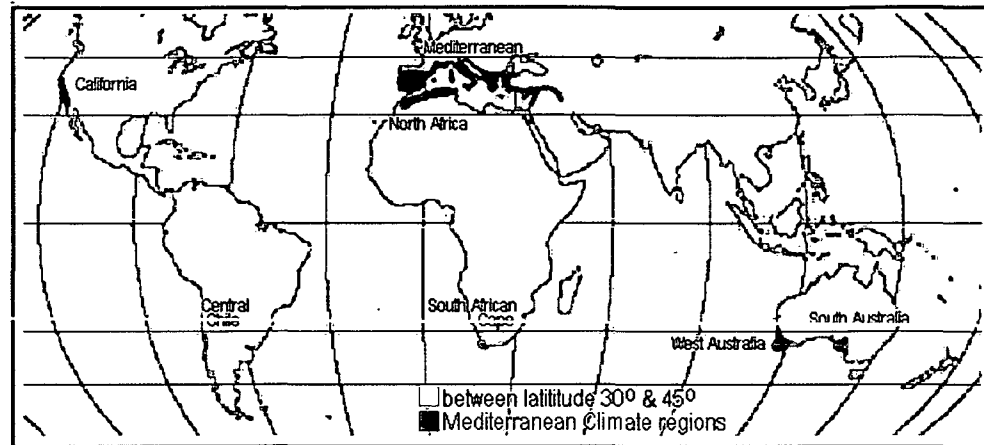


Figure 5.1: Areas of Mediterranean climate (Source: MGS Website)

- **Small area of land cut off from its surrounding territory:**

The Gaza Strip is very small with an area that not exceeds 365 sq. km. Few countries have area which is less than or close to the area of the Gaza Strip. Those include (Source: Worldatlas Website) Vatican City (0.44 sq. km), Monaco (1.95 sq. km), Nauru (21.2 sq. km), Tuvalu (26 sq. km), San Marino (61 sq. km), Liechtenstein (160 sq. km), Marshall Islands (181 sq. km), Seychelles (270 sq. km), Maldives (300 sq. km), and St. Kitts and Nevis (360 sq. km). A longer list is included in the table of Appendix D on page 286.

This factor is significant for landscape planning and management especially when considering the status when this small area is cut off from its hinterlands. The small area of land creates challenges related to the need to include and arrange all land uses together in this small area with the least amount of conflict. Continuity of the landscape is central for the quality of the landscape. Cutting areas of land off their surroundings break this continuity and create more challenges for landscape planning and management.

- **Demographic indicators:**

As mentioned above, demographic indicators (as human development indicators) influence the quality of the landscape and the decisions related to landscape planning and management. This is related to the intensive use of land and natural resources when population figures and hence human demands increase. The most relevant indicators include population figures, population density, and annual population growth rate. In general, the Gaza Strip has a relatively small figure of

population, where several places in the world have smaller figures. However, given a small area of land, this figure looks very high and, as a result, the population density is very high (3,656 inh./sq.km). The high annual population growth rate increases the complexity of the demographic situation.

Appendix D on page 286 shows the most critical cases for each indicator from worldwide. In many cases, the factors mentioned above are not independent of each other; for example, UNDP (2005) mentioned that 9 of the 10 countries ranked at the bottom in the HDI have experienced violent conflict at some point since 1990.

5.1.2 Procedure of selecting Cases

As has been mentioned above, few cases come directly to mind; usually because of a specific reason. For cases of planning in general and land use and landscape planning in particular, UK, the Netherlands, Germany, and Scandinavian countries are bright cases¹. For conflict issues as well as for reasons of geographical proximity, Israel and Lebanon are dominant. For small area of land, high population density, and high levels of development, Hong Kong and Singapore are very good examples. However, basic similarities with the case of the Gaza Strip are essential in selecting a case study. These similarities have to be with close relation to the factors and considerations mentioned above. Many examples can be learnt from and most of these are from the developed countries while developing countries could present individual lessons. Case studies have therefore been categorized into two groups. The first includes cases from developed countries and areas and have been chosen from the distinct cases mentioned above. These cases are Israel, the Netherlands, and Hong Kong. The other group includes cases from the developing countries. Selecting cases from the developing countries has, by comparison, not been an easy task. The huge number of these countries and the ambiguity of their status regarding issues related to landscape planning and management has made the process of selecting few cases very complicated. examples that are completely similar to the Gaza Strip are hard to find. Consequently, the above factors have been used to define cases with some similar characteristics. The process of selection has been developed through a process which is described in appendix D on page 286. As a result of this process, the choice was limited to 10 countries of which Lebanon and Mauritius provide the closest comparisons on the basis of the selected criteria. While these countries may be the best from landscape planning and management point

¹UK is known in this field for its long experience and organized systems; the Netherlands is very well known for creating and planning new lands as well as for planning for floods and low lands; Germany is very well known for its organized institutional system and planning processes; and Scandinavian countries are very well known for their high environmental awareness

of view, what is important is that they are very close to the Gaza Strip according to the important social, cultural, economic and environmental factors and considerations discussed above.

5.2 Case study examples from the developed countries

Developed countries managed to achieve a lot with respect to landscape planning, management and protection. Levels of public and thus political awareness of these issues are rapidly increasing. This is particularly apparent in the increasing attention paid to landscape planning, management and protection in policies, conventions, and / or strategies adopted, for example, by the European Union. However, there are still differences in the approaches each country uses and level of quality each country has achieved. Each country has its own particularity in socio-economic status and natural features and thus, it has developed its own systems and strategies. Sometimes, similarities in regional features, such as natural or socio-economic conditions, result in regional co-operation to deal with very large scale of landscape planning, management and protection. Many European countries represent a clear example of such a co-operation; however, distinct individual cases are more prominent. The case of the Netherlands is one of these distinct cases whose landscape and physical planning system has special features. The challenges of water floods and related infrastructure, high population density related to overpopulation and small area of land, soil types of land, etc. pushed the responsible bodies to develop a system of physical planning which is distinct. The Israeli case also has special significance for this study where it exhibits many features of European approaches, whilst geographically it is the closest to the Gaza Strip and can be considered as a continuation and extension of the same environment, natural and landscape region. Hong Kong with its small area of land, high population density, and large urban developments following the rapid economic growth is also presented in this section as a case study from the developed countries.

5.2.1 The case of the Netherlands

The Netherlands has special planning circumstances that specify and formulate the planning process as a part of the general governmental framework in which environmental issues became an integral component of strategic regional planning and decision-making (Makhzoumi and Pungetti, 1999:85-88,104). Since early times, planning has been one of the central cultural institutions (Shetter, 1987:97). The geo-physical circumstances have contributed particularly to a culture in which intervention from the

government or the local authorities such as municipalities is accepted and even expected and appreciated; especially for protecting lands from flooding and preparing soils for developments (De Vries and Broeck, 1997). The Netherlands aims for a type of planning which unify ecological, aesthetic and economic aspects, while the society as a whole without significant social inequalities has got considerable attention in the Dutch planning system (Makhzoumi and Pungetti, 1999:85,96; De Vries and Broeck, 1997).

5.2.1.1 Physical planning strategies

The preserving of the Green Heart (the central, predominantly, rural core of the Randstad) in the Western Netherlands, and the concentration of urban development on a regional and local level have been stable elements in the planning strategy in the Netherlands since 1960 (De Vries and Broeck, 1997). The Randstad is a polycentric planning concept of the metropolitan region in the western part of The Netherlands, connecting the major cities of Amsterdam and Rotterdam, The Hague and Utrecht. The Randstad consists of a horseshoe-shaped urbanised ring around a central open space, which has been (first in 1956) called the Green Heart (Khuen, 2003). Another important planning strategy has been based on growth management regarding its two faces: preventing growth where it should not occur, and providing alternatives for commensurate growth elsewhere. Dutch planning has been successful in doing both mainly because of government control over land (Faludi, 1992), which extended sometimes to creating 'new lands' and more recently 'new nature'.

5.2.1.2 Physical planning system and institutional organization

Dutch planning is characterized by gradual evolution and demonstrates particular characteristics. De Vries and Broeck (1997) described the system and its related institutional organization in detail. The following is a brief outline of the main characteristics:

- Consensus (through consultation and information) is essential in the planning process
- Bureaucratic rationality predominates the planning process making it an ongoing activity at all levels of the government and resulting in side-effects such as the lengthy procedures and the extensive use of written documents (Plans)
- The planning system shows a high degree of integration and cooperation between a wide range of representatives of different tiers of government and/or different agencies.

- The planning system in general shows three vertical levels:
 - The National level represented by the national government which formulates a national spatial policy
 - The province level which is represented by the provinces and large municipalities which make provincial and municipal structure plans, and
 - The local level which is represented by local authorities and municipalities which make legally binding land use plans,

5.2.1.3 Landscape planning and management

The importance of the landscape planning and management in the Netherlands was recognized very early starting in 1945 with the Land Consolidation Act for the modernization of rural areas; however, and according to Pungetti (1991), a system of physical ordering has been developed since 1965 with the Physical Planning Act at the time that landscape planning has always been understood as being part of physical planning (Makhzoumi and Pungetti, 1999:75,85-88). More recently, The Netherlands has achieved one of the most highly developed landscape planning and management systems in Europe (influenced by landscape ecology and more ecologically based approaches to landscape assessment), and has established goals for both town and country planning in their programs; in particular to maintain the cultural, physical and scenic values of the Dutch landscape including landscape values in urban areas (Makhzoumi and Pungetti, 1999).

Common approaches can be observed in Dutch landscape planning including the scenarios approach which has been increasingly applied since the 1990s and have proven effectiveness in strategic planning to communicate the spatial landscape consequences of specific policy decisions (Botequilha Leitao and Ahern, 2002). The 'focal species' approach¹ has reached greatest sophistication in the Netherlands, where the choice of one scenario was not advocated as an optimum, nor were scenarios considered to be mutually exclusive, but rather were applied as aids to integrated spatial planning (Hawkins and Selman 2002).

The FAO/ Wageningen system or methodology² was proposed for land evaluation for applied landscape ecology by Zonneveld in his 1995-book 'Land Ecology'. It can

¹In the 'focal species' approach, a particular species with the greatest significance in a specific region/area is focused upon as a central and principal for planning for the whole ecosystem of this region or area.

²This method is based on matching land use type's requirements with the land unit's qualities to define land suitability maps. It explicitly incorporates socio-economic analysis and EIA considerations into the land evaluation process (Botequilha Leitao and Ahern, 2002).

be seen as 'being more directed to general land use, including agriculture in its widest sense' (Botequilha Leitao and Ahern, 2002).

Makhzoumi and Pungetti (1999:95) found that approaches to issues of landscape planning in the Netherlands are distinct in specific areas when compared to those of the other countries; these approaches include:

- debating and consulting are considered repeatedly regarding different issues such as the adequacy of legal instruments and management techniques, or adequacy of expertise on policy-making;
- nature conservation without delay has constantly been an obvious necessity; and
- appreciating and welcoming innovative ideas on regional development are prominent.

5.2.2 The case of Israel

The case of Israel has a special significance to the case of the Gaza Strip in spite of the large differences in development levels, cultural and ethnic aspects, and condition of stability or instability. Besides, huge differences distinguish the nature and landscapes of the Gaza Strip from those in Israel despite the territorial continuity. This is of course with relation to the actual living conditions and the level of development each has reached rather than the potential which the natural conditions would allow. Israel has special conditions of instability which differ from those of the Gaza Strip. The area of land is relatively small but still much larger than the area of the Gaza Strip; especially when compared with the population figures. As mentioned above, Israel (in the Palestinian lands occupied in 1948) is considered (according to the UNDP evaluation and the HDI reference) as a developed country ranked in the 23rd position among the 177 countries and areas with a HDI of 0.915 (UNDP, 2005). On the other hand, great parts of Israel (mainly coastal parts) have similar climatic conditions because of the neighbouring geographical location, Mediterranean climate, and the plain topography of land, which all are important when landscape issues are studied. The following describes the Israeli planning system and its strategies with respect to land-use planning, environmental integration and landscape management and protection based mainly on information from the online archive of the Israeli Ministry of Foreign Affairs.

5.2.2.1 Environmental concerns

The environment has been an integrated issue in planning since early 1970s. It is suggested that immigrants from both Europe and United States brought environmental

5.2 Case study examples from the developed countries

consciousness to Israel (Glazer and Glazer, 1998). Environment is seen as comprising all macro as well as micro (physical or visual) environmental aspects. Landscape issues (which are related more to physical and visual aspects) were thus represented in the environmental concerns. The Israeli responsible bodies have considered several basic principles for environmentally-sound planning including (based on ILMFA Website[d]):

- the main strategy focuses on considering 'prevention rather than treatment';
- special account should be taken of areas of high landscape value;
- new urban settlements should be minimized as much as possible, especially in the central and northern areas, which are very dense;
- urban development strategies and concepts should include:
 - the compact city concept and the limitation of development to spaces which are as small as possible;
 - multi-purpose land use and the integration of development with landscape features;
 - reuse of damaged and derelict lands;
 - preventing damage to non-renewable resources; and
 - directing development, both in terms of setting features, to appropriate areas in ways which will not destroy the ecosystem, the wildlife and/ or the principle landscape image of each landscape unit

5.2.2.2 Legislative framework regarding environmental issues

The interest in landscape and environmental planning and protection started in early 1950s with the establishment of the Society for the Protection of Nature of Israel (SPNI) in 1953 as a non-governmental organization. Several related laws were enacted and new administrative bodies were established over time parallel to the general rise in environmental consciousness in United States and Europe. The most significant to landscape-related issues includes (based on ILMFA Website[a]; ILMFA Website[b]; and ILMFA Website[c]):

- the enactment of the Wild Animals Protection Law of 1955 which authorizes the Minister of Agriculture to restrict the hunting of wild animals, issues hunting permits, and appoints inspectors to enforce the law;
- the enactment of the National Parks and Nature Reserves Law (enacted in 1963);

5.2 Case study examples from the developed countries

- the enactment of the Planning and Building Law (enacted in 1965);
- the preparation of national outline schemes with environmental components in a number of sectors such as waste disposal, floodwater appropriation, coasts, national parks, and nature reserves;
- the establishment of the Environmental Protection Service (EPS) in 1973, which was given the authority to advise ministries and planning bodies, hold environmental impact statements (EIS), collect and distribute environmental data, and prepare educational materials to increase environmental awareness;
- the enactment of the Antiquities Law of 1978 which empowers the Minister of Education and Culture to protect historical and archaeological monuments and sites which pre-date 1700;
- the enactment of several important local laws were enacted during the 1980s; these laws served to reduce the dependence of local authorities on the national administration for environmental affairs;
- the enactment of the National Parks, Nature Reserves, National Sites and Memorial Sites Law of 1992; and
- the preparation of national outline schemes with environmental components in a number of sectors such as waste disposal, floodwater appropriation, coasts, national parks, and nature reserves;

The most important event of the 1980s was the creation of the Ministry of the Environment in December 1988. Since then, the ministry of Environment has been responsible for most of the activities and authorities of the Environmental Protection Service (EPS) mentioned above. At the same time, several responsibilities from other ministries were transferred fully or partially to the new ministry, including issues such as health/environment-related issues; water pollution; the prevention of nuisances; the storage, treatment or disposal of hazardous substances; sewage and solid waste; radiation; aerial spraying; etc.

5.2.2.3 Environmental planning level

As shown in figure 5.2, there are three main levels on which the environmental issues have been considered (based on ILMFA Website[a]; ILMFA Website[c]; and ILMFA Website[e]):

1. **The national level:** Several institutions represent this level. Each of these institutions has some responsibilities for environmental issues. These institutions include:

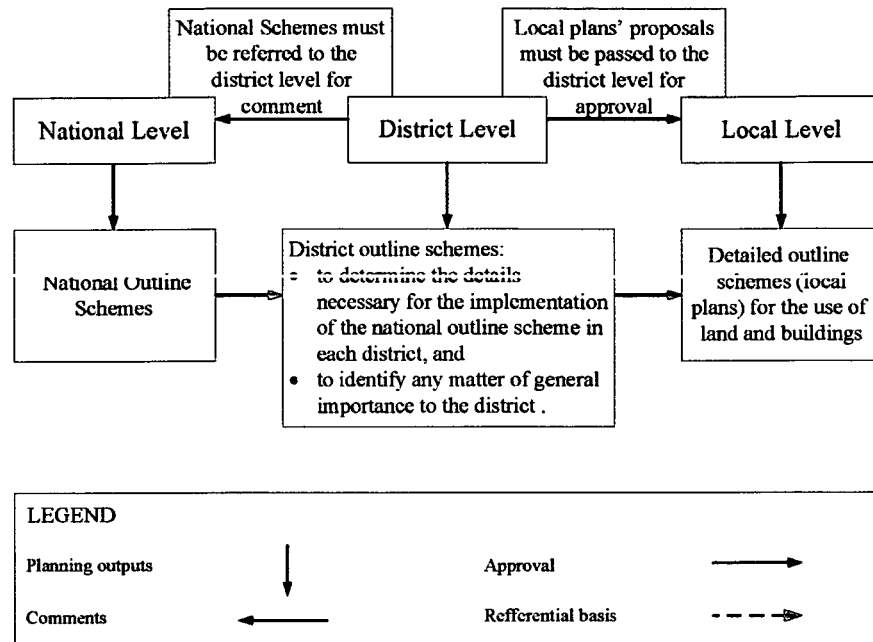


Figure 5.2: Landscape planning and management system in Israel

- The Ministry of Environment, which has a professional staff, a research institute, the inspection patrol, and external agencies. The ministry is responsible for formulating an integrated, comprehensive national environmental policy, and developing strategies, standards and priorities for environmental protection.
- The National Planning and Building Board (under the Ministry of Interior)¹ which is responsible for environmental policies which are related to planning and building. These policies appear in the shape of National Outline Schemes² and National Outline Schemes Sectoral Plans.
- The Agricultural Land Committee, which has interests to protecting agricultural lands from urbanization processes.
- The Territorial Waters Committee which has interests to protecting coasts mainly against offshore structures.

¹This organization includes representatives of ministries, including Ministry of Environment, and other organizations such as the Nature Reserves Authority (NRA) and the Society for Protection of Nature in Israel (SPNI).

²See examples of these schemes in appendix E on page 293

2. **The district level:** This level include six 'District Planning and Building Commissions'¹, which represent a connecting body between the local and the national levels in the process of enacting policies. Their responsibilities are therefore directed towards both the national and the local level besides the district level itself. Towards the national level, the district commissions have to give comments to the national level regarding National Outline Schemes, and then to determine the details required for the implementation of these schemes in each district. On the district level, these commissions have to identify (by developing District Outline Schemes) any matter of general importance to the district (e.g. waste disposal sites, open spaces designated for protection, etc.). Towards the local level, local authorities (i.e. municipalities) must ask the district commission for approval of new proposals of local plans or master plans. Environmental opinions from the Ministry of Environment are usually given in all meetings and subjects by representatives from the ministry.
3. **The local level:** This level is represented by municipalities or local authorities. Here, environmental units should have been established in each municipality or local authority since 1977². These units are asked to monitor, and offer advice on, environmental issues such as the environmental effects of proposed development plans, conditions of air and noise, sewage, solid waste, hazardous waste disposal, public participation in local environmental decision-making, public awareness of environmental issues, etc.

5.2.2.4 Landscape planning and management

As in many developed countries, landscape planning has not been separated from general spatial planning in the Israeli system. Referred to as the physical environment, the landscape and, hence, landscape planning can be considered through the above-mentioned environmental and physical planning system, which takes the top-down vertical planning approach.

As presented by ILMFA Website(b) and ILMFA Website(e), within the environmental context, the landscape-related planning process faces specific challenges such as the small size of protected areas, and hence, fragmentation of habitats; the high population growth (particularly because of migration from worldwide to Israel), and hence,

¹These commissions have national representatives from all ministries, including Minister of the Environment, besides the local representatives from local authorities within the district.

²The Ministry of the Environment has always functioned on the principle that a local problem falling within the domain of a specific local authority must be handled by that authority, using the planning, legal and technical means at its disposal.

rapid urban development; and the overlapping of military training areas with protected areas. Tools and instruments used in environmental and landscape planning rely basically on laws and the national outline schemes but also include natural resource survey and evaluation (related to this is using Geographic Information System as a survey and analysis tool), Environmental Impact Statement (EIS)¹, education, and enforcement.

The planning procedure for a given region, district or area relies on collecting as much relevant data as possible and then integrating this data into a 'pre-planning map'. Landscape categorization is then considered using mainly qualitative approaches and norms; e.g. the totality of the landscapes including attributes and functions, uniqueness and value, ecological function, natural and historical resources, recreational value, and carrying capacity for development. The landscapes have then been categorized into four main categories including (based on ILMFA Website[c] and ILMFA Website[d]):

- **Protected areas and nature reserves:** These areas have high sensitivity where development is prohibited except for purposes such as recreation and tourism, conservation and research.
- **Open space landscape areas:** These areas have medium landscape sensitivity, diversity and special features, and should only be developed for specific purposes such as tourism and recreation.
- **Controlled development areas:** These areas include partly built open areas and agricultural areas. These areas are partially suitable for building and development when taking the protection of natural resource in these areas into account.
- **Building and development areas:** These areas have low natural and visual sensitivity. They are therefore suitable for building and development according to guidelines based on landscape and/or environmental considerations.
- **Temporarily-protected areas:** These areas include those for which available information is insufficient and thus they are temporarily granted a higher level of protection, pending the results of landscape surveys and evaluations.

Protected areas are generally small in size and thus vulnerable to habitat fragmentation and species extinction as well as to impacts from their surroundings including activities such as recreation and grazing in woodland areas. The main activities related

¹EIS have been used in Israel from the mid-1970s. EIS is required to be prepared by the developer and reviewed by Ministry of Environment for projects such as power stations, airports, ports, and hazardous waste disposal sites (Source: ILMFA Website[c]).

to areas designated for landscape protection include afforestation, combating desertification, and protecting species. The main fields of research areas, for which The Nature Reserve Authority (NRA) is responsible, include the impacts of visitors, the interrelationships between various species, the introduction of controlled cattle grazing in woodland areas, and the reintroduction of once-indigenous animals that have disappeared from each area. The selection of protected natural areas relies on three main considerations:

- the presence of endangered species and ecosystems in the area;
- the biodiversity potential of the area; and
- the ability of the area to function well in the future based on its size and connection to other areas with corridors that allow distribution of plants and animals; as well as the existence of buffer zones around the area.

However, there are other considerations (e.g. cultural reasons) because of which specific areas are protected depending mainly on laws such as the Antiquities Law of 1978. As has been mentioned, laws in general are the main tool used for landscape planning and management.

5.2.3 The case of Hong Kong

The Hong Kong Special Administrative Region HKSAR consists of Hong Kong Island, Lan Tau Island, Kowloon Peninsula and more than 200 other small islands with a total area of 1,103 sq. km and a total population figure of 6.803 millions as at mid-2003 (Source: HKINFO Website). Hong Kong has a sub-tropical climate characterized by hot humid summers and cool dry winters. Average temperature ranges from 14 degrees Celsius in February to 29 in July or August (Source: Altapedia Website). Hong Kong is considered a developed area (with a HDI of 0.916 [UNDP, 2005]); however, it is located (according to the North-South divide line) in the southern part, and in particular in southern Asia where the general HDI in this area does not exceed 0.54 (Rubenstein, 2003). Hong Kong is located on the south-eastern coast of China and has been under British rule for 155 years up to 1997 resulting in quite fundamental change of the local political culture represented by the high respect for laws, rules and regulations (Ng, 1999). The Territory of HKSAR has a special concept which is widely known as One Country, Two Systems to indicate the cultural and political Chinese background, but at the same time to indicate the different economical and political current status. The following is an overview of the main issues in landscape planning and management from this case study based on the online publications (especially those from the planning department) unless other sources are mentioned.

5.2.3.1 Concerns regarding environment and land

Environmental issues got considerable amount of interests since the early 1970s when these issues were gradually integrated with other general issues by the influence of the increasing attention towards environmental issues in the western world and specifically in the United Kingdom. At the same time, land use planning and urban planning have been very well defined in the governmental system which has been developed afterwards to include several Secretaries and departments as are described below. The government has been the main owner of land in the territory¹ while economy and market have been a major means of urban governance to the extent that the mission of planning has been basically to meet the needs of the economy while social and environmental considerations are subordinated to the prime objective of economic growth (Ng, 1999).

5.2.3.2 Legislative framework regarding environment and landscape issues

As noted by HKPLDEP Website(a), land development and planning policies were defined in the late 1960s and very much developed in late seventies when the Hong Kong Outline Plan was approved in 1979 by the Land Development Policy Committee (LDPC). This plan was then replaced in 1982 by the Hong Kong Planning Standards and Guidelines (HKPSG), which is still working, but with several amendments. This document includes several chapters, each of which is concerned with a specific topic such as residential densities; community facilities; recreation, open space and green- ing; industry; transport; environment; urban design etc. Environmental and landscape planning have hence been clearly included in this fundamental document in spite of the fact that landscape as a term is not used by this document. Instead, related concepts and terms such as greening, open space, recreation, leisure, rural areas, etc. are used. Details are frequently given in this document to control development activities as much as possible; particularly because this document works as a reference for all planning levels including local detailed plans. For urban, rural and land use planning in particular, the Town Planning Ordinance is fundamental; it stipulates both plan making and development control procedures as well as calls for establishing a Town Planning Board which have considerable role in preparing local plans; however the final decision is made by the Chief Executive in Council.

¹For this reason, the government issues a 'land sales programme' at the beginning of each financial year and updates regularly every month and, at the same time, can make land easily available for housing purposes and to medical and educational institutions. Housing sector in HKSAR is distinct as 31.2% people live in public housing (Source: HKINFO Website).

5.2.3.3 Administrative bodies and levels of environmental and landscape planning

As described by HKGOV Website (a) and HKGOV Website (b), the governmental administration of HKSAR is unique. It is headed by the Chief Executive and composed of three main Secretaries for Justice, Administration, and Finance. Secretary of Administration comprises several other Secretaries (e.g. for civil services; environment; and housing, planning, and lands). Each of these Secretaries includes several departments to supervise the different activities. There are two main Secretaries which are responsible for environment and land-related issues (including land use planning); these are Secretary for the Environment, Transport, and Works, and Secretary for Housing, Planning and Lands (see figure 5.3).

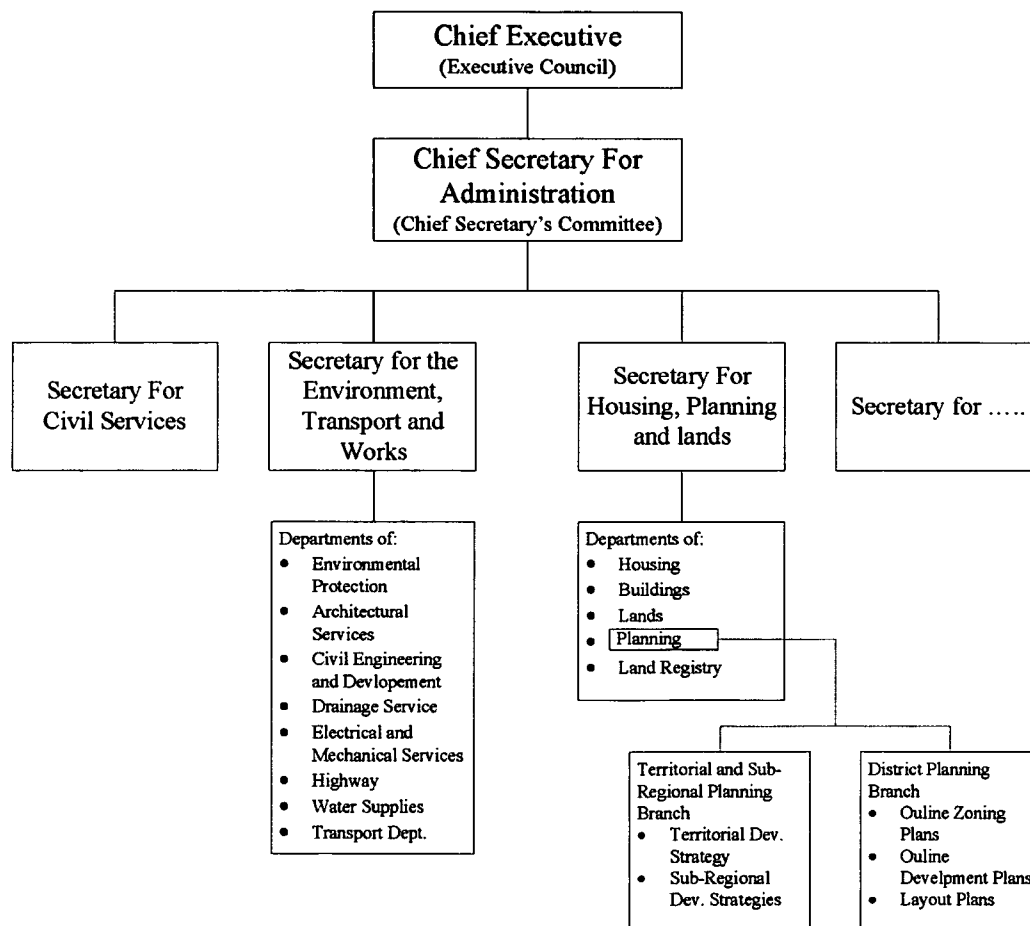


Figure 5.3: Landscape planning and management system in Hong Kong

Under the Secretary for Housing, Planning and Lands, there are five departments (of Housing, Buildings, Lands, Planning, Land Registry) which carry on the main activities of related issues. The Planning Department is responsible for planning for land-related

issues while environmental issues are mainly treated by the different departments of the Secretary for Environment, Transport, and Works.

Regarding the planning hierarchy (and as described by HKPLDEP Website [b] and Ng [1999]), there are three main levels: Territorial, Sub-regional¹ and Local or District levels. However, as shown in figure 5.3, activities related to the first two levels are carried on by the Territorial and Sub-Regional Planning Branch of the Planning Department of the Secretary for Housing, Planning and Lands, while planning activities related to the local level are carried on by the District Planning Branch. All land use planners in the government of Hong Kong are academically qualified professionals recognized by major planning institutes.

On the territorial planning level, the standards and guidelines can be applied to determine the total land requirements for the various uses and their distribution according to long term projections and needs. On the sub-regional planning level, the standards and guidelines are used to estimate the broad land use requirements of the sub-region concerned and their allocation between districts. On the district/local planning level, the standards and guidelines are mainly applied to identify specific areas and sites for individual land uses and facilities and their orderly arrangements. Most important on the local level are the Outline Zoning Plans (land use plans) and the Development Permission Area Plans (for areas not yet covered by the Outline Zoning Plans).

5.2.3.4 Landscape planning and management

The main strategy calls for incorporating environmental considerations in the early stages of planning; mainly land use planning upon which landscape planning relies. Landscape planning considers the top-down vertical relationship aiming to conserve and enhance the environment by:

- protecting the existing conservation areas and heritage features;
- identifying new areas for conservation;
- compensating for areas of conservation value which are lost to essential development projects; and
- avoiding creation of new environmental problems by urban developments at the same time that adequate space for development needs is provided.

¹The Territory of Hong Kong is divided into five sub-regions

5.2 Case study examples from the developed countries

The main challenge is to integrate different uses into acceptable and realistic plans which take account of territorial growth and principles of sustainable development. Rapid economic growth as well as the increasing attention towards the needs for land use planning to satisfy all development requirements have been creating new (or emphasizing existing) challenges such as (Ng, 1999)¹:

- restructuring the urban fabric to provide economic space for Hong Kong as a regional hub;
- rapid population growth and the need to provide more land for residential development;
- economic restructuring and the future of old industrial areas; mismatch of residential locations and employment opportunities;
- environment and development;
- improvement of cross-border links with the Chinese hinterland; and
- the need for more mass transit railway systems

The approach is to consider conservation in terms of land use by making zoning on plans (i.e. on maps). At the same time, it is felt that a variety of uses can be accommodated in conservation zones. The top-down approach is obviously considered in land use planning. The government identifies needs and respective Secretaries and departments prepare Territorial and Sub-Regional Development Strategies. For land use planning, Department of Planning and the Town Planning Board collect data and prepare territorial and sub-regional strategies as well as local zoning plans. However, not all land use strategies and plans are statutory; territorial and sub-regional plans are not statutory in nature while local zoning plans are statutory and, at the same time, they are prepared according to the territorial and sub-regional strategies. Public participation is considered at all levels; however, public interest in participation is not strong; mainly because lands are owned by the government. The final decision for all kinds of plans is made by the Chief Executive in Council (Ng, 1999).

Environmental Impact Assessment (EIA)² is the tool considered to achieve the aims and objectives of environmentally-sound urban developments. The following four principles are set out for the practical implementation of conservation in land use planning:

¹Based on the Territorial Development Strategy Review published in 1996 by the Planning Department.

²Hong Kong has one of the most transparent environmental impact assessment (EIA) systems in the world. It is applied not only to individual projects, but also to strategic policy and proposals, making it a valuable tool in the move towards a more sustainable path of development.

5.3 Case study examples from the developing countries

- Retain significant landscapes, ecological attributes and heritage features as conservation zones
- Restrict uses within conservation zones to those which sustain particular landscapes and ecological attributes and heritage features
- Control adjoining use to minimise adverse impacts on conservation zones and optimise their conservation value
- Create, where possible, new conservation zones in compensation for areas of conservation value which are lost to development.

Implementations of plans is distributed over several Secretaries and departments and guided by several types of programmes, such as public works development programme, new town development programme, public housing programme, community facilities programme and land sales programme (Ng, 1999).

The case of Hong Kong, as well as the cases of the Netherlands and Israel, provides several concepts and lessons to the case of the Gaza Strip. Comparisons, discussion and lessons will be presented in section 5.4

5.3 Case study examples from the developing countries

Landscape planning in the developing countries is hardly known either in that name or in any other form. Environmental awareness is gradually, but slowly, increasing, especially with the increasing attention paid by developed countries some of which have transferred parts of their attention to some developing countries. At the time being, this interest has not yet resulted in landscape planning systems in the developing countries. A very few number of related projects have been presented in scientific journals or books, while valuable studies regarding the whole system of landscape planning in any of the developing countries can hardly be found. Considered as welfare issues, landscape related issues have not got the required interests from the public local levels in the developing countries as local interests concentrate on basics of living under the conditions of poverty and low living life levels. The following describes two cases from the ten developing countries which have been selected earlier in this chapter. These two cases are Lebanon and Mauritius.

5.3.1 The case of Lebanon

Lebanon is a small country with an area of about 10,400 sq.km. and population of about 3.8 million inh.; population density is thus 365 inh./sq.km (Source: Worldatlas

5.3 Case study examples from the developing countries

Website). It is a Mediterranean-Climate country located on the Eastern coast of the Mediterranean. On one side, it had internal armed conflicts for a period of about 15 years between 1975 and 1990, while on the other side, it had a big armed war against Israel for more than 22 years starting in 1978 which has sporadically continued after the last Israeli Withdrawal from southern area in 2000 (Source: LBGOV Website). Accordingly, and as has been concluded in selecting the case studies in appendix D, Lebanon is the closest to the Gaza Strip regarding such issues. Conditions of conflict and national defense have, therefore, got the greatest attention for the last 30 years; however, issues related to development, reconstruction and environment have been increasingly considered since the end of the internal conflicts in 1990. Documented research and information regarding environmental issues (including the visible environment) can hardly be found in the Lebanese case, while online publication from the governmental institutions could help to give a general overview as will be shown below.

5.3.1.1 Concerns regarding environment and Landscape

According to the information of the Ministry of Environment of Lebanon (Source: LB-MOE Website[a]), environmental concerns started in Lebanon on the governmental level in early 1980s by the establishment of a Ministry of Environmental Affairs aiming at controlling activities that caused environmental degradation such as using pesticides in agriculture, dumping waste water and solid wastes into natural areas, pollution, deforestation, etc., when no environmental laws were issued at that time. However, some environmental concerns could be noticed through other policies regarding coast environment, soils protecting, solid wastes disposal, etc. at that time. In 1993, Ministry of Environment was established aiming to protect natural resources, enhance sustainable development, and ratification of regional and international environmental agreements. Landscape has increasingly received more attention as more emphasis was gradually put on issues related to the visible environment including forests, rivers, cultural (archaeological) sites, natural sites, biodiversity, etc.

5.3.1.2 Legislative framework regarding environment and landscape issues

As has been mentioned above, legislations and policies from different sectors have relation to environmental and landscape aspects. However, concerns from the Ministry of Environment remain the most noticeable. The following is a presentation of the most relevant legislations (based on LBMOE Website[b] and LBMOE Website[d]).

Legislative Decree (LD) No. 216 of 1993, by which the Ministry of Environment was established, determined tasks of the ministry to include protecting natural resources

and assuring their sustainability. This law was amended by LD No. 667 of 1997 in order to activate the role of the Ministry of Environment regarding its primary tasks. Environment Protection LD No. 444 of 2002 defined principles of legislations and policies to plan and manage the protection of the environment, evaluate the impacts of projects on environment, determine responsibilities and penalties on those who cause any kind of environmental degradation or pollution.

LD No. 118 of 1977 is distinct from another point of view. It is the law that defined and organized the responsibilities of the local authorities (municipalities) under the Ministry of Interior and Municipalities. It has been amended several times but significantly by the LD No. 665 of 1997. This law has many articles about the organization of the local authority and its council. It also gives the local authority a wide range of powers inside its border. However, for land use and physical planning, the approval of the regional Civil Organization Department is essential as will be described below.

LD No. 5 of 1977 is also with special significance in this for this study; it called for establishing the Council for Development and Reconstruction (CDR) which has been a public authority, established partially in replacement of the Ministry of Planning, to avoid any administrative routine that could slow down the reconstruction process, especially in the financial field. One main task of this council has been to prepare general plans for the country, and investment and implementation programs for reconstruction and development projects (Source: LBCDR Website [a]). A National Physical Master Plan of Lebanon was one of its main products in collaboration with the Directorate General of Urban Planning of the Ministry of Public Works and Transportation as will be shown below.

It is important to notice, however, that each Legislative Decree should be followed by an Organizational Degree (OD) which describes the process and details required for applying that decree and bringing into force. Such ordinances take much time to be issued; e.g. OD for the LD No. 667 of 1997 has not been issued yet.

5.3.1.3 Administrative bodies and levels of environmental and landscape planning

The administrative system responsible for environmental and landscape planning in Lebanon is distributed over several institutions (Mainly ministries); e.g. the Ministry of Environment, Ministry of Interior and Municipalities, Ministry of Public Works and Transportation, and Council of Development and Reconstruction. Figure 5.4 shows a chart with the most important governmental institutions with respect to environment and landscape planning (based on LBMOE Website[c]).

5.3 Case study examples from the developing countries

At the Ministry of Environment, Department of Nature Protection is responsible mainly for the protection and management of natural protected areas as well as natural resources and the implementation of related environmental policies. Department of Planning and Programmes is responsible for preparing environmental studies and collecting data; developing long, medium and short term plans; and leading the process of developing environmental strategies and policies.

The Ministry of Interior and Municipalities concentrates on civil services; however, local authorities (municipalities) are also responsible for developing land use plans inside their borders which are agreed upon together with the regional Civil Organization Department. Ministry of Public Works and Transportation includes several general

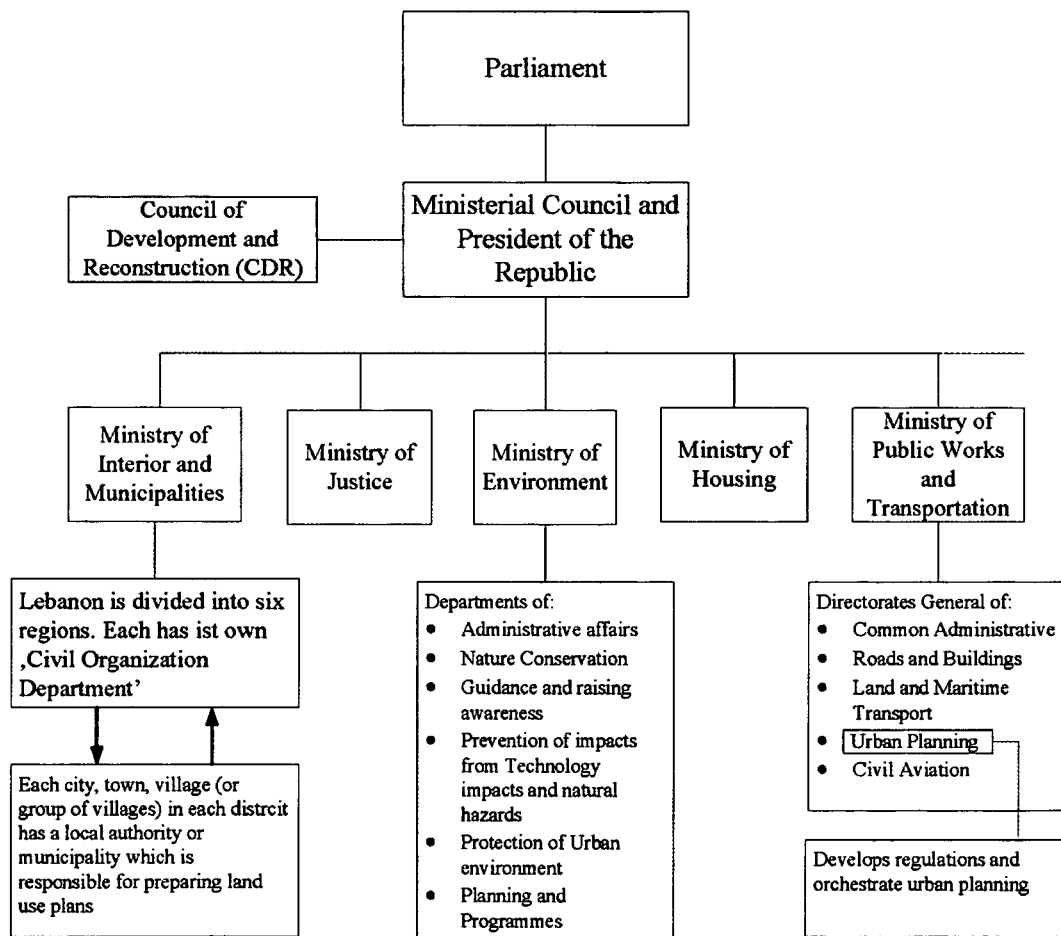


Figure 5.4: Landscape planning and management system in Lebanon

directorates, one of which (i.e. Urban Planning General Directorate) is responsible for urban planning on regional level. Council for Development and Reconstruction shares activities with all municipalities according to the area of development.

Regarding planning levels, two main levels can, therefore, be defined in the govern-

mental system in Lebanon; these are national/ regional and local levels. The Ministerial Council asks ministries to prepare respective strategies and drafts for Legislations in specific areas, while the Parliament is responsible for approving and issuing the final legislative decrees. Council of Development and Reconstruction may take part in special conditions instead of (or in collaboration with) ministries as mentioned above.

A regional level between the national and local levels does exist; however, its role in developing environmental and landscape planning is not strong. Lebanon is divided into six regions, each of which has a group of cities, towns, and villages. This system is controlled by the Ministry of Interior and Municipalities, which is responsible for land use planning in cities, towns and villages through its two planning-levels institutions. Regional planning related to environment and landscape is not very well defined. In principle, Directorate General of Urban Planning (DGUP) of the Ministry of Public Works and Transportation is responsible for this level of physical planning; however, the most distinct product on this level is the National Physical Master Plan of Lebanon prepared in collaboration with the Council for Development and Reconstruction (as has been mentioned above) and by which local physical planning is guided. Preparing local physical plans is a responsibility of the local authority. These plans have to be also agreed upon by the regional level (Civil Organization Department), which, on the other hand, has not the right to reject the plan. If the two parties (i.e. the municipality and the respective regional Civil Organization Department) disagree regarding any plan, the Ministerial Council has to decide about this plan.

5.3.1.4 Landscape planning and management

Several strategies and / or principles could be seen in the area of landscape planning and management in the Lebanese case (especially, from environmental point of view). Those include (Based on LBMOE Website[e])

- Protection by prevention;
- Protection is a responsibility of every-one;
- Inventing future is the best and easiest way to predict it;
- Laws and policies are the best means to reach environmental aims and goals;
- Decentralization is essential in administrative activates related to environmental protection;
- Sharing knowledge with academic sector, media, local communities, and international organizations; and

5.3 Case study examples from the developing countries

- Integration of environmental policies into other sectoral development policies.

The National Physical Master Plan of Lebanon (according to LBCDR Website[b]) has major aims among which are achieving a balanced envelopment of regions; achieving an optimal and sustainable exploitation of resources; improvement of living conditions; protection of the environment; and preservation of the heritage. Lands have thus been classified into four different categories: urban zones, rural zones, agricultural domain of national interest; and natural areas of national interest, while potentials have been seen in the coastline, the landscaper heritage; selected natural sites, and the historical and built-up heritage; however, integrating the conservation of natural sites into urban master plans is still uncommon (Source: UN Website[e]) The Plan gave much importance to the economic development of the different regions with special significance given to the Capital Region. A hierarchal urban structure is proposed to consist of central urban area in each region; smaller local poles; and villages surrounding the local poles. From more landscape planning and management point of view, the plan foresees:

- the creation of a natural national park in the North;
- encouraging local authorities to create regional natural parks;
- rehabilitation and preservation of remarkable sites along the coastal front;
- reforestation of several areas;
- carrying out a general inventory of the remarkable natural sites to be protected;
- setting and adopting 3 regulatory laws: a seafront law, a mountain law (above 1000m elevation), and a law for the preservation systems (preserved areas, parks, protected areas); and
- limiting, by all possible means, dispersed urbanization within agricultural lands and within natural areas

Nature conservation is hence a notable general strategy in landscape planning and management in Lebanon. Lebanon has 8 nature reserve areas which are generally small, while several other areas (about 25 areas or sites) are protected under special conditions, or for specific reason (forests, small islands, wetlands, etc.); in many times according to international or regional agreements, and by international financial support. Landscape planning in the Lebanese case has, therefore, been developing as a visible-environmental issue rather than physical planning-related issue. In this context, it has had many challenges including (based on LBMOE Website[d], and LBMOE Website[e])

5.3 Case study examples from the developing countries

- the political constraints (for example, by securing project approval despite a deficient EIA study);
- rapid economic development that ignore EIA (in many times, because the lack of public awareness);
- scarce human and financial resources especially technical and professional experts in related issues; and
- the absence of an efficient environmental legislative framework as well as national and regional binding physical plan

Procedures of landscape planning could be studied through the process of physical planning which shows that this issue is hardly considered on the local level while on the national and regional level, initiatives are still developing very slowly. A real procedure is hard to describe with the little information available; however, no clear problems face the process of defining problems and challenges, aims and objectives, and approaches and tools. Public participation as well as the plan design and implementation are likely to have problems; mainly because of the human and financial resources.

Tools and instruments used in what could be described as landscape planning and management include mainly laws and legislations and the corresponding organizational decrees. Environmental impact assessment (EIA) is increasingly used while technical tools such as geographic information system (GIS) are recently considered (Source: LB-MOE Website [e]). Raising public awareness is increasingly focused upon, by media as well as by publishing handbooks and brochures which are usually financially supported by external NGOs. External financial support in general plays a significant role in developing issues related to environmental and landscape planning. Lastly, cooperation and agreements with internal and external universities and research institutions have been supporting developments in environmental planning and management (LBMOE, 2003).

5.3.2 The case of Mauritius

The Republic of Mauritius is constituted of the main island of Mauritius and several other smaller islands. The main island Mauritius is situated about 855 km east of Madagascar and 2,000 km of the east southern coast of Africa slightly over the tropic of Capricorn. The land rises from coastal plains to a mountainous height of 828 m. Area of the Mauritius is about 1,864 sq.km. and population is about 1.2 mil. Inh. (Source: MUGOV Website[a]). Temperature varies between 19-22C in winter and 26-34C in summer (Source: MUNET Website). From another angle, Mauritius became a

democratic independent state in March 1968 after long period of occupation by Dutch, French and lastly British since 1814, where the political system is based on the Westminster model and enjoys political stability (Source: MUNET Website)

5.3.2.1 Concerns regarding environment and landscape

Environment and land have recently and increasingly received high attention in Mauritius. This is represented by the different strategies, acts, guidelines, regulations from the Ministry of Environment and National Development Unit as well as from other ministries such as the Ministry of Public Infrastructure, Land Transport and Shipping and the Ministry of Housing and Lands, etc. From the Ministry of Environment and National Development Unit responsibilities are covered by:

- the Environment Protection Act 2002;
- environmental guidelines for Coastal Water Quality, Inland Surface Water Quality, Irrigation Water Quality;
- environmental regulations for environment protection;
- environmental standards for air and noise regulations, drinking water regulations, hazardous wastes regulations, and environment protection regulations

Attention paid by the Ministry of Environment and National Development Unit towards land-related issues is also prominent. The Environment Protection Act 2002 defined land as the first component of the environment as well as one of the environment mediums, which also include water and air. Acts, guidelines, regulations and standards issued by the Ministry of Environment and National Development Unit drew attention to land-related issues from different points of view including both macro and micro mediums in addition to other aspects, such as ownership and land use, built-up environment and landscape.

5.3.2.2 Legislative framework regarding environment and landscape issues

As has been mentioned above, the Environment Protection Act 2002¹, which was issued by Ministry of Environment and National Development Unit, is the main legislative framework from environmental point of view which deals with both micro and macro environmental mediums. Many related guidelines, regulations and standards regulate in details issues related to environmental protection.

¹This act replaced the older Environment Protection Act 1991 (Source: MUINTNET Website[a])

5.3 Case study examples from the developing countries

The Integrated National Transport Strategy Study is another document from the Ministry of Public Infrastructure, Land Transport and Shipping. This study aimed at (Source: MUGOV Website[d])

- preparing studies that describe different aspects of the transport sector to be taken into account by the National Transport Strategy;
- drafting Integrated Transport Strategy to be a guide that can be used by government officials for developing new proposals; and
- drafting Transport Policy document, setting out the integrated policies required to support the Strategy

Wildlife and National Parks Act of 1993 established, for the purposes of this Act, a Wildlife and National Parks Advisory Council under the Ministry of Agro-Industry and Fisheries. This act aimed mainly to promote conservation of land against development and urbanization and carry out management operations, research and educational activities (Source: MUINTNET Website[c]).

The Town and Country Planning Act (issued by Ministry of Housing and Land) is another legislative framework for environment and land related issues. It was first enacted in 1954 (under the British occupation) (Source: MUINTNET Website[b]) and amended several times in 1982, 1990, and 1995; however, Acts of 1990 and 1995 have not been brought into force (Source: MUGOV Website[c]).

The Planning and Development Act of 2004 is an act issued by Ministry of Housing and Land to modernise town and country planning and make comprehensive provision with respect to land use planning and development in Mauritius (Source: MUGOV Website[B]). Landscape issues are represented through the sections dealing with land use which are presented from more administrative and organizational point of view.

5.3.2.3 Administrative bodies and levels of environmental and landscape planning

The administrative bodies responsible for developing the process of environmental and landscape planning are clearly those which mentioned above: the Ministry of Environment and National Development Unit, the Ministry of Public Infrastructure, Land Transport and Shipping, the Ministry of Housing and Land, and the Ministry of Agro-Industry and Fisheries. Figure 5.5 shows these bodies and the respective legislative frameworks.

Legislations related to landscape (with its interdisciplinary feature) mainly falls within these frameworks, and administrative bodies related to landscape planning and

5.3 Case study examples from the developing countries

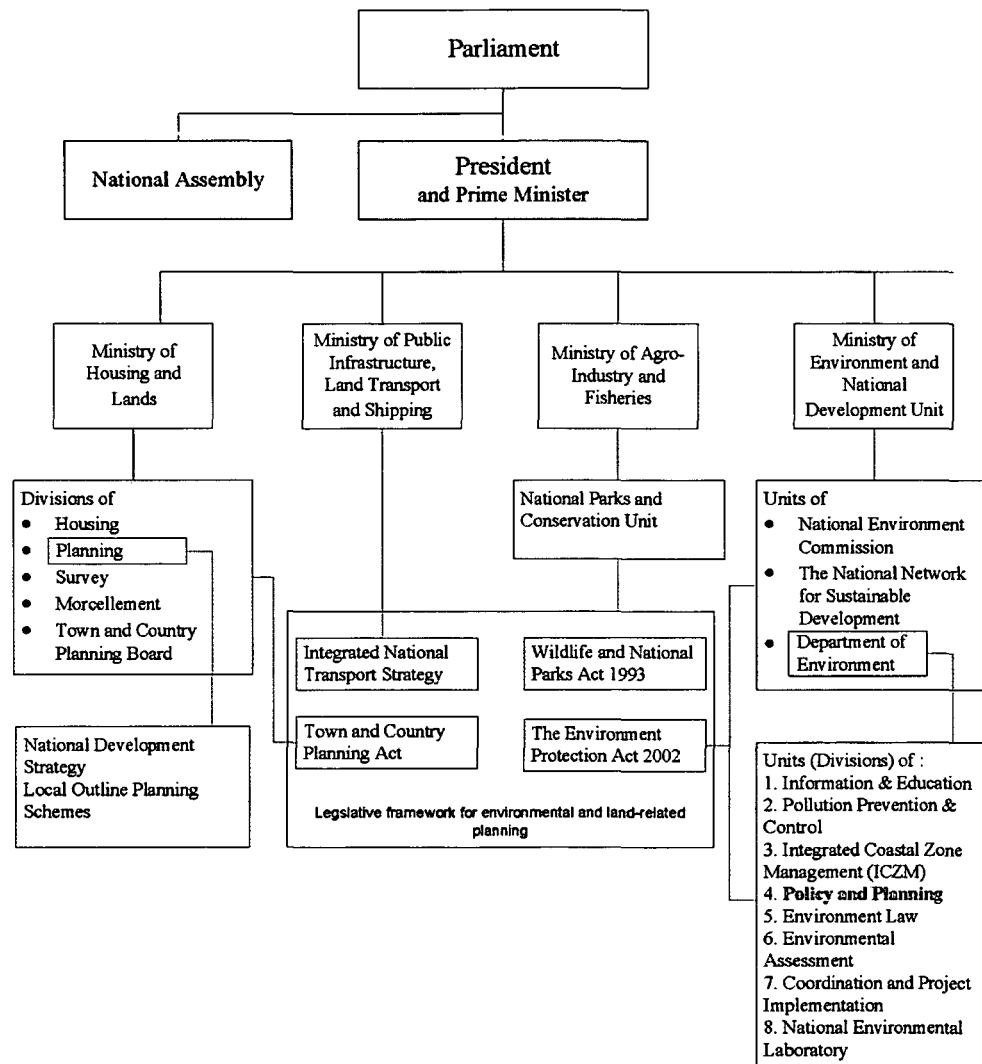


Figure 5.5: Landscape planning and management system in Mauritius

5.3 Case study examples from the developing countries

management also falls mainly within the respective administrative bodies. In particular, the Ministry of Housing and Land (with its main divisions and units: housing, planning, survey, and morcellement) is significant as it carries on responsibilities for town and country planning where landscape planning and management is primarily represented. The Ministry of Housing and Land (mainly Division of Planning) is responsible for:

- preparing a National Development Strategy (NDS), for the long term growth and physical development on the different levels and for both urban and rural areas as well as for areas of significant environment conservation or restriction;
- providing a framework for local authorities (i.e. Outline Schemes) to guide and control development in their area;
- managing new applications and developments through different guidelines;
- Managing and control of development on State Lands;
- devising and implement housing and land policies and programmes to meet the needs of the people

Regarding town and country plans, there are two types of plans (reflecting two levels of planning): National Development Strategy and local Outline Planning Schemes which translate the national strategy to the local level. A Town and Country Planning Board (TCPB) was created by the Town and Country Planning Act of 1954 to prepare the Outline Schemes. However, since the TCPB is not staffed with planners, the responsibility of preparing such Outline Schemes devolves upon the Town and Country Planning Division whose staff is completely planning professionals including a sociologist planner.

The morcellement board is another one of the morcellement unit of the Ministry of Housing and Land. Its main function is to decide about the division of a plot of land into two or more lots. It gathers representatives from different ministries including Ministry of Public Infrastructure, Land Transport and Shipping, Ministry of Agriculture, Food Technology and Natural Resources, Ministry of Health and Quality of Life, Ministry of Local Government and Rodrigues, Ministry of Environment and National Development Unit, Ministry of Finance and Economic Development, Central Water Authority, Central Electricity Board, Wastewater Management Authority, and other Local Authorities.

5.3.2.4 Landscape planning and management

As could be noticed from the previous presentation, landscape planning and management is represented in several legislative frameworks and by different bodies. Landscape

planning and management can be most clearly recognized in acts and bodies related to environment; mainly in the initiatives to conserve natural areas. However, the big emphasis which has been put on town and country planning and on land use by Ministry of Housing and Land increasingly promotes the consideration of landscape planning and management issues. The role of the morcellement unit from the Ministry of housing and land, as described above, is significant in that it emphasizes this meaning, due to the participation of several ministries and institutions in decisions about local detailed plans.

From another point of view, economic development in Mauritius is increasingly creating challenges. Conversion of large tracts of agricultural land for housing and other developments is the main challenge. Impacts from industrial as well as touristic developments on the environment and on sensitive sites such as the coastline are great. These include the extension of the port and airport. Transportation sector implies more impacts with the rapid increase in vehicle ownership. Housing demand is also another reason of urbanization; however, with the annual population growth rate (which is originally low: 0.8

5.4 Comparisons and discussion of the case studies

In this section, an overall view is taken to the case studies presented in this chapter by making comparisons and developing a discussion of the influence of the different factors mentioned earlier in this chapter on landscape planning and management in the respective countries. The Gaza Strip case represents a referential basis in most of these comparisons and discussion.

5.4.1 General facts and figures

As has been mentioned, the case studies include three from the developed countries, and two from the developing countries. Each case study (country or area) has its own geographic location, and to some extent climatic conditions, which are different from the others, except in the cases of Israel and Lebanon, which have adjacent geographical locations, and the same climatic conditions as well as other similar conditions such as conditions of conflict, small area of land, and high population density. The Netherlands, Hong Kong and Mauritius also have, more or less, small area of land. But this should be described on different scales; e.g. the Netherlands, which is the largest among the five cases, is the 62nd smallest country in the world. Population density (number of inhabitants in a square kilometre) is also significant for the comparison purposes. However, Hong Kong is the only comparable case to the Gaza Strip among the five

cases; it has even very much higher density of about 6165 inh./sq.km comparing to the 3656 inh./sq.km of the Gaza Strip, whilst the area of the Gaza Strip is almost one third the area of Hong Kong.

5.4.2 Concerns regarding environment and landscape

Landscape planning and management in many developed countries has been integrated in the planning process since several decades that goes back to 1970's; however, in many places, it has not been recognized under this title until recent times. Environmental planning and/or integration has, however, been widely, but differently, adopted and has included landscape issues in the narrow sense of the visible environment. Recently, the integration of environmental issues, including landscape issues, is increasingly considered in the planning processes and landscapes are hence positively influenced: protected, developed, or improved. Developed countries manage to develop landscape planning and management and have established many landscape protected areas for many different purposes, including recreation, tourism, education and research, but with a central aim to service for the public good and welfare. The individual situation, however, vary from case to case; often the high level of awareness regarding environment and nature had developed with time over several decades through local, regional and / or international empirical and theoretical experience (e.g. the case of the Netherlands). External influence, however, is likely to be the main reason behind the high level of awareness towards issues related to environment and landscape in other cases; examples include the influence of immigrants to Israel, and the British occupation of Hong Kong and Mauritius. Landscape planning and management in many developing countries, by comparison, has not got the attention it deserves. Extreme conditions of socio-economic life dominate both the local and governmental interests. However, the attempts to improve the environmental conditions are increasing in parallel with the international growth of awareness regarding global environmental conditions. This is very prominent in the case of Lebanon, for example, where attention towards protection and conservation increased and got real attention only in 1990s when the country started to recover after more than 20 years of wars.

5.4.3 Legislative framework regarding environmental and landscape planning

Legislation provides the basis for landscape planning and management almost everywhere. The case studies showed a range of legislative frameworks which vary to meet the local interests of each case. A combination of environmental and town and country

(urban and rural) planning legislation guide landscape planning and management almost in all cases. However, more integration of the environmental issues in urban and rural planning is seen in the cases of the developed countries; this is very clear in the case of the Netherlands and to less extent in the cases of Israel and Hong Kong. The cases of the developing countries (Lebanon in particular and to less extent Mauritius) are slightly different as legislation for environmental issues still stands apart, dealing with different issues among which is legislation that relate to land use and urban and rural planning such as protection and conservation of natural areas or areas that have special landscape significance. Another difference can be seen between the developed and developing countries in the level of details included in the different acts and regulations; in the developed countries precise and wide-range of details (e.g. the case of Hong Kong) are given more than in the developing countries (e.g. the case of Lebanon).

5.4.4 Administrative bodies and hierarchy

The existence of different planning levels is essential in the process of landscape planning, and management; however, more important is to assure a balanced distribution of responsibilities and to establish a system which guarantees effective communication and consultation among all levels. A system with three levels of planning (i.e. national, regional, and local) is common in both developed and developing countries (e.g. the Netherlands, Israel, Lebanon); however, two levels appears more effective in cases where the first two (i.e. the national and the regional) represent the same thing due to the small size of the country (e.g. in Hong Kong and Mauritius). The lower level is usually guided by the higher one (this is very prominent in most cases); however, problems of defining the relationship between the three levels might create challenges. The regional level in the case of Lebanon is not very-well defined in issues related to urban and rural planning. Local planning is, therefore, guided (to great extent, directly) by the national level (Ministerial council). The case of Hong Kong and Mauritius is similar to some extent. Actually, in Hong Kong, for example, the territorial and sub-regional planning level produces plans of two types: territorial and sub-regional. Both of the two types include high levels of details which are more than enough to guide the third (local) level, as has been noticed above. In this last context, Lebanon is completely different.

From another point of view, institutions on different levels vary from one case to another. The cases presented in this chapter showed that one or more of the ministries of environment, housing, planning, transportation, public works, etc. may carry on the activities related to landscape planning and management on the national level. At the

regional level, each case has its own system and institutions, while, at the local level, municipalities carry on physical planning on a detailed level.

One important factor to note relates to the staff of the institutions responsible for urban and rural planning. In the developed countries, the planning team is composed of mainly professionals (i.e. planners) while, in most of the developing countries, this is not the case. Lebanon, for example, suffers from the shortage of human resources in areas related to urban and rural planning.

5.4.5 Landscape planning and management

The general reason standing behind the growing attention being devoted to issues related to environment and landscape is service for the public good and welfare. Strategies proposed for landscape planning and management focus, to some extent, on protection and conservation of specific areas for reasons of distinction of landscape and natural areas. Strategies for protection usually depend on establishing zones with different protection levels and purposes which are investigated in a survey process in an assessment phase (e.g. the case of Israel). The importance of nature protection has been intensified in the developed countries more than in the developing countries; the Netherlands calls for 'nature protection without any delay' as a necessity and Israel calls for full protection of areas which have not been completely surveyed yet. Scarce land resources in the case study examples encourage the adoption of a strategy that emphasizes that landscape planning has also to take into account the need to provide adequate space for development needs and urban growth (e.g. the Netherlands, Israel and Hong Kong) and sometimes other activities that are with special particularity such as military training areas in the case of Israel; always besides the basic functions such as agriculture and recreation. This strategy is accompanied by several approaches which focus on the importance of the urban landscape and the multifunctionality of the landscape as a whole. The inter-relationship between urban and rural (in other words, between urban settlements and the landscape) is being strengthened in many cases. This is very clear, for example, with the Green heart-Randstad concept. Economic development and growth is increasingly becoming a global aim of most planning sectors and in the developing countries as well. Industry, trade, agriculture, and tourism are economic sectors that have spatial requirements and usually are respected in physical planning.

Planning is responsible for predicting future challenges and recommending appropriate solutions. Challenges to landscape planning and management include many different kinds which vary from one case to another according to the particularity of each case. Challenges include cultural aspects resulting from visitors or immigrants (e.g. in the case of Israel), abuse of resources by local people (e.g. the case of Lebanon), and

the difficulties in convincing local people to participate when they are not interested (the case of Hong Kong).

While establishing landscape protected areas is a tool which has been used for a long time in Europe (including the Netherlands) and Israel, it is becoming increasingly important in the developing countries such as Lebanon and Mauritius. In Hong Kong, the strategy even extends to compensate the areas which have been lost to essential development projects. Laws and legislations are the main tool used to develop a process of landscape planning and management. However, unless state intervention and control is taken seriously by a society, the landscape planning and management system adopted will not be an effective one. Enforcement is thus another important tool which is being used in many cases; e.g. in Israel. If planning rules and regulations are respected in a society, then many theoretical issues relevant to developed planning systems will become relevant; e.g. the case of the Netherlands.

'Freezing' is another management tool that is used in cases (as in the case of Israel) when sufficient information is not available about an area.

The top-down approach has been the one considered in most case studies (e.g. in Israel, Hong Kong, and Mauritius). The Netherlands is different to some extent as consultation is taken seriously on different levels including the local level; however, the higher levels usually decide the main issue and region (when decide to create and develop new lands) to initiate a process of consultation. The case of Lebanon is different because of the discontinuity between levels (i.e. the absence of the regional level in reality). However, this emphasized the role of the local planning but it is still hard to describe the system in Lebanon as a bottom-up system.

Developing landscape planning and management has theoretical aspects too. Co-operation between research and academic institutes and planning and management institutions on the different levels is another tool used to develop landscape planning and management as shown in the cases of Israel and Lebanon.

5.5 Conclusion

This chapter presented five case studies from different parts of the world selected to reflect one or more of the conditions of the Gaza Strip. At the same time, the case studies naturally have their own conditions which do not meet those of the Gaza Strip. The particularities of the conditions of each case study have influenced the physical planning system including landscape planning and management to a degree which looks relevant to the significance of these conditions for this case. The scarce land resources have obviously influenced the strategies adopted for landscape planning and

management. The recognition of the urban landscape has, therefore, got considerable attention, and the landscape (in different perceptions) is now being integrated gradually in the physical planning systems. At the same time, protection and conservation is being considered as a main planning aim as well as a tool of landscape planning and management.

Concerning legislations and bodies responsible for landscape planning and management, each case shows to some extent a particular system of laws and regulations which meet the local interests (mainly, on the legislative level). However, three levels of vertical relationship (i.e. national, regional, and local) can be seen with different clarity from one case to the other depending to a great extent on the area size of the country concerned, and to a less extent on the level of development each case has achieved in skills related to administrative procedures related to landscape planning and management.

The influence of conflict conditions on landscape planning and management has not featured in the respective case studies (i.e. Israel and Lebanon). The reason is likely to be that planning in general aims to service for the public good and welfare where conflict has no place. This, however, looks to be in contradiction to the conclusion from the last chapter, which calls for integration of conflict-management-plan in the main body of any comprehensive plan. Comprehensive plans have not been the main interest in the case studies, especially when landscape planning is focused upon, and consequently, a conflict-management-plan has not been found in any of the case studies. This argument raises the question on the possibility to include conflict issues into the sectoral planning level; the idea which has been lastly recommended in the last chapter and will be concentrated upon in the next part of this study, through a more detailed study of the case of landscape planning and management in the Gaza Strip.

PART III

Landscape Planning and Management

in the Gaza Strip

This part reviews and analyzes landscape planning and management in the Gaza Strip over the study period which last from 1994 to 2005. Up to this point of the study, the emphasis has been on enlarging and widening the understanding of issues with relation to landscape planning and management from both the theoretical and practical points of view. This part, on the other hand, deals with issues related to landscape planning and management in the Gaza Strip from these two angles (i.e. the theoretical and practical points of view) in separate chapters reflecting the exaggerated differences between these two parts of the planning process. It then compares landscape planning and management in the Gaza Strip to conclusions from the previous parts.

In principle, roots of national planning, which go back in other countries for decades or centuries, do not really exist in the Palestinian case. Physical planning on the national level can hardly be recognized in the Palestinian planning system while on the regional level, physical planning system is clearly divided into two main bodies; one in the West Bank and the other in the Gaza Strip. As mentioned in chapter 2, many principal differences distinguish the Gaza Strip from the West Bank. In addition to the socio-economic differences, the current Israeli occupation and the restrictions that have been imposed on moving from one side to the other and on communicating with each other were much more significant. All of these differences have been taken into account by the Palestinian Authority which, as a consequent, has decided to undertake planning activities in West Bank and the Gaza Strip independently.

It is important to mention in this introductory section that, although landscape planning was not considered in the periods before the establishment of the Palestinian Authority in 1994, it had special criteria afterwards because of the special conditions under which the Palestinian Authority undertook the planning activities. It is also important to mention that landscape planning was considered as a separate field neither before nor after the beginning of the recent Palestinian self-governance. Instead, physical planning focused on relevant issues. Issues related to landscape in the physical planning system in the Gaza Strip over the period from 1994 to 2005 are, therefore, what is being meant when 'landscape planning in the Gaza Strip' is referred to in this chapter.

Chapter 6

Review of the process and output of landscape planning in the Gaza Strip

In this chapter, landscape planning and management in the Gaza Strip under the responsibility of the Palestinian Authority is reviewed and the planning outputs are presented in order to be examined, analyzed and compared to the conclusions from the previous chapters.

The focus is therefore on the activities of land use and landscape planning that were undertaken in the Gaza Strip within the period 1994-2005 starting from the first peace agreements (Declaration of Principles in Dec. 1993 and Gaza-Jericho agreement in May 1994), the establishment of the Palestinian Authority in May 1994, and the accompanied planning activities up to the time of this study (2003-2005). The review of land use and landscape planning activities in this period includes a review of the structure of the administrative official planning bodies on all levels, in addition to the documents and publications relating to land use and landscape planning that were prepared by these bodies.

6.1 Administrative system of physical planning

After more than ten years since its establishment, the Palestinian Authority (PA) is still in the phase of building its institutional system and bodies including ministries and planning councils. As mentioned in Chapter 2, one of the characteristics of this period has been the many changes (creation, merging, establishment or generation of bodies, institutions, ministries or authorities) which have happened within the structure of the government and have affected the existence of a number of bodies with relation to environment and landscape.

Two main levels comprise the physical planning system in the Palestinian Territories. The first is the national and regional level while the other is the local level. Figure

6.1 shows a simple chart that clarifies the relationship between these two levels and, at the same time, the vertical administrative hierarchy and approval stages.

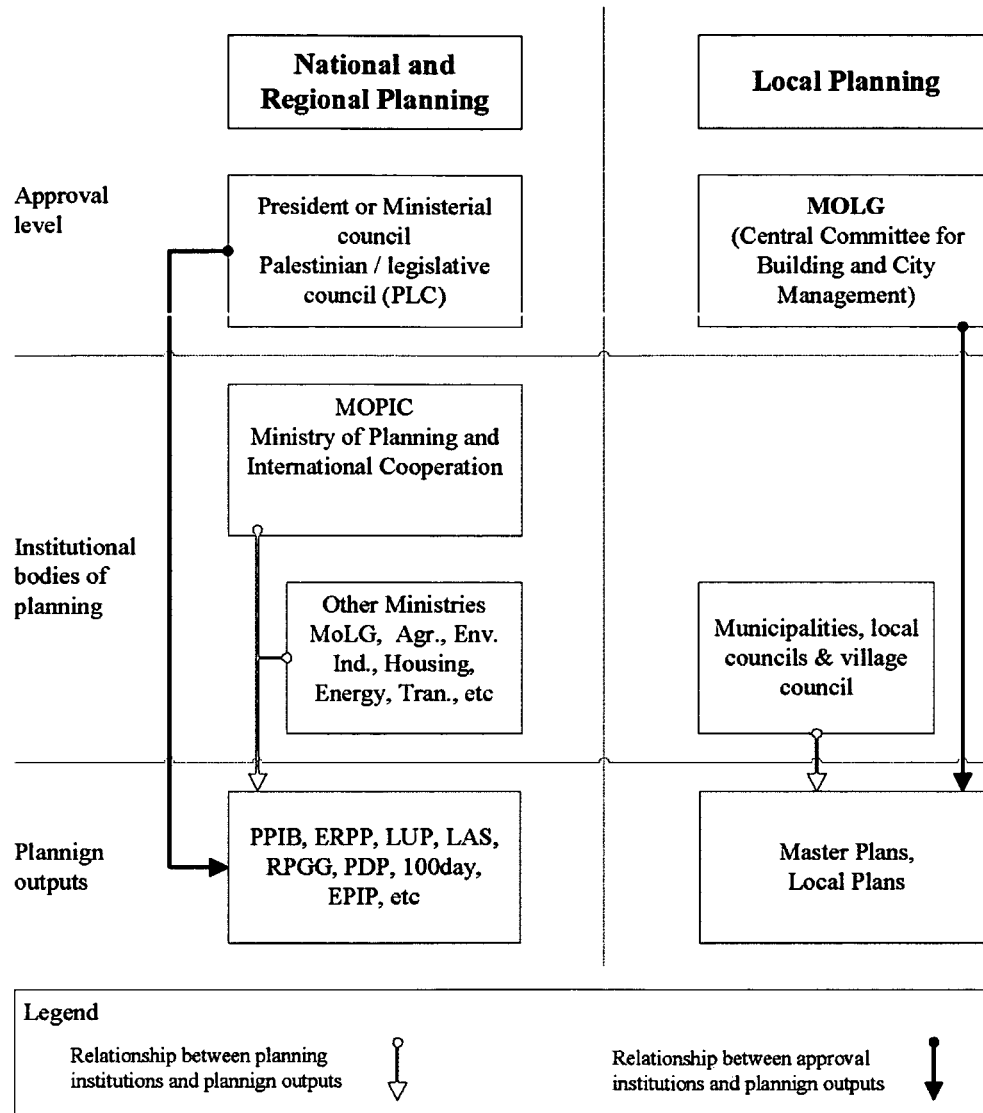


Figure 6.1: Administrative system for physical planning in the Gaza Strip from 1994-2005

6.1.1 National and regional level

On the national level, no separate physical planning activities were introduced and, therefore, the West Bank and the Gaza Strip were considered as completely separate regions in spite of the political principles that considered them one unit. National physical planning has therefore been represented by the regional level. Palestinian planning activities started under the responsibility of the Ministry of Planning and

International Cooperation (MOPIC) in 1994, and physical planning was included within several planning fields.

Figure 6.1 shows that any national-regional plan requires approval by higher levels up to the president (MOPIC, 1998). It clarifies the relationship between the main landscape- and land use-related administrative bodies and the main planning outputs (plans, legislations and policies, etc) within the period 1994-2005. This figure shows that the main institutions responsible for physical planning in the Gaza Strip from 1994 to 2005 was the Ministry of Planning and International Cooperation which divided in 2003 to Ministry of Foreign Affairs (MOFA) and Ministry of Planning (MOP). Ministry of Local Governance (represented usually by the 'Central Committee for Building and City Management') was supposed to take part in the planning process on this level besides the participation of other ministries but this did not happen; 'because of the shortage of time' (MOPIC, 1998).

Unfortunately, most of the plans and policies that were developed by Ministry of Planning and International Cooperation were not implemented, and in most cases, the problem was in the approval phase. As will be mentioned later in this chapter, Ministry of Planning and International Cooperation spent more than three years (during which time many urban developments and changes happened) to produce the 'the Regional Plan for Gaza Governorates (RPGG)' which can be seen as being of particular importance. Nevertheless, this plan has never been formally approved during the period of more than eight years since its publication in draft form.

6.1.2 Local planning

Local planning is undertaken by 24 separate municipalities and local councils in addition to the Ministry of Local Governance, which is responsible for physical planning over lands which are not under any of the 24 municipalities and local councils. Each municipality or local council has its own staff to develop its own local physical plan (i.e. master plan or land use plan) inside its boundaries. All local plans must be approved by the Central Committee for Building and City Management as a last stage before the final approval is done by the Minister of Local Governance whose signature is then a time issue. Planning through MOLG offered opportunities for planning outputs to be implemented, because the highest level required for approval is the Minister himself and, in many cases, the 'Central Committee for Building and City Management'. A map of the Gaza Strip with all of these municipalities and local councils are shown in figure 6.2, whilst master plan of the City of Gaza is shown in appendix F on page 295.

In fact, another administrative local system exists in the Gaza Strip: it is the 'Governorates' system. According to this system, the Gaza Strip is divided into five

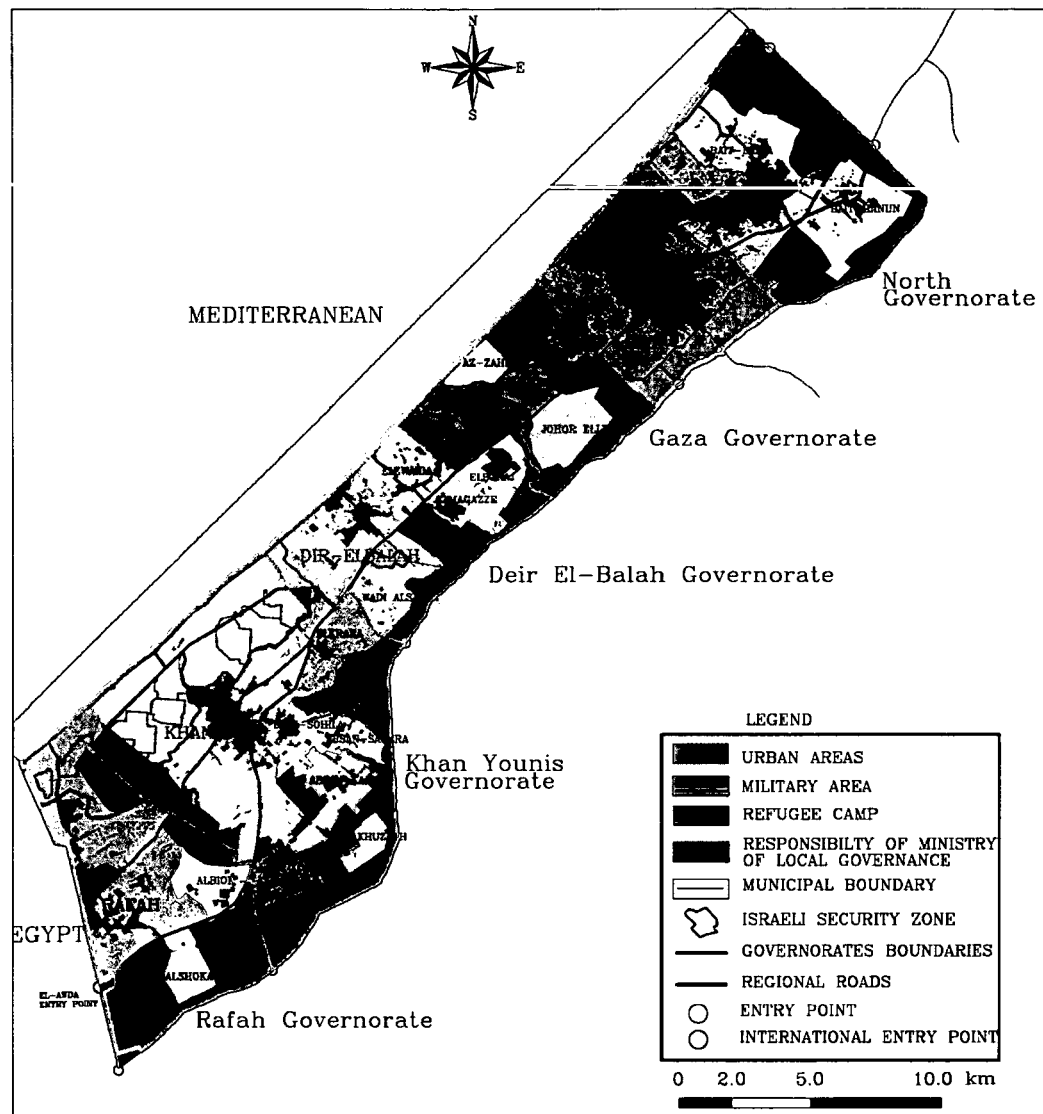


Figure 6.2: Administrative division of the Gaza Strip into five governorates overlapping with 24 local municipalities and councils (Source of base map: MOLG, 2004)

governorates (also shown on the map in figure 6.2). Each governorate includes several municipalities and local councils; however, there are no direct relations between the two systems. Governorates have no responsibilities regarding physical planning but provide very minor services such as strengthening public relations between the local community and foreign communities which are also provided by municipalities and local councils besides most other major services and physical planning schemes.

6.2 Existing legislations related to landscape planning in the Gaza Strip

The legal basis of physical planning (including landscape related issues) in the Gaza Strip after 1994 is a mixture of the previous laws and orders inherited from the British mandate, the Egyptian administration, and the Israeli occupation periods besides the new Palestinian laws and ordinances (MOPIC, 1998: 16). This does not mean that real development legislations were issued. As has been mentioned in Chapter 2, Roy (1995) emphasized that the Israeli left the Gaza Strip without any development plan. Segev (2002:9) emphasized that 'the British has found an underdeveloped country when they arrived, and they left behind much progress, especially among the Jews. But they also left behind much backwardness, especially among the Arabs'. He referred to one senior official who estimated that 'the British had never in fact had a policy for Palestine, nothing but fluctuations of policy, hesitations, no policy at all'. These characteristics can even more describe the situation under both the Egyptian and the Israeli periods. The following reviews the most important laws and orders from these periods based on the collection of 'Planning and Zoning legislation in Palestine from 1921 until 1995' collected by Halabi (1997)¹.

In particular, the establishment of a legal basis related to physical planning (town and country planning) goes back to 1936 of the period of the British mandate when the Town Planning Ordinance (TPO) No. 28 was issued. Nevertheless, few previous (but less important) ordinances and related amendments were issued between 1921 and 1936 and then were replaced by TPO No. 28 of 1936. Besides, TPO No. 28 of 1936 was amended several times afterwards; e.g. by Town Planning (Amendment) Ordinance (TPAO) No. 8 of 1938 and TPAO No. 5 of 1939. The distribution of planning jurisdictions on local, regional, and national levels was one of the most important issues tackled by TPO No. 28 of 1936. According to this law, regional outline schemes were made (and according to these schemes, Palestine was divided into six districts one of

¹See appendix G on page 298 for the most important laws and ordinances and details about their contents

6.2 Existing legislations related to landscape planning in the Gaza Strip

which is Gaza District which was larger than the current Gaza Strip) but concentration was put on the local level (i.e. city or urban planning level- refer to appendix F on page 295 to see, for example, master plan of the City of Gaza which referred to this law as a legal basis). The local interests was clear in the amendments which followed in 1938 and 1939 and concentrated on issues such as the definition of 'a construction' in TPAO No. 8 of 1938 for example, and on administrative issues related to detailed schemes as in TPAO No. 5 of 1939.

TPO No. 28 of 1936 was the basis referring to which several amendments and decisions were issued during the Egyptian administration period (1949-1967), but most of these amendments and ordinances were directed towards administrative and detailed local planning issues; for example:

- Administrative Order Number 450 of 1956 concerning the TPAO No. 28 of 1936 according to which a Central Building and Town Planning Commission in Gaza was established and redesigned by the Administrative Order Number 527 of 1957.
- Few decisions concerning the delineation of specific areas such as Jabaliya Area and Gaza Town Area, and other decision concerning classifying areas of construction and setbacks in Gaza City in 1961, and in the new areas of Gaza in 1963.

During the Israeli occupation (1967-1994), many military orders were issued with the aim to bring all planning and decision making issues under the full Israeli control. First of all, members of the District Commission for Town and Building Planning (referring to TPO No. 28 of 1936 Article No. 3) were replaced by Israeli representatives from the Israeli military by the Military Order (MO) No. 125 of 1967 which was amended several times afterwards to give the military commander the right to prohibit, suspend or restrict any plan or construction, if he/ she convinced that it is necessary to ensure the security of the Israeli army or to maintain 'public order'. Many details were accompanied with these orders; e.g. MO No. 19 of 1980 prohibited construction along Deir Al-Balah-Kisofin Road within 30 meters from its centre, and MO No. 20 of 1980 prohibited construction along the Green Line (borders between the Gaza Strip and Israel) and Sea Shore without license within a distance of 1000 meters from the green line, and 500 meters from the sea shore. Many other MOs concentrated on the administrative bodies and on organizing commissions on different levels to control mainly any new constructions. In the 1970s and 1980s, many new regulations were issued concerning building licenses and fees and at the same time penalties against violations. New urban settlements (such as Az-Zawaida and Beit Hanoon) were also established according to different MOs.

6.2 Existing legislations related to landscape planning in the Gaza Strip

As mentioned in Chapter 2, the Cairo peace agreement of 1994 transferred the jurisdiction (including the fields of planning and construction) in the Gaza Strip (excluding areas of settlements and military installations due to discussion in section 6.4) to the Palestinian Authority. This agreement stipulated that regulations valid in the Gaza Strip prior to the signing of the agreement shall remain in force unless amended or repealed due to a special agreement. However, it is permissible for the Palestinian Authority to amend, repeal or issue planning schemes within the areas falling under its jurisdiction but has to assure that any of these activities do not contravene the provisions of the agreement. Planning schemes have then to be accepted by the Israelis who have the right to decline any of these schemes if they believed that the scheme does not comply with the provisions of the agreement. The Cairo agreement also imposed restrictions on the Palestinian Authority in matters related to planning and construction in areas close to the borders (armistice line) up to 600m (including 100m without any kind of constructions and 500m with conditioned constructions). According to the agreement, the Palestinian Authority must preserve the agricultural nature dominant in the areas of the security borders.

The Palestinian Authority has not issued any significant law regarding physical planning since 1994. On the local level, the most significant is the Multi-Storey Buildings law of 1994 according to which several conditions and specifications were defined such as restrictions on building heights comparing to the road width, the recess of the building inside the plot of land, safety measures, etc. Article 36 of this law stipulates that TPO No. 28 of 1936 besides its amendments and the regulations issued concerning buildings, shall remain in force unless changed by other regulations.

As a consequence, TPO No. 28 of 1936 has remained a legal basis for physical planning in the Gaza Strip. This includes the administrative structure (the Palestinian case has been presented in section 6.1 on page 138) with a person on the top of the whole system (i.e. the Higher Commissioner during the British mandate, the Egyptian administration commander, the Israeli commander, and the president of the Palestinian Authority). The commission (District Planning Commission or the Central Building and Town Planning Commission) comes in the lower level or the regional (district) level, while local authorities are responsible for local planning. Previous laws varied in the level of details and conditions they stipulated. Laws and orders from the Israeli period have been the most significant, but most of which were based on TPO No. 28 of 1936. The peace agreements also imposed restrictions and stipulated conditions related to physical planning; specifically on the regional level. Unfortunately, public participation was hardly involved in any of the previous laws and orders especially due

6.2 Existing legislations related to landscape planning in the Gaza Strip

to the absence of election processes of local councils for the occupation period and the first ten years of the Palestinian Authority period.

In conclusion, regulations from the Israeli period and implications by the Israelis afterwards have had the most importance from physical and landscape planning point of view for several reasons. First, the Palestinian Authority has not issued any significant new law or amended existing laws regarding physical planning since its establishment, while the British Mandate and the Egyptian periods, which finished about 40 years ago, did not synchronized the recent political and socio-economic situation. Second, the peace agreements gave the Israelis the right to interfere and to shape such regulations. Third, The Israelis still (even after the last withdrawal in September 2005) control the lands to a depth of more than 500m from the borders inside the Gaza Strip, and do not allow any reshaping of these lands; agriculture might be the only activity allowed (see photo 6.1 for the eastern, natural part of Wadi Gaza for example).



Photo 6.1: Natural feature exist in the Eastern part of Wadi Gaza (Photo by: author in February 2000)

This restriction was also the legal case during the occupation as has been mentioned above. This situation close to the borders can be more clarified by looking to the contradicting case of the Gaza Beach, parts of which have been completely left under the Palestinians control since 1994 and these parts were also in the focus of similar Israeli regulations that restricted constructions close to the beach as has been mentioned above. Many high-rise buildings and other public and private constructions for different purposes were constructed directly on the beach (see photo 6.2 for the Western part of Wadi Gaza).



Photo 6.2: Urbanizations of Wadi Gaza Western area (Photo by: author, in February 2000)

6.3 Issues of landscape planning and management

As has been mentioned, the whole activity of national physical planning in the Palestinian territories began only after the establishment of the Palestinian Authority in 1994. The last section has clarified the legal status of physical planning and showed that this issue was considered in the shape of 'military' orders that serviced occupation purposes; especially for the Israeli occupation, which issued and implemented the most significant orders from physical and landscape point of views. However, and generally speaking, none of the previous governors of the Gaza Strip engaged in any real planning activities in the Gaza Strip (MOPIC 1998:16). This situation has resulting in 'little administrative experience' (MOPIC, 1995), and 'absence of territorial management as reflected in the almost total absence of rules and regulations for orderly physical development' (MOPIC, 1996a). On its establishment, the Palestinian Authority benefited from the considerable international financial help from the donor countries¹ and the professional and technical experience in the field of planning from many countries, especially Norway and The Netherlands. Landscape-related issues were given considerable importance in the physical planning process from the beginning, and there was a clear attempt to plan for sustainable landscape development. But with time, the breakdown of the peace process significantly affected planning issues including the planning pro-

¹Counting 42, donor countries and multilateral agencies met in October 1993 to provide the economic underpinning for the peace process in the Middle East and to mobilize the resources needed to make the political peace agreement between the Palestinians and the Israelis work.

cess itself as well as the responsible planning bodies. It is also important to realize that basic preconditions for successful planning, such as the ability to collect adequate data on urban and rural land use and land use changes unfortunately was, and is still, a problem due to the prevailing instability in the territory. This, in addition to other problematic factors such as the rapid change and the multitude of responsible bodies, resulted not only in overlapping of responsibilities and repetition or duplication of planning inputs, but also in differences in planning outputs. Planning outputs aimed at overcoming the problems of the new situation, which were never previously considered because of the hopes that had been invested in the peace process.

In general, it is useful to distinguish between two main periods: the first was from 1994 to 1997 while the second was from 1998 to 2005. The first period can be considered as the beginning of physical planning, while the second was a static period from physical planning point of view. Nevertheless, indicating some specific projects and planning outputs from both periods in the following two section is perhaps the best way to clarify the meanings and concepts of Palestinian planning in general and landscape planning (in as far as it exists as such) in particular. It is also essential to clarify the relations to other aspects such as environment, and to show differences in its development over time. The main source of information for each planning output is the document related to that output unless other sources are mentioned. Several documents, especially from the first period (e.g. the Emergency Resources Protection Plan, the Coastal Zone Plan and the Gaza Land Resources), had the warning (or in other words, disclaimer) that 'the ideas inside these documents reflect those of the staff and consultants of the institution responsible for this work and, consequently, do not necessarily reflect the opinion of this institution or the Palestinian Authority'!

6.3.1 Planning projects: the first period

Physical Planning in the first period (1994-1997) presented many ideas by preparing different environmental, physical and spatial 'draft' plans in which landscapes and natural resources were paid considerable attention, with the aim of their protection or development. The clearest plan within this period, especially from landscape- and environmental-related points of view, was the Physical Planning and Institutional Building (PPIB) project which was the beginning and is still considered, as well as its achievements, as a basis for most of the subsequent plans. Several 'plans' were prepared at the same time, mainly to support this project which was intended to produce a complete regional physical plan for the Gaza governorates.

6.3.1.1 Physical Planning and Institutional Building (PPIB) project

Away from the political agreements and their influence on the other sectors of Palestinian daily-life, planning work started in October 1994, when the Palestinian Authority signed an agreement with the Government of Norway according to which technical and financial assistance from Norway to the Palestinian Authority would be provided for formulating a three-years project for Physical Planning and Institutional Building (PPIB). The deadline for PPIB project was extended several times because of the uncertainties inherent in the prevailing political situation; however, it managed to present benefits and achievements for both the Gaza Strip and the West Bank. The main activities of the project included (MOPIC, 1998):

1. institutional building activities, where the Directorate for Urban and Rural Planning (DURP) was established as a central unit within MOPIC
2. physical planning activities, where the focus was on physical planning at the regional level that would guide to the national level
3. training activities, which were intended to provide adequate training opportunities to upgrade Palestinians' skills related to physical planning

This project considered the integration of the environmental issues in the physical planning process from the beginning. For this purpose, different environmental bodies were created (see chapter 2) to take responsibility for the environmental-related issues including environmental planning. In particular, the Environmental Planning Directorate- EPD (under the Ministry of Planning and International Cooperation) was established. Then, different environmental studies and plans were developed, including the 'Natural Resources Protection Plan for the Gaza Strip', the 'Coastal Zone plan for the Gaza Strip', and the 'Landscape Assessment for Gaza Governorates'.

6.3.1.2 Gaza Environmental Profile

Collecting environmental data and preparing related documents started in June 1994 by the Palestinian Environmental Protection Authority (PEPA). It was presented in two documents. The first document was mostly a collection of data and a description of environmental and natural resources such as climate, geology, coastal and land resources, water resources, flora and fauna, etc. Some of this data is presented in section 2.2.5 on page 44. The purpose of this data-documentation was to provide a basis for other planning and development works by highlighting environmental problems and opportunities. In addition, educational goals at different levels were pursued by this document. The second document comprised two parts, the first of which was a study

of the relations between humans and the environment relying on the studies done and the challenges presented in the first document. The environmental problems and the related impacts were studied in depth, categorized and analysed. These included water shortage and pollution, waste water and solid wastes management, coastal erosion, destruction of natural and cultural heritage, land use problems, and other problems related to the social and local changes. The second part of the second document was an attempt to present solutions for the sustainable use of land and natural resources. It also outlined and described the planned and the already-started projects at that time (June 1994). This description covered the name of the project, the executive Palestinian organization, the financing organization, the time period, the costs, and the status of the project at that time.

6.3.1.3 The General Housing Plan (1995-2015)

Housing demands were one of the most prominent challenges to the Palestinian Authority since its establishment in 1994. A housing plan was hence an urgent necessity in 1994 and 1995 when many Palestinians returned back to the Gaza Strip after the first start of the Palestinian self-governance. In general, published documents from former Ministry of Housing or even from current Ministry of Public Works and Housing has unfortunately been severely lacking. This ministry is also one of the few ministries which still do not have a website-link on the official website of the Palestinian Authority¹. Ministry of Housing started to design a plan directly after the first governmental cabinet had been established in 1994. Ministry of Housing (which was merged afterwards with Ministry of Public Works) has been responsible for governmental lands, and consequently, setting lands for housing projects has been one of its main responsibilities. However, no physical or land use plans were prepared at that early stage. Moreover, financial support for housing projects had to come from foreign countries which in many times provided also the plans and drawing according to their own visions.

Ministry of Housing had developed a general housing plan and continued modifying it and considering the new situations. The main aim of this plan was to offer residential units to absorb the significant population growth. Local initiatives to establish housing units were considered by Ministry of Housing, and local institutions (in particular, universities and other ministries) were offered plots of lands to construct housing projects. The plan did not have any official publication but a map that was possible to be obtained from Ministry of Public Works and Housing (MOPWH) in February 2004. Figure 6.3 shows this map which was lastly modified in June 2003. The map included a table which showed that housing projects (in June 2003) amounted 49 projects

¹http://www.pna.gov.ps/palestine_links.asp

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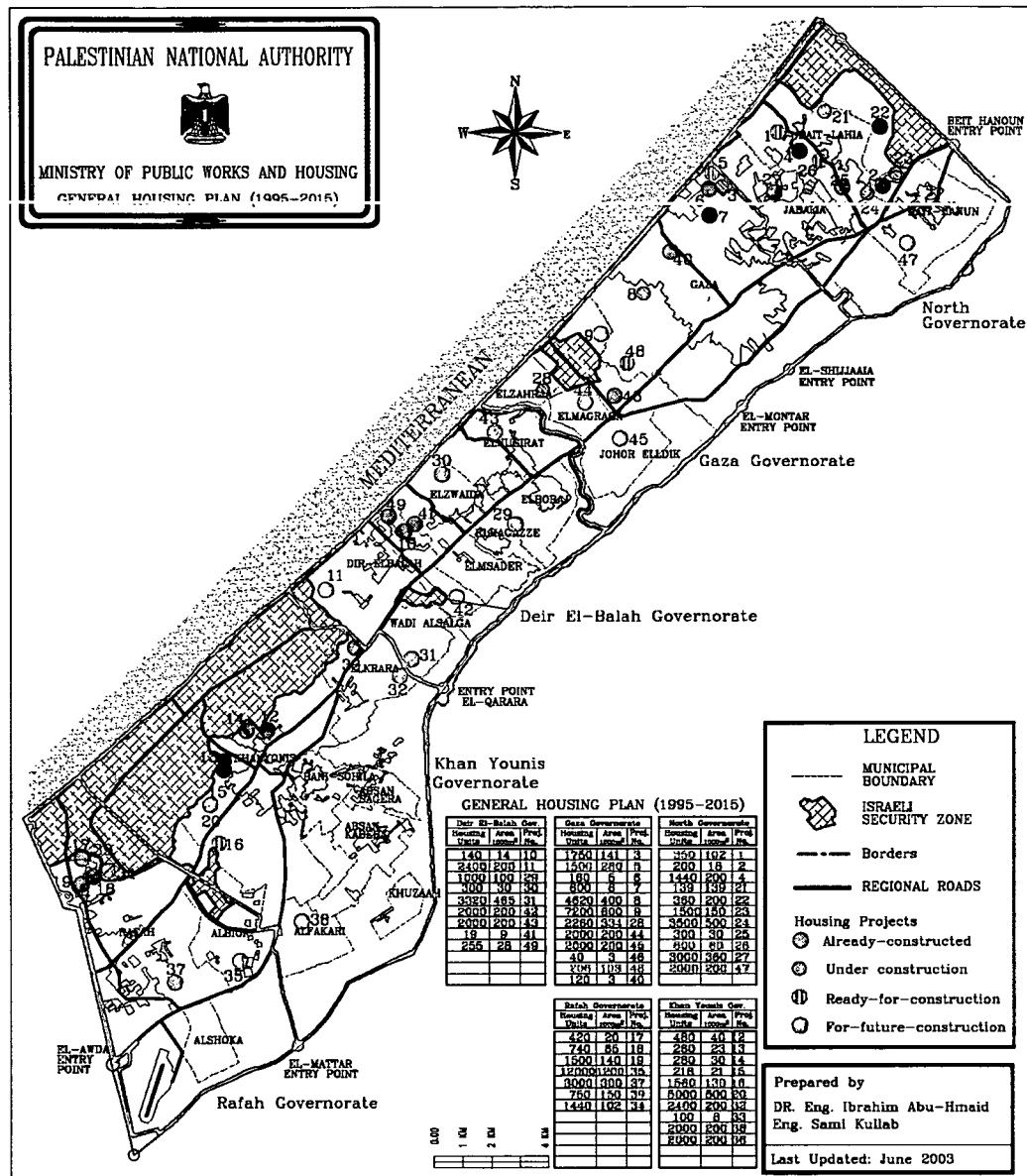


Figure 6.3: The General Housing Plan (1995-2015) (Source: MOPWH, 2004)

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for each of which a specific number was given and the number of housing units and planned areas were shown. The status of construction of all projects was also clarified and categorized into four classes: already constructed, under construction, ready for construction, and for future construction. However, there are several other factors according to which these housing projects can be categorized; e.g. location over the Gaza Governorates and ownership of lands. Figure 6.4 shows the housing projects with relation to the ownership of lands and to their locations over governorates (for information about ownership of lands in the Gaza Strip, refer to section 2.2.4 on page 42).

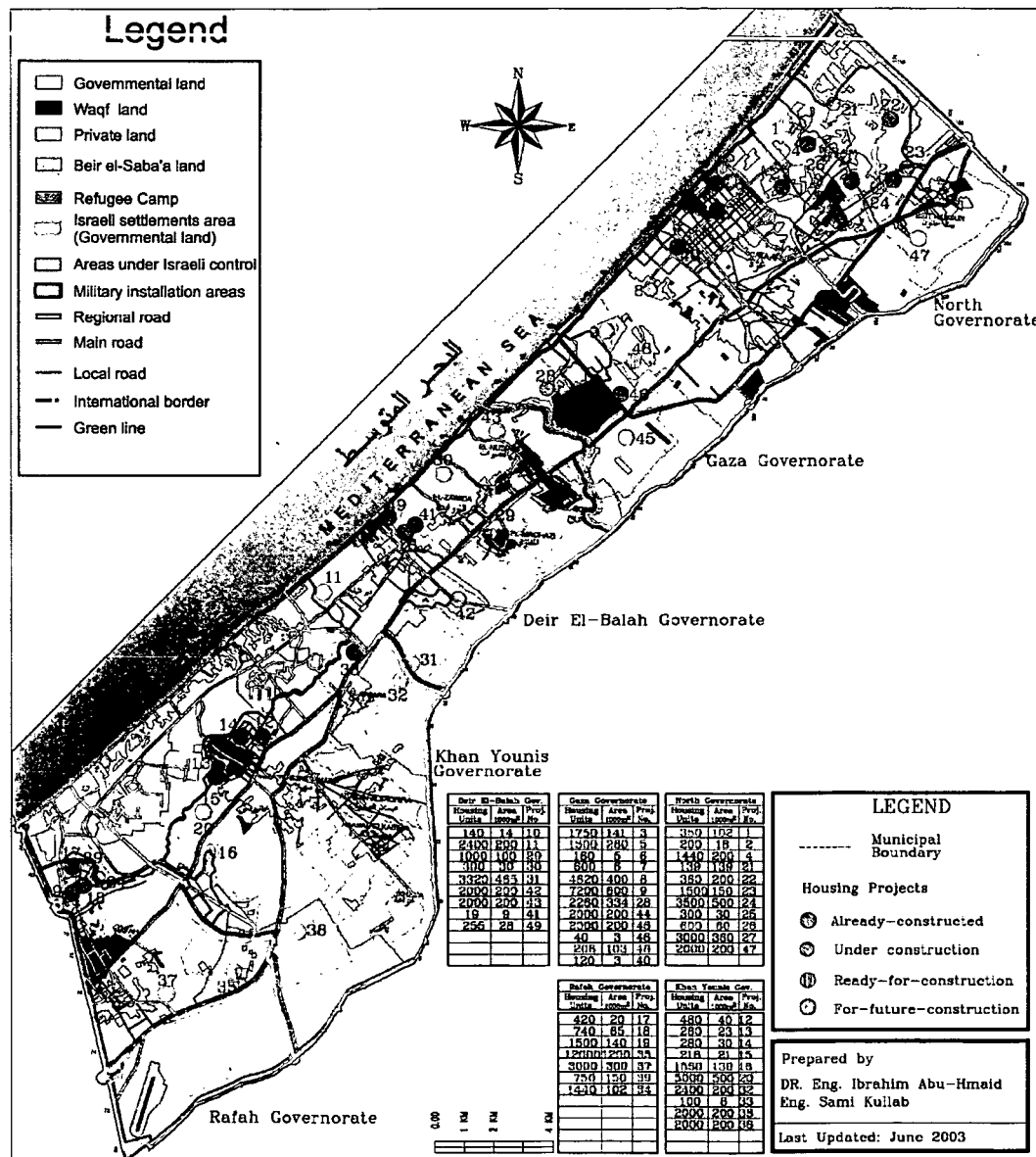


Figure 6.4: Housing projects compared to the ownership of lands

Table 6.1 summarize data related to these factors, whilst figure 6.5 illustrates this data

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Table 6.1: Areas (in dunums) of housing projects compared to different factors

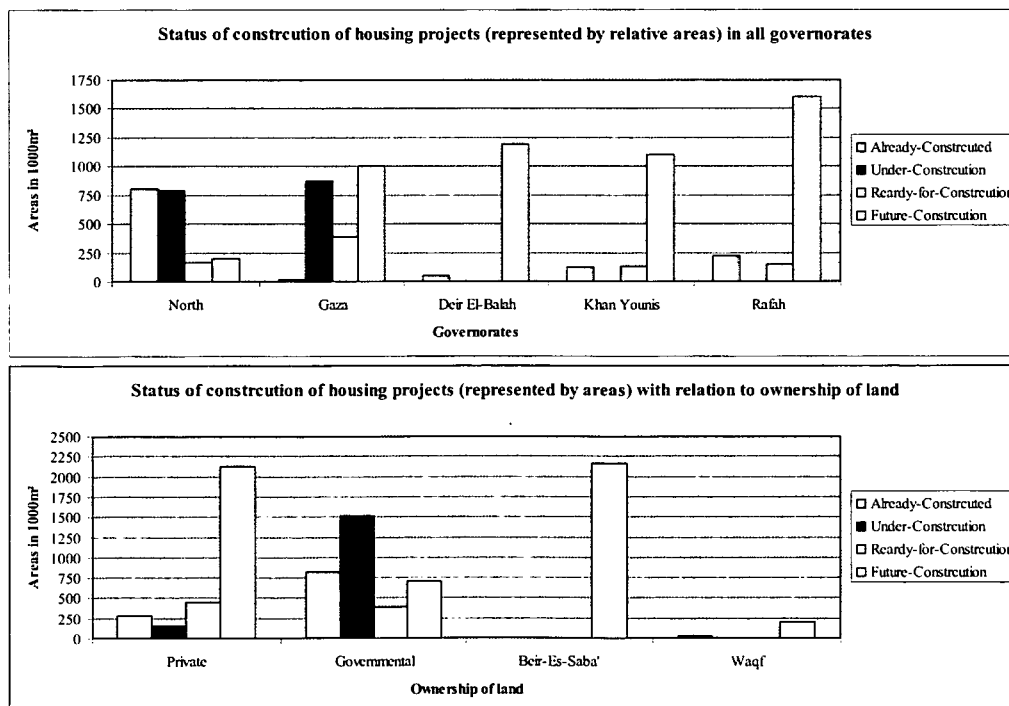


Figure 6.5: Areas of housing projects compared to different factors

in two charts. Besides, locations and areas of housing projects can be analyzed from landscape and physical planning point of view as will be shown in section 7.1.2 on page 187. Appendix L on page 310 includes a table summarizing information on all housing projects planned for the period 1995-2015 but as their status in June 2003. Chapter 7 analyses the relationship between this plan and other plans (mainly the Regional Plan for Gaza Governorates) especially with relation to landscape planning issues, while chapter 8 presents information on implications of this plan.

Based on these figures, tables and charts, significant comments¹ can be noted including:

- Already-Constructed and Under-Construction projects in the period from 1995 to June 2003 compose 33% (2,887 du) of the whole housing projects purposes in the period 1995-2015. Already-Constructed projects compose only 14% (1,223 du); that means that only 14% of the lands were used in almost 42% of the plan period.
- 86% of the already-constructed and under-construction projects were constructed in the North and Gaza Governorate. This is because of three main reasons: the first is the ownership of land where about 79% of these housing projects (i.e. of the 86%) were constructed on governmental lands while the remaining 21% were constructed on private lands. The second reason is related to demography where the need for housing units was much more in the North and Gaza governorates because of the higher natural increase of population which is due to the original population figures, which are higher in these two governorates (see appendix B on page 282 for population statistics in the Gaza Strip). The third reason seems to be with relation to both demography and military conflicts; it is the fact that the number of people from southern governorates who work in northern governorates is high² and those have to reach their work everyday at the time that Israeli forces and settlers established many check points on the roads that connect the two parts; this may waste people's time (up to few hours everyday). Therefore, many employees preferred to live where they worked resulting in internal migration from southern to northern governorates.

¹The discussion in this chapter concentrates on areas of lands planned for each project (or for a group of projects) being more valuable and significant when issues related to landscape planning are in the focus of the discussion. 'Percentage(s) of projects', therefore, means 'percentage of the lands planned for the project(s)'

²This is mainly because of the concentration of public services, (mainly educational, and governmental) in the north; specifically in Gaza Governorate

6.3 Issues of landscape planning and management

- Gaza Governorate will have (according to the Housing Plan) the biggest number of housing units, and gives the largest areas of lands.
- Gaza city continued receiving housing units with the least areas of land per unit (i.e. high urban density); examples are projects No. 7, 40, and 6 with land areas of 10, 25, 31 m respectively for each unit.
- The ownership of 34% (3000 du) of the lands included in the plan is Private, 39% (3423 du) is Governmental, and 25% (2165) is Beir Es-Saba'a. Only about one-seventh (427 du) of the 34% (i.e. of the Private lands) were Already-Constructed or Under-Construction, while more than two-thirds (2339 du) of the 39% (i.e. the Governmental lands) were Already-Constructed or Under-Construction. Nothing has been Already-Constructed, Under-Construction, or Ready to be constructed in Beir Es-Saba'a lands.

This plan is due to further discussions and analysis in section 7.1.2 on page 187.

6.3.1.4 Emergency Resources Protection Plan for the Gaza Strip

This plan was published as a document and a map (see figure 6.6) in July 1995 by Environmental Planning Directorate (EPD)- Ministry of Planning and International Cooperation (MOPIC).

The plan was the first official attempt to regulate the use of lands by zoning on a governorate scale (MOPIC, 1996a); these lands were only the lands under the jurisdiction of the Palestinian Authority. The plan aimed to control developments that might affect national resources, thereby aiming to facilitate sustained socio-economic development and to create the best achievable environmental conditions. It was, however, meant to be replaced (in two or three years) by a more comprehensive and lasting land-use plan (MOPIC, 1996d). The plan emphasized the importance of coordination between the different ministries; however, this did not happen during the design of the plan and was aimed to happen sometime afterwards! Too, the plan was the only document that mentioned the need for an institution such as 'an inter-ministerial central committee', which 'will be responsible for issuing recommendations for projects of national importance and projects which may have an impact on the environment or endanger the preservation of national resources'.

The plan body considered five main resources for each of which a full description was give including locations, values, threats, etc. The natural resources are ground-water resources, principal agricultural land, potential recreation and tourism areas, unique undisturbed landscape, and archaeological sites. Landscape elements naturally

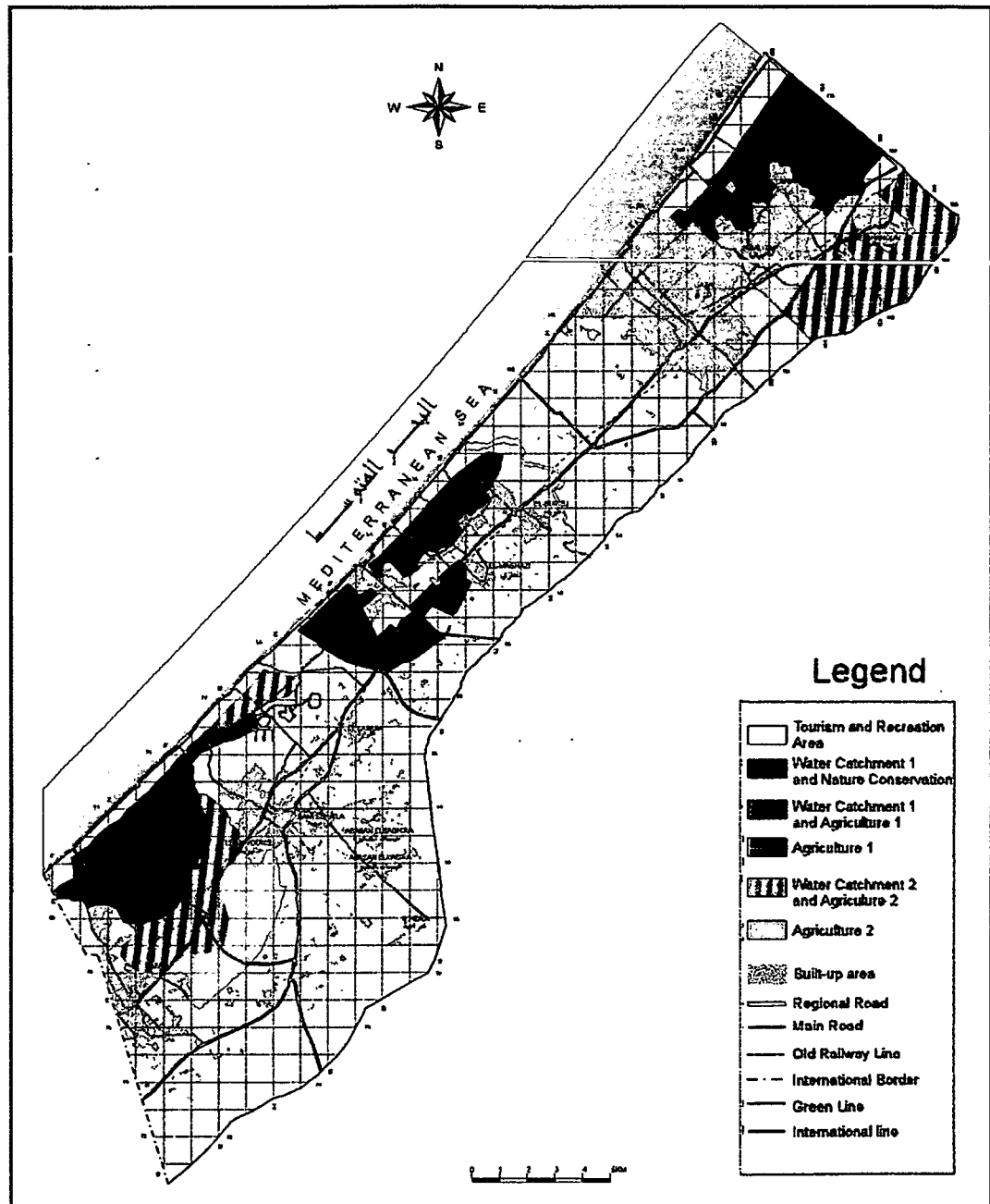


Figure 6.6: The map attached to the Emergency Resource Protection Plan (MOPIC, 1995)

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compose great parts of these resources; e.g. sand dunes have great influence on the groundwater resources and agricultural lands are a kind of cultural landscapes. Therefore these resources often overlap creating 'clusters' or 'mixes' of resources (see appendix H on page 302 for these priorities) and consequently, threats they face and type of protection they require also overlap. In particular, sand dunes and beaches in the northern and southern coasts have been categorized as protection zones with (a) high quality groundwater catchment, (b) high quality agricultural lands and (c) nature conservation areas (MOPIC, 1996a). The ERPP mentioned an overlapping of natural resources; e.g. groundwater and agriculture. Groundwater (especially when it has high quality that deserves protection) is usually found under sand dunes in areas of the coast of the Gaza Strip. Agriculture on sand dunes may create problems; e.g. fertilizing pesticides to the ground water especially because of the high fertilizing feature of sands.

The plan proposed that when more than one resource is found in the same area, permissible land uses are more restricted than in single resource areas. Prior approval was to be required for different projects in the areas of resources, and in many cases, this was supposed not to be granted (see appendix I on page 303 for these types of projects and the relevant proposed response). The Emergency Resources Protection Plan goes in detail to show how to control the development in resources' areas, what kinds of development projects are non-permissible, and which need prior approval or Environmental Impact Assessment (EIA). In addition, the plan sets out:

1. approval procedures for development projects in the resources' areas with concentration on the role of the 'already-existing' Central Committee for Building and City Management- Ministry of Local Governance;
2. bodies responsible for supervision and enforcement as well as for the development or the protection (which, according to the plan, are mainly the local authorities); and
3. sanctions and penalties for those who fail to comply with the plan

The final output of this plan also included a map (scale 1:50,000- see figure 6.4) showing the areas of each of the natural resources, both when they are separate or when they are present together in specific areas.

6.3.1.5 Landscape Assessment for Gaza Governorates(LSA)

This document was prepared by Directorate for Urban and Regional Planning (DURP) in October 1996 to present information about the landscape in the Gaza Strip for the purpose of preparing the Regional Plan for Gaza Governorate. In this study, the

6.3 Issues of landscape planning and management

landscape areas of Gaza governorates were surveyed and categorized into three grades on the basis of their quality. The quality was measured with respect to six main criteria

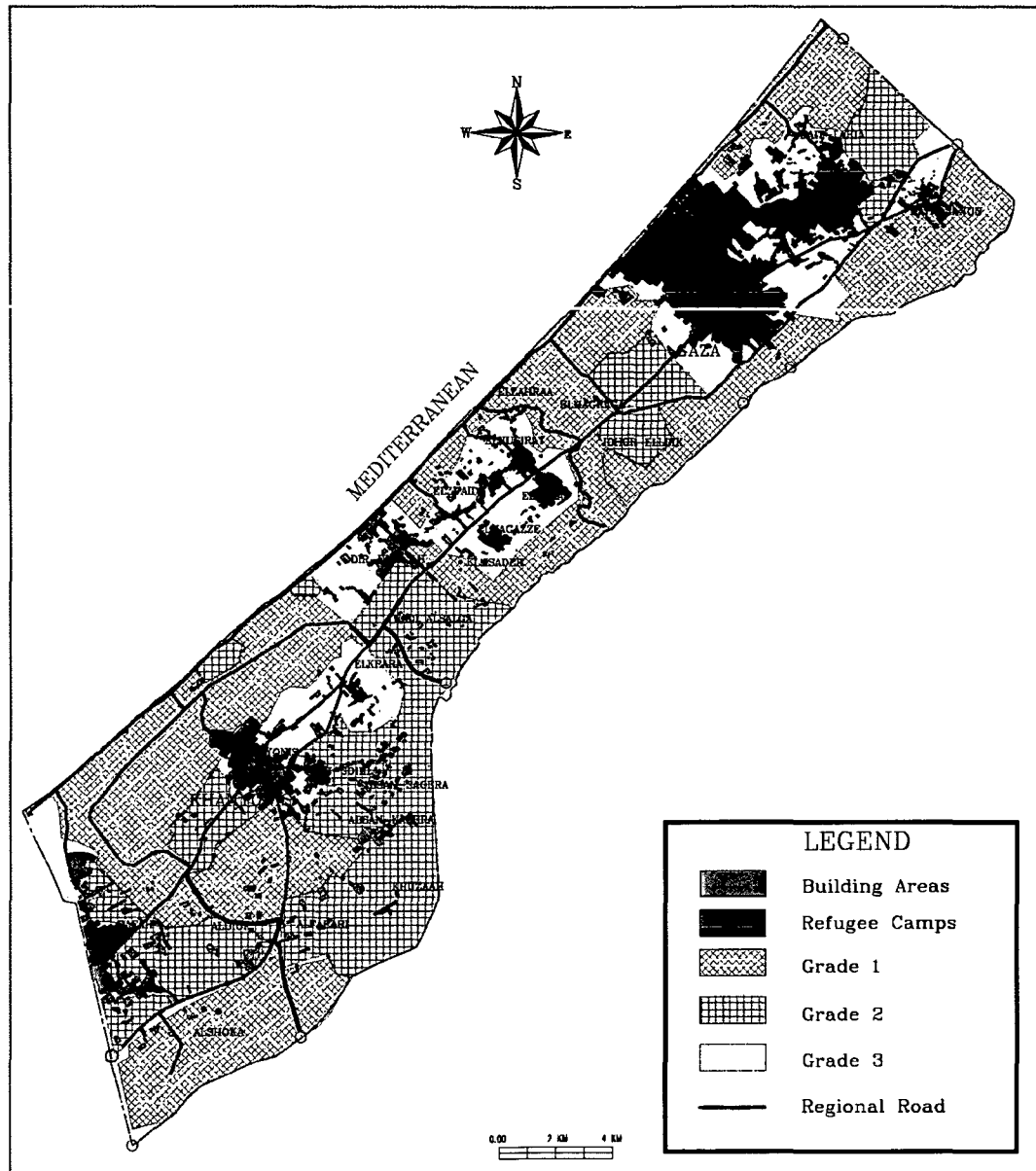


Figure 6.7: The three categories of the landscape in the Gaza Strip as defined by the Landscape Assessment (MOPIC, 1996c)

which are:

- **Landscape as a resource:** The landscape should have at least national and regional importance for reasons of rarity or representativeness.
- **Scenic quality:** The landscape should have high scenic quality, pleasing patterns and combinations of landscape features and important aesthetic or intangible

factors.

- **Unspoiled character:** The landscape should not be spoiled by large scale visually intrusive developments.
- **Sense of place:** The landscape should have a distinctive and common character including topography and visual unity.
- **Conservation interest:** The landscape should include features of historical, cultural, wildlife or architectural interests.
- **Consensus of opinion:** There should be both professional and public opinions as to its importance.

The landscapes that fulfilled 5 to 6 criteria were categorized in Grade 1, the landscapes that fulfilled 3 to 4 criteria were categorized in Grade 2, and the landscapes that did not comply to more than 2 criteria were categorized in Grade 3 (see the map in figure 6.7, which shows the distribution of these grades over the Gaza Strip). This categorization has not been applied to specific areas in detail, but is usually more general. The first class includes areas with outstanding value while the second includes the areas with fine landscapes and the third includes areas that have been transformed from the assumed original state. The Landscape Assessment also recommended three principle levels of landscape treatment in planning depending on the previous grades. Those are landscape protection for the first grade, landscape improvement for the second and landscape development for the third. Protection, improvement or development of the landscape is a main duty of several governmental as well as other non-governmental organizations in the Gaza Strip. Nevertheless, cooperation among the different bodies has not reached the required level to achieve the primary goals and objectives of protection, improvement and/ or development.

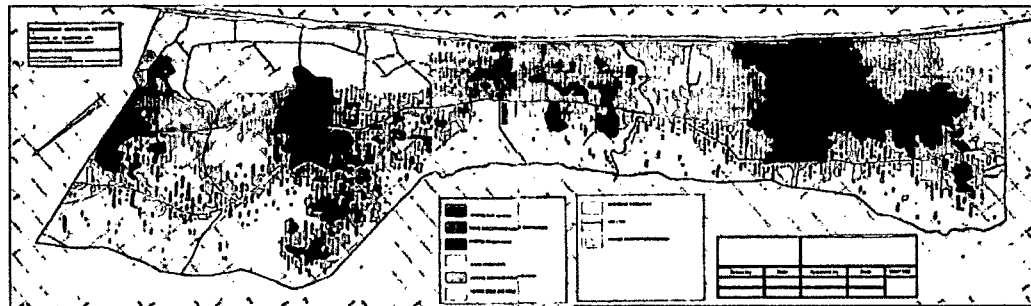
Landscape Assessment for Gaza Governorates concluded that: 'for the planning of specific development projects, more detailed landscape assessments may be necessary' (MOPIC, 1996c). It finished by emphasizing 'the need to develop and utilize the appropriate landscape protection tools in order to protect and develop the landscape in a useful way. These tools include laws, regulations, and environmental impact assessments'. It also noted that there was a need 'to integrate landscape protection into all levels of physical planning'.

6.3.1.6 Gaza Land Resources, Land use and resources protection

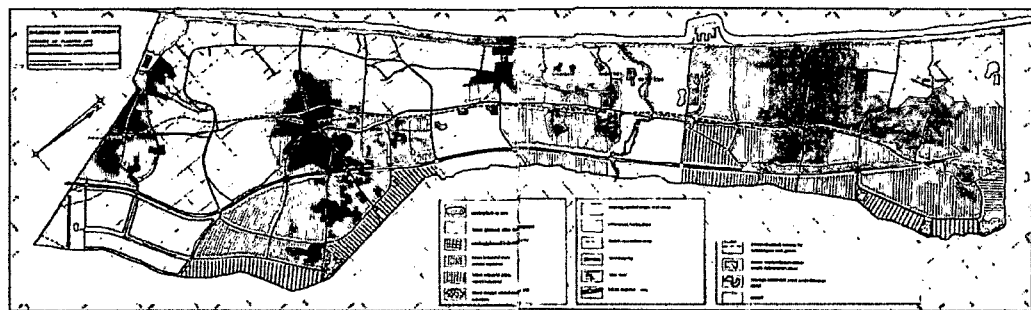
At the time that physical planning issues were developing relying on the financial and technical help from Norway, other useful studies and plans were also developing relying on the help from the Netherlands. One example of these studies was the 'Gaza Land Resources: Land Use Planning and Resources Protection'. This document was completed in December 1996 by the Ministry of Planning and International Cooperation (MOPIC)- Environmental Planning Directorate (EPD). It was a first step towards the regional plan (defined in this document as 'a planning framework') that should include (a) a form of land use planning, (b) a supporting institutional framework, and (c) a supporting legal framework. This planning framework (according to the document) is the one which is able to achieve a sustainable development in the Gaza Strip. The socio-economic situation (both present and future up to year 2010) was in the heart of developing ideas in this document and was related to resources including natural resources. Three future scenarios based on different assumptions were thus developed as a technique to forecast possible developments in the Gaza Strip in such a 'world of uncertainty'. These scenarios were:

1. Status Quo Scenario according to which no significant changes in trends and patterns of economic development are assumed.
2. Autonomous Growth Scenario which assumes that Gaza develops its own economy with little interaction and cooperation with Israel and Arab countries.
3. Social Welfare Scenario which assumes open borders, improved security, and lower population pressure.

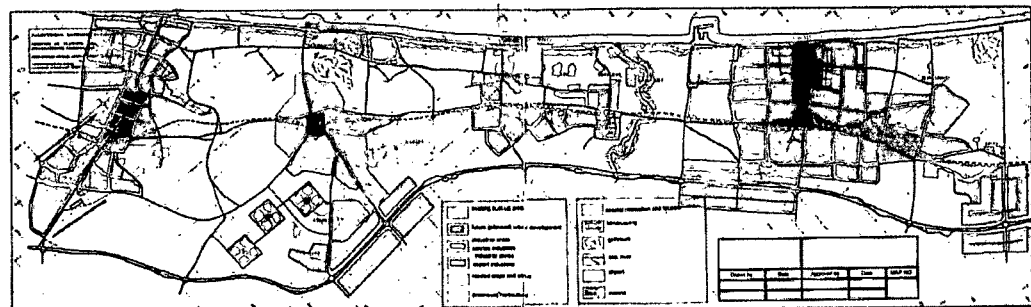
Scenario maps were then prepared together with a 'structuring elements' map extracted from the most positive scenario maps. Figure 6.8 shows the maps which were presented by the Gaza Land Resources to illustrate these scenarios as well as the 'structuring elements' map. Results in 2010 of these scenarios (or in other words, impacts on natural resources) were predicted and some of which are shown in table 6.2. The scenario maps were then abstracted to a physical planning model for Gaza Governorates (see figure 6.9) where open space corridors from west to east are maintained and new urban areas have been proposed to be established east of the existing urban clusters. Wadi Gaza presented one of the east-west corridors in addition to its value as potential recreation area, unique and undisturbed landscape and as an archaeological site as well. To implement this plan, it was required to set a strategy based on transfer of information and encouraging public participation and raise official awareness as well.



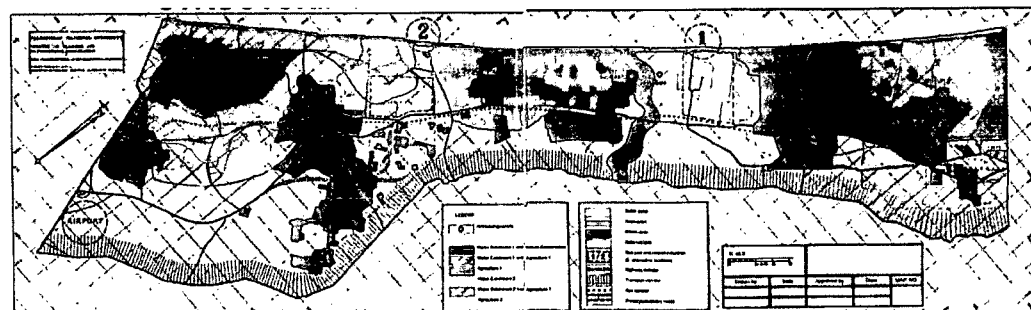
Scenario 1: Status Quo



Scenario 2: Autonomous Growth



Scenario 3: Social Welfare



'Structuring elements' map

Figure 6.8: Scenarios and the 'structuring elements' map of the Gaza Land Resources (MOPIC, 1996a)

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Items	Measures	Indicators	1995	Scenario 1	Scenario 2	Scenario 3
Population (mil. inh.)				1.663	1.800	1.200
Land use (% of the Gaza Strip)	Urban areas	Built-up area	18		28	21
		Industry	1		9	4
		Total	19		37	25
	Rural area	Agriculture	45		27	39
		Agriculture	3		0	0
		Other	33		36	36
		Total	81		63	75
Total water demand (MCM / year)			138	163	190	182
Total water supply (MCM / year)			138	163	190	182

Mil. Inh.: million inhabitants

MCM: Million Cubic Meter

Table 6.2: Different items shown with respect to the different scenarios of the GLR (Based on MOPIC [1996a])

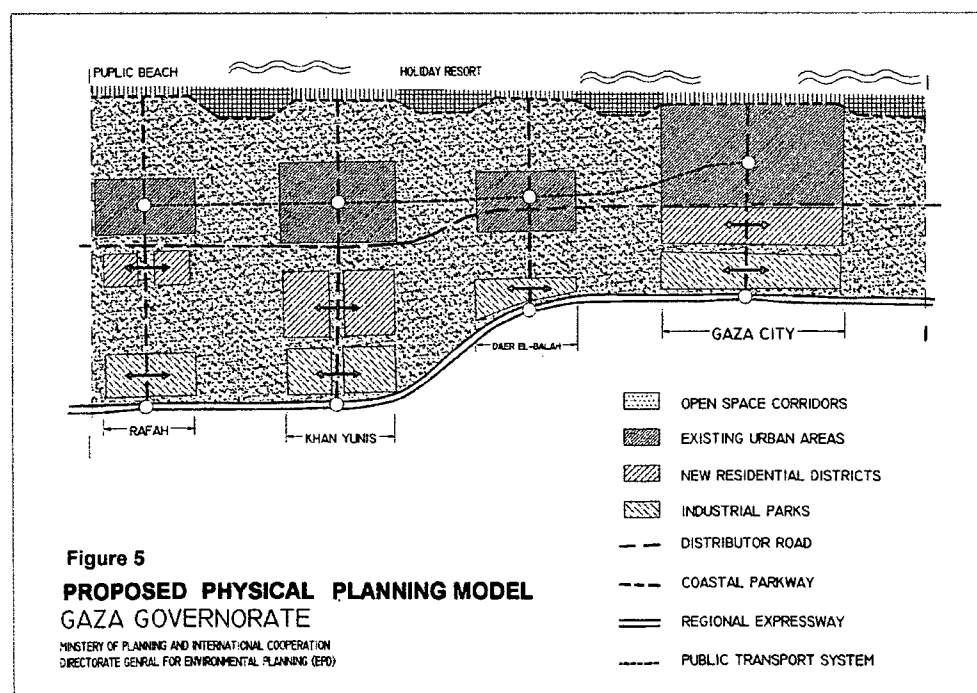


Figure 6.9: The Physical Planning Model proposed by the 'Gaza Land Resources' (MOPIC, 1996a)

In addition, the plan emphasized the need for the regional plan to be prepared to ensure a minimum of conflict between different land uses. According to this document, participation by (or integration of) all groups (i.e. sectors) in the planning process is required in the shape of sectoral plans to be used as input.

6.3.1.7 Coastal Zone Plan

This document was completed in December 1996 by the Ministry of Planning and International Cooperation (MOPIC), Directorate for Urban and Rural Planning (DURP). The plan defined the area of the coastal zone which covers about 74 sq. km (an area which equals 20.5% of the Gaza Strip region); in landscape ecological terms, this area belongs to the Eastern Mediterranean sand dune regions, a semi-arid steppe landscape which roughly consists of the beach and the coastal sand dunes, the Wadi Gaza mouth, archaeological sites, and traditional agricultural lands (see figure 6.10). This implies an international level of significance besides the national, regional and local levels.

The Coastal zone had increasingly become an attractive part for settlement and agricultural extensions during the Israeli occupation; however, this zone had been threatened after the establishment of the Palestinian Authority by different activities including national defence training, restaurants and entertainment facilities, and the port and the associated trade and industrial developments (MOPIC, 1996a). The plan considered the coastal zone as a priority area for planning in the Gaza Strip. Both protection and sensitive development were pursued by this plan by focusing on keeping the unspoiled character and improving the quality of the Gaza strip beaches and coastal zone for tourism and recreational purposes. Economic and social welfare and scientific potentials of this zone were also described by the plan.

The plan described the environmental problems in the coastal zone including the destruction of the beach landscapes by pollution and waste dumping, un-planned development, lack of services, etc. It also reviewed the conflicting land uses in the coastal zone and the status of areas of significant value (e.g. Wadi Gaza outlet). The plan finally proposed exact areas' figures for the different purposes; e.g. 365 ha for recreational purposes, 1245 ha for nature reserves, 7150 ha for landscape zoning areas, 1274 ha for tourism development, 282 ha for urban development, 3670 ha for agriculture, etc. In addition, and for each purpose, the plan explained the significance, the existing situation and problems, and the main objectives pursued by the plan (table 6.3 shows planning issues related to some of these purposes). It is important with these areas (mentioned above) to notice that large areas have more than one purpose (mainly nature reserves and landscape zoning areas), and the total sum of these areas is therefore exceeds the total area of the coastal zone itself.

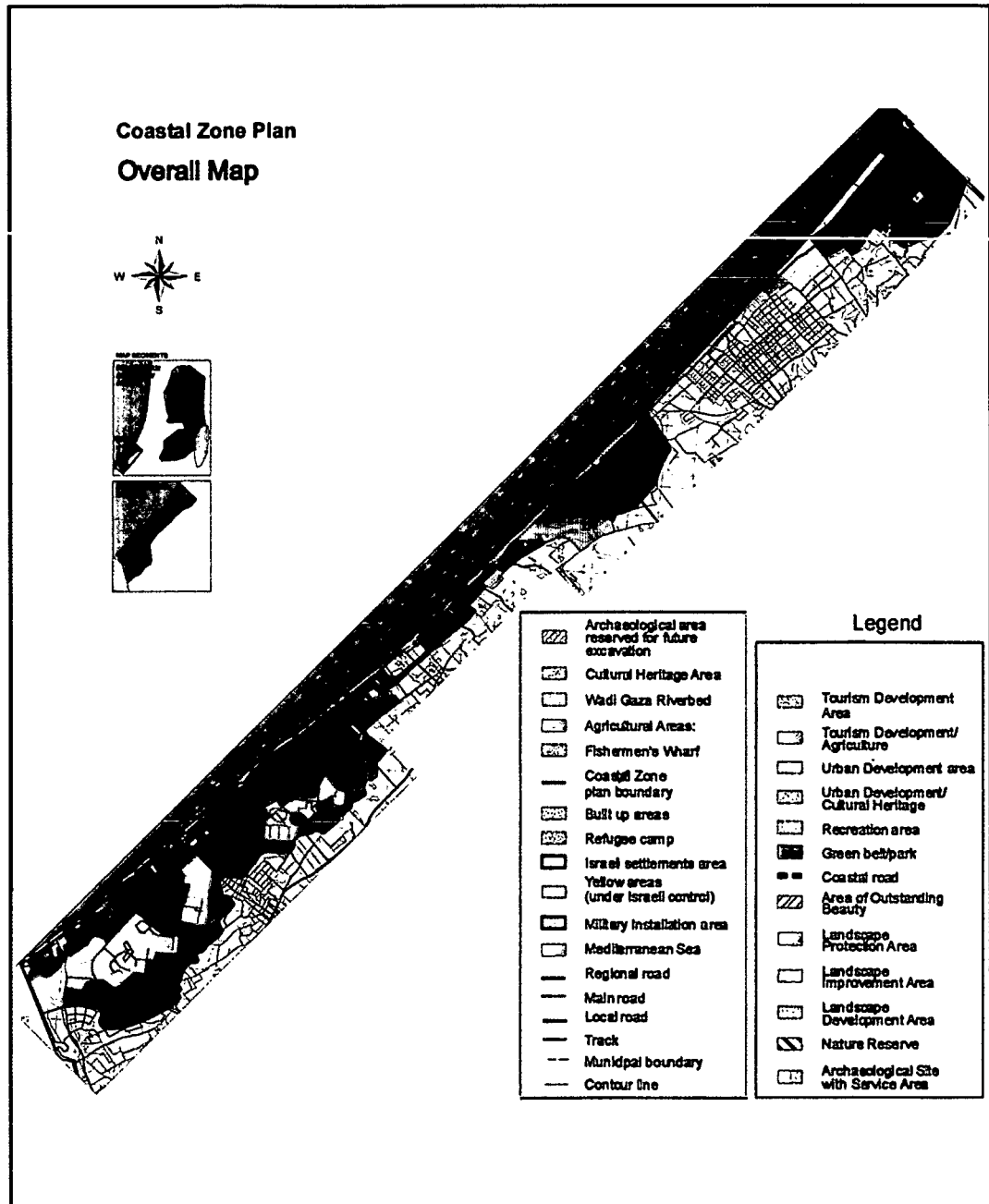


Figure 6.10: The map attached to the Coastal Zone Plan (MOPIC, 1996d)

6.3 Issues of landscape planning and management

Purpose	Current situation	Problems	Planning proposals
Recreation	the beach is intensively used during summer near the population centres	<ul style="list-style-type: none"> • Destruction of beach landscapes by pollution and waste dumping • Random scattered development • Privatization of large zones • Lack of beach service facilities 	Planning for three different areas: 1. priority recreation areas (with services) 2. recreation areas (without services) 3. the Gaza city beach
Nature reserves	As a consequence of the human activities, few areas remain in a pristine natural state, while legislation on nature conservation and environmental protection is largely lacking.	<ul style="list-style-type: none"> • Urbanization • Agricultural developments • Sewage and solid wastes • Pollution • Weakness of environmental awareness 	Planning for nature reserve areas and turtle nesting protection
Landscape areas	The coastal landscapes include the sand beaches, sand cliffs, sand dunes and a series of ridges running parallel to the coast.	<ul style="list-style-type: none"> • Destruction of the landscape by, for example, rubbish dumping and sand quarrying • Unlicensed and scattered constructions. 	Landscape assessments recommendations: protection, improvement, and development actions.
Tourism development,	Tourism is expected to bring major investments and to be a major source of future income. Gaza's shoreline is still largely unspoiled by major developments or towns.	<ul style="list-style-type: none"> • No serious study of tourism's basis and potential has been undertaken. • inflation of land prices and great risks in land speculation • problems of shore pollution and destruction 	Defining areas for different types of tourism development
Urban development	Urban entities in the coastal zone include Gaza City, the refugee camp, and the former Israeli settlements.	<ul style="list-style-type: none"> • Random high-rise constructions • Severe pollution by sewage and rubbish. 	Defining areas for urban developments.
Agriculture	The coastal area is a traditional zone for agricultural production. Agricultural lands in the coastal zone comprise 18.5% of the total agricultural lands in the Gaza Strip but produce 31% of the total production.	<ul style="list-style-type: none"> • The Israeli occupation of large agricultural lands, mainly in the southern part of the Gaza Strip. 	Defining agricultural areas

Table 6.3: Planning issues as presented by the Coastal Zone Plan (Based on MOPIC, [1996d])

6.3.1.8 Regional Plan for Gaza Governorates (1998-2015)

The long-term Regional Plan for Gaza Governorates (RPGG) (covering the period from 1998 up to 2015) was completed in December 1997 and published in a draft form in February 1998. It was not formally approved; however, it has been the most important planning output of Ministry of Planning and International Cooperation and was used in many times as a basis or as a gateway leading to other planning processes on the national, regional or local levels (RPSG, 2005:1). It comprehensively covered several different issues, including the landscapes of the Gaza Strip, and identified the current situation regarding natural resources, infrastructure, the development of urban areas as well as rural areas, etc. Then, it presented future needs according to the goals and aims defined by the planning process. Concerning the landscape, it contains no more than what had been presented in the Landscape Assessment outlined above. The clearest statement was the call for more detailed work in order to protect the natural resources including landscape areas. In General, the plan presented 'Alternatives Regional Development Models' for long term planning up to the year 2015, for which investigations, studies, statistics and analyses were prepared. These alternatives included:

1. The continuation of the current state of disorder,
2. The balanced distribution of population into Gaza Governorates according to the capability of each governorate including the existence of land for urban development,
3. The development of two central cities: Gaza and Khan Younis,
4. Linear distribution along the regional road, and
5. The balanced distribution of population on larger areas with lower densities.

The plan considered the protection of landscapes and areas of natural resources when it significantly overbalanced alternative No. 3 which called for developing high population density into two main urban areas in the Gaza Strip (figure 6.11 shows this proposal on the map attached to the plan).

The plan, however, lacked implementation procedures, and proposals for the detailed locations of urban growth boundaries of the new-planned urban settlements were not defined, and most importantly: an economically and politically strong governmental body to carry on the implementation and management tasks was not established.

The regional plan estimated the lands required for urban development (up to 2015) to be 10360 ha including 1700 ha for tourism and recreational development and 8660 ha for urban development including residential purposes, services, industry and trade,

6.3 Issues of landscape planning and management

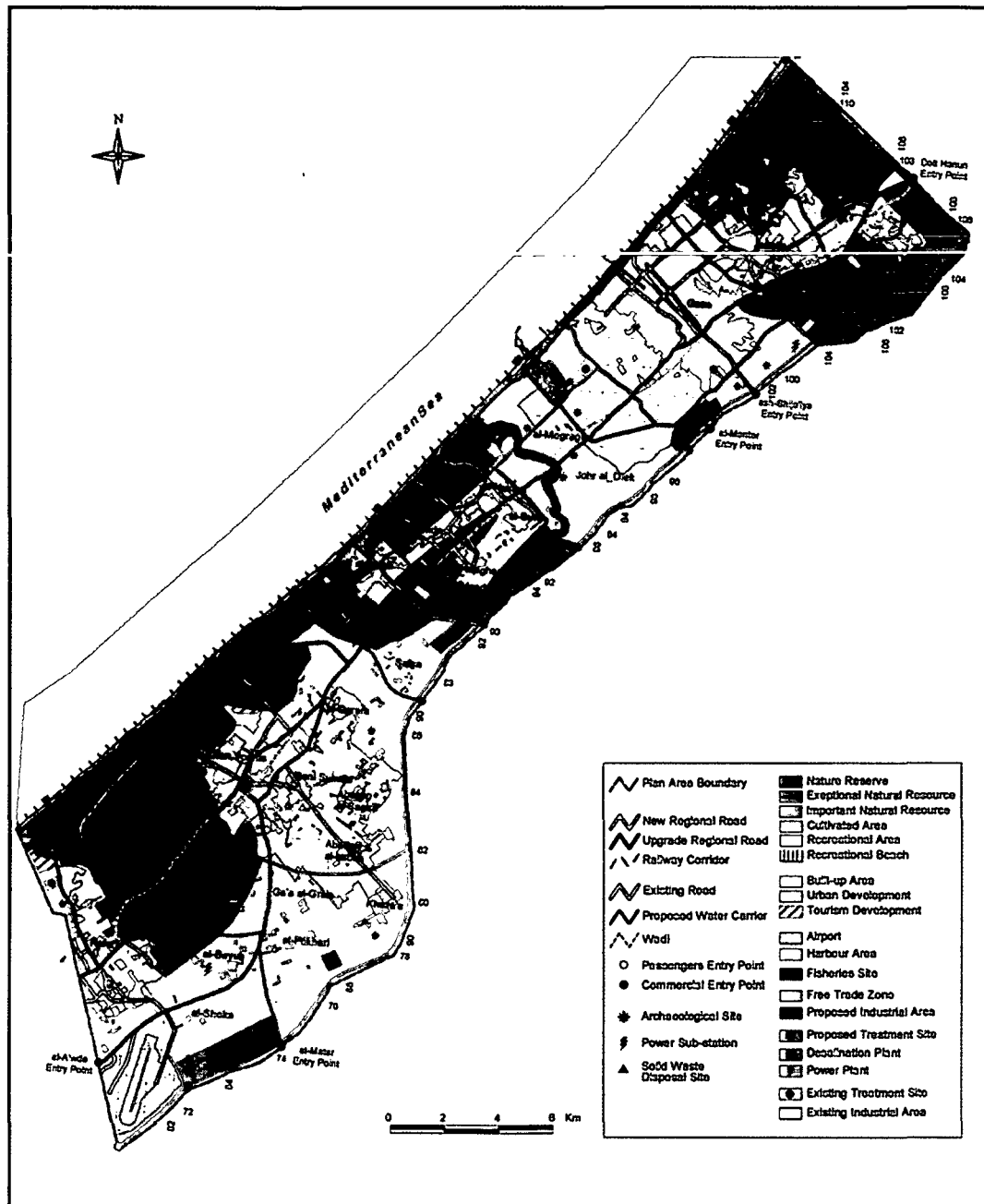


Figure 6.11: The map attached to the Regional Plan for Gaza Governorate (RPGG)(MOPIC, 1998)

6.3 Issues of landscape planning and management

infrastructure and transportation (MOPIC, 1998). This additional area represents 24% of the Gaza Strip area and will be added to the current 19% of urban land composing an urban percentage of 43% of the whole 365 sq. km.

The plan defined three development phases: 1997-2005, 2005-2010, and 2010-2015. As well as being in the heart of building its alternatives, overpopulation and housing challenges were also in the heart of building future solutions. Table 6.4 shows the housing units and the relative areas of 'development lands' needed for the three phases. Besides, plans for other components (including mainly infrastructure facilities) were developed for each phase.

Governorates	1997-2005		2005-2010		2010-2015		Total	
	Housing Units	Area 1000 sq.m.	Housing Units	Area 1000 sq.m.	Housing Units	Area 1000 sq.m.	Housing Units	Area 1000 sq.m.
North Governorate	7000	1960	8530	2388	8615	2412	24145	6760
Gaza Governorate	21124	5928	28586	8004	28914	8096	78643	22028
Deir El-Balah Governorate	6000	1680	11529	3228	11486	3212	29014	8120
Khan Younis Governorate	12114	3390	37057	10376	37871	10604	87043	24372
Rafah Governorate	4571	1280	7729	2164	7843	2196	20143	5640
Total	50830	14240	93430	26160	94729	26520	238988	66920

Table 6.4: Housing units and the relative areas of 'development lands' estimated by RPGG (MOPIC, 1998)

The Regional Plan for Gaza Governorate (1998-2015), in spite of being inactive since its completion in December 1997, has been considered very much as a reference in many cases for several reasons including the following:

- It has been the unique physical plan on the regional level that was produced by a planning institution, which was Ministry of Planning and International Co-operation, and nothing else (with relation to physical planning) was produced afterwards until the new version Regional Plan for the Southern Governorates was issued in July 2005.

6.3 Issues of landscape planning and management

- It has been produced through a considerable long three years) and clear planning process (nothing else was produced using such an organized process) depending on several studies and basics which were prepared specifically for this purpose.
- Foreign planning experts (especially Norwegian) participated in this planning work, and great support (both technical and financial) was offered to this process by the donor countries; the thing that was very much limited afterwards.
- Advanced planning tools and up-to-date maps were used; the opportunity that was offered by the help of donor countries in the beginning but not later.

6.3.2 Planning projects: the second period (1998-2005)

During the first half of the year 1998, and directly after the completion of the Regional Plan for Gaza Governorates in February 1998, Palestinians on both formal and informal levels (more specifically leaders and planning-responsible staff) started believing that they had many more challenges, and that the peace process had not been working well. Israeli withdrawal from Palestinian land stopped and agreements had been suspended. For more than 2 years, the whole situation was very ambiguous and many initiatives were suggested to push forward the peace process which, unfortunately, completely stopped in September 2000 when the second Intifada started. Israeli troops re-occupied large areas of the Palestinian territories causing a lot of physical damage and loss of human life, buildings, and natural features. Since then, the Palestinian Authority has focused on overcoming the inherent severe socio-economic and environmental deterioration and trying to provide the minimum essentials for a decent life. From a physical planning point of view, the second period (1998-2005) can be characterized as 'incremental planning', where planning activities were not more than a series of reactions to the deterioration in Palestinians' political and socio-economic status. This reaction, unfortunately in many cases, was not well-prepared and/or considered because of:

1. the rapid changes that were taking place,
2. the lack of time for planning, and
3. the lack of foreign experts who left the Palestinian Territories because of the war-conditions on the Palestinian land at the same time that local planning experiences have been still limited.

Plans no longer took a strategic view, but concentrated on a 'step by step' approach, mainly to offer job opportunities to unemployed local people by implementing small projects in different sectors. In addition, efforts were directed to rebuild the destroyed

infrastructure and the institutions and buildings of the Palestinian Authority. Landscape and environmental issues were only considered when landscape and environment protection met the requirements of job-creation-projects. Responsibility for planning among the institutional governmental bodies became uncertain, and special planning committees were formed to supervise and prepare each plan. The main examples of the plans produced in this period are outlined below.

6.3.2.1 Environmental Strategy Plan

This document was prepared through a co-operation between the Ministry of Environmental Affairs (MEnA) and the Netherlands Development Agency in July 1999. It consists of a main report for both West Bank and the Gaza Strip¹ and two annexes; one for each area separately. The main report described the context of the environmental planning and management proposals including the political, socio-economic, financial issues, the legal and institutional framework, and the driving forces that are responsible for the environmental challenges and problems. It also presented the environmental strategy plan including some strategic implementation issues, policy instruments, institutional development and capacity building, involvement of NGOs in the implementation process, and regional and international cooperation. Concerning the landscape and aesthetic distortion, this plan set an environmental target which was: 'to protect and rehabilitate the landscape and aesthetic value of the living and natural environment; to raise public awareness towards landscape values and the importance to maintain and protect these for the coming Palestinian generations'. According to the plan, 'the strategy to protect and rehabilitate the landscape includes identification of the Palestinian landscapes with extra-ordinary value and specific characteristics, and formulation of a landscape protection plan that takes into account these landscapes and characteristics'.

6.3.2.2 The Palestinian Development Plan (PDP) 1999-2003

The Palestinian Development Plan (PDP) 1999-2003 had been geared towards realizing development and prospects for the economy in the medium term, while balancing sectoral and territorial needs. It represents the priority programs and projects that needed to be implemented in the years to come to make progress towards establishing the physical and economic infrastructure needed. This plan was supposed to meet the long term Palestinian Development Strategy, which finds its origin in three main

¹ This plan is one of the very few cases that deal with both the Gaza Strip and West Bank together in one document

factors that constitute the pillars of long term development strategy: the human resources, the distinct location of Palestine, and the uniqueness of the time period at which the Palestinians are starting the building and reconstruction efforts of their society and economy. Participation by ministries and authorities was enhanced to gather information and direction related to a sector as a whole from the ministries and authorities most actively involved in that sector. But, first of all a central committee was established and included representatives from ministries of Finance, Economy, Trade, Agriculture, Local Government Affairs, and Public Works as well as The Palestinian Economic Council for Development and Reconstruction (PECDAR). This committee formulated general guidelines and aims for the plan and formed a specialized team to prepare and follow it up.

6.3.2.3 The 100 Day Plan of the Palestinian Government

The 100 Days Plan of the Palestinian Government was supposed to take place mainly in the second half of the year 2002. The main goal of this plan was to support the efforts to build strong base of local institutions in order to resume the peace process negotiations. The plan completely concentrated on local political and legislative issues including publishing the Basic Law. It prepared regulations to be issued to the Governors, submitting the 2003 Budget Law and the Chambers of Commerce, Industry, and Agriculture Law to the Palestinian Legislative Council (PLC). It also dealt with the restructuring of all ministries and government institutions and reforming their operations, and preparations for holding presidential, legislative and municipal elections.

6.3.2.4 The Emergency and Public Investment Plan

The Emergency and Public Investment Plan (EPIP) 2003/2004 was a one-year emergency plan that aimed to stop the severe economic and social deterioration and to offer the minimum essentials for a decent life. It gave the framework and mechanism for choosing projects/ programmes that should meet public demands and respond to basic humanitarian needs. It took into consideration funding limitations and active ongoing donor contributions. The plan concentrated on three main components: the humanitarian side, the rehabilitation of destroyed infrastructure, and revitalization of PNA institutions with much concentration on the first. The plan in general concentrated on Job Creation Programmes (JCP), since they are quick and easy to implement. Longterm Development and Environmental projects are excluded from this plan budget as they are necessarily projects that cannot be completed as part of this one-year emergency plan. However, those small JCP's were linked in some cases to development and environmental themes as they provided jobs in the agriculture, industry and

commerce, tourism and recreation, infrastructure, society, and health and environmental health sectors. Moreover, the environment, unfortunately, was not represented in the committee that prepared this plan, neither as a ministry nor authority despite the fact that more than 15 ministries and governmental organizations participated in this process.

6.3.2.5 Regional Plan for Southern Governorates (2005-2015)

This plan¹ can be described as the 'updated version' of the Regional Plan for Gaza Governorates (1998-2015) where the previous general principles, scenarios, and essential assumptions related to the Regional Plan for Gaza Governorates (1998-2015) have been seen as still coinciding to the new Regional Plan for Southern Governorates² (2005-2015). A map has been attached to the new Regional Plan for Southern Governorates and shown in figure 6.12.

As has been mentioned, the Regional Plan for Gaza Governorates (1998-2015) was not formally approved in spite of the fact that it was used as a basis for other planning processes many times. The increasing deterioration on all social, economic, political, and environmental levels and the rapid and large changes that happened since the beginning of the second Intifada in September 2000, pushed the Ministry of Planning (MOP)³ to redesign the Regional Plan for Gaza Governorates (1998-2015), and to prepare this new Regional Plan for Southern Governorates for the period from 2005 to 2015. The main goal of this new version was to create a general framework for land use accompanied by recommendations and regulations in order to guarantee the most appropriate uses of land at the time the protection of land is undertaken where necessary for both regional and national significance, and to ensure that local demands for housing, infrastructure, public services, industrial and commercial development were met. The plan was based on several political principles which are usually included in all formal Palestinian documents and may not affect the plan directly. Those include:

1. The full Israeli withdrawal from all lands occupied in 1967.
2. All Northern, middle and Southern Governorates compose one geographic entity connected by a passage.

¹The Regional Plan for Southern Governorates (2005-2015) could be obtained (only in Arabic) from the website of MOP (<http://www.mop.gov.ps/ar/index.asp> last accesses on 19.2.2006)

²Governorates of the Gaza Strip are known as Southern Governorates while West Bank Governorates are distributed over the Middle and Northern Governorates.

³Ministry of Planning and International Cooperation (MOPIC) was divided in 2003 into two ministries: Ministry of Foreign Affairs (MOFA) and Ministry of Planning (MOP).

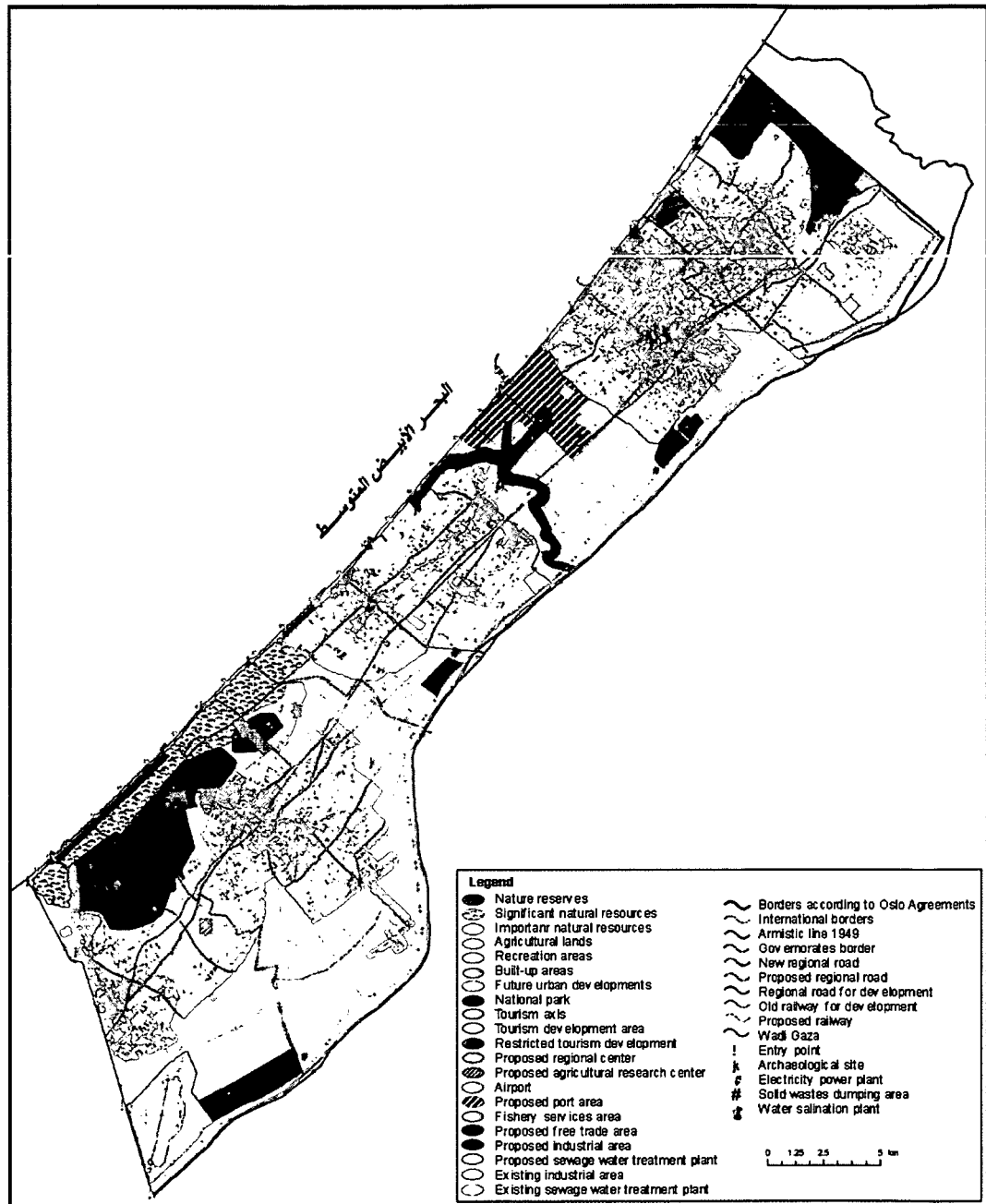


Figure 6.12: The map attached to the Regional Plan for Southern Governorates (2005-2015) (MOP, 2005)

6.4 Lands under the Israeli control in the Palestinian physical planning

3. Movement between all governorates is easily possible and with the international community as well.
4. Full Palestinian control over land, air, water, natural resources, and all entries points is given.
5. Refugee problems would be solved according to UN resolutions.

The plan was drafted few months before the last Israeli withdrawal from the Gaza Strip¹, and therefore, planners focused on this issue strongly and included a separate section to analyse the situation and suggest special solutions for the areas that were under the Israeli occupation as will be presented in the following section.

6.4 Lands under the Israeli control in the Palestinian physical planning in the Gaza Strip

Lands under the Israeli control over the period from 1994-2005 included the Israeli settlements, lands of Area C and other lands which were under full Israeli control². As has been mentioned in section 6.2 on page 142, and according to the peace agreement Oslo Accords II of 1995, jurisdictions over the Israeli settlements were kept under the Israeli authorities and their final status would have been determined in the permanent status negotiations. In addition, Area C and areas under the full Israeli control would have been gradually transferred to Palestinian jurisdiction in three phases. These principal agreements were taken into account when physical planning started in 1994; PEPA (1994) mentioned that the peace process deprived Palestinians from using 22% of the Gaza Strip area. However, more hopes were put on the peace process up to the level that issue of settlements (which is one of the issues to be determined in the permanent status negotiations) was treated as already has been solved and that Israeli settlements have been removed (even by PEPA [1994]). The Gaza Strip was therefore treated in the planning process as one unit with the whole area of 365 sq. km and the Israeli settlements were ignored (e.g. by the Emergency Resources Protection Plan, the Coastal Zone Plan, the Landscape Assessment and the Regional Plan for Gaza Governorates, etc). All these documents treated the settlement areas and Area C as without any restrictions. Most strangely, Landscape Assessment for Gaza Governorates described the methodology used to develop the process of assessment. Field survey was

¹Realized in September 2005 after the Israeli Government had decided to accept the plan known as 'Sharon's Plan for unilateral separation', which implies full Israeli withdrawal from the Gaza Strip.

²In Area C, during the first phase of redeployment, Israel will transfer to the Palestinian Authority civil (but not security) powers and responsibilities not relating to territory. General overview on the peace agreements, can be reached at the United Nations website³

6.4 Lands under the Israeli control in the Palestinian physical planning

described as essential and it clearly excluded urban areas from the areas surveyed which amounted 300 sq. km (MOPIC, 1996c). Israeli settlements and areas under Israeli control were not mentioned by any means. But by excluding the 19% (urban areas mentioned in section 2.2.4 on page 42) of the total 365 sq. km, the remaining 81%, which is about 296 sq. km, should include the Israeli settlements and areas under Israeli control). The methodology to deal with the Israeli settlements was not described at all. Regional Plan for Gaza Governorates did not consider the existence of the Israeli settlements and their location was shown only on one map (out of 40 maps) without any real value or relation to the text. On the other hand, the Regional Plan for Southern Governorates (2005-2015) denoted one separate section to the status of the Israeli settlements, the impacts they imposed on natural resources of the Gaza Strip and the obstacles they create to the planning process especially planning for urban development, recreation, and protection of natural resources. This plan was realistic in considering the existence of the Israeli settlements and, at the same time, denoted a separate section for planning (reintegrating and developing) the areas of the Israeli settlements and the areas under the Israeli control and Area C after the expected Israeli withdrawal according to Sharon's plan for unilateral separation which came into reality two months after the publication of the first draft of the Regional Plan for Southern Governorates. This plan noted, relatively, in details the future planned use of all lands which were under the Israeli control; for example:

1. The plan called for protecting lands over the northern and southern aquifers and for integrating any existing constructions in a tourism plan taking into account protection standards.
2. The plan called for a cultural site replacing the Israeli Settlement 'Netzarim' (close to Wadi Gaza area) and connected to Wadi Gaza landscape protection area to comprise a national park for recreational and cultural purposes.
3. Other settlements were recommended to be replaced by agricultural research centre (Merag) or to agricultural lands (Kfar Darom).
4. Most houses should be removed for several reasons such as the improper horizontal system and the improper use of land as a first priority, etc.

In conclusion, the map accompanied to the Regional Plan for Southern Governorates (2005-2015) does not have many differences from the one accompanied to the Regional Plan for Gaza Governorates (1998-2015) concerning lands which have been under the Israeli control for the last 12 years. However, the Regional Plan for Southern Governorates obviously considered these lands according to their real status and consequently

gives details on this issue. In fact, it is not only the Israeli settlements which have not been detailed in the planning documents, but several other issues that even cover the theoretical base upon which landscape planning in particular and physical planning in general were developed. Implementation and management plans for each plan is one among the most important topics ignored by the planning outputs presented in this chapter.

6.5 Conclusion

This chapter presented a wide review to the activities of physical and landscape-related planning that were undertaken in the Gaza Strip within the period 1994-2005 including the structure of the administrative official planning bodies and related organizations (with concentration on the regional level), and the legal basis used to construct the planning process and develop plans. In addition, documents and publications related to land use and landscape planning that were prepared by these bodies and organizations have been noted and the main points have been briefly mentioned.

The first planning initiatives in the first period were indeed promising from different points of view, but particularly from environmental-related issues point of view. The hopes to build a developed state were great and the Palestinian Authority accepted foreign help from the developed countries in order to construct strong foundations; especially due to the extreme lack of local professionals. Spatial plans considered the output of the peace process as well as the expected final status. Therefore, the Gaza Strip, for example, has been thought about as one unity without any Israeli settlement; the thing that came to reality only in September 2005. Planning concentrated on the regional scale because nation recognition was uncertain. This is particularly because of the political conditions that completely separate the West Bank from the Gaza Strip and, at the same time, left both of them, but especially the West Bank, without a clear status. Planning in the Gaza Strip (as a process) has been easier from both theoretical and practical point of views; however, unfortunately planning has not reached advanced stages of approval and implementations, mainly because of the responsibility challenges (especially for approval). In general, and from physical planning point of view, the Regional Plan for Gaza Governorate relied very much on the earlier planning initiatives and replaced them. It was developed under positive circumstances; nevertheless, it was not formally approved and consequently was not implemented. The following summarizes the main points of this chapter.

- Regional plans had to be approved by the highest political body (i.e. the president) in order to enter into force, while local plans (master plans) had to be

approved just by Minister of Local Governance. This resulted in difficulties to approve and implement regional plans. Moreover, Ministry of Local Governance had not cross border plans.

- Most of planners who carry on most of the planning activities were either local participants with different specializations and experiences, other than planning, and with limited planning experience or foreign experts who lack complete knowledge on local culture.
- Landscape planning as such was completely absent as a distinct independent issue within the planning undertaken by Palestinian Authority in the period in question. However, the landscape was included in many general and related fields and sometimes specific emphasis has been put on landscape-related issues. More stress was actually put on the visual aspects in landscape-related planning than in wider ecological, biological, and human aspects. These were introduced only by concentrating on their visual effects but not on the actual ecological and biological processes that produced the landscape of the Gaza Strip over hundreds of years.
- Physical planning (specifically with relation to landscape and environmental planning) can be categorized into two main periods: the first from 1994 to 1998 and the second from 1999-2005. At the beginning of the planning process, a lot of attention was paid to protecting the environment and natural resources from becoming degraded, and Palestinians got benefited from the financial help they received from the donor countries and from the planning experience of developed countries such as Norway and the Netherlands (examples of this first period include the Emergency and resources Protection Plan, the Landscape Assessment for Gaza Governorates, The Coastal Zone Plan, the Gaza Land Resources, and the Regional Plan for Gaza Governorates). Physical planning was then characterized by long-term comprehensive planning features. In the second period, this attention to landscape and environmental issues decreased and the political and socio-economic issues were in the focus of the planning interests (examples of this period include The Palestinian Development Plan, The 100 Days Plan of the Palestinian Government, and The Emergency and Public Investment Plan). Planning in this period was then characterized by short-term (sometimes, very short) incremental planning.
- The main problems and challenges which were considered in the planning outputs in the first period (e.g. the Gaza Land Resources, the Regional Plan for Gaza Governorates) were associated with the demographic problems and challenges;

i.e. the population-urban growth. In the second period, the great emphasis was put on the socio-economic problems and challenges.

- The planning process, in terms of its organization and consequence, was not clarified in the planning documents and outputs; however, it is possible to follow some of these; e.g. the Regional Plan for Gaza Governorate included the process of building institutions, collecting data, analysing collected data, developing aims and objectives, and designing the plan including development phases.
- Planning process and outputs showed a clear independence and lack of laws, policies, regulations, and enforcement instruments.
- At the same time, no support from local non-governmental organizations and universities was provided to the planning system, and there was only a little financial support to create jobs and construct a few vital projects. However, consultations from foreign planning organizations (such as IWACO BV¹ of the Netherlands, Asplan Viak of Norway², ect) were offered to the Palestinian Authority.
- Approaches used in the planning process were rarely defined but when happened, they were clear; e.g. the Gaza Land Resources relied on the scenario approach to produce the physical model and the Regional Plan for Gaza Governorates used the alternative approach in the plan design to reach the most appropriate solution.
- The two regional plans produced in 1998 and 2005 show great similarities in principles in spite of the great gap between the conditions of the time when each was designed. The Regional plan for Gaza Governorates (1998-2015) has not been implemented for more than 8 years because of several reasons among which one or more of the following ones:
 1. The mixing between scenarios and alternatives and, consequently, ignoring the scenario of extreme conditions which distinguished the situation for the last eight years,
 2. The ignorance of implementation and management plans, and / or
 3. The lack (or absence) of public awareness and participation.

The next chapter will go on to make analysis on the planning outputs presented in this chapter by making comparisons among the different plans concentrating on landscape

¹An independent Dutch consultancy firm for water and environment (www.iwaco.nl)

²Consulting firm for several matters including mapping solutions and urban planning and design (www.asplanviak.no)

and land use issues besides analysis of some reflections on landscape planning in the Gaza Strip over the study period.

Chapter 7

Analysis of landscape planning in the Gaza Strip

The planning outputs which have been presented in the previous chapter have several meeting points and coincidences, but also several differences and collisions. They also have several strong nodes but also many weakness ones. This chapter clarifies these cases and gives analysis and looks to the different issues from different angels. Relationships among the planning outputs have been first concentrated upon. Then, analysis of the reflections from several meetings and interviews with planning professionals and participants in the planning process is presented. These meetings were held in the Gaza Strip in February 2004 to explore the different concepts used in developing the planning documents and to investigate the conditions under which the whole planning activities were undertaken. A separate section in this chapter presents the main structure of these meetings and interviews besides the main results accompanied by analysis and comments. All discussions and analysis in this chapter are hence concerned with issues related only to the Gaza Strip; i.e. analysis from a wider theoretical point of view is not included in this chapter and will be presented in chapter 9.

7.1 Relationships among the planning outputs in the Gaza Strip

This section clarifies the relationships between the planning outputs presented in the last chapter with the emphasis put on the most important plans, among which the Regional Plan for Gaza Governorates (1995-2015) is significant from different points of view as has been noted in sec 6.3.1.8 on page 165. The Regional Plan for Southern Governorates (2005-2015) is the modified version and is expected to replace the old one. In order to avoid confusion between these two plans, the old one will be mentioned hereinafter as 'RPGG-1998', while the new one will be mentioned as 'RPSG-2005'. Other plans are also due to further discussions. The General Housing Plan (1995-2015) has a special significance because it has partially been implemented as has been

7.1 Relationships among the planning outputs in the Gaza Strip

mentioned in section 6.3.1.3 and as will be detailed in section 8.2.1 from actual-changes viewpoint.

7.1.1 Relationships between the RPGG-1998 and other planning outputs

As presented in the previous chapter, the RPGG-1998 is a good base that other planning outputs can be compared to. Meetings points and / or conflicts between the RPGG-1998 and other planning outputs are thus shown in the following discussion.

7.1.1.1 The RPGG-1998 and the Emergency Resources Protection Plan (ERPP)

The RPGG-1998 obviously relied on (but did not completely adopted) the findings of the Emergency Resources Protection Plan. Comparing the maps of the two plans (see figure 7.1) shows that the main differences include the following:

1. The areas which were defined by the ERPP as tourism and recreation areas got more attention as nature reserves and exceptional natural resources areas by the RPGG-1998. These areas are generally located on the Gaza Strip coast as defined by both plans; however, the depth from the coast inside the Gaza Strip varied from one plan to the other; it's much wider in the ERPP. The port to the sea and the lands planned for its services were not considered by the ERPP which allocated the lands proposed by the RPGG-1998 for this purpose as tourism and recreation areas.
2. The lands Southern of the city Khan Younis were proposed by the RPGG-1998 as nature reserves while they were defined by the ERPP as agricultural lands with high quality.
3. The lands eastern of the urban settlements in central Gaza Strip were proposed by the RPGG-1998 as nature reserve areas, while they did not got any specific attention by the ERPP.

7.1 Relationships among the planning outputs in the Gaza Strip

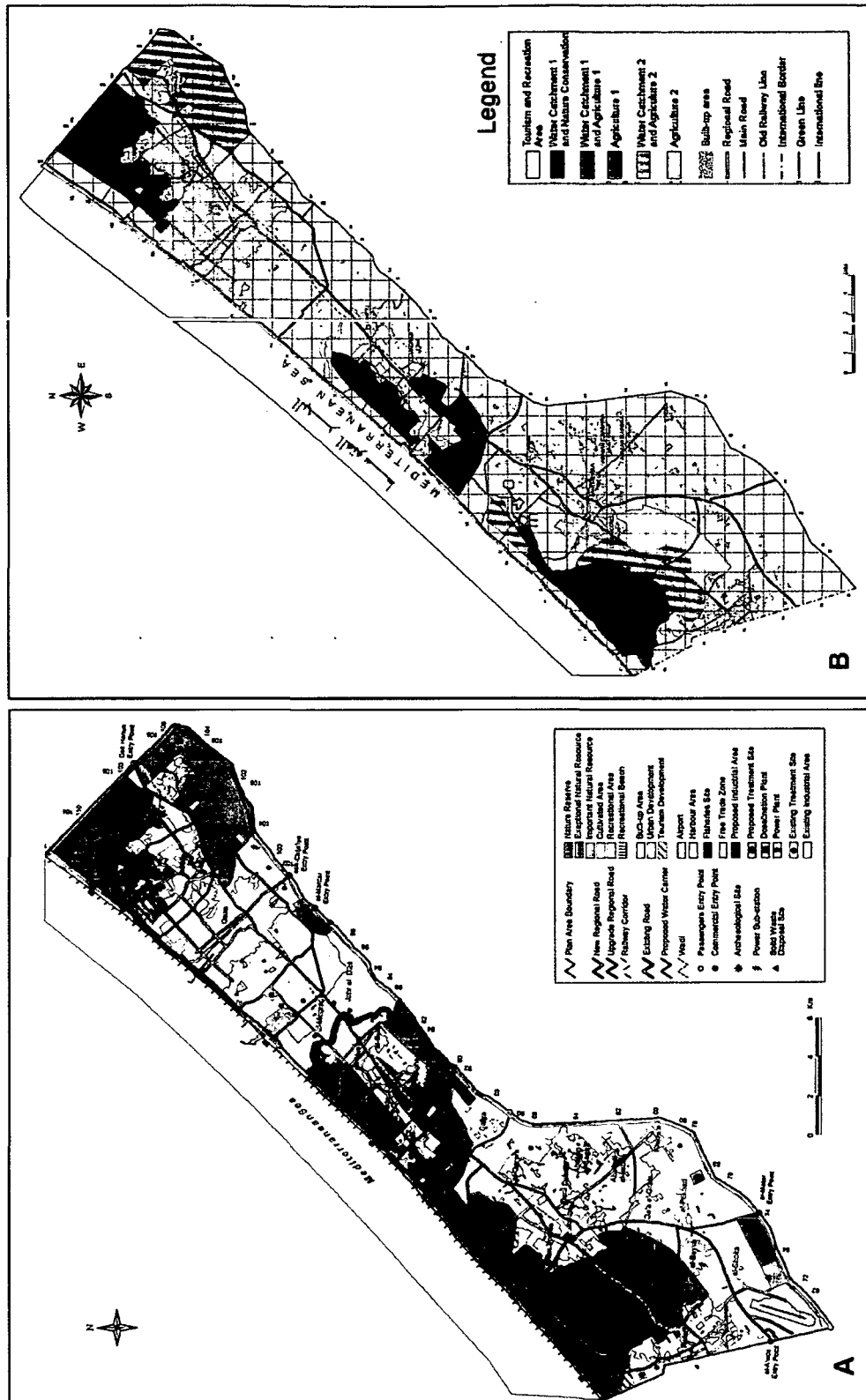


Figure 7.1: Maps of both RPGG-1998 (A) and ERPP-1995 (B) presented for comparison purpose

7.1 Relationships among the planning outputs in the Gaza Strip

Many meeting points between the two plans could, however, be thought about. Important nature reserve areas in the north and south of the Gaza Strip represent one meeting point; nevertheless, and looking from the contradicting angle, the agreement regarding large areas in the eastern and south-eastern parts of the Gaza Strip (as less important areas from natural resources point of view) is obvious. The ERPP called for protection of limited areas in the north-eastern part and nothing for the other eastern and south-eastern areas which, generally speaking, were planned as cultivated areas by the RPPG-1998. Specific locations in these areas were proposed by the RPPG-1998 for other developments such as the airport (which was constructed in 1996 and opened in 1997 for the first time) and other proposed industrial and free trade zones (which have not been realized yet). This point in particular will be concentrated upon in the following comparison.

7.1.1.2 The RPPG-1998 and the Landscape Assessment (LSA)

The RPPG-1998 for Gaza Governorates redefined the landscape quality of the Gaza Strip into three grades which have differences from the three grades defined by the LSA. Figure 7.2 on page 183 shows landscape grades presented by both RPPG-1998 and the LSA for comparison purposes. The differences between the two maps are obvious in four locations:

1. Southern part of the Gaza Strip, which was categorized in grade 3 in the RPPG-1998 and in grade 1 and 2 in the LSA
2. Eastern Gaza city, which was categorized in grade 3 in the RPPG-1998 and in grade 1 in the LSA
3. Southern Gaza City, which was categorized in grade 3 in the RPPG-1998 and in grade 2 in the LSA
4. Southern Khan Younis city which was also categorized in grade 3 in the RPPG-1998 and in grade 2 in the LSA

7.1 Relationships among the planning outputs in the Gaza Strip



Figure 7.2: Landscape grades as defined by both RPPGG-1998 (A) and LSA-1996 (B)

7.1 Relationships among the planning outputs in the Gaza Strip

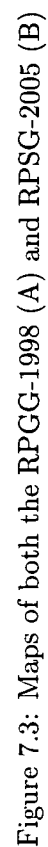
Referring to the ERPP which has been compared to the RPPG-1998 in the last section, the areas in the south-eastern part of the Gaza Strip and eastern and southern Gaza city did not have any significance from natural resources point of view; natural resources included (according to the ERPP presented in section 6.3.1.4 on page 154) five natural resources one of which is unique undisturbed landscapes (presented in the LSA as 'grade 1 landscapes'). This overbalances the categorization of the RPPG-1998 (grade 3) regarding these three areas. However, these areas are agricultural lands, and, at the same time, not with high quality to be considered as natural resources. Categorizing these lands by the RPPG-1998 in grade (at least) 3 has been a pre-condition to propose urban developments (such as the airport and industrial area) in these areas. But, for sure, this was not the reason standing behind this categorization; the evidence is that other important developments (such as the port) were proposed by the RPPG-1998 over lands categorized (also by the RPPG-1998) in grade 1. Therefore, the reasons that can be thought about include:

- Developments that took place over the time between the publications of the two documents (about two years between early 1996 when the survey for the LSA was made and late 1997 when the RPPG-1998 was developed) resulted in the changes in the landscape quality.
- The time which was given to develop the RPPG-1998 was longer and the different studies and surveys were better analysed and prepared.

7.1.1.3 The RPPG-1998 and RPSG-2005

The situation in the Gaza Strip over the study period witnessed several changes with relation to land. Nevertheless, principles of the RPPG-1998 (presented in section 6.3.1.8 on page 165) were seen by the RPSG-2005 (presented in section 6.3.2.5 on page 171) as very-well working foundations. Comparing these two plans makes it clear that only slight changes have been considered (figure 7.3 includes the two plans maps for comparison purposes). Similarities between the two plans include:

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7.1 Relationships among the planning outputs in the Gaza Strip

- Both plans adopted the high density two-urban-settlements as a basic approach to construct the main strategy.
- Both plans proposed the areas occupied by the Israeli settlements to be developed for nature reserves and recreation and tourism purposes.
- Both plans proposed the same locations for industrial activities, and agricultural lands were kept more or less the same.
- Both plans ignored the development of a time plan, an implementation plan, or a management plan.

Few marginal differences, however, do exist between the two plans. The area planned for the port is bigger in the RPSG-2005 and a new tourism development area is proposed northern of Gaza city. A national park has also been proposed by the RPSG-2005 in the northern part of the Gaza Strip besides several tourism axes in Khan Younis and Rafah areas. This indicates that the RPSG-2005 paid a significant attention towards recreation and tourism developments.

Nevertheless similarities, in general, are much more than differences. This means that the RPPG-1998 was good and the problem of being not completely implemented has been related to other different aspects; e.g. with the approval procedure or (in other words) the political body. However, other reasons can also be thought about; for example:

- The new planning staff is in reality the previous one who developed the old plan and has nothing new to add
- Foreign experts who participated effectively to the old plan, and who could be able to modify the plan, have not been available any longer.
- Time and financial resources were used efficiently to evaluate the old plan professionally.
- Evaluation process was professionally undertaken and resulted in a clear need to redesign the RPPG-1998, but time and financial resources were used efficiently to redesign the old plan and to accept the plan as it is.
- Difficulties to obtain recent data limited the amount of new inputs and consequently the amount of new outputs.

7.1 Relationships among the planning outputs in the Gaza Strip

RPSG (2005) mentioned that the RPGG-1998 was reviewed and evaluated in detail by a local Palestinian team from almost all ministries and authorities (this indicates that professionalism was limited because local planning professionals have been lacking in the Gaza Strip as will be discussed in detail in section 9.1.5 on page 232). At the same time, no evaluation process had been started in February 2004 when meeting and interviews were held in Gaza Strip (these meetings and interviews are due to discussion in detail in section 7.2 on page 193). Both evaluation of the previous plan and design of the new one were therefore developed in less than 15 months (between March 2004 and July 2005). The document of the RPSG-2005 shows a very-well analysis and evaluation of the previous plan as well as of the changes happened through time; however, this was not reflected in the plan. For example, areas swept by the Israeli army was clearly noted in the plans document and defined on a separate map (see figure 8.5 on page 219); however, nothing was proposed to rehabilitate these lands. One can thus conclude that evaluation of the RPGG-1998 was undertaken more on the expense of the design of the RPSG-2005.

7.1.2 Comparing the General Housing Plan (1995-2015) to other planning outputs

The Housing Plan could be analysed and compared to the RPGG-1998 regarding more than one issue. With significance to this study are the land use and the landscape quality. Housing projects have been planned to be constructed over lands proposed by the RPGG-1998 as nature reserves, cultivated areas, urban developments or built-up areas. Figure 7.4 includes all housing projects projected over the map of the RPGG-1998. Table 7.1 gives details on housing projects and the respective land use as proposed by the RPGG-1998. According to this table, areas of housing projects are distributed over the four land uses mentioned above as follow: 26% (2260 du) in nature reserves, 24% (2139 du) in urban developments, 6% (503 du) in built-up areas, and 44% (3907 du) in cultivated areas. Areas of housing projects planned in land uses with landscape feature include those planned in the nature reserves and cultivated areas with a total of 70% (6167 du) of the areas of all housing projects.

The RPGG-1998 included assumptions regarding housing units. For comparison purposes table 7.2 has been extracted from figure 7.4. Based on the two tables and the figure, the following comments can be developed:

- Already-constructed housing units (according to the Housing Plan) did not match housing demands which were proposed by the RPGG-1998 which clearly and significantly emphasized the need for housing units in the early periods of the establishment of the Palestinian Authority when the population growth rate was

7.1 Relationships among the planning outputs in the Gaza Strip

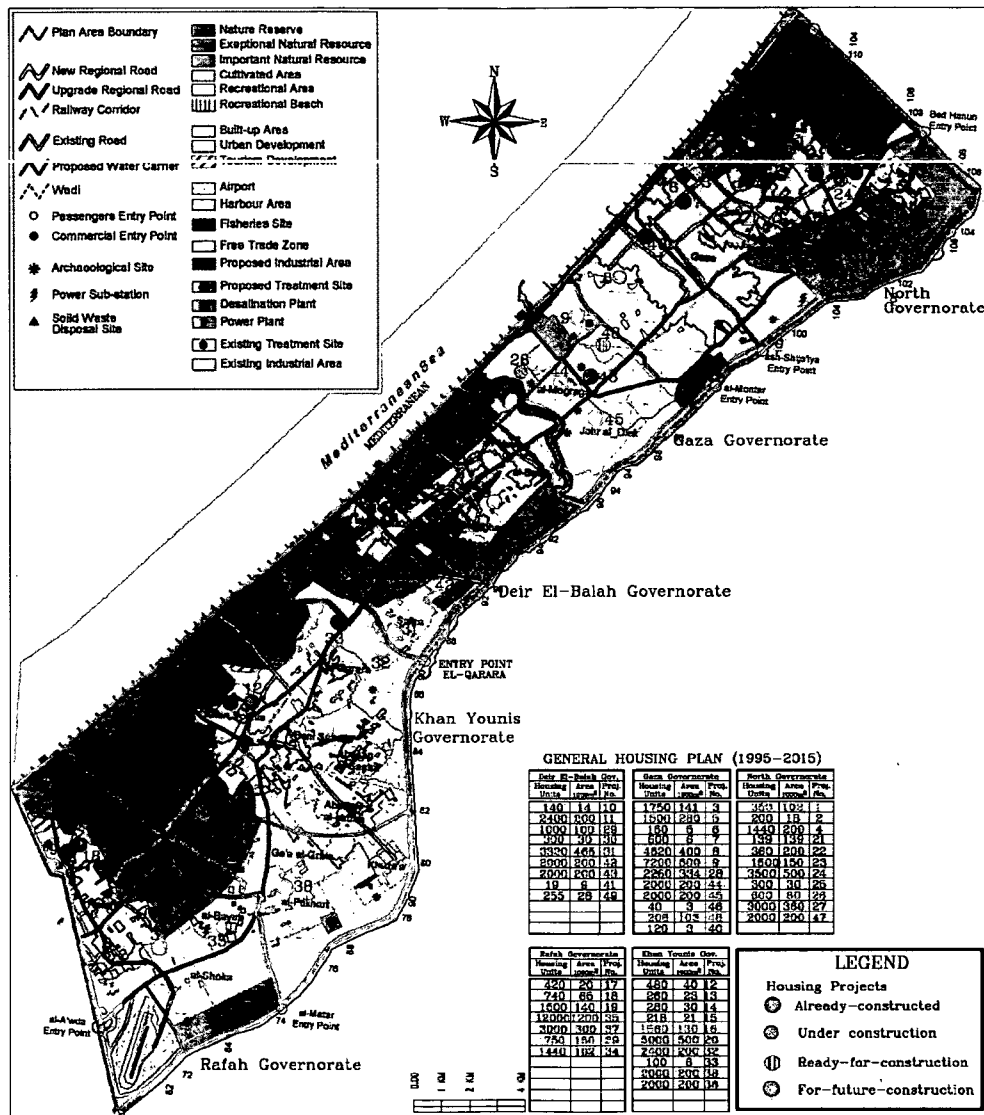


Figure 7.4: Status of Construction of housing projects comparing to land use

7.1 Relationships among the planning outputs in the Gaza Strip

Gov.	North				Gaza				Deir El-Balah				Khan Younis				Rafah				Total					
LU	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	Final	
NR	400	139	102	200					37			630			130	500				102	457	139	232	1432	2260	
UD	378	500			3	541	383					100	84						150		465	1041	533	100	2139	
BA	30	150	60		14				14				30								293	150	60	0	503	
CA						334		1000				465	8			600				1500	8	334	0	3565	3907	
Total	808	789	162	200	17	875	383	1000	51	0	0	1195	122	0	130	1100	225	0	150	1602	1223	1664	825	5097	8809	
Final	1959				2275				1246				1352				1977				8809					
Status of construction (SOC): AC: Already Constructed UC: Under Construction RC: Ready to be constructed FC: For Future Construction LU: Land use: NR: Nature reserve CA: Cultivated area UD: Urban development BA: Built-up area																										

Table 7.1: Distribution of housing areas proposed by the General Housing Plan over different land uses proposed by the RPGG-1998

Gov.	North				Gaza				Deir El-Balah				Khan Younis				Rafah				Total					
LU	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	Final	
NR	1800	139	350	2000					274			6700			1560	5000	420			1440	2494	139	1910	15140	19683	
UD	3200	3500			40	6370	1706					1000	958						750		4198	9870	2456	1000	17524	
BA	300	1500	600		880				140				280				2240				3840	1500	600	0	5940	
CA						2260		11200				3320	100			6400				15000	100	2260	0	35920	38280	
Total	5300	5139	950	2000	920	8630	1706	11200	414	0	0	11020	1338	0	1560	11400	2660	0	750	16440	10632	13769	4966	52060	81427	
Final	13389				22456				11434				14298				19850				81427					
Status of construction (SOC): AC: Already Constructed UC: Under Construction RC: Ready to be constructed FC: For Future Construction																										
LU: Land use: NR: Nature reserve CA: Cultivated area UD: Urban development BA: Built-up area																										

Table 7.2: Distribution of housing units proposed by the General Housing Plan over different land uses proposed by the RPGG-1998

7.1 Relationships among the planning outputs in the Gaza Strip

expected to be higher because not only the natural increase in population but also due to the immigration towards the Gaza Strip from worldwide after the peace agreements had been signed and come (partially) into force (MOPIC, 1998:17)¹.

- When comparing the whole housing units planned by the Housing Plan (which is 81427 housing units) to the housing demands presented by the RPGG-1998 (which is 238988 housing units), a big difference is obviously seen. This reflects a failure to meet housing demands in the previous periods and a big failure in cooperation and consultations among responsible administrative bodies.
- The RPGG-1998 adopted the alternative that support the establishment of two urban centres in the Gaza Strip; one in the north (Gaza area) and the other in the south (Khan Younis area). In the Housing Plan (1995-2015), Gaza Governorate was planned to have the largest number of housing units and consequently the largest areas. Areas which were set for housing projects in all governorates are actually larger than the areas which were set to Khan Younis governorate except those of Deir El-Balah Governorate. So, if the Housing Plan (1995-2015) would have been completely implemented, the objective of developing two urban settlements in the Gaza Strip would not have been met.

The General Housing Plan (1995-2015) could also be analysed with respect to the landscape areas and landscape grades considering the categorization done by the RPGG-1998. In figure 7.5, areas of the three levels of landscape quality have been projected on the housing plan and the grade of the landscape quality is shown for the location of each project in the tables attached on the map. Some of these projects were already constructed and others are under construction while the remaining has to be constructed in the future. Data included can be summarized in table 7.3 and illustrated in the chart in figure 7.6. Comments on these figures, tables, and charts include the following:

- Areas of housing projects as planned by the General Housing Plan can be distributed among the three landscape grades and the built-up areas as follows: 22% (1916 du) in grade 1, 14% (1265 du) in grade 2, 58% (5125 du) in grade 3, and 6% (503 du) in built-up areas.
- About 33% (2887 du) of the total area of housing projects (which is 8809 du) were either constructed or under construction; that means that original land use of these areas has been already changed.

¹This point is due to further discussion when actual changes of the landscape and land use are discussed in section 8.4 on page 221.

7.1 Relationships among the planning outputs in the Gaza Strip

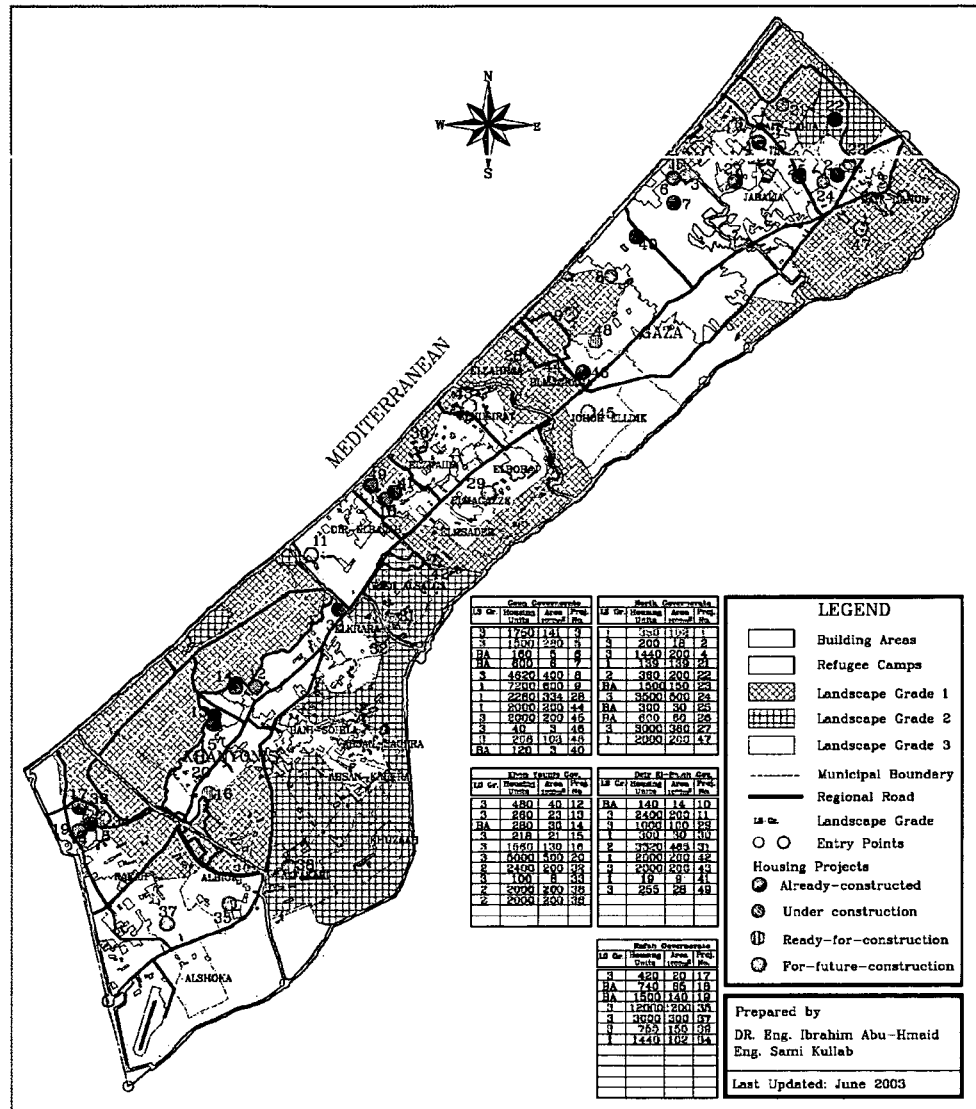


Figure 7.5: Locations of housing projects compared to landscape grades

7.1 Relationships among the planning outputs in the Gaza Strip

Gov.	North				Gaza				Deir El-Balah				Khan Younis				Rafah				Total				
LS grades	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	AC	UC	RC	FC	Final
GR. 1		139	102	200			334	800	9			230								102	148	334	102	1332	1916
GR. 2	200											465				600					200	0	0	1065	1265
GR. 3	578	500			3	541	383	200	28			500	92		130	500	20		150	1500	721	104	663	2700	5125
BA	30	150	60		14				14				30				205				293	150	60	0	503
Total	808	789	162	200	17	875	383	1000	51	0	0	1195	122	0	130	1100	225	0	150	1602	1223	1664	825	5097	8809
Final	1959				2275				1246				1352				1977				8809				

LS Grades: Landscape Grades GR1: Grade 1 GR2: Grade 2
 GR3: Grade 3 BA: Built-up Area
 Status of construction (SOC): AC: Already Constructed UC: Under Construction
 RC: Ready to be constructed FC: For Future Construction

Table 7.3: Details on housing projects compared to landscape grades

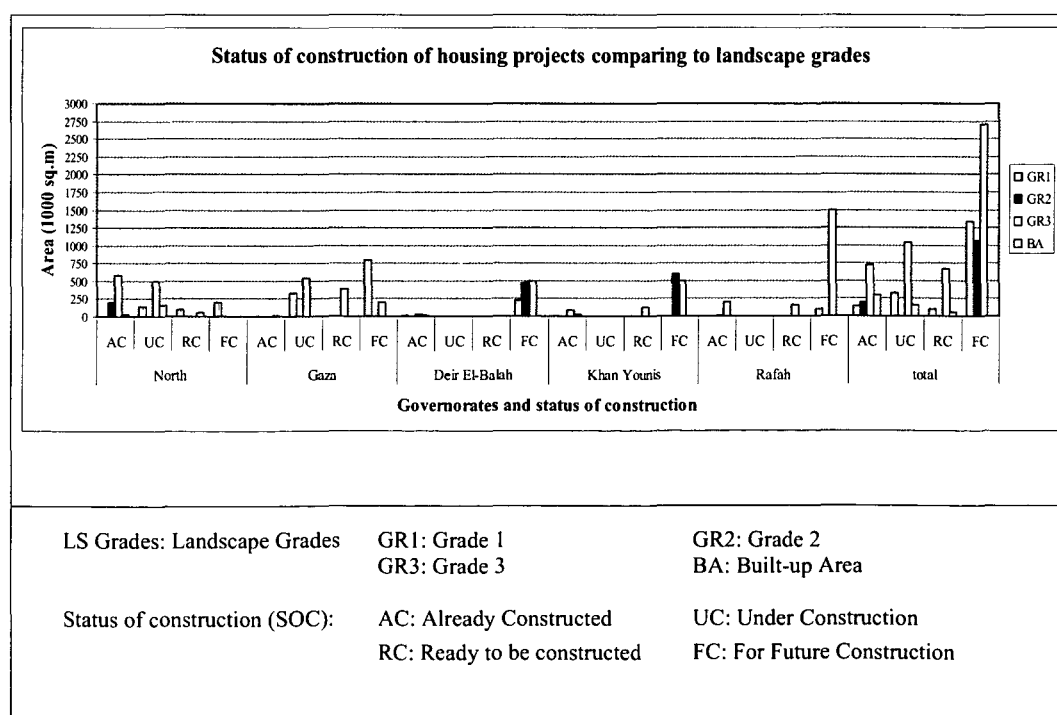


Figure 7.6: Chart on housing projects compared to landscape grades

7.2 Analysis of the reflections on landscape planning in the Gaza Strip

- The biggest challenge is with projects to be constructed in the future, and in particular the projects that are ready-for-construction. 27% will be constructed in grades 1 and 2, and 31% will be constructed in grade 3. Only 1% will be constructed in existing built-up areas.
- Referring to the table of appendix L on page 310, it is obvious that the largest 'area/unit' (i.e. low-density residential development) are found in the housing projects No. 21, 22, 48, 41, and 1 (table 7.4 shows data related to these projects). Unfortunately, the largest two projects (No. 21 and 22) have been under-constructed and already-constructed respectively in the North governorate in areas proposed by the RPGG-1998 as 'important nature reserves'. Moreover, project No. 21 was allocated in grade 1 area, as proposed by the landscape assessment, while project No. 22 was allocated in grade 2 landscapes. Project No. 41 was also constructed in important nature reserves (as proposed by the RPGG-1998) and on the periphery of grade 1 landscapes (as proposed by the landscape assessment). The last two projects (No. 1 and 48) had not been constructed in June 2003, but planned in landscapes grade 1 and 3, respectively. Summarizing this points leads, once again, to realize that the General Housing Plan had conflicts with the other plans regarding land use, and protection of natural resources. Besides, the strategy to establish high density urban developments to protect natural resources (which was set by the RPGG-1998) has not been considered by this plan.

7.2 Analysis of the reflections on landscape planning in the Gaza Strip over the study period

As has been mentioned in the introduction of this chapter, quite a few meetings and interviews with local 'planners' took place in February 2004, where attention towards landscape planning in the Gaza Strip over the period from 1994 to 2003 (the RPSG-2005 had not been developed at that time) was the focus of these meetings and interviews besides general aspects related to landscape planning. The main aim of these meetings and interviews was therefore to answer questions which were not answered in the planning documents (presented above) and to give clearer interpretations to the different concepts used in developing the planning documents (most of which have been presented above) especially the concepts related to the perception of landscape planning as either a theoretical concept or a reality. The aim was also to investigate the conditions under which the whole planning activities were undertaken and which were not

7.2 Analysis of the reflections on landscape planning in the Gaza Strip

Proj. No.	Housing Units	Area 1000 m ²	Area m ² /unit	Land Use	SOC	OSH	MLC	GOV
1	350	102	291	NR	RC	▽	2	N
21	139	139	1000	NR	UC	▽	2	N
22	360	200	556	NR	AC	▽	MoLG	N
41	19	9	474	NR	AC	□	12	D
48	206	103	500	UD	RC	□	4	G
NR: Important nature reserve SOC: Status of construction: AC: Already Constructed UC: Under Construction RC: Ready to be Constructed OSH: Ownership of Land: □ Private ▽ Governmental				MoLG: Ministry of Local Governance MLC: Municipalities and Local Councils 2: Beit Lahia Municipality (N) 4: Gaza Municipality (G) 12: Deir Al-Balah Municipality (D)			GOV: Governorates: N : North G : Gaza D : Deir El-Balah	

Table 7.4: Housing projects with the largest 'area/unit'

obviously included in the planning documents. In particular, the lack of implementation was given a special attention to explore reasons of this shortage. These meetings and interviews were thus an attempt to overcome any shortage in the planning outputs and, at the same time, to listen to interpretations as well as local crisis from both inside and outside the planning bodies, and specifically for this reason, those who were the target of these meetings and interviews were selected to comprise two main groups: the first includes three planning professionals who did not participate in any of the national or regional planning activities in this period, and the second includes seven of those individuals who participated in the planning activities, but unfortunately they could not be described as planning professionals as they originally came with other backgrounds such as architectural- and constructional- engineering. The main points that were discussed with both groups included (see appendix J on page 304 for more details):

1. The angle from which they were looking to landscape; i.e. landscape values (a: visual, b: cultural, c: ecological, d: totality, e: none)
2. The angle from which they were looking to, and practice, planning (a: purposeful activity, b: alternatives, c: options to decision makers, d: policies and laws, e: none)

7.2 Analysis of the reflections on landscape planning in the Gaza Strip

3. The amount of attention landscape planning got in the planning process in the Gaza Strip (a: very much, b: considerable, c: small, d: nothing)
4. The institutions that was supposed to develop landscape planning process (a: MOP, b: EQA, c: MOLG, d: none)
5. The effective factors on urban and rural planning issues (a: political, b: social, c: economic, d: all)
6. The challenges, problems, and influencing factors which had negative effects on urban and rural planning (a: related to aims and goals, b: related to approaches and methodologies, c: related to tools and instruments, d: related to public participation, e: related to public awareness, f: related to lack of planning experts)
7. The challenges and problems which had negative effects on implementation (a: management process, b: management experts, c: Israeli occupation, d: lack of public participation and awareness, e: others)
8. Defining areas of specific changes in the Gaza Strip (a: Wadi Gaza, b: North Gov., c: others)
9. The challenges facing the process of enacting policies (a: lack of experts, b: Israeli restrictions, c: approval process, d: responsibility, e: others)
10. Challenges facing the implementation of plans and policies (a: management, b: enforcement, c: Israeli restrictions, d: public response, e: responsibility, f: others)
11. Participation and existence of Non-governmental organizations in the planning system (a: great, b: considerable, c: rare, d: not at all)
12. Quality of Landscapes of the Gaza Strip (a: outstanding, b: good, c: disturbed, d: different)
13. The influence of foreign experts on the planning process and outputs (a: very big, b: considerable, c: little, d: nothing)
14. The organization of the planning process and institutions (a: very good, b: good, c: fair, d: bad)

These points reflect the structure of this study and, therefore, help to achieve the main goals and objectives. Issues related to theoretical understanding of landscape planning were, for example, included in the first two points; consequently, the four choices regarding perceptions of 'landscape' and 'planning' in the first two points were

7.2 Analysis of the reflections on landscape planning in the Gaza Strip

imported from the theoretical background on 'landscape perception' and 'landscape planning' in sections 3.1 and 3.2 on pages 55 and 58 respectively. Landscape planning in the Gaza Strip was included in the other points with concentration on analysis and critique; as mention above, to overcome any misunderstanding or to support essential concepts. Figure 7.7 shows a chart representing the real number of responses for each group and for each point, while figure 7.8 shows a chart representing the real number (which reflects the percentages) of both groups together for each point. Comments on these responses as well as on related issues are noted down:

- First of all, it is clear that a big mistake happened when the job of planning was given to those who did not have a previous deep and strong knowledge or experience in planning. Foreign experts undertook the great part of this job and they influenced the planning process and production considerably. As has been mentioned, one part of the Palestinian Planning and Institutional Building (PPIB) project was directed at offering Palestinians higher education in planning. Few architects were enrolled in a programme leading to a master degree in planning at the same time that they were doing the planning job in the Gaza Strip. Clearly, neither this programme nor the number of participants was enough either to offer the required planning experience for such special circumstances or to construct the basis for Palestinian planning system.
- according to five out of ten persons (5 / 10), the previous plans (which were produced between 1994 and 2003) indicated a very advanced understanding of the term 'landscape' as 'the total spatial and visual entity of human living space integrating the geo-sphere with the bio-sphere and its man-made artefacts'. However, there are still few persons (3 / 7), among those who carried on the planning activities, who put more emphasis on the visual values of the landscape, as well as an environmentalist who criticized the lack of scientific basis.
- The term 'planning' was interpreted differently especially by those who participated in the planning process. At the same time, two planning professionals and two planning participants realized three understandings for the term 'planning'. The two professionals thought that 'planning' in the period 1994-2003 was considered not only as 'a purposeful activity with main goals and solutions to reach these goals', but also as 'an achievement of a deliberation among alternatives and using the scientific and technical information to seek the most desirable course of actions and provide options for the decision makers'. All professionals do not see planning as an activity to produce policies, laws, and regulations, while only the two with three understandings from the participants group considered this

7.2 Analysis of the reflections on landscape planning in the Gaza Strip

understanding. Six persons (two professionals and four participants) considered the meaning of planning as 'the deliberate consideration of alternatives to reach the desirable actions to be taken' as a basic meaning of planning.

- Two persons (one from each group) saw that landscape planning was considered 'very much' in the planning activities in the period between 1994 and 2003, while four others (all from the participants group) saw that it was 'rarely' considered. Only one professional saw that it was not considered at all.
- Five participants saw that Ministry of Local Governance (and not Ministry of Planning, for example) had to undertake the physical planning activities in the Palestinian Territories, and only one professional saw that Ministry of Planning had to do this work. Two of the mentioned five participants saw that activities had to be undertaken by two institutions (each one suggested one institution): Ministry of Planning and Environmental Quality Authority besides the Ministry of Local Governance. They also believed that landscape planning activities are also possible to be undertaken by one of the mentioned institution, and it is not necessary to combine the two or to construct cooperation between them.
- Large agreement by nine persons (the three professionals and six participants) occurred on the factors affecting the urban and rural planning, which include (according to them) all political, social and economic factors. The last participant did not see the social factor to be of any influence.
- Professionals did not see any failure in determining aims and goals in the planning process, and thus did not consider this factor problematic. Moreover, only three of the participants saw this factor problematic with the same influence, more or less, as the other factors which included determining of approaches and tools, public participation, and lack of public awareness, and lack of planning experts. Professionals almost gave similar attention regarding these factors; all agreed that the planning process failed in determining appropriate 'tools and instruments', and lacked 'public participation' and 'planning experts'. Two of them considered that the planning process also failed in determining approaches and methodologies and suffered from lack of 'public awareness'. None of them saw any problem in determining 'aims and goals'.

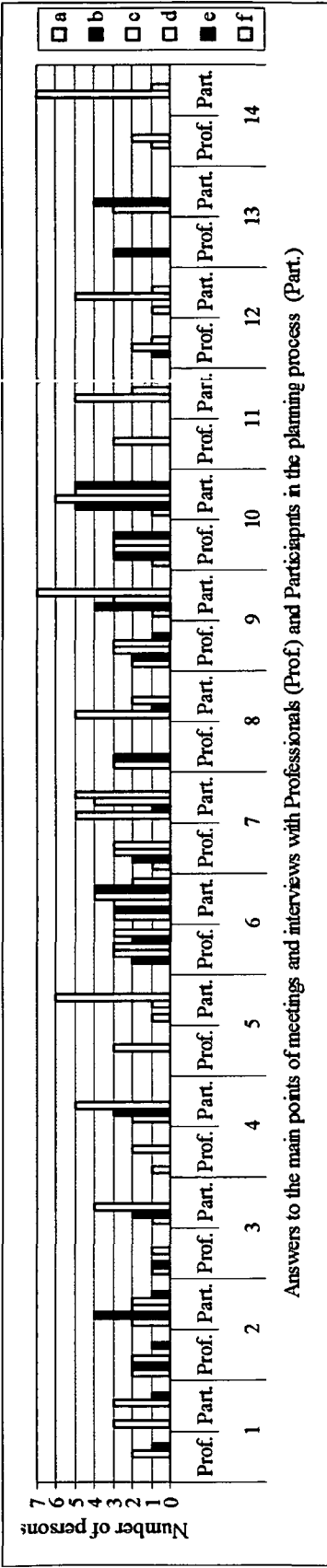


Figure 7.7: Responses to the main points of the meetings presented separately for Professionals and Participants

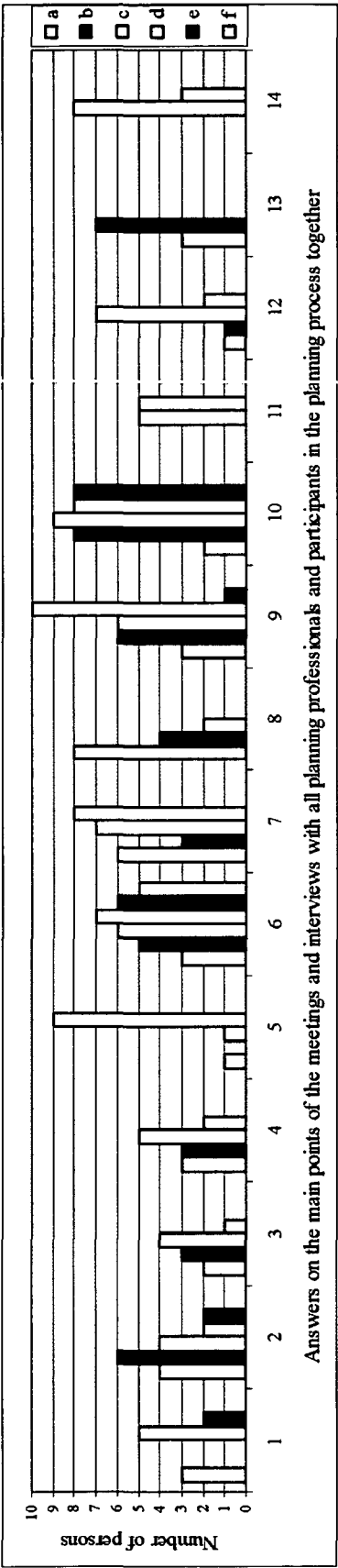


Figure 7.8: Responses to the main points of the meetings presented for Professionals and Participants together

7.2 Analysis of the reflections on landscape planning in the Gaza Strip

- The Israeli occupation and military operations were seen by the two groups as main problems facing implementation process together with the lack of public participation and awareness. Five participants also gave emphasis to the problems of introducing management issues in the planning process.
- All professionals and participants agreed that distribution of responsibility among institutions was the main problem facing the process of enacting policies and laws. Moreover, all professionals saw that problems of approval process are significant in this issue. Three participants agreed with them and four attributed the problems to the Israeli restrictions which were also considered by two professionals. In addition, two professionals and one participant saw that lack of experts in laws enactment is a challenge.
- All professionals and two participants saw that NGO did not participate in the planning process at all, while the other five participants saw that NGO 'rarely' participated in the planning activities. However, considerable financial support was given to implement a few projects that did not necessarily coincide with the planning objectives.
- The landscape quality was another issue that got considerable agreement where two professionals and 5 participants considered it 'disturbed'. Only one saw it as outstanding and another one saw it as being with different qualities; i.e. outstanding, good, or disturbed. South of Gaza City (Tal Al-Hawa area, Az-Zahra'a town and Wadi Gaza Area) was seen as the most influenced and disturbed; mainly by urban change.
- All professionals and 4 participants saw that the planning process was influenced by the foreign experts 'very much' while the last three participants saw that it was 'considerably' influenced by those foreign experts.
- Institutions responsible for the planning activities were not organized at all according to two professionals. The others saw that they were 'somehow' organized.
- Finally, and according to one professional, landscape planning in the period 1994-2003 can be described as functional planning. Protecting nature such as sand dunes for example, was mainly intended to protect the phenomena of infiltrating water to the underground aquifer. Agricultural lands were seen as places to produce food, and archaeological sites as places to develop tourism and economic aspects, etc. Where the open areas did not appear to fulfil clear economic functions in the present time, they were seen as not being so important.

7.3 Conclusion

This chapter analysed the planning outputs in the Gaza Strip over the study period. The analysis has had two main parts; the first has been presented more in the form of comparisons between several plans especially the plans that had relations to, or impacts on, the landscapes and landscape planning. The second has been presented as an analysis of the reflections on landscape planning in the Gaza Strip over the study period.

In the first part, the RPGG (1998-2015) has been seen more valuable than the other planning outputs from landscape planning point of view; even more than the Landscape Assessment for Gaza Governorates. The RPSG (2005-2015) included good evaluation and analysis of the RPGG (1998-2015) and the changes that happened in the period between 1998 and 2005, but the plan design was not developed properly to overcome the new challenges, and, instead, adopted most of the previous conclusions presented earlier by the RPGG (1998-2015). The RPSG (2005-2015) did not also develop any time plan, implementation plan, or management plan, the same as the RPGG (1998-2015).

The General Housing Plan (1995-2015) had been very far from the other planning activities indicating a poor cooperation and consultation among institutions of the Palestinian Authority. The Housing Plan had many collisions with the RPGG (1998-2015). These collisions included the number of housing units planned, the land use of the lands proposed for constructing the housing projects, the overall strategy of developing two urban settlements with high density in the Gaza Strip, the protection of nature reserves, etc. However, being partially implemented¹ increases the hope to redesign this plan to accommodate to the other plans, and in particular to the RPGG (1998-2015) or the RPSG (2005-2015).

In the analysis related to the meetings and interviews (which were held in Gaza in February 2004), it has been shown that local planners were not generally planning professionals and not landscape planners as well. Landscape was considered in the planning outputs as a visual value more than any other values such as cultural or ecologic values. Planning as a concept was not agreed upon and, consequently, planning outputs had several collisions. Agreement on factors (political, social, and economic factors) influencing physical planning was distinct. The planning process had problems related to tools and instruments and public participation besides the lack of professional planners. Lack of implementation was largely seen as a consequence of the Israeli occupation; however, no implementation plans or management plans were included in the planning outputs. This is likely to be described as escaping from problems of

¹ the left part is much more harmful to natural resources and landscapes

the local planning challenges. This issue will be detailed in chapter 9 when landscape planning in the Gaza Strip (which was presented in this chapter and the previous one in terms of planning outputs) is compared to theoretical and empirical experiences from worldwide. But, before this comparison starts, it is important to highlight on some actual landscape changes that happened in the Gaza Strip over the study period and which will be presented in the following chapter.

Chapter 8

Actual changes in land use and landscape over the study period

The previous two chapters have been concerned with the planning outputs (surveys, assessments, plans, etc), which have been with relation to environment, physical planning, and / or landscape and which were issued in the period from 1994 to 2005. Most of these plans have not reached the implementation phase due to varied reasons to be discussed in more depth in the next chapter. This chapter focuses on the actual changes in land use and landscape in the Gaza Strip over the study period. However, and because of the many serious difficulties of collecting data from the Gaza Strip due to the conditions of military Israeli- Palestinian conflict and the rapid changes that had been taking place, it is not possible to achieve complete coverage of changes happened. Field work made out in the Gaza Strip demonstrated that recent data for land use changes do not exist. However, the materials collected and which are discussed in this chapter provide a sample of what was implemented and also what was expected in the Gaza Strip. Briefly, the changes are mainly the result of both urban development (mostly urban sprawl) and the military and political conflict which was taking place all over the Gaza Strip and over the study period as well. Urban development was undertaken by Palestinians while military and political conflict occurred by both Palestinians and Israelis but with much pressure and many impacts from the Israeli military operations in the Gaza Strip. Urban development (which could more precisely be described as urban sprawl) was very much more prominent within the first years that followed the Israeli withdrawal from parts of the Gaza Strip and after the establishment of the Palestinian Authority in the second half of the year 1994. On the other hand, Israeli military operations resulted in demolishing buildings and destroying urban developments and national strategic projects in addition to sweeping (clearing) agricultural lands. At the same time, large administrative changes related to institutions of the Palestinian Authority happened; some of these changes were related to institutions of physical planning in the Gaza Strip. This chapter starts by describing these administrative changes and then

the urban developments which mainly include formal residential plans and projects; nevertheless, it considers briefly the informal urban sprawl and the landscape changes in specific areas¹.

8.1 Administrative changes

Being the home to the planning process, the changes related to the administrative body which undertook responsibilities of the planning process is a main focus in this discussion. Changes of the administrative bodies, which have been involved in landscape planning, are noticeable in the Palestinian case in the Gaza Strip. Reorganizing governing bodies is a normal phenomenon everywhere; however, in the Palestinian case, it has been more obvious because many ministerial and administrative changes occurred in a relatively short period. This relatively big amount of changes is mainly due to the fact that the country has been in the phase of building its institutions for the first time after long times of occupation. Among these institutional changes are the changes mentioned in chapter 2 regarding institutions responsible for environmental issues. These changes included the establishment of the 'Palestinian Environmental Protection Authority (PEPA) in 1993, the 'Environmental Planning Directorate (EPD)' in 1994 (under the umbrella of Ministry of Planning and International Cooperation), and then, in 1996, the 'Palestinian Environmental Authority (PEnA)'. In 1998, both EPD and PEnA were merged (MEnA, 1999) and then the 'Ministry of Environmental Affairs (MEnA)' was established over PEnA. MEnA was lastly moved to Environmental Quality Authority (EQA) in June 2002. Concerning planning-related issues, Ministry of Planning and International Cooperation (MOPIC) has been divided into two Ministries: Ministry of Foreign Affairs (MOFA) and Ministry of Planning (MOP) since April 2003. Ministry of Public Works and Housing was divided into two parts (Ministry of Public Works and Ministry of Housing) in early times and merges into one Since June 2002. Changes can hence be categorized into three main kinds of changes based on the administrative body:

1. **Changes to the body responsible for environmental issues** (i.e. the establishment of PEPA, PEnA, MEnA, and EQA in different times as mentioned above). These changes did not affect the output of the work done by all of these organizations; always the name of the institution was changing, but not the staff or the nature of work and responsibilities, which were directed towards more

¹'Formal' in this discussion refers to the activities taken by institutions related to the Government (or to the Palestinian Authority in general) while 'informal' refers to activities taken by the private sector including both approved and not approved.

micro-environmental issues such as pollution and water quality. On the other side, macro-environmental issues (including landscapes) were generally considered by these institutions, where the need for protection and detail planning works for all the natural resources and environmental features were emphasised as a general goal.

2. Changes that include the previous one and the environmental planning directorate in Ministry of planning and International Cooperation.

Merging these two bodies together (in the form of cooperation and consultation) has a special significance because originally each has a different interest from the other. The former (as mentioned above) concentrated on micro-environmental issues while the later concentrated on macro-environmental issues which are related to physical planning and to landscape planning. The main result was the Environmental Strategy Plan (see section 6.3.2.1 on page 169), where both micro and macro-environmental concerns were included. Unfortunately, this system did not last very long, and the ministry was changed again to Environmental Quality Authority (EQA) while the Environmental Planning Directorate continued under Ministry of Planning and International Cooperation, which witnessed another changes (due to discussion below). This change indeed was not the main reason standing behind the last stop at this stage of environmental planning because it was not significant but (as mentioned earlier) more about names and not the staff or the responsibilities. The start of the Second Intifada is likely the main reason standing behind this stop when the whole planning strategy changed including the environment-related issues.

3. Changes to the Ministry of Planning and International Cooperation.

This change concerns the division of the ministry into two separate ministries which are Ministry of Foreign Affairs and Ministry of Planning. This change can positively be seen in the Palestinian case. Attention towards political issues because of the distinct political situation in the region was much higher than any other attention. As has been mentioned earlier, great support was given to the governmental bodies dealing with issues related to political dilemma on the expense of other bodies related to general human welfare including environmental and landscape issues. This idea was intensified in the Ministry of Planning and International Cooperation which included two parts each of which had, to some extent, different interests regarding physical planning. The two parts were foreign affairs and planning. Related to this mutual influence between planning (e.g. physical planning) and political interests, planning the location of the airport has

been a good example (see section 8.2.3 on page 210). Nevertheless, dividing the Ministry of Planning and International Cooperation into two completely separate bodies (i.e. ministries) was a step in the right direction; however, the idea of integration in such a system is not clearly adopted, especially when previous obstacles of lack of cooperation are highlighted upon. Having been set as a 'Ministry of Planning' is due to discussion in section 10.1.2 on page 248.

8.2 Urban development

The Palestinian Authority has hardly constructed new administrative buildings; instead, the Palestinian Authority rent many housing buildings throughout the main cities; especially in Gaza city. The main continuous change has been the growth in population with it, has come an increasing demand for housing and the need to add residential units. At the same time, more and more housing units and agricultural lands were destroyed by the Israeli bulldozers and tanks. Consequently, the most prominent urban developments that responded to this aggression included residential development projects: both inside and outside urban areas. This development can be described as either 'formal' or 'informal'. As has been mentioned above, the formal residential development is the one undertaken by institutions of the Palestinian Authority while the informal residential development (either approved or not approved by responsible bodies) is the one undertaken by the private sector; i.e. by Palestinian residents, many of whom are looking just for a shelter. MOPIC (1996a:6) indicated that 'the majority of new formal construction is for housing'. These formal developments or constructions could either be in conformity with the plans mentioned in chapter 6 or not. Its formality is considered in this study due to the body responsible for these developments and constructions which is Ministry of Public Works and Housing (MOPWH), and which has been responsible for housing planning. Therefore, formal residential developments included all housing projects which were planned by Ministry of Public Works and Housing and which were shown on the map of the General Housing Plan (1995-2015) (see section 6.3.1.3 on page 149). The informal residential development can specifically be described as random urban sprawl but also include the vertical extensions. More difficult is indeed the study of informal developments because of the serious difficulties in obtaining related data and statistics, while, with data somewhat and somehow available, formal developments still shows serious challenges and problems when compared to environmental and landscape issues. Related changes also include the construction of new infrastructure such as roads, and the growing industrial activities (MoPIC, 1996a). In addition, few big strategic projects have to be included under

this topic. These projects include the airport which was established over agricultural lands in Rafah Governorate, and Wadi Gaza Project. Other projects are still under construction; e.g. the port to the sea and its services' buildings. Other smaller projects were constructed but are not obviously visible.

8.2.1 Formal residential development (housing projects)

This section discusses changes related to formal housing projects and residential units constructed by the Palestinian Authority and its institutions. The residential development has remained, more or less, the most significant change affecting the land use and landscapes. It has been distributed in lands with different land uses throughout the Gaza Strip. Many housing projects and residential units were constructed in the period 1994-2003. Ministry of Housing¹ has been mainly responsible for this development. Figure 8.1 shows the projects which were either already-constructed or under-construction in June 2003, while photo 8.1 shows three of these projects from the North Governorate; these projects were allocated on the periphery of the existing urban settlements: Beit-Lahia and Beit-Hanoon.



Photo 8.1: Three housing projects in the North Governorate (photo by Moh'd Al-Khateeb, February, 2004)

8.2.2 Informal residential development

The informal residential development (usually small scale developments such as housing units) seems more important in this argument because it has been undertaken by

¹Currently: Ministry of Public Works and Housing

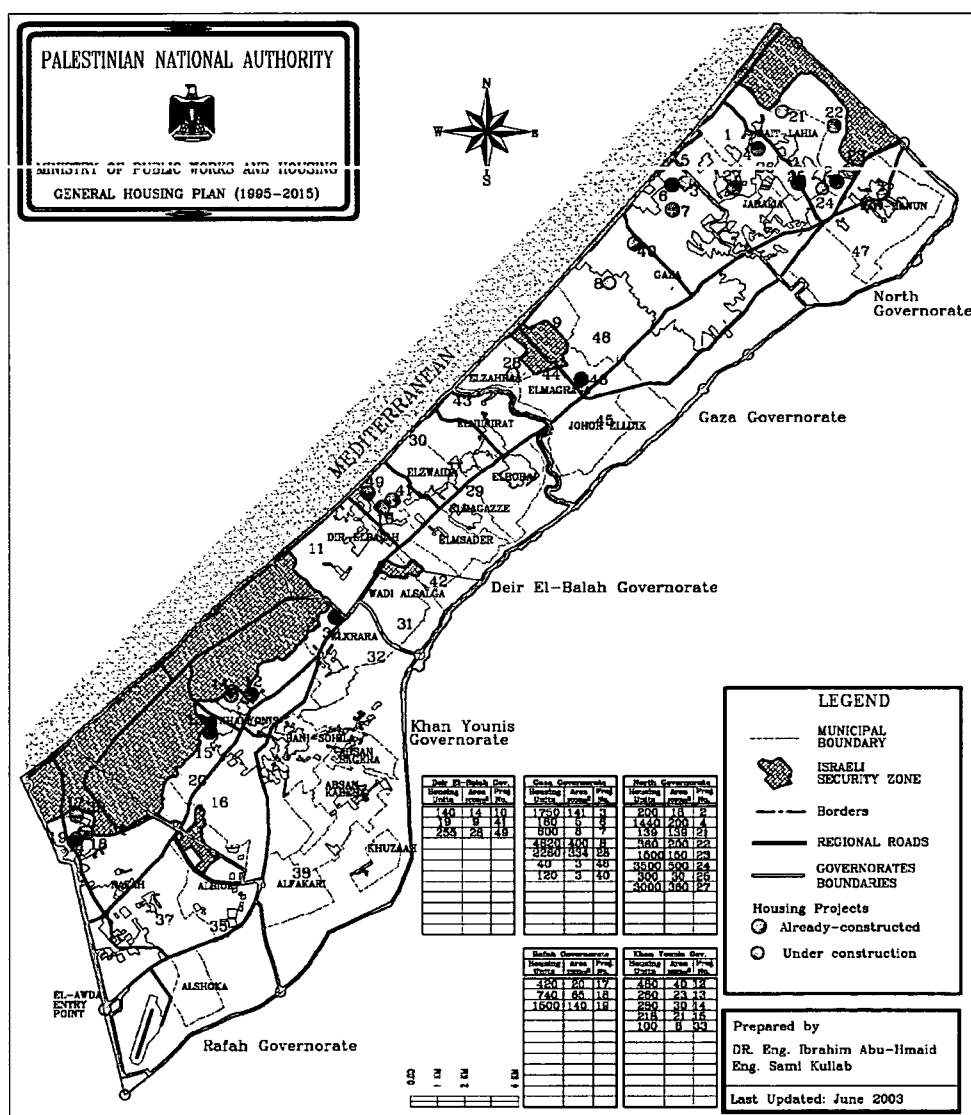


Figure 8.1: Already- and under-construction housing projects in June 2003



Photo 8.2: Vertical housing extensions in Gaza City remain unfinished for long periods (By: Adnan Mushtaha, June 2005)

Palestinian residents themselves (i.e. by the private sector) where environmental and landscape concerns have not been taken into account because of several reasons which have been noted in chapter 2. One part of this development, in spite of being 'informal', has been approved by the administrative responsible bodies, while the other part has not. The first approved part has been supposed to be in conformity with plans. However, it is important at this point to note that residential development, in many times, has been taking place in areas outside urban settlements for several (mainly socio-economic) reasons (as has been mentioned in sec 2.2.8 on page 48). These areas might be outside the responsibility of any municipality or local council and, therefore, there is no master (detailed) plan for this area. Offering licenses to build housing units has been considered according to 'national duties' when original houses of local residents (wherever it was) had been destroyed by Israelis. Indeed, this issue can hardly be discussed effectively because no real statistics exist on many developments undertaken by the private sector. Ownership of land in the Gaza Strip is mostly private and the interest of individual landowners has been taking precedence over the interest of the society. Concerning the residential development, Palestinians in the Gaza Strip (with high levels of poverty) used to make vertical extensions to already existing buildings using the form of vertically 'extended-family' (see photo 8.2), saving the costs of (or more precisely, avoiding) buying land and constructing new foundations. Applications for new building licenses declined specifically during the Second Intifada, which started in late September 2000.

Table 8.1 shows number of licenses, licensed areas and housing units with the respective areas from 1996 to 2004 in West Bank and Gaza Strip together¹; it is just an indicator to tell generalities that could be considered correct for either the West Bank or the Gaza Strip². This table shows a clear increase in number of buildings' licenses

Year	No. of Licenses	Licensed Areas (General) (1000m ²)	Licensed Areas (Housing Units) (1000m ²)	No. of Housing Units	Average Area of the Housing Units
1996	7610	2592.5	1868.7	14818	126
1997	8388	2892.0	2160.3	15989	135
1998	8956	2974.8	2173.8	15561	140
1999	9918	3414.4	2489.6	18262	136
2000	8301	2940.4	2029.4	13438	151
2001	5133	1974.8	1297.9	8884	146
2002	3325	1252.1	932.0	6064	154
2003	5235	2090.0	1410.0	9823	144
2004	5008	2025.8	1410.2	9413	150

Table 8.1: Building licenses and areas in the Palestinian Territories in the period from 1996-2004 (Sources: PCBS, 2005d)⁴

from 1996 to 1999 which also continued in the first three quarters of 2000, and stopped suddenly in the fourth quarter of the same year making 2000 to be the start of a decline in the number of licenses and thus licensed areas and housing units. PCBS (2003:18) ascribed the decline in number of issued licenses to the Israeli measures which affected all aspects of the economic activities, especially the construction activities, during the Second Intifada. However, there are indeed several reasons behind this among which are the following:

- The status of disorder that distinguished the Palestinian life because of the general absence of policies and enforcement bodies. This is not only due to the previous Israeli occupation, which left the Gaza Strip in a state of legal void, or to the Israeli military actions after the first redeployment in 1994, but also due to the

¹Appendix K gives more details

²Generally speaking, West Bank has better living conditions (more financial capabilities to hold construction processes), while constructions in the Gaza Strip is relatively cheaper because building materials are cheaper (concrete bricks instead of stones) which also make the construction process easier.

absence of local Palestinian initiatives to enact policies and legislation and to use the Palestinian enforcement tools properly. Local Palestinian residents thus continued the process of building new dwellings, but there was no real control from responsible institutions. This factor in general is also connected to the one mentioned below.

- Poverty and general economic conditions which obliged many Palestinians to pay money (usually all what they have) to build any kind of shelter. They could hardly save money for this purpose and thus, they do not 'waste' their savings on purchasing licenses for example. They will receive services such as electricity and water from existing old parts in their plot of land and they do not ask local authority for any other services.

8.2.3 Strategic projects

This is the other issue to be considered with relation to urban development. Very few strategic projects have been constructed in the Gaza Strip in the period 1994-2005. The most significant is the Gaza International Airport, and Gaza Port to the sea, which has never completed, while smaller projects have been completed and used; e.g. the electricity power generation plant in the central part very close to the Gaza Valley (Wadi Gaza), solid wastes management projects, the Gaza 'European' hospital, and several main roads.

Gaza International Airport

The airport was completed and opened for the first time in 1997. It is located in the south of the Gaza Strip (see aerial photo of its location on figure 8.2 on page 211). The airport was established over agricultural lands in Rafah Governorate; the ownership of the lands is Beir Es-Sabaa. Constructing the airport on large area could be seen as a reason because of which the quality of the landscape has been changed between 1996 and 1998. Moreover, the airport was partially and repeatedly demolished by the Israeli troops increasing deterioration of the landscape quality. It was maintained each time but not the last one. It has been completely closed since February 14th, 2004 when Israeli troops destroyed big parts of its runway and terminal (Source: PCHR Website[a]). The airport was designed and situated to accommodate political conditions; for instance, planes have to fly from Gaza directly to Egypt and not to fly over Israel.

Gaza Port

The port has not been completed since work was started in 1995. Construction activities have stopped many times. More recently the constructions have been almost

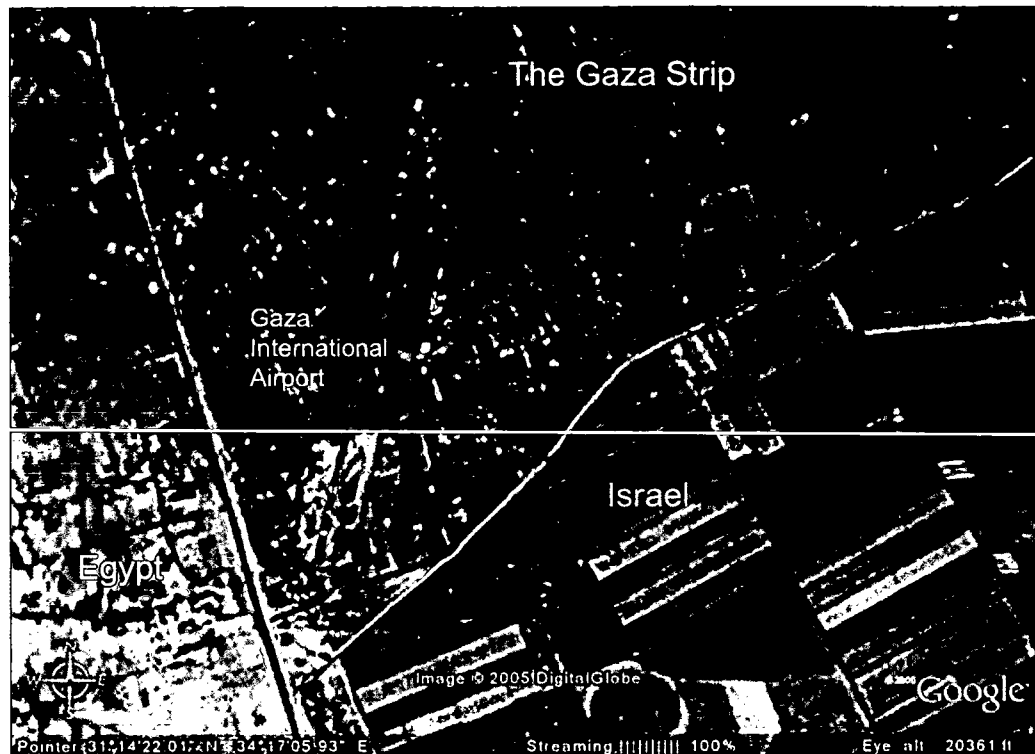


Figure 8.2: Location of Gaza International Airport (Source: GoogleEarth Website)

completely destroyed in the second Intifada by the Israeli military. The effects on the land use and landscapes have not been great because the construction of the services buildings had not yet started; mainly because big part of the lands planned for this purpose had been occupied and used as an Israeli settlement (called Netzarim) and became under Palestinian control only since September 2005. The other part had been close to this settlement and consequently, Israelis did not allow anyone to establish any construction or to start any development in these areas. This seems positive in terms of landscape conservation; however, this in reality has not been the case. Israelis destroyed the lands surrounding the settlement and cleared large areas and deteriorating the landscape status. See the map in figure 8.5 on page 219 which shows lands swept by the Israeli army in the Gaza Strip, and compare to the maps of the Regional plans (figure 7.3 on page 185 which shows the location of the proposed port. Apart from this national port, a small ugly fishing port was constructed resulting in no big changes on the ground, but (at least) visually impacted the southern beach of the city Gaza (see photo 8.3 and photo 8.4).

Electricity Power Plant

This project has been constructed very close to Wadi Gaza. Its location has been shown



Photo 8.3: Fishing port constructed on the southern beach of Gaza City (Source: Sabella Website)



Photo 8.4: Impacts from the fishing port on the beach (Source: Sabella Website)

on the map of the RPSG-2015 presented in figure 6.3.2.5 on page 171. Photo 8.5 shows

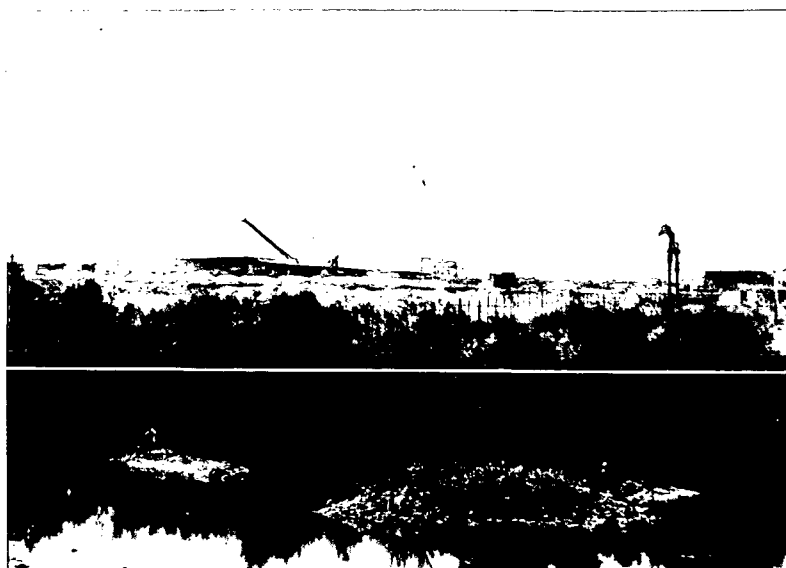


Photo 8.5: Electricity Power Plant During Construction in February 2000 (Photo by: Author)

this plant during the process of construction. The plant created huge visual impacts in the Wadi Gaza area and reduced the landscape quality in the region.

Wadi Gaza Project

This project is a distinct project from landscape planning point of view. As noted earlier, Wadi Gaza is a distinct area in the Gaza Strip and it was categorized (according to the Landscape Assessment [MoPIC, 1996c]) in the first grade. Few years ago, the USAID (in collaboration with the 'MedWet' Initiative of the Ramsar Convention) granted an amount of money (US\$ 3.8 million) to develop the area of Wadi Gaza (UNEP, 2003). It was a project originally titled as the 'Emergency Employment Generation Program (EEGP) on the Development of the Wadi Gaza', and it has been implemented by the 'United Nations Development Programme's Programme of Assistance to the Palestinian People' (UNDP/PAPP) (UNEP, 2003). The project had several central aims in its heart:

- to rehabilitate the Wadi Gaza and to re-establish its biodiversity values,
- protect and promote archaeological sites,
- develop recreational and tourist activities, and
- deliver socio-economic benefits to the 10,000 people living adjacent to the Wadi

The Wadi area was divided into three main parts: the Wadi Mouth part which was supposed to be strictly protected, the recreational area part (about 10-15 ha.), and the agricultural areas part. Figure 8.3 shows a general layout of the whole project including (as designed and partially implemented) a regional park (recreational area) as one of its main components. Figure 8.4 shows the design of the recreational area which has

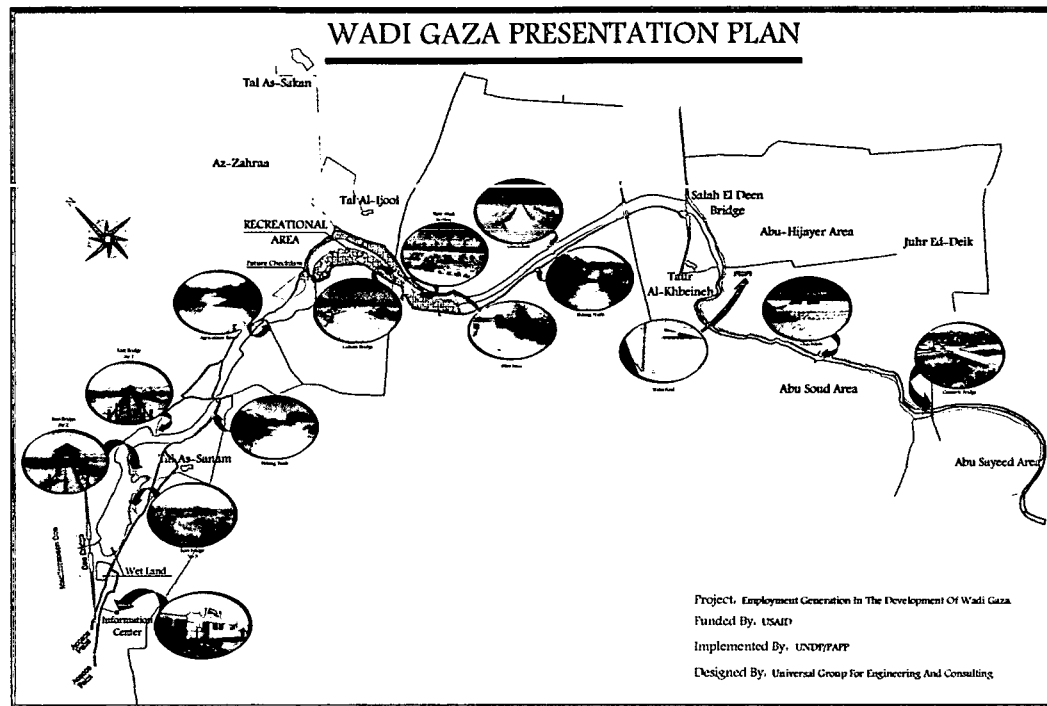


Figure 8.3: Wadi Gaza project designed by local Engineering and Consulting Firm in 2002 (Source: Ma'alem, 2005)

not been completely implemented yet. Photos 8.6 and 8.7 show already implemented works inside this recreational area: regulation of the Wadi course and a bridge over the Wadi course respectively. This park will also have sitting and barbecue areas, childrens play areas, hiking trails, and new vegetation. The design of the project also included the design of four check dams (see photo 8.8 on page 217), two concrete bridges (one of them crosses the recreational area and connecting the urban settlements on both sides), hiking trails, agricultural roads (see photo 8.9, foot bridges and monitoring rooms, regulating the Wadi course, planting trees, etc. In addition, and far from this project, It is significant to mention that there have been several ideas to pump treated sewage water to the Wadi bed in the dry seasons, but none has been implemented yet.

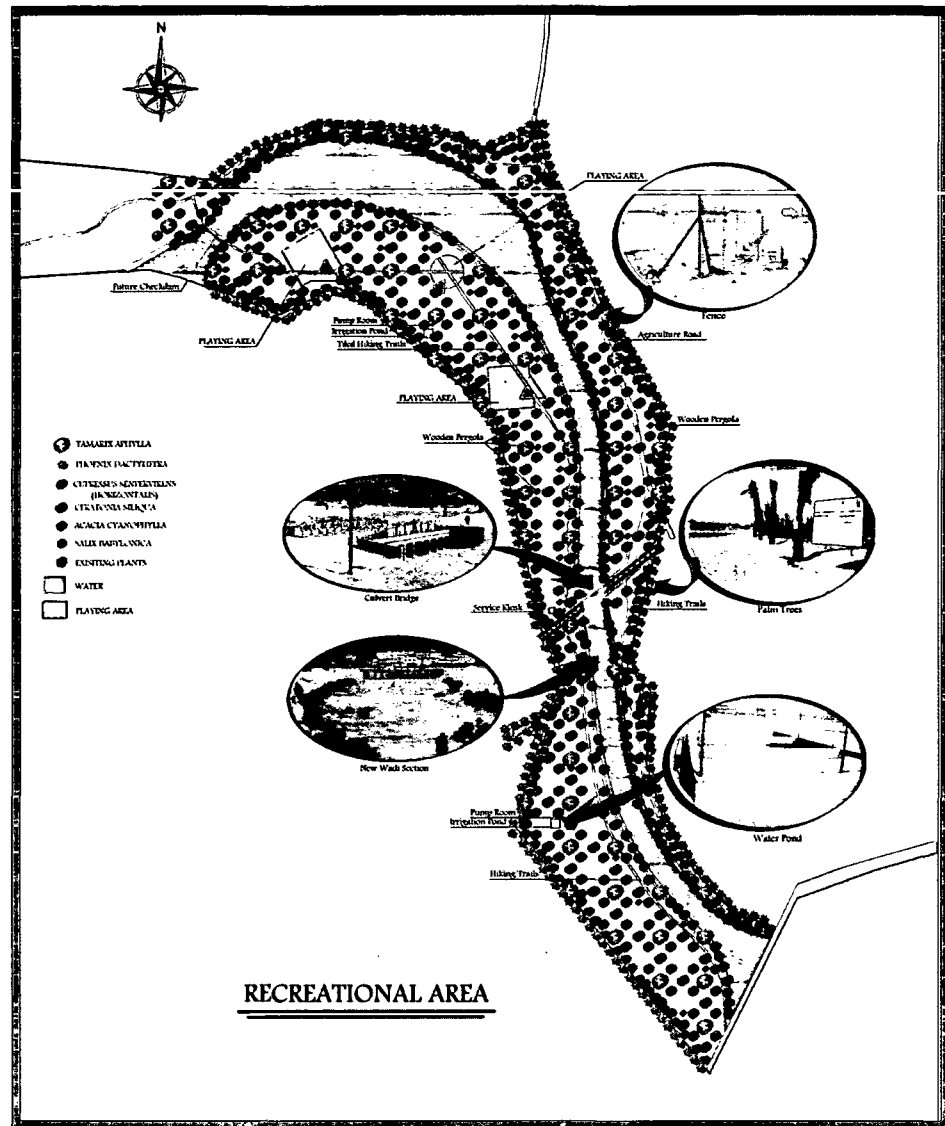


Figure 8.4: Recreational Park designed in 2002 in the Area of Wadi Gaza (Source: Ma'alem, 2005)

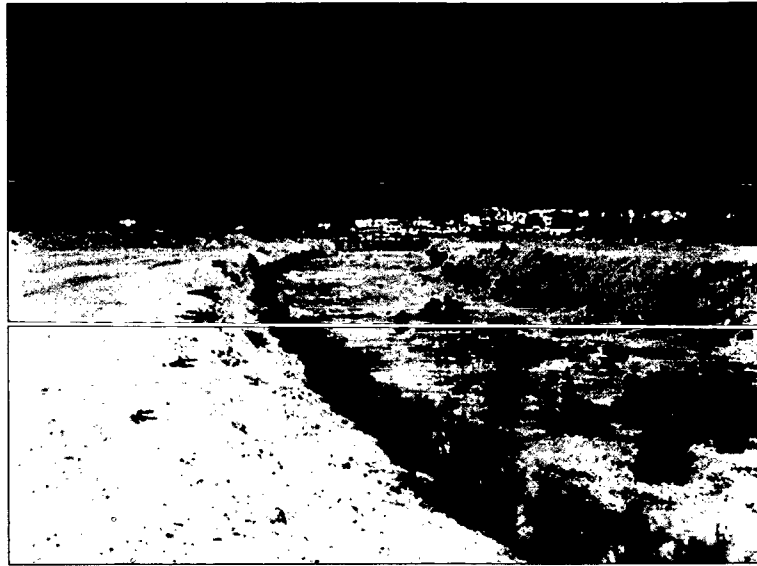


Photo 8.6: The regulated dry Wadi course (Source: Ma'alem, 2005)

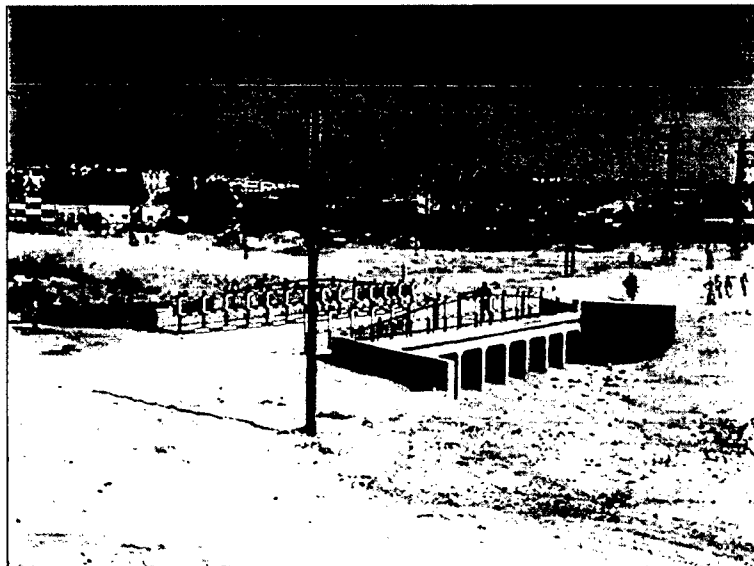


Photo 8.7: The bridge crossing the recreational area of Wadi Gaza (By: Ma'alem, 2005)



Photo 8.8: One check dam in Wadi Gaza project (Source: Ma'alem, 2005)



Photo 8.9: Agricultural road in the Wadi area (Source: Ma'alem, 2005)

8.3 Other related changes

Land use of Gaza Strip is an issue that has obviously been changing since the establishment of the Palestinian Authority. Gaza Land Resources (MOPIC, 1996a) presented information on land use based on aerial photographs taken just prior to the study period in November 1993. The land use, as mentioned earlier in section 2.2.4 on page 42, was distributed as follows: agricultural lands 45%, urbanized areas (towns, villages, camps and industry) 19%, dunes and beaches 14%, and fallow land and other minor uses 22%. Since 1993, changes in urbanized land have moved in two directions, one upward derived by population growth, and one in the other direction as a result of clearance/destruction of houses by the Israeli Military. MOPIC (1996a) mentioned that 'Since that year (1993), given the accelerated building activity, areas occupied by urban uses will have increased by more than 3.5% per year by which the population grew'. Changes from 29.9.2000 to 23.10.2005, during the second (Al-Aqsa) Intifada, included the data in table 8.2 on page 218, which shows data on houses completely or partially demolished and lands swept by Israeli tanks and bulldozers (based on: PCHR Website[c]). Figure 8.5 on page 219 shows a map illustrating the distribution of these

Governorate	Number of houses completely demolished	Number of houses partially demolished	Land sweeping (du)
North	258	330	14,204
Gaza	178	295	3,295
Deir Al-Balah	157	150	3,695
Khan Yunis	644	325	6,894
Rafah	1467	1087	3,546
Total	2704	2187	31,634

Table 8.2: Lands swept and houses demolished by the Israeli military (Source: PCHR Website[c])

lands over the Gaza Strip, while figure 8.6 on page 220 shows satellites images of one area in Beit Hanoon Northern the Gaza Strip.

Other changes include

- Sand erosion because of quarrying for construction.
- Changes in types and methods of cultivation, and consequently, changes of agricultural crops.

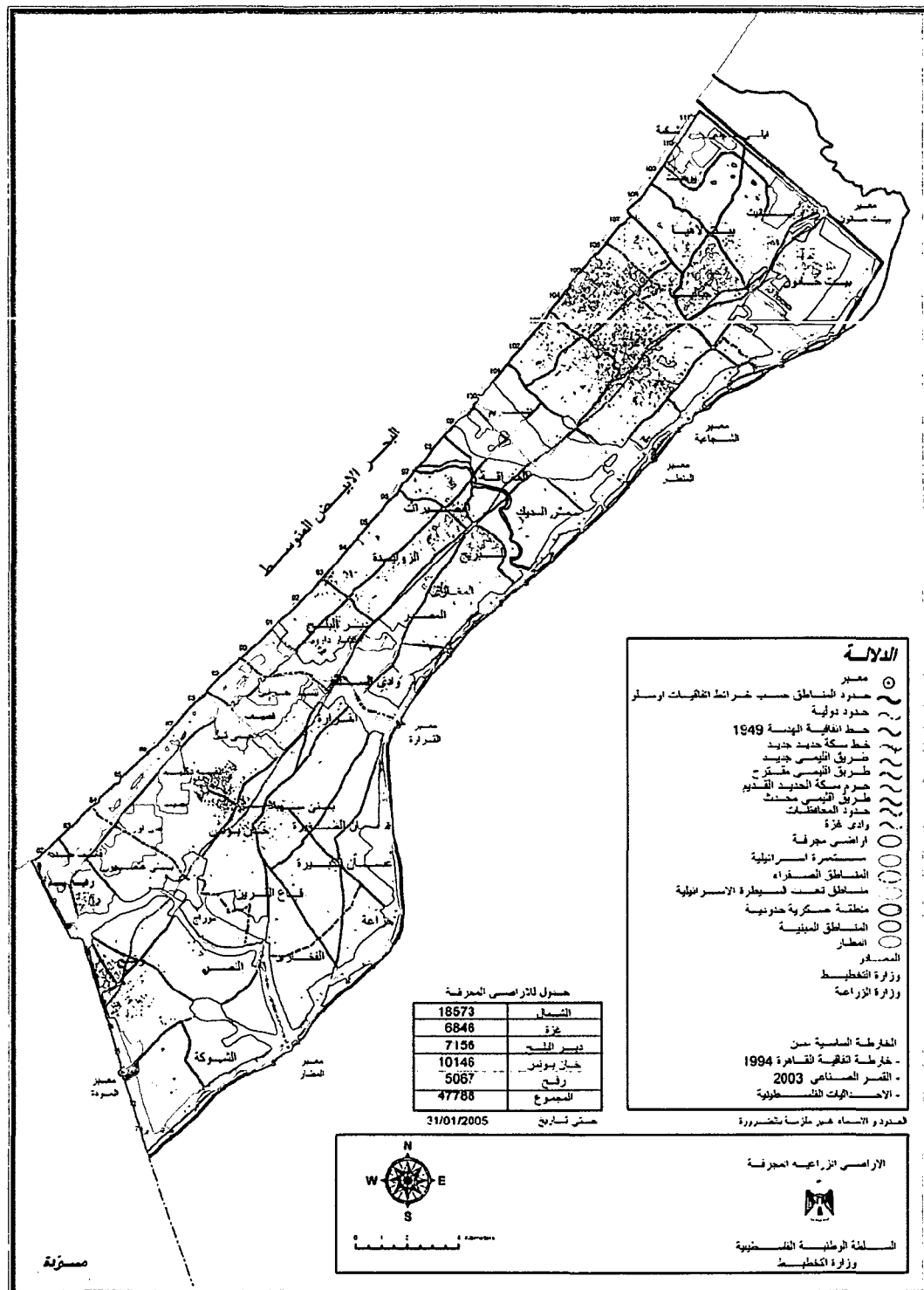


Figure 8.5: Map of lands swept (coloured in pink) by the Israeli military (Source: MOP, 2005)

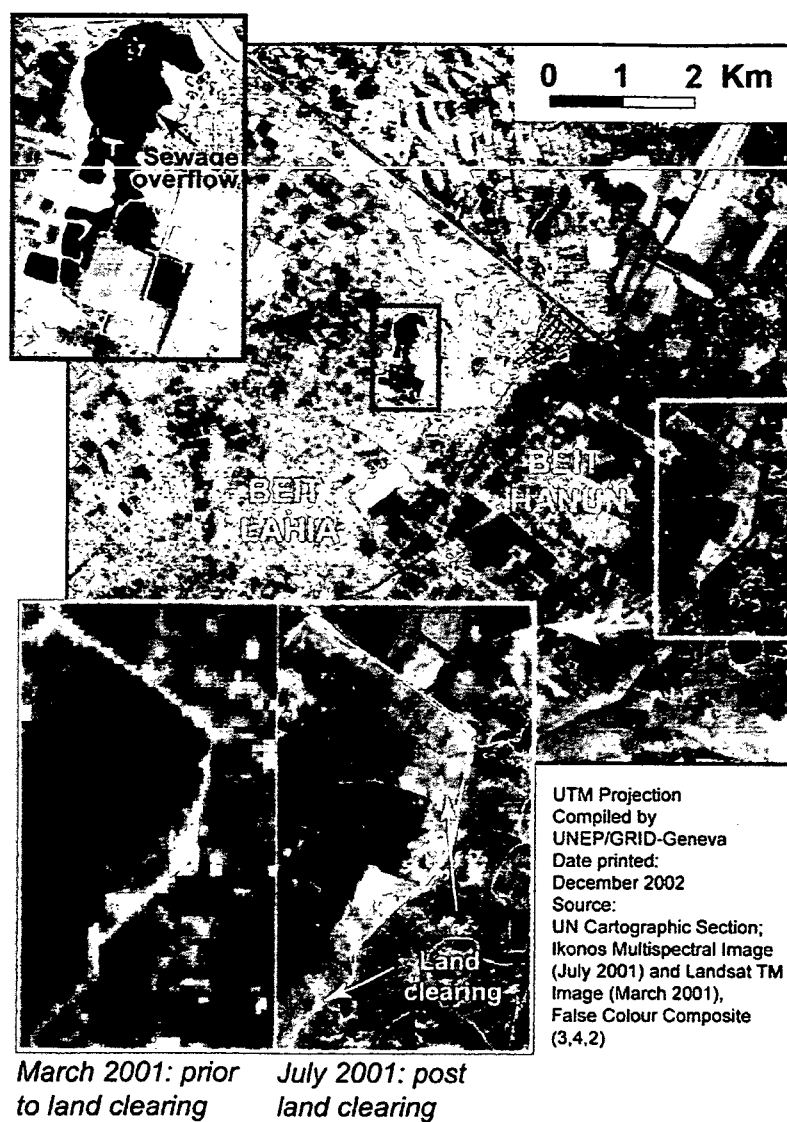


Figure 8.6: Satellite image of lands swept by the Israeli military (Source: UNEP, 2003)

8.4 Comparing actual changes to landscape planning in the Gaza Strip

Rare that actual changes follow planning concepts exactly in any context; however, in the Gaza Strip, the divergence between planned and actual changes in land use and landscape is unusual, and many efforts were 'wasted' in the period between 1994 and 2005 from 'what-has-been-implemented' point of view. General examples include these two mentioned here:

1. Planned projects (mainly regional physical plans) have not been realized at all. Examples are the Emergency Resources Protection Plan, the Coastal Zone Plan, and the Regional Plan for Gaza Governorates.
2. Planned projects have been realized in a different way (in other words, unplanned projects have been realized). Areas planned for conservation, for instance, have been lost to other land uses such as housing projects.

Several planning documents, however, noted that landscape and land use changes have been happening; they obviously mentioned the changes happened because of the rapid increase of population. This mainly points to the informal residential developments; however, plans did not clarify specific locations or size of this change. Several comparisons among the plans themselves have already been presented in section 7.1 where few indications related to actual changes have been noted. In this section, therefore, actual changes happened in the Gaza Strip over the study period is compared to landscape planning concentrating on the planning outputs which all were reviewed in chapter 6.

Formal Housing Developments

Actual formal-residential developments naturally agreed with the General Housing Plan (1995-2015); about 33% (2887 du) out of the total area (8809 du) of housing projects was either constructed or under construction (indicating a landscape change). Nevertheless, this plan is not a real plan¹. The Housing Plan did not include any implementation plan or a time schedule so as to compare the implemented part to. It did not also include a document to illustrate real demands. When compared to the RPGG-1998, it is clear that a lot of conflict exists between the implemented formal-residential developments and the RPGG-1998. Referring to the tables and figures illustrated in section 7.1.2 on pages 187 to 192; the following comments can be presented:

¹This point is due further discussion in section 9.1.5 on page 232 where planning in the Gaza Strip is compared to planning in theory.

8.4 Comparing actual changes to landscape planning in the Gaza Strip

- Only less than 7% (596 du) have been either Already-Constructed or Under-Construction in Nature Reserves (as planned by the RPPG-1998) and less than 4% (342 du) in Cultivated Areas (as planned by the RPPG-1998) with a sum of less than 11% (983 du).
- Only 13% of the housing units (10632 Units) planned for the period 1995-2015 were constructed between 1995 and 2003, while 17% (13769 housing units) were under construction with a total of 30% (24401 housing units).
- the RPPG-1998 determined the housing demands in the first phase (1997-2005) by about 51,000 housing units (see table 6.4 on page 167). Comparing this figure to the total of already-constructed and under-construction units mentioned above, does mean that the Housing Plan (1995-2015) lays very far behind actual demands presented by the RPPG-1998.
- 67% of the already-constructed and all the under-construction housing units between 1995 and 2003 according to the Housing Plan were in the Northern part; i.e. in the North and Gaza Governorates. This fits to the RPPG-1998 as percentages but not as real numbers of housing units (as has been just mentioned above).
- Implemented housing projects can be distributed over the three categories of the landscape (presented by the RPPG-1998) and the built-up areas as follows: 17% (482 du) in grade 1, 7% (200 du) in grade 2, 61% (1762 du) in grade 3, and 15% (443 du) in built-up areas. That means that about 76% of the housing projects which were either already-constructed or under-construction was constructed in more or less appropriate locations (grade 3 and built-up areas).
- However, the 17% (482 du) of lands which was already-constructed or under-construction in grade 1 is an obvious problem, while the 7% (200 du) which was already-constructed or under-construction in grade 2 is due to further discussions in details for each project as this grade allows for special improvements. But the problem is bigger than these areas. Services and infrastructure related to these projects should have created more pressure and impacted the landscape quality of these areas.
- Most (about 99% of) these already- and under-construction projects in grades 1 and 2 was constructed in the North and Gaza Governorates.

- 92% (1622 out of 1762 du) of the already- and under-construction projects in grade 3 and 44% (194 out of 443) of the already- and under-construction projects in built-up areas were constructed.

The strategic projects

Constructing the airport has been a prominent change that obviously changed the essence of the landscape and land use as has been mentioned in section 7.1.1.2 on page 182. The airport has been constructed during the development of the RPGG-1998, which treated it as under-construction national project and did not see significant objection against this development. As noted in sections 7.1.1.1 on page 180 and 7.1.1.2 on page 182, lands used for this national project was given high importance by the Landscape Assessment and was categorized in grade 1, while the RPGG-1998 categorized these lands in grade 3. The Emergency Resources Protection Plan did not give special importance to these lands; agriculture in these lands has not been with high quality. Therefore, constructing the airport has not had significant conflict with the previous plans.

The fishing port which was established on the southern beach of the city Gaza has had conflict with the plans that proposed the beach as a source for tourism and recreation developments (e.g. the Emergency Resources Protection Plan and the Landscape Assessment). Nevertheless, the most important plans (i.e. the RPGG-1998 and RPSG-2015) defined this area for fishery purposes.

The Electricity Power Plant was first proposed by the RPGG-1998 very close to Wadi Gaza mouth on the beach; however, it has been constructed afterwards on its southern bank about 1.5 km far from the beach resulting in huge visual impacts in the Wadi Gaza area. The plant has been shown in the real location in the RPSG-2005. This location was not given any attention by the Emergency Resources Protection Plan while the Landscape Assessment categorized it in grade 1. Considering the visual values in the Wadi Gaza area, this project should have never been constructed in this location.

Lastly, The Wadi Gaza project has been significant and, in general, coincided with the plans most of which called for such a development for as such purposes as protection, recreation, etc.

8.5 Conclusion

Actual changes related to landscape planning in the Gaza Strip can be seen and realized by local Palestinians more than what can be seen and/ or realized in the planning context. Changes related to the administrative system were sometimes significant (e.g. merging the Environmental Planning Directorate and the Palestinian Environmental

Authority into Ministry of Environment in 1998, and the establishment of Ministry of Planning from the former Ministry of Planning and International Cooperation in 2003). Nevertheless, in most case changes were about names of institutions and not the staff or nature of activities and tasks.

Implementation of plans has been very limited. Instead, urban developments have been realized; sometimes with conflict with the plans. The most prominent example is the formal-residential developments which opposes the Regional Plan for Gaza Governorates (1998-2015), for example, in distribution of housing projects over the Gaza Strip, distribution of housing projects over the different land uses, amount of housing units required to meet the local demands, etc. The lack of housing units has been one of the reasons of the urban sprawl in the natural and agricultural areas which has been undertaken by the private sector. From another point of view, this shortage in constructing housing projects is positive when looking from 'nature protection' point of view, because more important nature reserves and agricultural lands have been saved.

The informal-residential developments could be presented through the number of licenses of building issued between 1996 and 2004. This number had been increasing before the second Intifada started in September 2000. It then significantly decreased because of the instability conditions, the absence of laws and enforcement bodies, or the deteriorating social and economical conditions. Moreover, a part of the informal-residential development is hard to be realized because of the lack of related formal or informal data.

Landscape and land use changes included also the changes resulted from constructing big strategic projects such as the airport, and to a limited extent, the ports (national and fishing ports), the electricity power plant, and the Wadi Gaza development project. The airport completely changed the essence of large areas from its original agricultural status while the ports have been partially constructed in the sea but nothing was constructed on ground. The Wadi Gaza project greatly coincided with the plans; especially because it included the most purposes proposed by the plans such as protection of the natural features, development of a recreation area, etc.

Finally, the impacts from the Israeli operations in the Gaza Strip, especially after the second Intifada, have been significant in terms of landscape change. Large agricultural and natural areas have been cleared by the Israeli bulldozers and tanks. The landscape quality has, therefore, largely deteriorated and in most cases destroyed. The Israeli operations also impacted the landscape indirectly when many houses were demolished and, consequently, Palestinians established new houses in open landscapes.

Chapter 9

Landscape planning and management in the Gaza Strip comparing to theory and practice

In the previous three chapters, landscape planning in the Gaza Strip has been presented from two different viewpoints: the planning outputs and processes which were undertaken by the Palestinian Authority from 1994 to 2005, and the actual changes that took place on the ground; each of these two points was presented in a separate chapter. A Comparison of the planning outputs to each other and analysis of the reflections from meeting and interviews in Gaza was presented in a separate chapter in between. The general conclusion from these three chapters emphasized that actual changes coincided with the planning proposals in a few cases and diverged in many others.

In this chapter, the emphasis is on presenting an analysis on planning activities, outputs, implementations and actual land use and landscape changes in the Gaza Strip and making comparisons between all of this on one side and landscape planning from both theoretical and empirical points of view on the other side. Conclusions from chapters 3 and 4 are the basis for discussing landscape planning issues on the theoretical level, and the conclusions from chapter 5 are the basis for the empirical experience.

9.1 Analyzing landscape planning in the Gaza Strip from a theoretical point of view

The following is a comparison between the landscape planning in the Gaza Strip, which was presented in chapters 6 and 7, and the theoretical basis of landscape planning, which was presented in chapters 3 and 4. The aspects of landscape planning in the Gaza Strip considered here include the planning process and activities, and the planning outputs over the period 1994-2005.

9.1.1 Issues of responsible planning bodies

A general model that is concerned with administration and responsibility of landscape and land use planning and management does not exist. Instead, each region, country, or state has its own planning culture which influences landscape and land use planning. At the same time, responsibilities and/ or activities related to land use and landscape planning have not been defined under institutions of foreign affairs or tied to the main political bodies in any theoretical means. By contrast, physical planning in the Palestinian case was integrated (for about ten years between 1994 and 2003) in the Ministry of Planning and International Cooperation which was mainly holding responsibilities related to foreign affairs. Generally speaking, planning in terms of economy and politics can be understood in this position, and even in terms of physical planning under very special conditions as such as the Palestinian case where physical planning is influenced by the political agreements (e.g. the Physical Planning and Institutional Building Project¹ was a prominent support from Norway to develop the peace process in which Norway played a main role). Nevertheless, physical planning should normally be undertaken internally because all of physical planning is about people and lands. As a clear influence of organizing the political and planning institutions in one body, clear challenges appeared over the surface in the Palestinian physical planning system (which was then reflected in the Gaza Strip). This situation indeed created a paradox situation where although land was given high attention (from institutional responsibility point of view) and physical planning was carried out by Ministry of Planning and International Cooperation (which was responsible for foreign affairs and was consequently allocated at the top of other ministries), physical planning was not given the appropriate attention in reality. Because of the need for approval from higher political bodies (i.e. centralism), for example, there was no final production related to physical planning on the national or regional planning levels done by the different institutions of the Palestinian Authority, mainly by Ministry of Planning and International Cooperation. At the same time, no planning on the regional level was expected from Ministry of Local Governance. Difficulties of getting approval from higher political levels were mainly because attention was completely given to the political conflict in the area.

In particular, administration and responsibilities of planning in fields related to landscape and environment were not clearly defined, but distributed among several governmental institutions. Besides, no local bodies (e.g. non-governmental organizations or stakeholders) other than the Palestinian Authority have been taken into account in any of the plans produced in the study period.

¹See section 6.3.1.1 on page 148

9.1.2 The consequence for the landscape planning process

Theoretically, the process of landscape planning, is similar to almost any physical planning process, and has to be developed in a regular consequence to result in a concrete structure. Section 3.5.4 on page 70 noted a group of steps that theoretically comprise the landscape planning process. These points are now discussed individually in the context of landscape planning practice in the Gaza Strip over the study period.

- Identification of problems and challenges:

The planning process in the Gaza Strip started with the identification of problems and challenges in most cases as has been noted in chapter 6. The main problems and challenges had been the overpopulation and the deteriorating socio-economic conditions. Environmental problems and challenges were also considered, especially in the first period when hopes for the peace process were great and they were never seen as playing a part helps improve the socio-economic conditions. With special significance, future uncertainty in almost all fields was clearly noted as a basis to physical planning in the 'Gaza Land Resources'¹.

Real problems and challenges were, however, more than those mentioned in the planning outputs. There were indeed general problems that faced the planning process as a whole. Among the most prominent problems was the organization of and centralism in the administrative system resulting in a lack of cooperation and consultation and, sometimes, in conflicting plans. Other problems include lack of public awareness regarding planning issues in general and environmental and landscape planning in particular. This was inherited from the Israeli occupation period when environmental education was completely ignored for Palestinians.

- Establishment and formulation of goals, aims, or objectives:

In the planning process in the Gaza Strip, general goals, aims or objectives were formulated resulting in planning outputs which were characterized by generalities. The Emergency Resource Protection Plan, for example, aimed to control developments that might affect national resources before the completion of the regional plan, and the Coastal Zone Plan aimed to find priorities in order to apply both protection and sensitive development policies.

- Landscape assessment and analysis:

Landscape status was investigated and assessed in the Gaza Strip for the purposes of developing the Regional Plan. Significant efforts have been put on this part and a separate document was produced on the 'Landscape Assessment of Gaza

¹See section 6.3.1.6 on page 159

9.1 Analyzing landscape planning in the Gaza Strip from a theoretical point of view

Governorates'; however, the study was not deep enough. Ecological processes, for example, were not considered as one of the main factor influencing the landscape change over time.

- Determination of approaches and methodologies:

In landscape planning in the Gaza Strip, approaches and methodologies were not clear in the planning outputs. However, recognizing approaches used in the planning process can be made in the case of only a few plans. As has been mentioned in section 6.5 on page 175, the scenario approach was used by the Gaza Land Resources and the alternatives approach was used to develop the Regional Plan for Gaza Governorates.

- Community involvement through education and participation:

This step was completely ignored by the planning process over the study period. Community involvement was introduced neither indirectly through education nor directly by participation during the planning process in the Gaza Strip. Worse is the fact that there had been no local planning agencies that might take part of the planning activities and give consultations and feedback.

- Design of the plan:

In the Gaza Strip the design of the plan can be determined and understood in very few cases (e.g. the Regional Plan for Gaza Governorates) while it was not described in any of the other planning outputs. In the Regional Plan (and very similarly in the Physical Model of the Gaza Land Resources), the process started by setting out alternatives and making relative studies and evaluations, and finished by selecting one alternative according to which the process continued with planning for future developments. Good efforts and results of this step can be seen in very few cases, while a clear shortage in meeting prerequisites can be seen in others; e.g. the RPPG-1998 is a well designed example as has been mentioned in section 6.3.1.8 on page 165, while the RPSG-2005 is not efficient enough to meet the local demands as has been mentioned in section 7.1.1.3 on page 184. One additional reason can be mentioned regarding the design quality of the RPPG-1998. This relates to the architectural background that participants in the planning process hold and the relationship between design and planning which has been discussed in section 3.2 on page 58. This reason also explains the dependence on using drawings to analyze and describe alternatives in the RPPG-1998 and to prepare for the design process in the RPSG-2005.

9.1 Analyzing landscape planning in the Gaza Strip from a theoretical point of view

- Public, local and regional involvement, participation, and feedback:

Once again this step was not included in reality in spite of the fact that it was mentioned as a necessity by several planning documents; e.g. by the Regional Plan for Gaza Governorates. This is despite the fact that it is actually referred to in the Town Planning Ordinance No. 28 of 1936 according to which the planning activities have been undertaken in the Gaza Strip.

- Approval of plans:

Approval procedures for planning products in the Gaza Strip were complicated and centralized; all planning outputs (especially national and regional) had to be approved by the President. Unfortunately, for the most important plans (in particular, the Regional Plan for Gaza Governorate [1998-2015]) this did not happen.

- Implementation and management:

Planning outputs in the Gaza Strip did not include implementation and management plans. The plans did not foresee a time schedule or phased implementation. As a result, no clear results from the whole planning activities, which came out within the period from 1994-2005, can be seen; simply because no clear implementation took place on the ground. However, many individual projects financed by foreign international organizations (e.g. USAID, World Bank, UNDP, etc.) were implemented as cooperation with municipalities and sometimes with ministries.

- Evaluation and modification:

None of the planning outputs in the Gaza Strip has reached the implementation phase and consequently evaluation and modification in such cases can only concern the planning documents including their aims and objectives, approaches, plan design, public participation, etc. The Regional Plan for Gaza Governorates has been subject to an evaluation process (in spite of being left without any development for more than seven years) and it has been modified and issued as the Regional Plan for the Southern Governorates. Many changes happened during the period of seven years; however, the new version simply approved the old one as still being relevant and agreed with the main principles it included. As has been noted in section 7.1.1.3 on page 184, the RPGG-1998 was, properly, evaluated, but the resulting RPSG-2005 did not then reflect this evaluation.

9.1.3 Meanings and concepts of landscape planning in the Gaza Strip context

Theoretically, a landscape can be considered in terms of considering one or more of its four sets of aspects: the visual, the cultural, the ecological and/ or the holistic meaning (see section 3.1 on page 55). In the Gaza Strip, although most of those who were the focus of the meetings and interviews (presented in section 7.2 on page 193 indicated a holistic understanding of the term landscape, the planning outputs during the period 1994-2005 show that more emphasis was put on the visual values of the landscapes while less attention was paid to the cultural, ecological and holistic values. This can be explained according to one of two alternatives or to a combination of both of them together: either

1. participants in the planning process have been convinced by the totality meaning; however, there were factors that influenced the decisions to consider only the visual meaning of the landscape and then to deal with the landscape issues only as a visual value. These factors include the lack of landscape planning experts (especially local Palestinians) and the lack of detailed data concerning all of the biotic, abiotic, ecological processes, and human influence, and consequently the interaction between these factors (which form the landscapes anywhere) was lacked. Or
2. Participants in the planning process understood the meaning of totality as was expressed in the planning outputs: 'the total of only elements and components of the landscape', while it is in theory 'the total of elements, structure, and processes that compose, create, and alter the landscape'.

The two alternatives, however, could be merged to give another interpretation, according to which participants (who lack the experience and data) considered the landscape as a total including only the total sum of elements and components. Personal meetings and interviews support this interpretation rather than the individual interpretations above.

Planning in theory has many understandings which diverge in many respects but converge in others (see section 3.2 on page 58 for more details). The meetings and interviews with planning professional and participants in the planning process in the Gaza Strip indicated that planning in the Gaza Strip over the study period was more considered as: 'the deliberate consideration of alternatives to reach the desirable actions to be taken'; however, it was also seen as 'a purposeful activity that develops a set of objectives and seeks the best means to reach these objectives' and as 'the use

9.1 Analyzing landscape planning in the Gaza Strip from a theoretical point of view

of scientific and technical information to provide options for the decision makers'. All theoretical understandings of planning were then in the background of planning understanding in the Gaza Strip excluding the one of developing policies, laws, and regulation (the lack of policies, laws and regulations was very obvious in the planning outputs). However, what actually distinguished the planning outputs is the dependence on the scenario and alternatives approach. When using alternatives (e.g. the Regional Plan for Gaza Governorates), one alternative was viewed as a desirable solution and the other alternatives were excluded; i.e. no deliberate options or alternatives was actively considered. The planning outputs formulated, to great extent, clear objectives in the beginning of the planning process; however, they did not develop any means to reach these objectives. They also did not provide clear options to the decision makers.

9.1.4 Actual landscape changes in the Gaza Strip

The following is an analysis of the actual changes related to the landscape of the Gaza Strip over the study period (which were reviewed in chapter 7) from a theoretical point of view, based on the theoretical considerations presented in chapters 3 and 4. Actual changes in the landscape and land use of the Gaza Strip include the real changes and implementations which were undertaken by different groups and parties over the study period including mainly the residential developments and the strategic projects.

The concept of high density of urban areas (in other words, the compact city) can be extracted from the housing projects which were constructed in Gaza city. The three projects (No. 6, 7, 40) with the least 'area/unit' exist in Gaza City, which is the largest settlement with the highest population density in the Gaza Strip (if refugee camps are excluded). All of these three projects have been already constructed¹. Nevertheless, this is indeed likely to be by accident and not as a strategy. As has been mentioned earlier in section 7.1.2 on pages 187 to 194, low density residential developments were generally considered in the open landscapes, where, on many occasions, the donor side determined the design and the specific characteristics of the housing project they pay for. In the built-up areas, high density is considered because vacant lands do not largely exist (but only small plots each of which does not exceed 10,000 sq.m), at the time that donor (in this case, they are investors) were looking for the best financial benefits by increasing the number of units on these small plots.

In the context of planning for instability and conflict, the concentration of the already-constructed housing projects in the northern part of the Gaza Strip (and in Gaza city in particular) is an example how civilian local residents usually look for a

¹ Refer to appendix L on page 310 for more details

safe place to live and they leave hot spots such as the southern part of the Gaza Strip where the main concentration of the Israeli settlements were constructed.

9.1.5 General planning issues

- As has been mentioned above, planning issues include both the plan making process, the planning outputs, and their implementations. Experience of planning as a process (including physical planning) was limited in the new Palestinian Authority. Palestinians had to receive considerable and clear help and experience from developed countries; especially, in the first period and in issues related to environment and landscape. Physical Planning in the beginning presented several ideas by preparing different environmental, physical and spatial 'draft' plans in which landscapes and natural resources were given considerable attention regarding their protection or development. In this period, physical planning for the Gaza Strip attempted (and was supposed) to rely on the scenario approach to overcome the uncertainty in the future. In particular, Gaza Land Resources used the scenario approach very clearly, and developed conclusions to prepare a physical model (see section 6.3.1.6 on page 159) that concentrated on protecting Gaza land resources. The most important planning output (which is the Regional Plan for Gaza Governorates) mixed alternatives and scenarios in the shape of five 'alternative regional development models' (see section 6.3.1.8 on page 165). These alternatives should have been classified into two groups (i.e. two scenarios):

1. The 'No Planning' or more precisely 'Disorder' scenario, which could be represented by the first alternative
2. The 'Planning' or 'Order' scenario, for which one of the other four alternatives (or a balanced consideration of all of them) could be applied; each alternative here could, therefore, be applied separately only under full control, order and/ or planning conditions.

This mixing between scenarios and alternatives was indeed one of the main problems which resulted in the deficiency of the Regional Plan for Gaza Governorates. It resulted in treating the first scenario (i.e. Disorder) as an alternative equally seen with the other alternatives, and consequently was easily ignored afterwards in the plan design when alternative No. 3¹ was focused upon. It can be understood that the 'Disorder' scenario was completely ignored when the hopes for the peace process were high. But the future completely lacked peace conditions, and implementation completely lacked any preparation (i.e. planning) for this

¹The development of two central cities: Gaza and Khan Younis

9.1 Analyzing landscape planning in the Gaza Strip from a theoretical point of view

situation. The final result has been that the whole area was left without planning for more than 10 years, and there were no recommendations, laws, policies or regulations to direct development and to steer landscape change over the study period.

- The main planning strategy was to rely on 'comprehensive long-term planning'. Many studies in almost all fields were, therefore, presented including ones dealing with landscapes. The strategy was replaced by 'incremental planning' based on a step by step approach as all conditions were changing and deteriorating rapidly.
- Many problems affecting the planning system had their roots at the beginning of the planning process when the lack of local professionals was the first challenge that required Palestinians to accept both the services of foreign planners and of Palestinians with different specializations and experiences, other than planning, to carry out most of the planning activities.
- Integration of environmental issues was not effective and, in many cases, was completely ignored. In addition, and with the little concentration put on the ecological values of the landscape, landscape ecological planning was not concentrated upon either. Approaches to landscape ecological planning, therefore, were not considered.
- The products of planning activities in the first period were distinguished by an imbalance in favour of survey and data collection. Although this corresponds to the first steps of planning process, in fact these 'survey documents' tended to be treated as finished plans; the Emergency Resources Protection Plan, for instance, is not more than a survey and data collection on natural resources. More obvious is the General Housing Plan (1995-2015) which can hardly be considered as a plan. It did not have a document to note main problems and challenges, aims and objectives, approaches and tools, etc. It had not been more than a map of the Gaza Strip over which locations (which are not precise) of 49 housing projects were allocated with a table that shows areas, number of units and status of construction of each project. It had been continuously updated to match any new situation. Housing demand, for which the plan ought to be fixed, was not shown by any means. Phases, a time schedule, or a management plan were not also considered for any of the projects which had not yet been designed or constructed.
- Scope for concepts of sustainability and sustainable development was small. The Emergency Resources Protection Plan indicated meanings of sustainability very

9.2 Analysing landscape planning in the Gaza Strip from empirical point of view

early in the main aims which were afterwards emphasized in most planning outputs starting with the Gaza Land Resources which called for a 'planning framework' to assure a sustainable development (MOPIC, 1996a). This framework had three pillars (as has been mentioned in section 6.3.1.6 on page 159): land use zoning, institutions, and legislations.

- The lack of enforcement instruments and support from the political level aggravated the challenges faced.

9.2 Analysing landscape planning in the Gaza Strip from empirical point of view

In this section, landscape planning and management in the Gaza Strip is compared to (and analysed in the light of) the empirical experiences of landscape planning and management in the case studies which were presented in chapter 5. Landscape planning and management in the Gaza Strip has been presented and analysed in details in the previous three chapters and from different angles. As has been mentioned in the conclusion of chapter 5, each case study has its own particular situation beside other conditions that could correspond with conditions of other cases. The Gaza Strip case is not an exception. It has its own conditions that can hardly be met by other cases at the same time that it also has conditions similar to those of other cases.

9.2.1 Environmental and landscape concerns

The environmental and landscape concerns in the Gaza Strip have been at a very low level. The Israeli occupation almost completely ignored this aspect at most scales, but most neglected was the local level, through education and other sources of knowledge such as media tools. That happened at the time that environmental awareness had been increasing all over the world and also in Israel starting from 1950s, when several laws related to nature protection were enacted and several institutions to carry out related activities were established. The other case studies also showed, more or less, similar attention towards environmental and natural aspects, but with a variety in the starting point. In particular, Lebanon is an example where attention was first paid to environmental issues in 1990s when conflict conditions started to decrease. This is also the time when Palestinian Authority started to consider such issues after the peace agreements of 1994. The Lebanese case is similar to the case of the Gaza Strip regarding another point which is related to concerns and attention towards environmental and landscape issues. It is, from one side, about the shortage of local human resources in related fields and, from another side, the external financial and technical support.

Lebanon is largely depending on external cooperation represented mainly in projects related to environment and nature protection. This is also reflected in the cooperation commenced between local and external educational institutions such as universities and between these on one side and the local responsible bodies on the other side aiming at developing research related to these activities. This last idea of cooperation between universities and local responsible bodies as well as between local and external universities regarding environmental and landscape issues was not given any attention in the Gaza Strip over the study period.

9.2.2 Legislative framework

The legislative framework in the Gaza Strip is very weak compared to the ones from the case studies investigated. It is limited to the old Town Planning Ordinance No. 28 of 1936 which was established during the British Mandate and amended by the Egyptian administration, and the Israeli occupation, whose input was mainly to serve for their own interests especially the military control during the Israeli occupation. The case studies showed that areas of regulations as well as levels of details of each regulation increase when the attention towards the respective matter increases. The Palestinian Authority has not enacted new regulations that control the process and output of physical planning. The case of Lebanon is the closest to the Gaza Strip case in that it has just recently escaped from a similar situation by enacting the National Physical Master Plan of Lebanon in 2002. However, as has been noticed from the other case studies, legislation from other sectors (such as environment, transportation, housing, etc.) should support and conform with the physical planning legislative framework; the status that does not exist in the Gaza Strip either in the form of inadequate planning in other sectors or in the form of lack of cooperation and consultation among responsible bodies (e.g. conflict between the Housing Plan and the Regional Plan).

One point to be compared in this section is the role of the foreign occupation. It is clear from the cases of Hong Kong and Mauritius that the legislative framework relating to town and country planning started under the British occupation. This was the case in the Gaza strip as well. What is different in the case of the Gaza Strip is that the other foreign occupation in the shape of the Egyptian administration and the Israeli military occupation did not develop this legislative framework for the benefit of the Gaza Strip for a period of more than 55 years. They even did not develop any plan at all, leaving the Gaza Strip in a legislative void from the town and country planning point of view, at a time when similar issues were rapidly developing all over the world. The result was a clear under-developed status in the Gaza Strip. It is also likely to

9.2 Analysing landscape planning in the Gaza Strip from empirical point of view

mention in this context that the peace agreements did not focus on related issues while the main Palestinian interest was mainly about pure political issues.

9.2.3 Institutional arrangements

Institutional arrangements in the Gaza Strip look similar to those of the different case studies; at least on the surface. A system of three levels (national, regional, and local) is considered in the Gaza Strip; however, the national level does not exist in reality due to reasons discussed in section 6.1.1 on page 139. This brings the case of the Gaza Strip very close to the ones of Hong Kong and Mauritius; at least from this point of view. The case of Lebanon is also close to this situation as it relies mainly on two levels ignoring, to some extent, the regional level. However, as argued in section 5.4.4, the level of details presented by the higher level in the Lebanese case is not enough to guide the local planning process. In this context, the case of the Gaza Strip is very similar to the case of Lebanon.

Looking from another angle, and according to the case studies, approval is required for planning outputs from direct higher level. It might also be possible that lower levels give recommendations to higher levels. The Gaza Strip case has another system which is comparable to cases from one side but not from other sides. Local planning in the Gaza Strip is completely separate from regional planning. Regional planning outputs (from the Ministry of Planning) must be approved by the highest national body (e.g. the President or the parliament according to a Presidential Ordinance). This concept is not normal in most cases; national strategies and legislations (acts) usually should be approved by the highest national legislative body and regional planning output is prepared according to these strategies and legislations and approved by the relative ministry or department. Local planning in the Gaza Strip, which is not guided by regional planning outputs, must be approved by the Ministry of Local Governance (without any further consultation with other bodies). The role of the Ministry of Local Governance as a regional coordinator is also normal as in other cases; however, the ignorance of any higher planning output is not found in any other case. In the Gaza Strip, the problem is with the approval procedure, where regional planning outputs have not been formally approved. This is very close to the case of Lebanon when Organizational Degrees are not issued to bring Legislative Degrees into force for long periods.

9.2.4 Landscape planning and management

Aims and objectives

From theoretical point of view, landscape planning and management in the Gaza Strip

had the aim to protect the natural resources. This is very much similar to the case studies mentioned in chapter 5.

Vertical Hierarchy

Concerning the hierarchy in the physical planning system, it is hard to describe the one in the Gaza Strip either as a top-down or a bottom-up system. In this respect, the case of Lebanon is the closest to the Gaza Strip. Municipalities in the Gaza Strip developed their own master and detailed plans while the ministry of planning developed a regional plan. The two sides, unfortunately, did not meet in the middle (i.e. at the regional level).

Approaches and tools

The approaches used in physical planning in the Gaza Strip concentrated on developing scenarios and alternatives. Similar approach was also used by the Netherlands. The Gaza Land Resources, which clearly relied on the scenario approach, was developed by the consultation of experts from the Netherlands. The regional plan, which relied on the alternatives approach, was developed with the consultation of Norwegian experts. Other invented approaches (as in the case of the Netherlands) were not developed in the case of Gaza. Developing research and theoretical and empirical experience in landscape planning in particular (and physical planning in general) has not been represented in practice in the Gaza Strip.

The approach to landscape protection was theoretically developed in the Gaza Strip in the Landscape Assessment, which classified the landscape of the Gaza Strip into three groups or grades with different levels of protection depending on the quality of the landscape. This is comparable to the Israeli approach of categorizing the landscape into five groups, one of which included areas which have not been categorized in any of the other four groups because of the lack of information. This last group has been very much needed (but missing) in the Gaza Strip, where large areas were categorized in one of the three groups with high levels of doubts about their status. These areas included the Israeli settlement areas, which were not accessible to the Palestinians during the Israeli occupation and were categorized in grade 1 (i.e. with high quality). Moreover, tools to carry on the process of protection were different in the Israeli case (e.g. laws, enforcement, education, etc.) but absent in the case of the Gaza Strip.

Challenges

Challenge facing landscape planning and management in the Gaza Strip are many. Some are similar to those of the case studies. Overpopulation and small size of land (i.e. high population density) is a challenge for all cases, but in different scales. Hong Kong in particular has the highest population density. However, owning the land by the Hong Kong government and controlling the new developments (mainly housing developments)

9.3 Looking to landscape planning in the Gaza Strip from different angles

alleviate the impacts from this problem. This is also similar to the strategy of the Netherlands, where the government creates new lands or improves the quality of others and consequently control the housing developments. This is not comparable to the case of Gaza at all where private properties compose about 64% of the whole area of the Gaza Strip and tools to control developments are absent or, at the best, weak. Most cases started to consider the urban landscape and to make use of the urban vacant lands; the ideas that have not yet been developed in the Gaza Strip.

Challenges also include conditions of war. One challenge to landscape planning and management in the Gaza Strip are the impacts resulting from the Israeli military operations. This is also an issue in southern Lebanon. Related to this are the military training areas in the Gaza Strip (particularly on the beach). Military training areas are also noted by the Israelis as a challenge creating impacts on the natural areas.

Management of conflict

Results from the case studies showed that no conflict management plans have been considered in sectoral planning such as urban and rural planning. The Gaza Strip case in landscape planning and management did not also show such a plan. However, the particular conditions of the case studies are different from those of the Gaza Strip, where at the time that all the case studies have no current conflict conditions (or at the worst, very limited conflict conditions such as in the case of the southern borders of Lebanon/ northern borders of Israel), the Gaza Strip has been vulnerable to such conditions at large scale, especially during the time of preparing the main plans related to landscape and land use.

9.3 Looking to landscape planning in the Gaza Strip from different angles

It is obvious from the previous discussions that the process of landscape planning in the Gaza Strip had a considerable number of differences when compared both to the theoretical basis and to the empirical experience. Looking from different angles, it is possible to examine the planning process in the Gaza Strip in the period 1994-2005 from the environmental, political, and socio-economic angles.

9.3.1 Looking from the Environmental angle

The environmental challenges that faced the planning process were enormous. In addition to the normal environmental challenges that face the physical planning elsewhere (e.g. air pollution, noise, solid and toxic wastes, etc), other environmental challenges with particular significance had to be considered in the Gaza Strip case. The clearest

9.3 Looking to landscape planning in the Gaza Strip from different angles

issue has been the rapid and disastrous deterioration and degradation of the environmental status because of the abuse of natural resources and landscapes. This has greatly affected both biotic and abiotic components of nature including flora and fauna. Identification of existing environmental problems was actually a complicated issue because the environmental situation was changing rapidly. Completely new facts have been generating during the time used to make a plan; this had resulted in plans without any real starting point.

The use of generalized goals and objectives, as has been mentioned above, is very clear from environmental point of view. For example, a general and clear goal was formulated in the different planning outputs; this was simply: 'to protect the natural resources'. It is actually the goal of carrying out the activities of landscape planning almost everywhere; however, specific and detailed objectives about how to reach this goal were not very well established or formulated. Landscape assessment (as a macro environmental issue which emphasized the visual values) was also considered in the planning process, but the results obtained were more or less generalities as well. Time factor was not playing a positive role in the issue of collecting detailed environmental data, which were required for detailed results. It was limited because no previous plans exist and there was an urgent need for at least primary master plans.

Approaches and methodologies relied in many cases on the scenario approach, where environmental issues were not considered among the basic alternatives; especially the micro-environmental ones. The same behaviour can also be seen when alternatives were used. Public awareness regarding environmental issues was weak and public participation did not generally have much importance in the planning procedures.

9.3.2 Looking from the political angle

Political problems and challenges have been the factor that had most negative influence on the planning process when compared to the theoretical model. This issue can be discussed with relation to the political problems caused by the Israeli occupation and by the Palestinian Authority.

9.3.2.1 Political challenges from the Israeli side

Principally, planning was not a Palestinian issue during the Israeli occupation before 1994. All planning activities were taken by Israeli military officers to apply the Israeli strategies in the Occupied Palestinian Territories. This strategy was applied through the ignorance of these issues in the education and learning systems and tools. Israeli occupation was, therefore, responsible for the general status of carelessness regarding environmental and landscape related issues. These issues were also excluded from

9.3 Looking to landscape planning in the Gaza Strip from different angles

education that Palestinians received in school and from the general knowledge that they might obtain from different sources such as media instruments. This issue affected public participation in the planning process, where Palestinians in the Gaza Strip have neither been involved in this process (by the responsible bodies) nor they asked to participate as a personal human right.

Identification of future political problems and challenges was very hard. Peace agreements were not respected by the Israeli side and any future dates from these agreements were thus useless and served no purpose. The re-occupation of the Palestinian lands resulted in high levels of uncertainty, and thus more generalities in setting goals rather than specific and clear objectives.

Collecting data and possessing up-to-date maps were all restricted because of Israelis security-related issues. Palestinians were not allowed also to carry out activities of field work and data collection in lands under Israeli control and in many times in lands that supposed to be under Palestinian control as well. Landscape assessment and analysis was not therefore properly done or developed.

Methodologies and approaches for landscape planning were very much affected by the political conditions. Uncertainty was supposed to be given more concentration and the scenario and alternatives approaches were thus the most used and relied upon.

The approval process was also affected when restrictions on movement and meetings to set or to approve plans (mainly on regional or 'national' level) were imposed by the Israeli occupation forces. This happened by establishing many check points by which the Palestinian Territories were divided into many smaller parts.

Regarding actual changes, Israeli military has been responsible for a great part of the actual landscape changes happened in the Gaza Strip between 1994 and 2005. As mentioned in section 8.3 on page 218, the Israeli military cleared more than 31 sq.km. (which is about 8.5% of the Gaza Strip area), and most of these lands were agricultural lands. The Israeli occupation also influenced the Gaza Strip's landscapes indirectly (as mentioned in section 2.2.8 on page 48) through the terrible socio-economic conditions they created.

9.3.2.2 Political challenges from the Palestinian side

The Palestinian Authority built its institutions preliminarily according to the peace agreements where planning issues were merged in the Ministry of Planning and International Cooperation, which was mainly responsible for foreign affairs. Foreign affairs got much importance because of the primary stage of building foreign relations at the same time that the Palestinian Authority was looking for support from all over the world. The planning sector got much support from foreign countries as well, but from

9.3 Looking to landscape planning in the Gaza Strip from different angles

the internal side it was not given the appropriate attention. This internal ignorance of landscape planning had negatively affected the planning process. The most obvious effects were mainly two: the first was ignoring both public participation and raising public awareness regarding issues relating to planning. The second was the inappropriate approval procedures, which had more obvious negative effects on the planning process because this completely delayed the implementation of the planning outputs and even raised the question of the existence and reality of the planning output. Moral problems such as self-benefit rather than national or public interest also affected the planning outputs especially on the decision-making level.

The negative role of the Palestinian Authority in the planning issues is actually concentrated in the pre-planning stage and not with the consequence of the process itself. This strongly contributes to the arguments about administrative bodies as follows:

- Having been ignored as an independent discipline, landscape planning has not got the appropriate attention. It was not generally known which administrative body had the responsibility for landscape planning. This could be generalized to argue about the existence or absence of governmental planning institutions for physical planning. Scattering responsibilities among several weak governmental institutions and the absence of co-ordination and lack of consultation among the different governmental institutions resulted in several different forms of conflict, but the most important is the lack of agreement between planning outputs.
- Nature reserves did not receive the required importance by governmental institutions other than those with relation to planning issues. Indeed, these areas are considered with the least importance; e.g. the largest housing projects (in terms of land area for each housing unit) have been planned in nature reserves (see appendix L on page 310).
- Weak governmental bodies and corruption in many of those which are not able to set policies, to organize public participation efficiently or to push, when there is a need, the approval of the most-needed plans.
- Existing planning bodies worked under pressure of lack of time, especially when compared to the rapid changes that were occurring.
- Absence of non-governmental organization to take part of responsibility.
- The existence of an institution responsible for approving of local plans (the MOLG) did not offer any guarantee that the output would result in a homogeneous physical plan for the whole Gaza Strip, because there have been no com-

9.3 Looking to landscape planning in the Gaza Strip from different angles

mon guidelines that could control local planning in all municipalities and local councils. Each of these produces their own local plans independently.

- The areas of the municipalities and local councils do not totally cover the area of the Gaza Strip. This means that either there must be another planning system and strategy over the Gaza Strip (done by MOLG staff) or there are areas without any kind of planning. Lack of professional planners in MOLG would seem to make the second alternative more likely.
- It was not generally clear which administrative body had the responsibility for landscape planning; problems of approval and implementation had the most negative effects on the reality of planning process.

9.3.3 Looking from the socio-economic angle

The economic conditions of both government and the people in general affected the planning process because of the fact that any governmental activity requires financial support. The Palestinians received much support from foreign countries at the beginning of the study period, but they have not received this support regularly afterwards. The more efforts these activities need, the more support they need. Therefore, activities such as collecting the appropriate data and using advanced techniques; involving public communities and considering effective feedback; and implementation of plans were all negatively affected. In addition, economic conditions were considered in decision making when scenarios and alternatives were discussed. Costs had thus considerable attention in the process of determining approaches and methodologies, and setting plans. Countries or organizations which presented financial support to the Palestinian Authority also influenced the decision making regarding scenarios and alternatives in order to accommodate their points of view. Economic factors with relation to local traditions and social measures were supposed to be taken in consideration as well, including ownership of lands and traditional land uses. Specific social criteria affected the planning process when, for example, local residents refused to give accurate data regarding issues with relation to their land properties because they were used to do so under occupation conditions. Palestinians are also used to rejecting new plans and regulations as a habit (something that goes back to the period of occupation) because regulations and policies were usually against their hopes.

Palestinians (including the government as well as the people) have greatly been dependent on financial support from a wide range of non-governmental agencies, organizations, and even individuals such as princes and governors from the Arab Gulf area. The amount and shape of this support varied and consequently the lands required for

specific projects (sometimes for the same purposes such as housing) varied and, the worst of all this, sometimes influenced the zoning of other purposes such as the nature reserves. The high level of private ownership of lands is a big challenge as well as an obstacle facing the physical planning system in general. It is so from two different points of view:

1. The use of land is too much left to the decision of the owners who developed constructions on their lands with the least amount of control (MoPIC, 1996a).
2. The government does not have choices to establish strategic projects and consequently governmental lands, which might have outstanding characteristics from ecological landscape point of view and which should thus be protected from development, were used for projects. This was, for instance, the main reason behind the use of natural reserves in the North Governorate for governmental housing projects.

Ownership of Beir Es-Sabaa lands has been another challenge. As has been mentioned, these lands have not been implicitly defined, and most of them have been occupied by locals. It is a challenge for the Palestinian Authority to get these lands back from local residents after tens of years under their use. This is the likely reason why no single housing project, for example, has been constructed in these lands (see figure 7.6) at a time that about one quarter of these projects should have been constructed there. However, establishing the airport in part of these areas indicates the possibility to get the lands back from local people, although other interpretations suggest that the airport is a special case because these lands are the furthest in the south-east of the Gaza Strip and very close to a military area. Each square metre in the Gaza Strip is significant for people who use or oppose it.

9.4 Conclusion

Landscape planning and management in the Gaza Strip, as in many other countries and areas, has not been recognized as a separate field either in the administrative bodies or in the planning outputs. Physical planning, nevertheless, covered issues related to landscape planning. In this context, landscape planning and management in the Gaza Strip has been very close to both theoretical and empirical experiences presented in the second part of this study, although management is an issue which has been hardly considered in the physical planning system or outputs. Absence of the implementation phase (either in the plans produced or in reality) reduced the management considerations to the lowest level. Moreover, landscape planning in the Gaza Strip, showed

similarity with the theoretical and empirical experiences regarding other issues. For example, the hierarchy in the administrative system corresponded to the widely-known three levels system; however, the special conditions of the Gaza Strip (considered as a separate region of the Palestinian Territories) played a significant role in the absence of the national role, while the internal challenges and problems have mainly been responsible for the inefficiency in the planning process (especially when compared to other cases). Although the process of physical planning in the Gaza Strip was taken in a logical sequence, several important steps were missed; e.g. stakeholder consultation, public participation, and preparing implementation and management plans. In addition, more depth was required to complete the other planning steps and activities which were undertaken within the planning process; e.g. defining problems and challenges and goals and objectives, carrying out assessment and survey, developing approaches and methodologies, etc.

Landscape as well as planning was perceived in the Gaza Strip in at least one theoretical meaning; however, there were also problems in interpreting such a perception; e.g. totality of a landscape was perceived in the Gaza Strip as the total visual components which is not the theoretical perception that considers also the processes that change or create the landscape. Compared to the theoretical and empirical experiences, environmental and ecological values were also not integrated in landscape planning (represented in physical planning) in the Gaza Strip. This situation has closely reflected the low level of attention and concerns paid to environment and landscape on the different levels which was a main result of the conditions of the Israeli occupation.

The legislative framework and the process of approval (which are theoretically as well as empirically at the base of the planning process) showed a clear deficiency in the Gaza Strip. This situation reduced the possibility to implement any of the physical planning outputs especially under the conditions of full absence of the required tools such as public awareness and enforcement. Nevertheless, actual activities were positively seen from theoretical and empirical viewpoints. The compact city concept is an example which can be seen in constructing few housing projects inside urban settlements. Concentrating housing in areas far from the hot conflict spots is another concept that meets principles of planning under conditions of conflict.

Comparing landscape planning in the Gaza Strip to other cases showed that each case has its own conditions and consequently planning system, challenges, tools, solutions, etc. The Gaza Strip corresponded to the case studies presented in chapter 5 regarding several issues such as the existence of a legislative framework, the general aims and objectives, the vertical hierarchy, few approaches and tools, etc. Nevertheless, most of these aspects were also subject to abuse, shortage, and / or ill-treatment.

The Gaza Strip has had its own environmental, political and socio-economic conditions which should have been considered in the physical planning process; however, this was not the case. Physical planning tried to meet few theoretical principles at the expense of others which emphasize the importance of considering the local conditions at the base of the planning process. The planning process was, therefore, neither successful from theoretical point of view, nor from empirical and actual changes point of view. A system that takes both theoretical principles and local conditions into account is, therefore, an urgent necessity in the Gaza Strip. The next last part of this study attempts to invent such a system.

PART IV

Conclusions and Recommendations

This last part finalizes this study by making conclusions and setting recommendations to landscape planning and management in the Gaza Strip in particular and in the developing countries in general. The previous part showed that there is an urgent necessity to create a system in the Gaza Strip that takes theoretical principles, empirical experiences, and local conditions into account. Therefore, this part of this study attempts to invent such a system relying on the discussions and conclusions from the previous two parts and building on the special conditions of the Gaza Strip presented in the first part. Recommendations to the developing countries are then made relying on the similarities between the Gaza Strip and the developing countries which were presented in the first part of this study. Moreover, few questions have been left for further research in the future. Most of these questions are about details related to landscape planning and management in both the Gaza Strip and the developing countries but mainly in the developing countries where conditions are widely vary from case to case.

From terminology point of view, in this part, the emphasis is more on physical planning and land use planning. Physical planning is likely to be the actual representative of landscape planning in the Gaza Strip as well as in the developing countries. This does not mean, by any means, that landscape planning is ignored; oppositely, it is in the heart of this part.

Chapter 10

Future landscape planning and management in the Gaza Strip and the developing countries

This chapter draws conclusions from the previous discussions related to landscape planning and management in the Gaza Strip and to a lesser extent in the developing countries. It proposes guidelines for both the near and the most future but with more emphasis on the near future. These guidelines concern, amongst other things, the administrative and institutional arrangements, the main challenges, aims and goals, approaches, and plan design. However, it is important to define the planning sector through which landscape issues should be taken into account in the context of the Gaza Strip. Ideas and concepts from the Gaza Strip are applied to the case of the developing countries in general as a final output of this study. Nevertheless, challenges are continuously generated and new questions will, therefore, continue to be raised. A number of questions are presented at the end of this study for further research.

The main aim of this research study is to produce broad recommendations and /or strategies for landscape planning and management, mainly with relation to the Gaza Strip but to a lesser extent in the developing countries, as far as this is supported by the discussion, analysis, and conclusions from the previous parts of this study. Consequently, when the planning process, for example, is mentioned below, the focus is on the planning process as a whole and not the preparation of a specific plan. Similarly, the administrative body is the one that should have responsibility for all activities of physical planning and not a body that is responsible for any specific plan.

10.1 Future landscape planning and management in the Gaza Strip

This section focuses on future landscape planning and management in the Gaza Strip from different angles, including the institutional and legislative frameworks and the landscape planning process.

10.1.1 Defining landscape planning in the planning system

As has been seen from theoretical point of view in section 3.3 on page 60 and from empirical experience of Israel, for example, in section 5.2.2.4 on page 113, landscape planning, in many cases, is undertaken under related sectors of planning such as physical planning, town and countryside planning, etc. Landscape planning as a separate planning field is probably hard to be defined in the Gaza Strip as well (as has been concluded in section 9.4 on page 243). This is mainly because the understanding of the concept in reality is poor and the attention devoted to landscape planning is very low. Consequently applying such a concept would not be effective, especially when considering that the availability of qualified local planners (and in particular landscape planners) is limited. A physical plan that integrates all landscape aspects should then be considered as the best option; at least for a short period of time. The extreme political and socio-economic conditions of the Gaza Strip imply the necessity to integrate these conditions in any future plan because (as has been concluded, particularly from chapters 2 and 9) they had a central role in shaping the spatial structure and the landscape status of the Gaza Strip. But, socio-economic planning is a big different issue, especially under these extreme conditions, and therefore, comprehensive planning in its wide context is not recommended. As a result, a 'comprehensive physical plan' is likely to present the most efficient model to landscape planning in the Gaza Strip situation, where these conditions are essentially taken into consideration relying considerably on sectoral plans and efforts done by other specialized relevant bodies. In this model, landscape would be integrated equally with such sectors as transportation, land use, wastes, sewerage, etc. At the same time, all sectors obviously have relations to landscape issues and all sectoral plans should therefore be agreed upon through an administrative system that ensures high levels of consultation and cooperation. A model for such a system in the Gaza Strip case is described below.

10.1.2 Administrative body and institutional arrangements

As has been seen (particularly, in section 9.1.2 on page 227 and section 9.3.2.2 on page 240), many problems in landscape planning and management and delays in implementations in the Gaza Strip were the consequence of disorder and ambiguity in the administrative system of physical planning. Thus, responsibility for landscape planning and management has to be taken by an administrative body that is able to carry on activities of planning and management. This body has to be clearly positioned within the government system so as to guarantee effective cooperation and consultations, and to use time, financial resources and efforts efficiently.

The Higher Planning Council

The planning process should be accompanied by the enactment of legislation and regulations, the implementation of which requires strong, active and responsible national administrative bodies. The creation of the Ministry of Planning as a self-standing institution in April 2003, was a step in the right direction to unify and concentrate planning efforts in a single organization; however, the ministerial nature of this body may create challenges. Planning relates to all fields of the other ministries such as environment, education, social affairs, health, finance, foreign affairs, local governance, energy, etc. Having the same ministerial status equal with the other ministries is likely to limit or reduce the attention and interest regarding the importance and totality of the planning activities, and will create competition between the different ministries. With regard to landscape issues, for example, competition or collision between Ministries of Planning, Local Governance, and Environment can be expected and the necessary cooperation may then be limited or reduced. Instead, national planning bodies should include the existence of a 'Higher Planning Council (HPC)' as shown in figure 10.1. The main aim of establishing such a body is to ensure, as much as possible, a high level of cooperation from all ministries and other institutions and at the same time to limit planning to this body. The idea of integration lies strongly behind the establishment of such a body which would aim to assure high levels of integration of all fields in the planning process, including physical planning and landscape planning. Integration concept has been increasingly considered in landscape planning and management as has been emphasized in the theoretical basis presented in chapter 3 and particularly in section 3.4.2 on page 65 and in the empirical experiences as well; for example, in the Netherlands case as has been seen in section 5.2.1 on page 106. The HPC could hence be established as a separate body but it could also be a main part of the Prime Minister office; it will then remain within the circle of decision making.

The HPC should be made up of professionals from all fields represented in the governmental institutions; mainly from the different ministries. The role of the professionals would be a dual one. They, being part of their institutions, would carry their own professional ideas (i.e. proposed sectoral plans) from their small circle to the largest (i.e. from ministries, for example, to the HPC) where they would meet each other; that means that proposed plans from all fields would meet on the same table. This indeed would not be the actual part of professionals' work. Their main role would be to represent the HPC when they are at their institutions; to defend the general principles, to look from the others' points of view, and to express others' ideas consciously. Their role would be to ensure that the purpose would not be to put obstacles in front of development ideas from other sectors when they disagree with their professional field,

10.1 Future landscape planning and management in the Gaza Strip

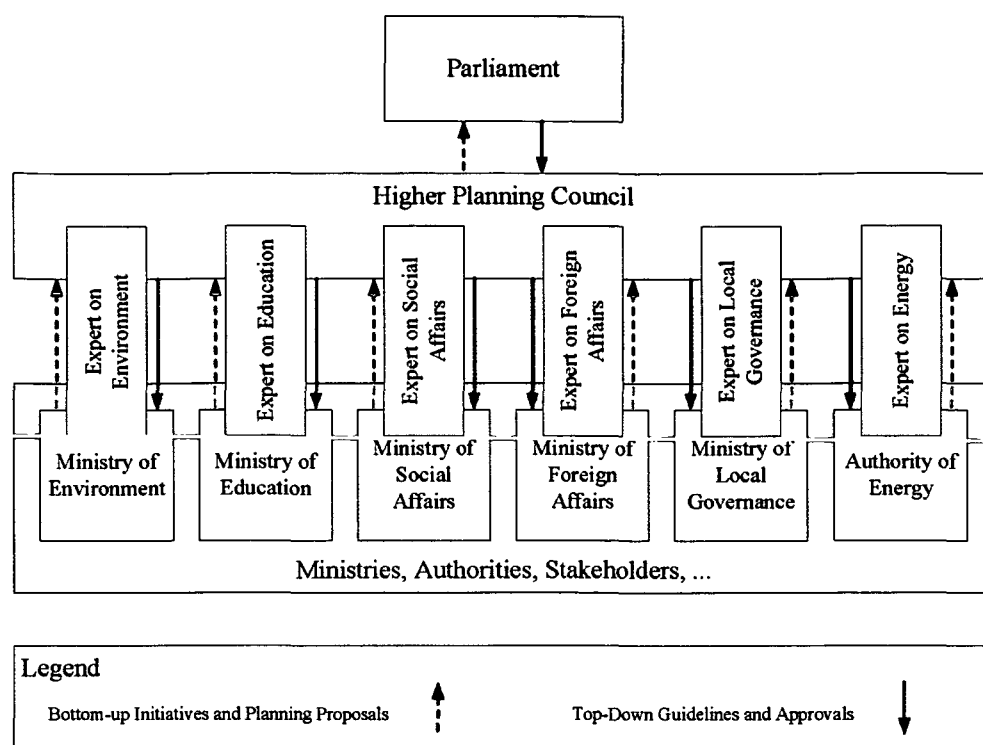


Figure 10.1: Recommended planning administrative system for the Gaza Strip in the future

but rather, their role would be to invent ideas to coincide with the others'. By this work both top-down and bottom-up ideas would relatively be implemented. The agreement of all members of the HPC on any sectoral plan is essential in order to approve (and consequently, to implement) this plan. It is important, however, to note that these plans (which would be approved by the HPC) should work only on the regional level. National strategies should be proposed by the HPC and approved by the Parliament.

Sectoral planning, nevertheless, remains fundamental. Each ministry or authority should develop its own plans that fit to the general principles and guidelines. Levels of plans are necessary to be clarified so as not all plans should be presented to the HPC. Nevertheless, defining levels for the different sectors is not an easy task. This should be agreed upon by the HPC itself. The case of landscape planning will be proposed and presented below when the role of the Ministry of Local Governance in physical and landscape planning is discussed.

Legislation

All plans would be supposed to be designed according to national principles and guidelines, which supposed to be enacted by the Parliament (Palestinian Legislative Council). Each institution should prepare acts and policies relevant to its specific area. These

10.1 Future landscape planning and management in the Gaza Strip

acts and policies should completely be agreed upon in the HPC; consequently, the integration concept would be applied. Acts and policies should then be passed (after complete agreement in the HPC) to the Parliament which would then issue these acts and policies. Nevertheless, more detailed and specialized policies should be prepared by the relevant responsible institution and then agreed on and issued by the HPC. Very detailed policies and standards should be prepared by the specialized department of the relevant institutions as will be presented below for the case of physical and landscape planning.

The role of the Ministry of local Governance and local authorities

The Ministry of local Governance is proposed to have responsibility for physical planning in the Gaza Strip as well as the sectoral landscape planning on the regional level. As illustrated in figure 10.2, the city level in physical planning, for example, would likely be the lowest level to be presented to the HPC because this level plays a significant role in the regional or national context in a case as such as the Gaza Strip as well as in other examples of mega-cities and city-states. The district level would then be the highest planning level to require approval by the Ministry of Local Governance.

The HPC would likely be realized on the lower levels. This means that each ministry is supposed to have a council (or a committee) with members from the main departments and / or directorates. In the case of the Ministry of Local Governance, the planning council should include representatives from all municipalities besides planners from the ministry itself. Municipalities would be responsible for developing city plans and district detailed plans according to general principles and guidelines which fit to the general acts and policies issued by the Parliament and through a committee which actualizes the idea of the HPC.

Planners from the landscape profession have links with a wide range of other disciplines together with a broad experience and understanding of other opinions. This enables them not only to participate from the beginning but also to lead other parties to communicate and to understand others' viewpoints. Planners with landscape background are in an ideal position to integrate fields such as society welfare, economy, health, environment, soils, topography, geology, biology, zoology, ecology, engineering and infrastructure, etc to provide a holistic overview.

Landscape issues should be included in the responsibilities of local bodies in order to integrate urban and landscape planning efficiently. On the local level in the Gaza Strip, and as has been mentioned in section 6.1.2 on page 140, there are two overlapping local systems: the municipalities and local councils and the Governorates. It has been mentioned that the former has several problems regarding issues related to physical and landscape planning, while the later has very limited responsibilities towards the local

10.1 Future landscape planning and management in the Gaza Strip

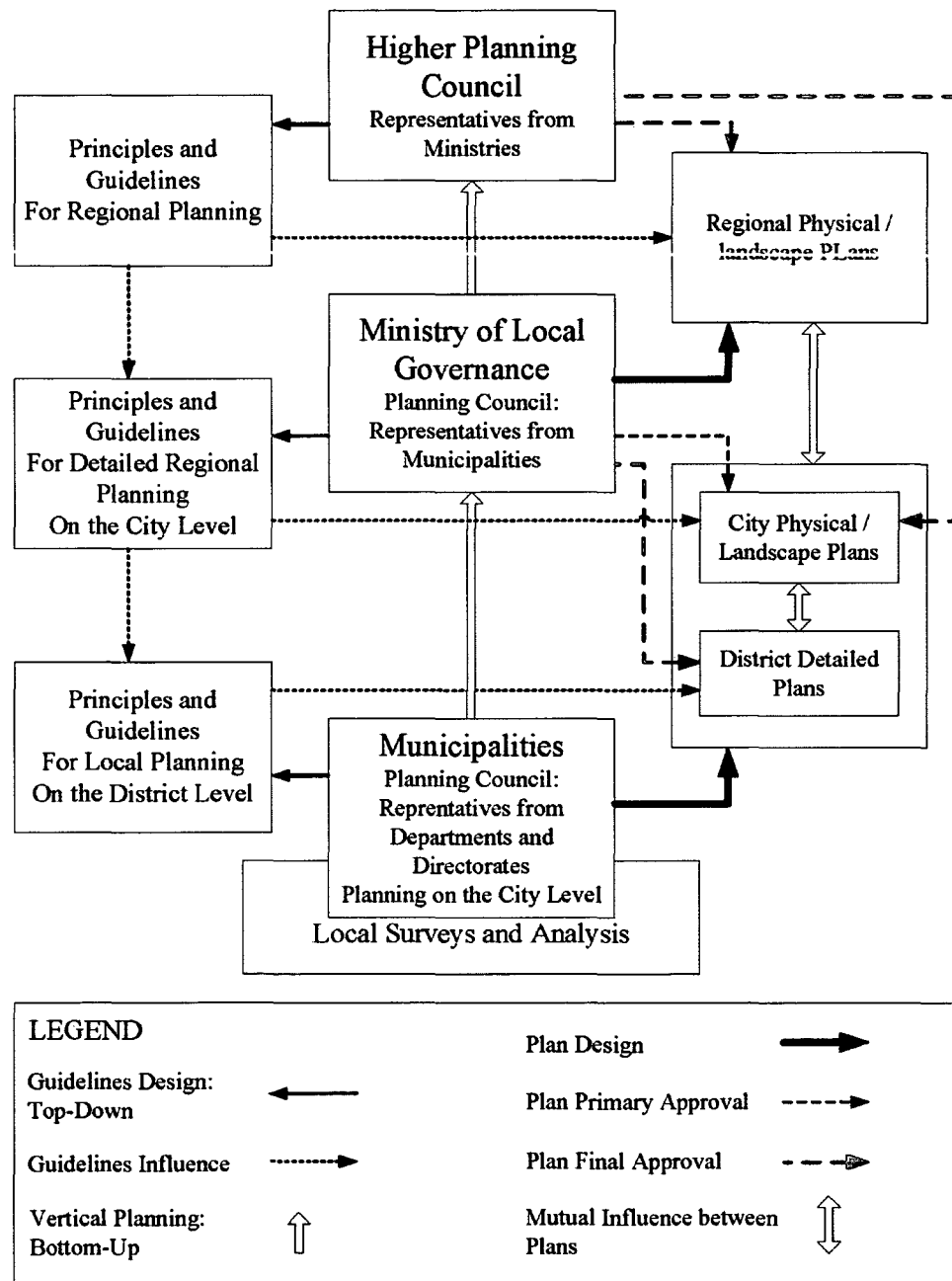


Figure 10.2: Proposed system of physical and landscape planning in the Gaza Strip

10.1 Future landscape planning and management in the Gaza Strip

community. Merging the 24 municipalities and local councils and the lands under the responsibility of Ministry of Local Governance into a smaller number of local authorities (i.e. municipalities) would help in concentrating efforts and saving resources. There would be no need for more than five local authorities to present services in this small area (i.e. the Gaza Strip). The current governorates division would likely provide a suitable balanced system over the Gaza Strip, as being already established and known at the local level. However, the role of Ministry of Local Governance would be essential to lead cooperation and assure efficient planning across borders.

Lastly, it is important to note that this system would be more efficient when suitably qualified persons are appointed in the relevant positions. As has been concluded in section 7.3 on page 200, landscape planning in the Gaza Strip faced several challenges because of the lack of local landscape planners in particular and physical planners in general. It has also been seen as a main challenges that resulted in a lack of attention regarding these issues in the developing countries such as Lebanon, while considerable attention has been given to this issue by the developed countries such as the Netherlands, Israel and Hong Kong as has been noted in section 5.4.4 on page 133. In future landscape planning in the Gaza Strip context, this issue should be taken into consideration and all participants in the planning process should be very-well qualified. This should be understood from two directions: first, planning activities should be undertaken by professional planners, and administrative activities should not necessarily be given to planners if they have not been skilled for such activities; in this last case, other persons who have skills in administration and management should be responsible for these administrative activities.

10.1.3 Future physical planning process

The future physical planning process in the Gaza Strip has to consider the principles of any physical planning process elsewhere in addition to other special considerations that correspond to the special Palestinian situation, which has been created and increased under the extreme conditions of the Israeli occupation and the resulting socio-economic consequences. As has been mentioned above, the physical planning process as a whole is in the focus of this study. Consequently, aims, approaches, tools, public participation, etc. will be the focus of the following discussion aiming at constructing strong foundations on which any physical plan (including a landscape plan) can be developed.

The discussions and analyses from the previous parts of this study (in particular, section 9.1.2 on page 227) showed that components of the planning process were differently perceived and/or applied to produce plans. Assessment and design were in a few cases fairly good (e.g. the RPGG-1998), while in other cases they were less so (e.g.

10.1 Future landscape planning and management in the Gaza Strip

design of the RPSG-2005). Similarly, the quality of defining problems and challenges, aims and goals, approaches and tools, etc. varied from one plan to another. In the future, more attention should be given to defining problems and challenges, setting aims and objectives, determining approaches and methodologies, involving community, approving and entering into force, and lastly implementation and management. What is left, mainly survey, assessment and design, is naturally not less important by any means, but the experience and analysis developed in this study tell that assessment and design have already some attention and are also subject to further recommendations below. The following is a presentation of each of the main components of the planning process comprising recommendations for future physical planning in the Gaza Strip.

10.1.3.1 Defining problems and challenges

In the future, it is expected that the planning process in the Gaza Strip will naturally face a range of problems and challenges. These may last either for short periods or for a longer time. In any case, specific actions should be considered to overcome all problems and challenges. However, it is important to distinguish between two kinds of challenges and problems with respect to the case of the Gaza Strip on the basis of the analysis and discussions developed in the previous part in particular. These are:

1. Problems and challenges that face physical planning in general and the physical planning process in particular: these problems and challenges include:
 - The absence of an effective legislative framework and enforcement tools.
 - The administrative and institutional system of the physical planning process unless it is reorganized in a way that corresponds with the one outlined above. Obviously, this problem will last as long as a system similar to the existing one lasts. The main challenge that faces the existing system and which is supposed to be overcome by the recommended one relates to cooperation and consultation between the different stakeholders, centralism and delays in approval process and implementation and management.
 - Ownership of lands. This problem has to be treated on at least two time scales. On the first it is very much important to carry out a new survey to clarify the real ownership of lands, especially after the last Israeli withdrawal from about 15% of the Gaza Strip area. The ownership that is known as 'Beir Es-Sabaa' is problematic. As has been mentioned in section 6.3.1.3 on page 149 and section 9.3.3 on page 242, although these lands are originally governmental, The Palestinian Authority was not able to use these lands, for example to construct any single housing project. The reason is that these

10.1 Future landscape planning and management in the Gaza Strip

lands were originally governmental since the Ottoman Empire period, when local people started to use these lands either with or without permission from the Governor of the area. In time, and with new generations who 'inherited' these lands from fathers and grandfathers, the real ownership of lands has almost been lost.

The second time scale involves other challenges. The largest part of properties in the Gaza Strip is in private ownership, and planning and development usually involve public interests meeting private ownership. Compulsorily purchasing important lands (i.e. which are with private ownership) for very urgent and critical developments (and compensating owners) is a big challenge. Based on the level of public awareness people will have in the future, and cultural influences (which are based on traditions and religion as has been mentioned in section 2.2.4 on page 42), new approaches and tools (as will be shown below) need to be created to overcome this challenge.

2. Problems and challenges that influence and / or result in impacts on land and natural resources such as:

- Problems and challenges resulting from political situation: this problem has been discussed in details in section 2.2.8.1 on page 48 and section 9.3.2 on page 239. Uncertainty will hopefully and expectedly decrease following the last Israeli withdrawal and clashes between Palestinians and Israelis will decrease. However, no final political solution has been agreed upon; something that leaves the field open for new clashes across borders as well as in any area in the Gaza Strip that can be attacked by the Israeli army from ground, air and / or sea.
- Problems and challenges resulting from the socio-economic conditions such as urbanization of the natural landscapes and exploiting natural resources: these problems have been explained in details in section 2.2.8.2 on page 49 and section 9.3.3 on page 242. These problems and challenges will be dominant and will continue as long as causes exist. As has been mentioned above, any comprehensive physical plan will not be able to solve this challenge because socio-economic field is a one that is influenced by many different factors, most of which are not directly related to physical planning. However, physical planning should include the existing situation and find appropriate approaches and methodologies to deal with this situation as will be mentioned below. It is also the purpose of physical planning in general

10.1 Future landscape planning and management in the Gaza Strip

and landscape planning in particular to propose solutions for some socio-economic problems and challenges, such as creating or reorganizing jobs related to land such as agriculture and grazing.

Clearly, the first kind of the problems and challenges is outside the scope of the process of physical planning; however, physical planners have much to do with these problems and challenges. They have, for example, the full right to propose legislation required to control physical planning and to ask (and perhaps to put pressure on) higher authorities to enact these legislations; this is indeed a part of their job. They also have the full right to organize (or at least, to ask for organizing) the institutional and administrative system, so as their efforts in planning will not be lost. This can also be included in the process of legislation enactment.

The second kind of the problems and challenges include those for which a physical planning process can provide a solution. The following discussion focuses on this second kind of problems and challenges. It aims to define the respective aims and goals, approaches and tools to develop recommendations for the design of physical and landscape plans. Suggestions relating to the first kind of problems and challenges are made when necessary.

10.1.3.2 Defining aims and objectives

Physical planning in the Gaza Strip (as elsewhere) has to have strategic national and regional aims and objectives so that all planning activities will coincide with these aims. Nevertheless, concentrating on the extreme conditions of conflict and instability (in the shape of 'conflict or disaster management plan', for example) is essential. At the same time, each (sectoral) plan should be developed with its own aims which must be clear and feasible. National level has a high degree of uncertainty in the short as well as on the long term. However, looking over the hedges is a principal in landscape planning because of the characteristics of the discipline itself, which is to a large extent concerned with uncontrollable natural forces and operations. **The main aim of landscape planning and management in the Gaza Strip in the future should therefore concentrate on the protection of natural resources to raise levels of life quality for current generation and to ensure as much as possible high levels of life quality for future generations taking into account preparing for protection of natural resources under conflict situations as well as special conditions such as flow of Palestinian returnees from worldwide.** In addition, there are other aims and objectives that should be considered in landscape planning. These include:

10.1 Future landscape planning and management in the Gaza Strip

- The integration of landscape issues gradually in all relevant sectors;
- Broadening the scope of landscape planning to include landscapes across the borders of the Gaza Strip; at least for effective analysis purposes; and
- Increasing public awareness of landscape planning issues.

10.1.3.3 Defining approaches and tools

Physical planning in the Gaza Strip should consider approaches and tools that reflect the local conditions of political conflict and relative high levels of uncertainty besides the low levels of socio-economic conditions. The main approaches recommended for physical planning in the Gaza Strip (based on the conclusions from the different parts of this research study) include the following:

Scenarios and alternatives

The scenario approach has previously been discussed in section 3.5.5 on page 73 and in section 5.2.1.3 on page 108 on the Dutch approaches to landscape planning from both theoretical and empirical angles, and in section 6.3.1.6 on page 159 on the Palestinian planning initiatives. The alternatives idea has been particularly discussed with relation to the Regional Plan for Gaza Governorate in section 6.3.1.8 on page 165. The relationship between the scenario and the alternatives has also been discussed in this context in section 9.1.5 on page 232. As a conclusion, it is clear that the dependence on the scenario approach is very much recommended as a means to overcome the issue of uncertainty. Scenarios that take into consideration all real possibilities in the main physical planning (e.g. the physical regional plan) should properly be prepared; each scenario should be considered and treated as a separate plan with its own assumptions, aims, tools, design, etc. At the same time, each scenario should have its own alternatives which usually deal with different possibilities to develop the most appropriate design of the plan.

Dependence on local traditional and religious background

Tradition as well as religion have great influence and respect in the Gaza Strip as has been mentioned in section 2.2 on page 27. From theoretical and empirical points of view (as has been seen in section 3.5.5 on page 73 and in section 3.7 on page 78), traditional activities related to landscape can be seen as being supportive to landscape planning and management. By contrast, the ignorance of local tradition in planning may result in conflict as has been noted in section 4.1.1.2 on page 89 and in section 4.1.2.2 on page 91. Consequently, tradition can be used as a way to help to develop landscape planning in particular and physical planning in general. The development of

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an ecological approach, aimed at supporting traditional land uses (such as agriculture) is hence very much to be welcomed in the Gaza Strip. Moreover, public good is in the heart of Islam principles. Islam encourages individual and private ownerships, but at the same time, as in many other places, Governor has the right to seize lands and compensate the owner if these lands are so important for developing public services.

Moratorium

Moratorium refers to the temporary prevention of development in areas without detailed planning proposals. Moratorium is an approach that should show effectiveness in a case like the case of the Gaza Strip. As has been described in the case of Israel in section 5.2.2.4 on page 113, this approach is considered when plans related to specific areas have not yet prepared; this is worth the situation in the Gaza Strip and this is why moratorium is important for the Gaza Strip. From another point of view, moratorium must be accompanied by active tools such as legislation and strong enforcement bodies, which is available in the Gaza Strip. Legislation is important to apply such a concept; however, moratorium is an approach that is also used to overcome the lack or absence of legislations. Moratorium should then be applied for a period of time through which enactment of legislation, field surveys, assessment and analysis, and detailed planning for the Gaza Strip are done.

Zoning

Zoning is an approach that is used to define and control land uses. It has been clearly defined in the theoretical basis of landscape planning in section 3.7.3 on page 82 and in section 9.1.2 on page 227. It has been highly recommended in the case of Hong Kong in section 5.2.3.3 on page 117 where urban planning is dominant. In this context, the Gaza Strip is similar, and consequently it is important to use this approach in order to overcome the problems that may result from mixing land uses such as industrial activities and residential areas; this problem was prominent during the previous periods. To some extent, zoning has been used in the Gaza Strip in the planning initiative such as the Gaza Land Resources (see section 6.3.1.6 on page 159 and the Coastal Zone Plan (see section 6.3.1.7 on page 162. Zoning is also an approach that can likely be used for both urban and rural areas. In this context, urban growth boundary is a relative tool that controls edges of urban zones.

Learning through implementation

Landscape projects in distinct landscape areas which are available for local people are very important as an approach to introduce landscape planning to them and to develop the process of landscape planning. A fairly successful application of such an idea is the Wadi Gaza Project, which has been described in section 8.2.3 on page 213. Besides,

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(as recommended in section 4.1.2.1 on page 90 for management in conflict situation), local participation in management (as managers) and in implementing related activities (as workers) is an effective approach to avoid conflict with local residents and to achieve good results. Local people can work in and guard the projects and planning achievements which will be implemented on ground. They will experience landscape related concepts and transfer their knowledge through the social traditional meetings and events.

Urban Growth boundary

An urban growth boundary is a working tool that has relevance in the case of the Gaza Strip. As described in section 3.7.2.3 on page 82, urban growth boundary can be used from its dual sides which are important to the case of the Gaza Strip. It will offer areas with low landscape quality for urban developments (which are an absolute necessity in the Gaza Strip) and, at the same time, prevent urban developments in areas with high landscape quality and protect areas of natural resources. Detailed survey is thus required in order to develop a process of defining such an urban growth boundary.

Environmental education and knowledge

Raising public awareness regarding environmental issues through education is an urgent necessity in the Gaza Strip in order to direct efforts towards actual challenges and problems. As has been noted in the theoretical basis in section 3.5.4 on page 70, this step is important in the planning process. In conflict situation, this step is significantly important as mentioned in section 4.2.2 on page 94. It has also been emphasized by the Case of Israel, for example. In the Gaza Strip context, environmental awareness and knowledge regarding issues of environment, natural resources, and landscape planning is lacked. Chapters 2 described the consequences of the lack of environmental awareness and education in the Gaza Strip in details while chapters 3 and 4 strongly emphasized the importance of this tool in physical and landscape planning as well as in conflict management. Moreover, in the case of the Gaza Strip and when landscape planning is in the focus of the process of physical planning, such knowledge is also required for participants in the physical planning process. The education system, including institutions (e.g. administration, schools on different levels and universities), methods, texts, etc., all have a central role in this process. Moreover, other tools such as local TV and radio and any other media types, which is not subject to any foreign intervention, do have a role in this process. Shifting the emphasis towards supporting socio-economic and environmental-related issues and away from the political issues would positively give more scope for the consideration of landscape issues in physical planning the Gaza Strip.

Legislations and policies

As mentioned earlier in many places of this study (e.g. theoretically in section 3.2 on page 58 and empirically in section 5.4.3 on page 132), legislation is at the base of any planning process; however, the Gaza Strip is in a legislative void. Enactment of legislation and policies in the different areas to fill this void is, therefore, an urgent necessity. Legislation is principally required to reorganize the administrative planning bodies and redefine responsibilities of each body. The public good related to environmental amenity should be a general aim of the enactment of legislation related to landscape and environment. For this purpose, legislations related to the protection of environment and natural resources are necessary. Nevertheless, minor aims can also be achieved through the enactment of legislation. Enactment of policies related to private ownerships, for example, is required to support the process of physical planning. The case of Hong Kong and to some extent the case of the Netherlands gave glances related to regulation of housing sector through the idea of public housing while, by contrast, the housing sector in the Gaza Strip context is problematic from different angles. The General Housing Plan has been problematic (as discussed in section 6.3.1.3 on page 149 and in section 7.1.2 on page 187) and the private housing sector has also been problematic (as mentioned in section 6.3.1.3 on page 149). Proposed policies related to this issue include the limitation of housing units owned by one person, and limitation of areas of housing units compared to persons live in. Charging higher approval fees or taxes is a tool to apply such a policy. One main reason standing behind this idea is the internal immigration from south to north. Those who immigrate are generally employees in governmental institutions or universities. In fact they, in many times, had their own houses in their original city or town in the southern part of the Gaza Strip at the same time that they bought or rent houses in the north. This is normal in normal conditions but not when land is scarce as such as in the Gaza Strip. Related to this are policies related to vacant lands (plots) in urban areas. High taxes on these lands will encourage owners to develop their lands or to sell to others who will develop for purposes coinciding with the land use proposed for the area where these plots exist.

Other tools

Additional to the previous tools mentioned above, there are other important tools which have been widely known and used in the theoretical context of landscape planning and management (as has been mentioned in chapters 3 and 4) as well as in the empirical experiences (as has been mentioned in chapter 5). These include mapping tools which are recently used in overlapping and analyzing data from aerial and satellite photos. These tools mainly include applications of the Geographic Information System (GIS). Another tool which is used to control large developments is the Environmental Impact

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Assessment (EIA). EIA (as explained in section 3.4.3 on page 66) is considered a prominent necessity in the case of the Gaza Strip in order to face challenges (i.e. impacts) on the environment from large developments (such as industrial sites, ports, electrical power plants, sewage treatment plants, etc); such developments are vital to the Gaza Strip and must be implemented sooner or later. A similar tool (but looks from another side as explained in section 4.1.2 on page 90) is the Conflict Impact Assessment (CIA). CIA is important in the Gaza Strip because of the future uncertainty and continuous vulnerability to armed conflicts in the Gaza Strip.

10.1.3.4 Plan design

As has been discussed previously (mainly in section 7.3 on page 200 and in section 9.1.5 on page 232), plan design was given considerable attention in physical planning in the Gaza Strip between 1994 and 2005; however, it can still be much more developed and improved. Design of a physical plan on the regional level (i.e. on the Gaza Strip level) requires preparing (designing of) both documents and maps (this was the case also when the Regional Plan for Gaza Governorates was prepared). As mentioned above, skilled physical planners must undertake, in particular, activities related to this part of the physical planning process. This process (as has theoretically been described in section 3.5.4 on page 70 and applied to the Gaza Strip context in section 9.1.2 on page 227) should identify the main problems and challenges, establish and formulate aims and objectives, carry out assessment and analysis process, determine approaches and methodologies, involve community through education and participation, design the plan body, involve public for feedback, ask for approval, implement and manage the implementation, and lastly evaluate the whole process and modify it as necessary; i.e. the process will continue according to the results of evaluation. Documents will therefore define the main problems and challenges, aims and objectives, and approaches and tools. They will describe all survey processes and include analysis and assessment. Besides, planning documents will describe the plan design process, and all details related to the design itself. Implementation of this plan (as designed) should be described in details (i.e. responsibilities, phases, dates, management, etc.). A base map with a relatively-large scale of at least 1/20,000 is required to illustrate a comprehensive physical plan for the Gaza Strip. Boundaries of plots have a considerable meaning when land is scarce, plots are generally small, and ownership of land is a critical issue (especially under the lack of related legislations).

Ideas and concepts for the design of a physical plan in the Gaza Strip that takes landscape into account include putting the original landscapes (including natural re-

sources) of the Gaza Strip and the future development of these landscapes at the core of the plan design. This can be reflected in ideas such as:

- creating and / or improving existing multi-function and continuous greenways or corridors outside the existing urban settlements to serve as conduits for flora extension and fauna migration and, at the same time, for recreational use;
- protecting traditional land use practices in order to conserve cultural and agricultural landscapes; and
- recognizing the value of urban landscapes in delivering a range of environmental and landscape benefits

Public participation

The physical planning process (in particular, in the plan design) has to include public participation (as has been mentioned several times in this research work, and in both the theoretical and empirical contexts, in chapters 3,4, and 5). In the Gaza Strip, public participation was completely ignored as mentioned, for example, in section 7.2 on page 193, and consequently emphasis has been put on this issue in section 9.1.2 on page 227 as a main component of the planning process. Here in the Gaza Strip context, public participation should, however, be treated sensitively. As mentioned in the theoretical basis in section 3.7.4 on page 84, public participation may require special educational and financial incentives. This is indeed the case of the Gaza Strip. It is important to emphasize that in order to be realistic, responsible, and active the public in the Gaza Strip has to have a deep understanding of the subjects in which they participate. It will, therefore, be necessary to limit (but not completely exclude) public participation in the near future as much as possible. This can be achieved through the participation of all interested members of all local authorities and universities. All governmental and non-governmental organizations (when exist) should be invited to participate in a series of workshops, conferences or meetings which should be announced to the public so as any interested citizen should also have access to these events. However, intensive announcements to public and preparation for large scale public participation are not aimed; at least in the very short term (i.e. 1-3 years) as will be discussed below. The reason behind this is that public participation will be negative in terms of the required time and resources, and this is because of the environmentally-negative education most of locals received during the Israeli occupation. This education ignored the national Palestinian rights in land and self-governance, and restricted way of thinking about future planning and sustainability to the minimum needs. It is the mission of planners at the first planning initiatives to prepare for wide public participation in the medium

and long term planning and this has already started relying on the efforts done by the Ministry of Education.

Sustainability

As explained in details in section 3.6 on page 74, sustainability is a principal concept in physical planning in general and landscape planning in particular as it focus on the consumption of natural resources which are in the centre of landscape interest. Natural resources, at the same time, are in the centre of the general interest in the Gaza Strip because of their scarcity. Landscape ecological planning in the Gaza Strip (putting emphasis on natural resources and on recognizing and well-managing the inter-relationships between population, resources, environment and development) is, therefore the way through which it is possible to achieve sustainability in the Gaza Strip.

10.1.4 Future landscape planning with respect to time scale

These recommendations for future landscape planning in the Gaza Strip should be considered with respect to time scale. This is likely very important in order to realize future actions. In principle, three time scales can usually be concentrated upon: the short term scale (1-5 years), the medium term scale (5-10 years), and the long term scale (more than 10 years)¹. However, in cases like the Gaza Strip and the developing countries, long term scale is hard to be considered as mentioned in section 2.1.3. Consequently, both short and the medium term scales can likely be considered more effective in such cases. The experience learnt from the planning outputs (e.g. the Regional Plan for Gaza Governorates [1998-2015]) and the implementation problems in the Gaza Strip (as discussed in section 6.5 on page 175 and in section 9.1.5 on page 232) also tells that long term plans did not work under conditions of rapid and big changes; i.e. under conditions of high levels of uncertainty. As a result, The Palestinian Authority started to develop short and medium term plans; the Regional Plan for the Gaza Governorates (2005-2015) has been the last medium-term physical plan produced in the Gaza Strip as presented in section 6.3.2.5 on page 171. The Regional Plan of 1998 was aimed to service for (more or less) 20 years, while the Regional Plan of 2005 has been aimed to service for 10 years. The 10 years period is still long in terms of physical planning with such conditions of rapid and big changes. Short term physical planning for a period of less than 5 years is, therefore, recommended in the case of the Gaza Strip.

¹These time-definitions may vary amongst the different sectoral plans and perceptions of the different disciplines

10.1.4.1 Landscape planning in the near future

Landscape planning (and physical planning in general) requires intensive efforts in the near future (i.e. in the short term). A complete change from a status of disorder to a well-planned one is not an easy task. Most of the problems and challenges mentioned above are feasible in the near future; however, goals and objectives should be defined for both near and far future. The solutions to most of the approaches mentioned above should be applied in landscape and physical planning in the short term in order to construct solid foundations on which any physical planning in the future will be constructed. In more detail, the following distinguishes the urgent aspects that should be applied in the near future.

Problems and challenges in the near future

The main problems and challenges in the near future include those which have been included in the first kind of problems and challenges presented above in section 10.1.3.1; i.e. organizing the institutional planning system and defining a strong legislative framework. However, the emphasis should be put on the problems and challenges that impact the land and natural resources, without completely ignoring the institutional and legislation problems and challenges. A list of problems and challenges to the planning process in the near future in the Gaza Strip will therefore include the following:

- the need for cooperation and consultation between the different stakeholders;
- the negative effects of centralism and delays in approval process and consequently in implementation;
- the uncertainty resulting from the political situation;
- the unregulated exploiting of natural resources; mainly because of socio-economic conditions; and
- the effect of the ownership of land on flexibility to plan for the public good

Aims and objective in the near future

Short term physical planning in the Gaza Strip should have aims and objectives that not only coincide to the urgent needs and demands but go beyond the near future as well. All aims and objectives mentioned above should therefore be based at the bottom of the planning process. Consequently, physical planning (and in particular, landscape planning) in the short term must aim to:

- protect natural resources in order to raise the quality of life for current generation and future generations;

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- provide land for strategic projects and major developments besides the residential uses;
- prepare programmes for raising public awareness and develop environmental knowledge; and
- emphasize and integrate landscape issues gradually to all relevant sectors

Approaches and tools in the near future

Approaches and tools that should be concentrated upon in the near future should take into account the status of disorder, the conditions of political conflict and uncertainty, and the low levels of socio-economic conditions. The following lists the most important approaches and tools required in the short term:

- Scenarios and alternatives approach to overcome the uncertainty issues.
- Dependence on local traditional and religious background as an approach to ensure support for develop a plan design and as a tool to ensure support for (and thus, implement) the proposed plans.
- 'Moratorium' as an approach to overcome the lack of legislations.
- Zoning as an approach to defining and control land uses.
- Learning through implementation as an approach to raising public awareness and as a tool to implement plans.
- Urban Growth Boundary as a tool used to limit urban development areas
- Environmental education and knowledge as a tool to raise public awareness regarding environmental issues through education
- Legislations and policies as instruments to design as well as to implement a physical plan
- GIS as a tool used in analysing data and design a plan
- EIA (Environmental Impact Assessment) as a procedure used to help predict and face challenges (i.e. impacts) from large developments
- CIA (Conflict Impact Assessment) as a technique used to predict and to face challenges (i.e. impacts) from the political conflict

Plan design in the near future

Based on the above challenges and problems, aims and objectives, and approaches and tools besides a process of survey and assessments, the plan design should be taken in the Gaza Strip in the near future parallel to other activities. In particular, reorganizing the administrative and institutional system and enactment of related legislations are principal to develop a successful physical planning process. The survey process and the related analysis and assessment processes will naturally come with more challenges and problems for which more aims and objectives will be set. Approaches required in order to develop the plan design process should generally concentrate on the scenarios and alternatives approach. For each scenario, a complete socio-economic and environmental surveys and assessments should be undertaken and both EIA and CIA should be included as essential assessment tools. Generally speaking, the scenarios in the near future in the Gaza Strip could include:

- **Israeli full reoccupation:** In this scenario, no real planning can be expected. However, experience tells that (under foreign occupation conditions) there will be an area where, at least, non-governmental organizations can work to raise public awareness, offer socio-economic aids that replace the use of natural resources, and to create circumstances that enable the community to start a complete process of physical planning as soon as this occupation is overpowered.
- **Large scale conflict:** According to this scenario, large areas of lands will be influenced and more impacts are expected. The whole planning system will be controlled by the Palestinians. Organizing the relevant institutions and enactment of policies will be possible. Survey and assessment process will also be possible to great extent. Carrying out a process of physical planning should be possible as well. Very short term plans are recommended where CIA must principally be applied to propose predictions regarding impacted areas and the size of conflict impacts. Emphasis on developing a management plan is also required to overcome generated challenges and problems during the implementation phase.
- **Status quo (limited-conflict):** According to this scenario, areas close to the borders of the Gaza Strip will mainly be impacted by the Israeli attacks. All planning circumstances should be available to develop a sound process of physical planning in the Gaza Strip including organizing the institutional and administrative bodies and enactment of related legislation; likely at the same time that other activities are undertaken such as field survey and assessment. Approaches and tools should be used properly to develop this process. These include moratorium for areas which are not accessed due to the Israeli military operations. Zoning and urban

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growth boundaries should then be concentrated upon while efforts towards education and raising public awareness will almost have no restrictions. Financial support from foreign organizations is required while encouraging the generating of local non-governmental organizations that undertake a considerable part of the physical planning process is essential; especially under the conditions where civil conflict is also possible.

- Peace situation: According to this scenario, many ideal concepts of physical planning should be applicable. However, special approaches and tools should be emphasized in order to deal with conditions of, for example, small and enclosed area of land and demographic and development status. In principles, activities related to legislation enactment and organizing the institutional and administrative system should urgently be undertaken and parallel to other activities such as field survey and assessments.

As has been mentioned above, scenarios should be treated equally where each scenario should be developed as a separate plan with its own assumptions, challenges, aims, approaches, etc. However, and to be realistic, the last scenario mentioned above (i.e. the peace scenario) is not foreseen in the very near future (i.e. 1-3 years). It will follow a status of a small scale conflict; i.e. the third scenario, which would therefore represent a transition phase between the near and far future planning.

If physical planning will continue in a status of small scale conflict situation in the Gaza Strip (i.e. from the current status), different activities should be undertaken at the same time. These include activities related to the institutional arrangements; legislation enactment; evaluation of the previous physical planning; collecting existing data from other governmental institutions; holding meetings, workshops and conferences, and moratorium and field survey for areas where absence or lack of data is previously noted. All activities related to physical planning should be undertaken by the Ministry of Local Governance. The purpose of all these activities is to continue with the process of physical planning according to the three scenarios of Palestinian Governance. Results from the field survey, the consultations and meetings, the evaluation process of the previous physical planning process will determine the need for further survey and assessment processes. Based on the results of all these activities, the plan design will start. Separate groups for the three scenarios (excluding the peace scenario, assuming that it might be applicable after three years at least, and aiming to save time and resources at the same time) should be nominated so as each scenario will be paid the attention required to fulfil the basic requirement of a complete physical plan. Each plan should essentially include an implementation and management plan. Consultation

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among the different groups is, however, important to achieve high levels of harmony among the planning outputs. Limited public participation (as described above) should be organized before the design of the plan is undertaken. It should also be organized directly after the main design of the plan is prepared for feedback purposes. Consultation at the HPC should be organized in order to achieve meanings of integration as much as possible. Agreement on the plan should be achieved at the HPC where final approval is given (to regional plans). HPC should also determine which scenario should be considered in implementation depending on the current as well as the foreseen future.

Ministry of Local Governance will mainly be responsible for implementation. This should be accompanied by survey works and collecting data the results of which might help to proceed in the implementation process but, by contrast, might require overall evaluation and modification. Short term scale should continue as far as such a situation exists and as far as high levels of uncertainty exist. Processes of evaluation should continuously be undertaken in order to determine future time scale for future planning. This not only will help to overcome and manage any shortage in the plan, but also will give indicators about the level of applicability (and consequently, the success) of the plan. However, the success of a short-term plan does not mean that conditions have become suitable for longer term planning. Conditions of conflict (i.e. levels of stability or instability) will likely determine the decision to produce longer term plans.

10.1.4.2 Landscape planning in the longer future

When uncertainty is high (as in the case of the Gaza Strip) predicting future is indeed hard. In particular, predicting the far future (more than five years, and sometimes, only three years), and consequently carrying on a long term planning process, is very hard. For this reason, and as has been explained above, longer term planning is not aimed at this stage in the case of the Gaza Strip; however, it should be thought about during the implantation of the short term plans so as a feasibility study should be carried out for this purpose. When the short term physical plan shows success and stability indicators show that future can be predicted, a longer term (i.e. medium term up to maximum ten years) plan should be developed. However, shorter term plans would be more recommended as transitional phases. Assuming that most problems and challenges related to the institutional arrangements and legislative framework have, to great extent, been solved during the short term planning, there will be opportunities to improve both of them continuously in the future. Levels of details regarding these two main issues are likely to be concentrated upon during the implementation of plans from the short term planning in order to prepare for the medium term planning. This level of details regarding the institutional system and the legislative framework requires introducing

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specialized terms in the shape of specialized institutions and policies to carry out activities related to the respective discipline. Sectoral planning is then expected at this stage; even on a limited scale. Detailed landscape planning should separately be introduced at this stage in a separate institution and should have been defined in the legislative framework (but under the principles mentioned above to guarantee high levels of integration). The following therefore describes landscape planning in the longer future assuming that short term physical planning will have shown accepted levels of success.

Problems and challenges in the longer future

Defining specialized disciplines in both institutions and legislations is a challenge. The complexity of this challenge depends on the achievements of the short period planning. The more these disciplines would have been introduced, integrated, and concentrated upon in the short term planning, the less complexity would be the process of creation such specialized institutions and legislations.

As has been mentioned earlier, private ownership will be a prominent challenge in the longer future. This will be related to other challenges on the top of which are the demographic challenges. Large scale developments will increasingly become urgent with the rapidly increasing population and, consequently, demands for land and natural resources will increase while the ownership of lands is mainly private.

Aims and objective in the longer future

The main aim of the process of landscape planning in particular and physical planning in general is to achieve a balanced protection of natural resources in order to reach high levels of life quality for current generation and future generations at the same time. This includes the aims to create opportunities to the current generation to make living without exploiting the natural resources. In addition, landscape planning (which would have obviously been introduced in the physical planning system) will aim to deepen the scope of such a term and the related environmental aspects. Minor aims and objectives will also be generated as long as minor challenges and problems will have been created.

Approaches and tools in the longer future

The scenario approach will continue to present effectiveness for the longer future regarding physical planning (and landscape planning) in the Gaza Strip. As assumed, reaching this stage of planning requires high levels of success in the short term planning and capability to feel conditions of stability. As assumed this success can be achieved under conditions of small scale conflict or a peace status at the best. These two scenarios besides the scenario of large scale conflict should be considered in the medium term

planning in the Gaza Strip. Scenarios (as in the short term planning) should be handled in separate groups and paid equal attention. Cooperation among all groups should be guaranteed through regular meetings and discussions in order to achieve harmony.

Other approaches to be used in landscape planning at that time include ecological approaches, where perception of landscape planning should have been developed as one achievement of the short term planning.

Plan design in the longer future

Plan design (as in the short term plans) should describe the evaluation of and results from the previous period and describe the process and flow of the planning procedure. It is recommended that this plan (which is, as noted above, a medium term plan) would be structured in at least two phases so as conversion from short to medium and then to long term planning will happen smoothly. Creative designs and planning solutions are aimed and details are required more and more. Public participation should be applied at larger scales and, as mentioned earlier, at least twice during the process of landscape planning, one directly before the plan design and the other directly after. Including an implementation and management plan is essential in the plan design.

Figure 10.3 gives a general idea regarding the physical and landscape planning in the Gaza Strip in the future where short term physical plan is aimed in the near future and a medium term landscape planning is aimed when the short term physical plan shows success and conditions of stability spread in the area. The medium plan should lead to the long term landscape planning; also under conditions of stability.

10.2 Final recommendations to the developing countries

Indeed, setting recommendations to the developing countries as a whole and in a very narrow area such as landscape planning and management is a challenge. The differences between developing countries are enormous in number. At the same time, each of these differences can be described according to variant grades; e.g. high density means more than 6000 inh./sq.km in areas such as Hong Kong while it means about 365 inh./sq.km in Lebanon. Political and socio-economic situations and development status present a wide range of possibilities. This situation requires that a balance between generalization of recommendations obtained from the Gaza Strip case and specialization of the theoretical concepts should be achieved. The following lists a group of recommendations to be taken into consideration in the area of physical and landscape planning and management in the developing countries.

- The political systems and institutional arrangements widely and naturally vary in the developing countries. However, general characteristics for the system which

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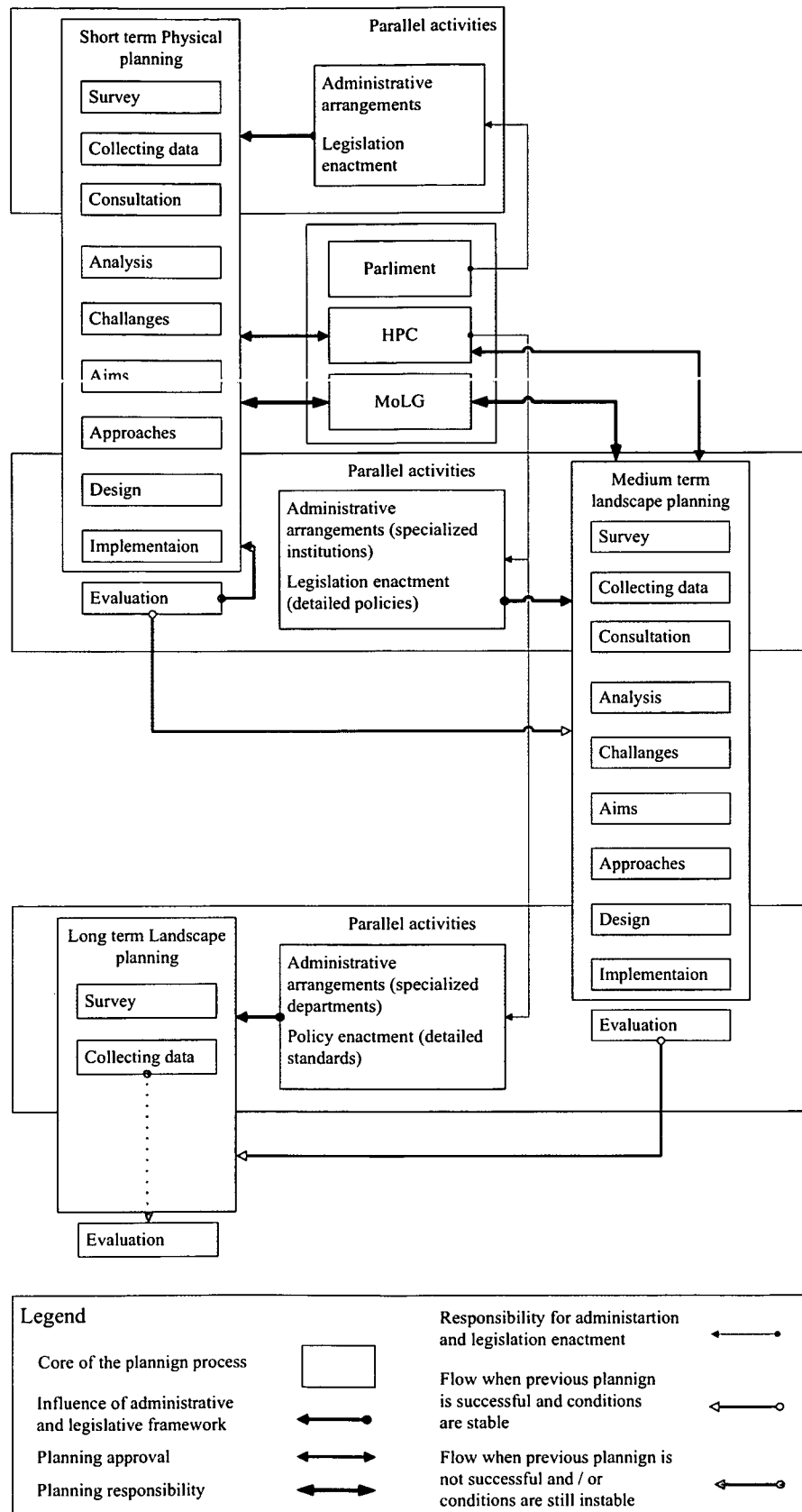


Figure 10.3: The proposed process of landscape planning in the Gaza Strip in the future

is responsible for physical and landscape planning could be recommended. At the base of this system is the separation between physical planning and other unrelated disciplines such as politics. It is understandable that planning has a political feature everywhere; nevertheless, physical planning should be looked at from another angle, especially because almost all efforts in several developing countries are directed towards pure political issues where attention towards other issues are lost. The system of plans' approval and entering into force should be given attention so as planning output will come to reality.

- In many developing countries there is no legislation framework for physical planning. Enactment of legislation related to physical and landscape planning is essential to carry out a planning process. Levels of details and defining different policy areas also vary from country to country. In each case, it is recommended that a further step is taken because challenges and demands are continuously changing and / or increasing. Legislations and policies should therefore be revised, improved and amended to coincide with the generated conditions. Otherwise, planning will not positively response to the actual challenges.
- Hard socio-economic conditions in many developing countries do not leave much space in residents' lives for amenity issues such as environmental awareness. Raising public awareness regarding the importance of environmental and natural protection is thus an urgent necessity in such countries. Environmental education by different means such as basic school education and media is an important principal. However, other approaches and tools are also important, such as learning through implementation. This approach is effective if it is also offer opportunities for local people to carry out activities related to the implementation of specific projects or pieces of a plan, such as cleaning areas that have special significance from landscape and environment viewpoints; planting trees (afforestation) in specific areas. Foreign financial support is essential in carrying out these projects and, to less extent, developing the planning process. This creates the challenge regarding local traditions and interest. A balanced influence between local and foreign participants in the physical and landscape-related planning processes, especially on the plan design, should be achieved.
- Related to education and raising levels of environmental awareness is the responsibility of local non-governmental organizations to shift local attention from politics towards environmental and natural resources protection issues.

- Landscape is not properly concentrated upon and perceived in many developing countries. Physical planning or town and countryside planning should undertake the responsibility to focus on issues related to landscape and visual environments. At the same time, it should be the responsibility of this process to develop sectoral planning in the future where landscape planning would have been separately introduced.
- Many developing countries have conditions of conflict and consequently instability. Uncertainty is therefore a prominent challenge facing the planning process. Scenario approach is hence strongly recommended to be relied upon in physical and landscape planning. Scenarios should be equally concentrated upon. Each scenario could have one or more alternatives. A balanced deliberation of all alternatives in the plan design is recommended. Each alternative might reflect or focus on one minor challenge. Considering partly all alternatives could help more than focusing on one alternative.
- Time scale is another point which is related to the previous one. Uncertainty requires that short term planning is considered in physical and landscape planning. When conditions of conflict obviously decrease, a longer planning term could be gradually considered; a medium planning term could hence be the following step taking into account that medium term plans are divided into clear phases and that a continuous process of evaluation is undertaken.
- The amount and frequency of public participation in physical and landscape planning should be compared to general public awareness regarding related issues. When public awareness towards these issues is very low, organizing this activity will result in waste of time and resources (human efforts and financial resources). When public awareness towards physical and landscape planning is high, public participation is necessary.
- The city level in physical planning is likely to be the lowest level to be presented to the HPC because this level plays a significant role in the regional or national context in the cases of mega-cities and city-state cases which are rapidly increasing in the developing countries because of the clear increase in urban population.

10.3 Final summary

By the end of this last section, this research study ends. However, discussion and research concerning the different issues of this study will continue. This research study

has concentrated on landscape planning and management in the Gaza Strip, being an example which has many meeting points and similarities with many developing countries but from different angles. One major aim of this research study was to present recommendations concerning landscape planning and management in the Gaza Strip and in the developing countries as well.

As a general conclusion, physical planning needs to be improved in the Gaza Strip with respect to different aspects. Landscape-related aspects have been in the core of this research study. Physical planning process (representing landscape planning in the recent past as well as in the short term future planning) has to be improved through redefining challenges and problems, aims and objectives, and approaches and tools. In addition, recommendations have been proposed to improve the plan design process emphasizing the necessity to include a clear and feasible implementation and management plans. In particular, a scenario approach has been recommended to be concentrated upon in landscape planning in areas where level of uncertainty is high (i.e. in the Gaza Strip). At the same time, scenarios should be used efficiently and should clearly be distinguished from the possible alternatives of each scenario in order to avoid as such a terrible mixing between scenarios and alternatives as what happened in the Gaza Strip during the last ten years when conflict or 'Disorder' scenario was neglected and treated as an alternative. Proposing several scenarios (including conflict scenarios) and developing concrete plans (i.e. conflict management plans) for such situations, as what has been proposed in this study, would have resulted in less damage to the landscape in the recent past. This concept should hence be considered in the future as well. Scenarios should be used, especially when uncertainty is high, and should include scenarios of conflict or disasters (natural or man-made). These scenarios should also be treated seriously and given high levels of awareness at the different administrative levels.

Besides, raising public awareness and levels of participation in the physical planning process are essential. 'Learning through implementation' is a recommended concept. Several other well-known approaches and tools (such as moratorium, zoning, urban growth boundaries, Environmental Impact Assessment (EIA), etc.) would be helpful in physical planning in the Gaza Strip. Moreover, other tools such as the integration of aspects of the local traditional and religious background and Conflict Impact Assessment (CIA) are an urgent necessity. CIA is important to predict impacts from conflicts and therefore, take these impacts into account in the plan design. It works efficiently when scenarios that consider conflict issues (as mentioned above) are proposed.

Nevertheless, as has been presented, challenges and problems were not limited to the physical planning process itself, but included other major challenges and problems

which were related to the administrative and institutional bodies and the legislative framework. Both were considerably responsible for the deficiency of the physical planning outputs. Administrative and institutional bodies were responsible for the absence of cooperation among stakeholders and the inefficiency of the approval procedures and consequently, influenced the capability to implement plans. The absence of a legislative framework that should have organized these bodies, guaranteed an accepted level of cooperation and consultation, and, at the same time, provided a general umbrella for the plan design, was obviously missed in the case of the Gaza Strip. This chapter has presented ideas for physical planners in order to take part in overcoming these challenges in spite of the fact that both are relatively outside the scope of the process of physical planning. It has also presented a model that should organize the administrative and institutional system which would be supposed to carry out activities related to physical and landscape planning in the Gaza Strip.

Based on the similarities between the Gaza Strip and the developing countries which were presented in chapter 2 of this research study, this conclusion can be presented to the developing countries in the shape of general recommendations. This chapter, therefore, has presented recommendations for both the Gaza Strip and the developing countries in the area of landscape planning and management in a level of details which is comparable to their special conditions. These conditions restricted the concentration, in many times, to physical planning (or to what is equivalent such as urban and rural planning, land use planning, and town and country planning) where landscape as a discipline has not yet given the required attention in such areas.

Another aim of this research was to bring final results as close to the most recent events in the Gaza Strip as possible in order to increase the opportunity for practical implementation. One important recommendation noted in this final chapter has been about carrying out a process of physical planning in the near future where evaluation of the previous planning outputs has been noted as a necessity to carry on further steps. This research study has developed a detailed presentation, analysis, and evaluation of the previous planning outputs and has showed shortage and proposed ideas to improve this process. In doing so, the aim has also been to propose general recommendations that can be used in similar cases as has just been presented in the last section. Each idea in the recommendations is based on a specific experience from the Gaza Strip case, and supported by experiences from the case studies and / or the theoretical basis.

Finally, contributions to the theoretical basis related to landscape planning and management can be made based on the final conclusions of this research study. Generally speaking, theoretical ideas represent, in many times, empirical experiences and should also be examined on ground. Such ideas work efficiently in conditions similar

(more or less) to those which generate these ideas. Physical planning and landscape planning under conditions of instability have not been theoretically developed. Creating a general theoretical idea requires experiments from different places with (more or less) the same conditions and circumstances. This research study contributes to the theoretical basis by giving detailed description and recommendations to the Gaza Strip case, and consequently proposes theoretical ideas that need to be examined in the Gaza Strip as well as in other countries in order to develop a more specific theoretical basis related to landscape planning and management. On the top of these ideas is the necessity to include a Conflict Impact Assessment (CIA) and a corresponding conflict management plan in any physical plan. Both armed and civil conflicts should be thought about in this context. The perception of landscape planning should include this aspect. Although uncertainty is a main essential fact in planning as a whole, high levels of uncertainty because of disasters (both natural and man-made disasters) are not focused upon in landscape planning and management. Controllable disasters are usually thought about (usually, only in areas which are known as being vulnerable to disasters); however, disasters are not controllable in many times. High levels of uncertainty should therefore primarily be thought about in planning; especially when planning is mainly concerned with land and natural resources (such as landscape planning) where all natural or man-made disasters apply. Landscape planning has theoretically been defined in chapter 3 of this study relying on the existing related concepts; however, and based on the discussion and conclusion of this study, landscape planning should be thought about as **'a purposeful development activity in that it explicitly develops a set of objectives and seeks the best means to reach these objectives focusing on the multi functionality of the landscapes and direct the changing relations and processes among biotic and abiotic ecosystems, human, and ecological processes emphasizing the totality meanings by integrating the different related fields in the process of planning including natural and human uncontrollable forces and impacts in order not to stop or slow down land development, but oppositely to develop a site but with no, or with the least, obstacles or damage for the environment'**.

In addition, this study proposes that public participation requires to be defined with respect to the public awareness towards landscape planning and management. According to this idea, public participation should be restricted in cases where public awareness regarding landscape issues is absent.

Nevertheless, there are still areas for further research either with respect to the Gaza Strip or to the developing countries, but much more to the developing countries. For the Gaza Strip, details regarding scenarios, implementation requirements and phases,

10.3 Final summary

management, public awareness regarding environmental and landscape issues, environmental education, already-planned projects, etc. are required. For the developing countries, related research should be taken case by case in order to enlarge the empirical experience upon which concrete theoretical ideas can be constructed. Cases which are closer to the Gaza Strip (such as Lebanon) could be the best next step in the area of landscape planning and management under conditions of instability.

Appendix A

History of Palestine

Israel occupied the Gaza Strip for 4 months between November 1956 and March 1957, and continued occupying large areas in the Gaza Strip and completely controlling the borders after the establishment of the PA in 1994 up to September 2005 when all Israeli settlers and soldiers left the Gaza Strip according to the plan for unilateral separation of the Israeli Prime minister Ariel Sharon. The following is a brief documentation on the History of Palestine in the last century (Source: UN Website[c]):

1917-1947

The Palestine problem became an international issue towards the end of the First World War with the disintegration of the Turkish Ottoman Empire. Palestine was among the several former Ottoman Arab territories which were placed under the administration of Great Britain under the Mandates System adopted by the League of Nations pursuant to the League's Covenant (Article 22). All but one of these Mandated Territories became fully independent States, as anticipated. The exception was Palestine where, instead of being limited to 'the rendering of administrative assistance and advice' the Mandate had as a primary objective the implementation of the 'Balfour Declaration' issued by the British Government in 1917, expressing support for 'the establishment in Palestine of a national home for the Jewish people'. During the years of the Palestine Mandate, from 1922 to 1947, large-scale Jewish immigration from abroad, mainly from Eastern Europe took place, the numbers swelling in the 1930s with the notorious Nazi persecution of Jewish populations. Palestinian demands for independence and resistance to Jewish immigration led to a rebellion in 1937, followed by continuing terrorism and violence from both sides during and immediately after World War II. Great Britain tried to implement various formulas to bring independence to a land ravaged by violence. In 1947, Great Britain in frustration turned the problem over to the United Nations.

1947-1977

After looking at various alternatives, the UN proposed the partitioning of Palestine into two independent States, one Palestinian Arab and the other Jewish, with Jerusalem

internationalized (Resolution 181 (II) of 1947). One of the two States envisaged in the partition plan proclaimed its independence as Israel and in the 1948 war expanded to occupy 77% of the territory of Palestine. Israel also occupied the larger part of Jerusalem. Over half the indigenous Palestinian population fled or were expelled. Jordan and Egypt occupied the other parts of the territory assigned by the partition resolution to the Palestinian Arab State which did not come into being. In the 1967 war, Israel occupied the remaining territory of Palestine, until then under Jordanian and Egyptian control (the West Bank and Gaza Strip). This included the remaining part of Jerusalem, which was subsequently annexed by Israel. The war brought about a second exodus of Palestinians, estimated at half a million. Security Council resolution 242 (1967) of 22 November 1967 called on Israel to withdraw from territories it had occupied in the 1967 conflict.

In 1974, the General Assembly reaffirmed the inalienable rights of the Palestinian people to self-determination, national independence and sovereignty, and to return. The following year, the General Assembly established the Committee on the Exercise of the Inalienable Rights of the Palestinian People. The General Assembly conferred on the PLO the status of observer in the Assembly and in other international conferences held under United Nations auspices.

1977-1990

Events on the ground, however, remained on a negative course. In June 1982, Israel invaded Lebanon with the declared intention to eliminate the PLO. A cease-fire was arranged. PLO troops withdrew from Beirut and were transferred to neighbouring countries after guarantees of safety were provided for thousands of Palestinian refugees left behind. Subsequently, a large-scale massacre of refugees took place in the camps of Sabra and Shatila. In September 1983, the International Conference on the Question of Palestine, which was widely attended, adopted inter alia the Geneva Declaration containing the following principles: the need to oppose and reject the establishment of settlements in the occupied territory and actions taken by Israel to change the status of Jerusalem, the right of all States in the region to existence within secure and internationally recognized boundaries, with justice and security for all the people, and the attainment of the legitimate, inalienable rights of the Palestinian people. In December 1987, a mass uprising against the Israeli occupation began in the occupied Palestinian territory (the intifadah). Methods used by the Israeli forces during the uprising resulted in mass injuries and heavy loss of life among the civilian Palestinian population.

The Peace Process

A Peace Conference on the Middle East was convened in Madrid on 30 October 1991, with the aim of achieving a just, lasting and comprehensive peace settlement through

direct negotiations along 2 tracks: between Israel and the Arab States, and between Israel and the Palestinians, based on Security Council resolutions 242 (1967) and 338 (1973) (the "land for peace" formula). A series of subsequent negotiations culminated in the mutual recognition between the Government of the State of Israel and the Palestine Liberation Organization, the representative of the Palestinian People, and the signing by the two parties of the Declaration of Principles on Interim Self-Government Arrangements in Washington, D.C., on 13 September 1993, as well as the subsequent implementation agreements, which led to several other positive developments, such as the partial withdrawal of Israeli forces, the elections to the Palestinian Council and the presidency of the Palestinian Authority, the partial release of prisoners and the establishment of a functioning administration in the areas under Palestinian self-rule. The involvement of the United Nations has been essential to the peace process, both as the guardian of international legitimacy and in the mobilization and provision of international assistance.

Appendix B

Population statistics in the Gaza Strip

There are several statistics for Gaza Strip population done by different bodies either inside or outside the Palestinian Territories. The most-considered is the one done by PCBS (1999) and presented in the table below

Governorate	1997	2000	2003	2005	2010
North	178605	209768	250843	281727	370070
Gaza	357768	404973	469122	516882	650033
Deir El-Balah	144015	164919	192655	213057	269011
Khan Younis	195475	222157	258458	285613	361608
Rafah	119659	136309	158592	175054	220422
Total	995522	1138126	1329670	1472333	1871144

Table B.1: Population statistics in the Gaza Strip 1997-2010 (Source: PCBS, 1999)

More demographic statistics are also available from PCBS Website and some are included in table B.2

Year	Mid Year Population	Crude Birth Rate Per (1,000)	Crude Death Rate Per (1,000)	Natural Increase Rate (%)
1997	995,522	45.42	4.65	4.08
1998	1,039,580	45.06	4.51	4.06
1999	1,087,067	44.73	4.39	4.03
2000	1,138,126	44.44	4.27	4.02
2001	1,196,591	44.22	4.17	4.01
2002	1,264,539	44.13	4.11	4.00
2003	1,334,266	43.75	4.02	3.97
2004	1,406,423	43.36	3.93	3.94
2005	1,481,050	42.98	3.85	3.91
2006	1,558,197	42.59	3.77	3.88
2007	1,637,911	42.21	3.70	3.85
2008	1,719,888	41.43	3.62	3.78
2009	1,803,769	40.63	3.55	3.71
2010	1,889,479	39.82	3.47	3.64
2011	1,967,745	38.95	3.41	3.55
2012	2,038,018	38.00	3.35	3.47
2013	2,109,242	37.35	3.29	3.41
2014	2,181,624	36.67	3.24	3.34
2015	2,255,056	35.98	3.20	3.28

Table B.2: Demographic indicators in the Gaza Strip from the end of year 1997 to 2015
(Source: PCBS Website)

Appendix C

Definitions of categories of Landscape Protected Areas

The International Union for Conservation of Nature (IUCN) defined six main categories to describe the status and/or quality of nature of an area or region, which were then adopted by the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC). The six categories range from strict complete protection in the first category to the least amount of protection in the sixth category; protection of natural resources and meanings of sustainability are the main character distinguishes all categories. The definitions of these categories are as follows (Source: UNEP-WCMC Website).

Defining Protected Areas

Although all protected areas meet the general purposes contained in this definition, in practice the precise purposes for which protected areas are managed differ greatly.

The definition of a protected area adopted by IUCN is: 'An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means'. **Protected Area Management Categories**

IUCN has defined a series of six protected area management categories, based on primary management objective. In summary, these are:

Category Ia: Strict Nature Reserve: protected area managed mainly for science
Definition: Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Category Ib: Wilderness Area: protected area managed mainly for wilderness protection

Definition: Large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

Category II: National Park: protected area managed mainly for ecosystem protection and recreation

Definition: Natural area of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for present and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

Category III: Natural Monument: protected area managed mainly for conservation of specific natural features

Definition: Area containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

Category IV: Habitat/Species Management Area: protected area managed mainly for conservation through management intervention.

Definition: Area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

Category V: Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation.

Definition: Area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

Category VI: Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

Definition: Area containing predominantly unmodified natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet community needs.

Appendix D

Procedure of selecting case studies from the developing countries

The process of selecting case studies from the developing countries has been developed through four main steps:

1. For each factor a group of countries and territories were listed, taking into account that the relative situation of the Gaza Strip (or the Occupied Palestinian Territories) is the referential consideration. As noted in chapter 5, 79 countries have had conflict, 88 countries (including the OPT) are in the moderate HDI, 56 countries have similarities in cultural aspects, 29 countries have Mediterranean climate, and a number of countries (equals the 88 of the moderate HDI) were listed for the most critical cases of the area of land as well as for the demographic factors (least population figures, highest population density, highest annual population growth rate).
2. All countries of all factors have been listed in a table with 8 main columns (representing the factors). A process of counting how many times each country has been repeated has then been run, and countries with more repetitions (i.e. similarities) were listed. The following summarizes the results,
 - 8 repetitions (similarities) out of the 8 factors: no country,
 - 7/8: Lebanon,
 - 6/8: Comoros, Kuwait, Albania, and Maldives;
 - 5/8: Bahrain, Gambia, Syria, Solomon Islands, Guinea-Bissau, Pakistan, Algeria, Israel, Bangladesh, Sao Tomo and Principe, Cape Verde,
 - Less than 5: this category includes many countries; however, few countries and areas with special significance to the Gaza Strip case because of more than one reason (factor) have been selected. These countries and the relative reasons or factors of similarity are listed below:

- Mauritius
 - * Close HDI (0.791),
 - * Close figure of population (1,230,600)
 - * Relatively high density (603 inh./sq. km)
 - * Relatively high annual population growth rate (2.5%)
- Malta
 - * Climate similarity
 - * Close area of land (316 sq. km)
 - * Relatively high density (1,261 inh./sq. km)
- Barbados
 - * Close area of land (431 sq. km)
 - * Relatively high density (648 inh./sq. km)
- Saint Lucia
 - * Close HDI (0.772),
 - * Close area of land (616 sq. km)
 - * Relatively high density (209 inh./sq. km)
- Grenada
 - * Close HDI (0.787),
 - * Close area of land (344 sq. km)
- Dominica
 - * Close HDI (0.783),
 - * Close area of land (754 sq. km)

Up to this stage, a group of 22 countries have, as a result, been selected; those are: Lebanon, Comoros, Kuwait, Albania, Maldives, Bahrain, Gambia, Syria, Solomon Islands, Guinea-Bissau, Pakistan, Algeria, Israel, Bangladesh, So Tom and Principe, Cape Verde, Mauritius, Malta, Barbados, Saint Lucia, Grenada, Dominica, Saint Lucia.

3. The 22 countries have been reduced to 10 relying on their closeness to the Gaza Strip (or the OPT) in the tables D, D, and D.1 and on considering only the five criteria with quantitative measures; i.e. HDI, areas of countries, population figures, population density, and annual population growth rate; see table D.2. Israel and Malta have completely been excluded from this process because they are developed countries; Israel has been considered in the first group of case studies from the developed countries. When the country has not been included in the main

table¹ (because the respective value is higher or lower than those in the table), the highest possible difference plus 1 for each factor has been considered; e.g. 45 for HDI, 77 for area, 47 for population, 87 for population density, and 81 for annual population growth rate. The total has been calculated for each country and the countries have been sorted according to the total from the lowest to the highest indicating the closest (with the lowest total) to the Gaza Strip case. The 10 countries include (from the closest to the farthest) Maldives, Bahrain, Comoros, Gambia, Mauritius, Kuwait, Barbados, Lebanon, Saint Lucia, and Grenada.

4. The 10 countries have been examined to specific terms related to landscape planning. These terms include Landscape, Landscape Architecture, Landscape Planning, Landscape Management, Urban Planning, Rural Planning, Town Planning, Countryside Planning, Physical Planning, Land use Planning, Environmental Planning, Nature Protection, Nature Conservation, Landscape Preservation, Landscape Conservation, Landscape Protection, Landscape Development, and Landscape Improvement. A frequency measure is used as an indicator of the level of relevance between a country and a given term computed with the help of Google Search Engine. Google is queried using a combination of a country name and a given term, and the returned number of hits should indicate how much such a term is significant for this country. The 10 countries can then be adapted (as in table D.3) according to the total of hits each country got as follows: Lebanon, Mauritius, Kuwait, Saint Lucia, Barbados, Bahrain, Gambia, Maldives, Grenada, and Comoros.

¹represented in the table D.1

	Conflict areas*	Countries and areas with closest (Medium) HDI**		Cultural relevance ***	Climatic Relevance ****	Countries and areas with lowest areas of lands*****		Countries and areas with lowest population figures *****		Countries and areas with highest population density *****		Countries and areas with highest population growth rates *****	
		Country	HDI			Country	Land area (Sq. Kms)	Country	Population (Inh.)	Country	Pop. Density (Inh./ Sq Km)	Country	Pop. Growth Rate
1.	Afghanistan	Libya	0.799	Algeria	Morocco	Vatican City	1	Vatican City	920	Monaco	16,205	United Arab Emirates	7.2
2.	Algeria	Antigua and Barbuda	0.797	Bahrain	Algeria	Monaco	2	Tuvalu	11,640	Singapore	6,386	Qatar	5.2
											3,656		
3.	Angola	Macedonia	0.797	Djibouti	Tunisia	Nauru	21	Nauru	13,050		1,261	Djibouti	4.4
4.	Azerbaijan	Malaysia	0.796	Egypt	Libya	Tuvalu	26	Palau	20,300	Maldives	1,164	Saudi Arabia	4.2
5.	Bangladesh	Russian Federation	0.795	Iraq	Egypt	San Marino	61	San Marino	28,880	Bahrain	1,035	Jordan	3.7
6.	Bolivia	Brazil	0.792	Jordan		Liechtenstein	160	Monaco	32,410		1,002	Yemen	3.7
7.	Bosnia	Romania	0.792	Kuwait		Marshall Islands	181	Liechtenstein	33,720	Vatican City	920	Oman	3.6
8.	Burma	Mauritius	0.791			Saint Kitts & Nevis	261	Saint Kitts & Nevis	38,960	Barbados	648		3.6
9.	Burundi		0.787	Libya	Turkey	Maldives	300	Marshall Islands	59,070	Nauru	621	Côte d'Ivoire	3.5
10.	Cambodia	Belarus	0.786	Mauritania	Greece		316	Antigua & Barbuda	68,720	Mauritius	603	Bahrain	3.4
11.	Côte d'Ivoire	Bosnia and Herzegovina	0.786	Morocco	Albania		344	Dominica	69,030	Korea (South)	492	Gambia	3.4
							365						
12.	Central African Republic	Colombia	0.785	Oman	Croatia	St. Vincent & the Grenadines	389	Andorra	70,550	Philippines	293	Kuwait	3.3
13.	Chad	Dominica	0.783		Slovenia	Barbados	431	Seychelles	81,190	San Marino	473	Uganda	3.3
14.	Chechnya	Oman	0.781	Qatar	Italy	Antigua & Barbuda	443		89,500	Tuvalu	448	Benin	3.2
15.	China	Albania	0.780	Saudi Arabia	France	Seychelles	455	Kiribati	103,100	Netherlands	395	Congo	3.2
16.	Colombia	Thailand	0.778	Somalia	Spain	Palau	458	Micronesia	108,100		368	Kenya	3.2
17.	Congo	Samoa (Western)	0.776	Sudan	Portugal	Andorra	468	Tonga	112,400	Belgium	340	Niger	3.2
18.	Croatia		0.772		Cyprus		616	St. Vincent & the Grenadines	117,500	Japan	337	Comoros	3.1
19.	Cyprus	Saudi Arabia	0.772	Tunisia	Crete	Bahrain	665		166,300	India	329	Malawi	3.1
20.	Democratic Republic of Congo	Venezuela	0.772	Yemen	Sicily/ It	Singapore	693	Samoa	177,300	Marshall Islands	326		3.1
21.	East Timor	Ukraine	0.766	Afghanistan	Vatican/ It	Micronesia	702	Sao Tome & Principe	187,400	Rwanda	320		3.1
22.	El Salvador	Peru	0.762	Albania	Sardinia/ It	Tonga	748	Vanuatu	205,800	El Salvador	319	Togo	3.1
23.	Eritrea	Kazakhstan	0.761	Azerbaijan	San Marino/ It	Dominica	754	Barbados	279,300	Comoros	309.31	Guinea-Bissau	3.0
24.	Ethiopia	Armenia	0.759	Bangladesh	Corsica/ Fr	Kiribati	811	Belize	279,500	Sri Lanka	306	Honduras	3.0
25.	Ghana	Ecuador	0.759	Benin	California/ US	Sao Tome & Principe	1,001	Iceland	296,700	Israel	302	Libyan Arab Jamahiriya	3.0
26.	Guatemala		0.759	Brunei-Darussalam	Chile	Mauritius	2,040	Bahamas	301,800	St. Vincent & the Grenadines	302	Tanzania, U. Rep. of	3.0
27.	Guinea-Bissau	Philippines	0.758	Burkina-Faso	South Africa	Comoros	2,170	Maldives	349,100	Haiti	293	Brunei Darussalam	2.9
28.	Georgia	China	0.755	Cameroon	Australia	Luxembourg	2,586	Brunei	372,400	Philippines	293	Congo, Dem. Rep. of the	2.9
29.	Haiti	Paraguay	0.755	Chad		Samoa	2,944		398,500		270	Gabon	2.9
30.	India	Saint Vincent and the Grenadines	0.755	Union of Comoros		Cape Verde	4,033	Cape Verde	418,200		260	Madagascar	2.9
31.	Indonesia	Suriname	0.755	Gabon		Trinidad & Tobago	5,128	Suriname	438,100	Vietnam	253	Maldives	2.9
32.	Iran	Belize	0.753	Gambia		Brunei	5,770	Luxembourg	468,600	Jamaica	249	Namibia	2.9
33.	Iraq	Jordan	0.753	Guinea		Cyprus	9,250	Djibouti	476,700	United Kingdom (UK)	247	Pakistan	2.9
34.	Israel	Tunisia	0.753	Guinea-Bissau			10,400	Equatorial Guinea	535,900	Germany	231	Angola	2.8
35.	Ivory Coast	Fiji	0.752	Guyana		Jamaica	10,991		538,000	Burundi	229	Chad	2.8
36.	Jordan	Sri Lanka	0.751	Indonesia		Gambia	11,300	Comoros	671,200	Trinidad & Tobago	212	Ethiopia	2.8
37.	Kenya	Turkey	0.750	Iran		Qatar	11,437	Bahrain	688,300	Liechtenstein	211	Paraguay	2.8
38.	Kosovo	Dominican Republic	0.749	Kazakhstan		Vanuatu	12,200	Guyana	765,300	Pakistan	202	Zambia	2.8

	Conflict areas*	Countries and areas with closest (Medium) HDI**		Cultural relevance ***	Climatic Relevance ****	Countries and areas with lowest areas of lands*****		Countries and areas with lowest population figures *****		Countries and areas with highest population density *****		Countries and areas with highest population growth rates *****	
		Country	HDI			Country	Land area (Sq. Kms)	Country	Population (Inh.)	Country	Pop. Density (Inh./ Sq Km)	Country	Pop. Growth Rate
39.	Kurdistan	Maldives	0.745	Kyrgyz		Bahamas	13,940	Cyprus	780,100	Nepal	197	Equatorial Guinea	2.7
40.	Kuwait	Jamaica	0.738	Malaysia		East Timor	15,007	Qatar	863,100	Italy	193	Guinea	2.7
41.	Kyrgyz Republic	Turkmenistan	0.738	Maldives		Swaziland	17,363	Fiji	893,400	Korea (North)	1904	Nigeria	2.7
42.		Iran, Islamic Rep. Of	0.736	Mali		Kuwait	17,820	East Timor	1,040,900	Sao Tome & Principe	1874	Senegal	2.7
43.	Liberia	Georgia	0.732	Mozambique		Fiji	18,270	Trinidad & Tobago	1,088,600	Dominican Republic	184	Burkina Faso	2.6
44.	Macedonia	Azerbaijan	0.729	Niger		Slovenia	20,273	Swaziland	1,173,900	Luxembourg	181	Cameroon	2.6
45.	Moldova		0.729	Nigeria		Israel	20,770	Mauritius	1,230,600	Switzerland	181	Ghana	2.6
46.	Mozambique	Algeria	0.722	Pakistan		El Salvador	21,040	Estonia	1,332,900	Seychelles	178	Iran, Islamic Rep. Of	2.6
									1,334,266				
47.	Nepal	El Salvador	0.722	Senegal		Belize	22,966	Gabon	1,389,200	Antigua & Barbuda	155	Mali	2.6
48.	Myanmar	Cape Verde	0.721	Sierra Leone		Djibouti	23,000	Guinea-Bissau	1,416,000	Micronesia	154	Sudan	2.6
49.	Nicaragua		0.721	Suriname		Macedonia	25,333	Gambia	1,593,300	Andorra	151	Zimbabwe	2.6
50.	Nigeria	Guyana	0.720	Tajikistan		Rwanda	26,338	Botswana	1,640,100	Tonga	150	Algeria	2.5
51.	Northern Ireland	Viet Nam	0.704	Togo		Haiti	27,750	Lesotho	1,867,000	Saint Kitts & Nevis	149	Botswana	2.5
52.	North Korea	Kyrgyzstan	0.702	Turkey		Burundi	27,830	Slovenia	2,011,100	Gambia	141	Costa Rica	2.5
53.	Pakistan	Indonesia	0.697	Turkmenistan		Equatorial Guinea	28,051	Namibia	2,030,700	Nigeria	139	Malaysia	2.5
54.	Peru	Uzbekistan	0.694	United Arab Emirates			28,450	Macedonia	2,045,300	China	136	Mauritania	2.5
55.	Philippines	Nicaragua	0.690	Uzbekistan		Albania	28,748	Bhutan	2,232,300	Guatemala	135	Nicaragua	2.5
56.	Russian Federation	Bolivia	0.687	Cote d'Ivoire		Armenia	29,800	Latvia	2,290,200	Moldova	132	Rwanda	2.5
57.	Rwanda	Mongolia	0.679	Uganda		Lesotho	30,355	Kuwait	2,335,600	Kuwait	131	Vanuatu	2.5
58.	Senegal	Moldova, Rep. Of	0.671			Belgium	30,510	United Arab Emirates	2,563,200	Czech Republic	129	Venezuela	2.5
59.	Sierra Leone	Honduras	0.667			Moldova	33,843	Jamaica	2,731,800	Kiribati	127	Belize	2.4
60.		Guatemala	0.663			Guinea-Bissau	36,120	Mongolia	2,791,300	Thailand	127	Eritrea	2.4
61.	Somalia	Egypt	0.659			Switzerland	41,290	Armenia	2,982,900	Denmark	126	Guatemala	2.4
62.	South Africa	Vanuatu	0.659			Netherlands	41,526	Oman	3,001,600	Indonesia	126	Papua New Guinea	2.4
63.	Spain	South Africa	0.658			Denmark	43,094	Congo (Rep.)	3,039,100	Albania	124	Swaziland	2.4
64.	Sri Lanka	Equatorial Guinea	0.655			Estonia	45,226	Panama	3,039,200	Poland	123	Burundi	2.3
65.	Sudan	Tajikistan	0.652			Bhutan	47,000	Mauritania	3,086,900	Uganda	116	Cambodia	2.3
66.	Tajikistan	Gabon	0.635			Dominican Republic	48,730	Uruguay	3,415,900	Portugal	114	Central African Republic	2.3
67.	Tunisia	Morocco	0.631			Slovakia	48,845	Liberia	3,482,200	Slovakia	111	Israel	2.3
68.	Tibet	Namibia	0.627			Costa Rica	51,100	Albania	3,563,100	France	110	Nepal	2.3
69.	Turkey	Sao Tome and Principe	0.604			Bosnia & Herzegovina	51,129	Lithuania	3,596,600	Hungary	108	Philippines	2.3
70.	Uganda	India	0.602			Croatia	56,542	Central African Republic	3,799,900	Serbia & Montenegro	106	Bangladesh	2.2
71.	United Kingdom		0.594			Togo	56,785		3,826,000	Cape Verde	104	Bolivia	2.2
72.	USA/ Al-Qaida	Myanmar	0.578			Latvia	64,589	Ireland	4,015,700	Malawi	103	Ecuador	2.2
73.	Uzbekistan	Cambodia	0.571			Lithuania	65,200	Costa Rica	4,016,200	Cuba	102	Lao People's Dem. Rep.	2.2
74.	Venezuela	Botswana	0.565			Sri Lanka	65,610	Bosnia & Herzegovina	4,025,500	Armenia	100	Singapore	2.2
75.		Comoros	0.547			Georgia	69,700	New Zealand	4,035,500		100	Tajikistan	2.2
76.	Western Sahara	Lao People's Dem. Rep.	0.545			Ireland	70,280	Singapore	4,425,700	Togo	100	Turkmenistan	2.2
77.	Yemen	Bhutan	0.536			Sierra Leone	71,740	Moldova	4,455,400	Slovenia	99	Uzbekistan	2.2
78.	Yugoslavia	Pakistan	0.527			Panama	78,200	Croatia	4,495,900	Austria	97	Bhutan	2.1
79.	Zimbabwe	Nepal	0.526			Czech Republic	78,866	Eritrea	4,561,600	Romania	94	Egypt	2.1

	Conflict areas*	Countries and areas with closest (Medium) HDI**		Cultural relevance ***	Climate Relevance ****	Countries and areas with lowest areas of lands*****		Countries and areas with lowest population figures *****		Countries and areas with highest population density *****		Countries and areas with highest population growth rates *****	
		Country	HDI			Country	Land area (Sq. Kms)	Country	Population (Inh.)	Country	Pop. Density (Inh./ Sq Km)	Country	Pop. Growth Rate
80.		Papua New Guinea	0.523			United Arab Emirates	82,880	Norway	4,593,000	Dominica	92	Mongolia	2.1
81.		Bangladesh	0.520			Austria	83,858	Georgia	4,667,400	Azerbaijan	91	Mozambique	2.1
82.		Ghana	0.520			Azerbaijan	86,600	Turkmenistan	4,952,100	Turkey	89	Panama	2.1
83.		Timor-Leste	0.513			Jordan	92,300	Kyrgyzstan	5,146,300	Ghana	88	Peru	2.1
84.		Congo	0.512			Portugal	92,391	Finland	5,223,400	Cyprus	84	South Africa	2.1
85.		Sudan	0.512			Hungary	93,030	Slovakia	5,431,400	Sierra Leone	84	São Tomé and Príncipe	2.1
86.		Togo	0.512			Korea (South)	98,480	Denmark	5,432,300	Greece	80	Cape Verde	2.0
87.		Uganda	0.506			Serbia & Montenegro	102,550	Nicaragua	5,465,100	Venezuela	80	Morocco	2.0
88.		Zimbabwe	0.505			Iceland	103,000	Papua New Guinea	5,545,300	Spain	80	Sierra Leone	2.0

* Conflict countries and / or areas have been gathered from different resources including:

1. Save the Children, 2003. State of the World's Mothers 2003, Protecting Women and Children in War and Conflict. Available from <http://www.savethechildren.org/publications/SOWMPDFfulldocument2.pdf> (last accessed 11.03.2006)
2. Schwartz, J. et al., 2004. The Private Sector's Role in the Provision of Infrastructure in Post-Conflict Countries: Patterns and Policy Options. The World Bank, Social Development Papers: Conflict Prevention and Reconstruction. Available from <http://rru.worldbank.org/PapersLinks/Conflict-Affected-Countries/> (Last accessed on 11.03.2006)
3. Website of the Religious Tolerance Organization: http://www.religioustolerance.org/curr_war.htm (Last accessed on 11.03.2006)
4. Website of the online encyclopedia 'Wikipedia': http://en.wikipedia.org/wiki/List_of_countries_where_UN_peacekeepers_are_currently_deployed (Last accessed on 11.03.2006)
5. Website of 'The National Defense Council Foundation of US': http://www.ndcf.org/Conflict_List/2003Conflictlist.htm (Last accessed on 11.03.2006)
6. German Federal Ministry for Economic Cooperation and Development, 2005. Promoting Good Governance in Post-Conflict Societies. Discussion paper. Division State and Democracy, Project on Democracy and the Rule of Law. Available from: <http://www2.gtz.de/dokumente/bib/05-0032.pdf> (Last accessed on 11.03.2006)

** Source: UNDP, 2005

*** Source: Website of the Organization of the Islamic Conference: <http://www.oic-oci.org/index.asp> (Last accessed on 11.03.2006)

**** Source: Website of the 'Mediterranean garden society organization': <http://www.mediterraneangardensociety.org/climate/map.cfm> (Last accessed on 11.03.2006)

***** Source: Website: <http://worldatlas.com/geoquiz/thelist.htm> (Last accessed 11.03.2006)

Table D.1: Factors and corresponding countries similar to the Gaza Strip

	Country	Countries and areas with closest (Medium) HDI	Countries and areas with lowest areas of lands	Countries and areas with lowest population figures	Countries and areas with highest population density	Countries and areas with highest population growth rates	Total
1.	Maldives	6	3	20	2	21	52
2.	Bahrain	45	7	10	3	2	67
3.	Comoros	30	15	11	20	12	88
4.	Gambia	45	24	3	49	3	124
5.	Mauritius	37	14	2	7	81	141
6.	Kuwait	45	30	10	54	4	143
7.	Barbados	45	2	24	5	81	157
8.	Lebanon	21	22	24	13	81	161
9.	Saint Lucia	26	6	28	26	81	167
10.	Grenada	36	1	33	27	81	178
11.	Solomon Isl.	26	42	12	87	12	179
12.	Sao Tomé	24	13	26	39	81	183
13.	Cape Verde	3	18	17	68	78	184
14.	Guinea-Bissau	45	48	2	87	18	200
15.	Syria	4	77	47	73	12	213
16.	Pakistan	33	77	47	35	26	218
17.	Bangladesh	37	77	47	4	62	227
18.	Albania	30	43	21	59	81	234
19.	Dominica	32	11	36	77	81	237
20.	Algeria	1	77	47	87	42	254

Table D.2: The most similar countries to the Gaza Strip

	Country	LS	LS Arch	LS Pl	LS Man	Urban Pl	Rural Pl	Town Pl	Country-side Pl	Physical Pl	Land use Pl	Env. Pl
1.	Lebanon	1,830,000	38,400	669	823	180,000	488	68,200	43	11,200	34,700	19,000
2.	Mauritius	629,000	13,900	322	398	136,000	293	33,900	144	792	16,000	11,300
3.	Kuwait	1,060,000	19,400	446	541	53,200	334	58,000	35	746	14,200	14,200
4.	Saint Lucia	743,000	22,200	489	551	45,600	280	34,100	45	9,490	18,100	15,300
5.	Barbados	743,000	15,800	379	405	39,200	399	31,900	163	9,870	18,400	13,400
6.	Bahrain	603,000	17,200	368	275	139,000	249	54,100	136	521	912	9,170
7.	Gambia	356,000	9,590	207	339	26,200	292	50,100	18	667	11,900	898
8.	Maldives	480,000	9,880	216	256	25,300	192	29,400	244	545	10,500	997
9.	Grenada	473,000	11,700	220	336	24,800	214	28,000	119	720	9,260	798
10.	Comoros	251,000	798	309	215	16,200	277	25,800	6	504	633	778

	Country	Nature Pro.	Nature Con.	Nature reserve	LS Pre.	LS Con.	LS Pro.	LS Dev.	LS Imp	Eco-tourism	Total
1.	Lebanon	29,800	34,500	73,300	303	175	205	325	121	117,000	2,439,252
2.	Mauritius	25,500	38,800	102,000	105	135	154	354	11	440,000	1,449,108
3.	Kuwait	26,500	26,100	32,200	102	207	150	280	73	62,400	1,369,114
4.	Saint Lucia	18,000	42,100	195,000	143	182	159	367	42	122,000	1,267,148
5.	Barbados	18,400	25,400	58,400	176	219	127	307	31	119,000	1,094,976
6.	Bahrain	24,000	17,700	29,400	73	120	368	237	11	52,500	949,340
7.	Gambia	25,900	22,700	51,700	96	180	258	249	8	352,000	909,302
8.	Maldives	16,300	24,300	47,400	123	129	160	306	8	111,000	757,256
9.	Grenada	22,800	17,000	36,900	92	112	199	299	20	92,900	719,489
10.	Comoros	15,100	12,800	25,400	45	508	112	147	5	302,000	652,637

Table D.3: The top 10 similar countries to the Gaza Strip compared with respect to landscape issues

Appendix E

Israeli National Outline Schemes

The following presents information on the Israeli National Outline Schemes (based on the online archive of the Ministry of Foreign Affairs of Israel: [ILMFA Website](#)^[c])

'National Outline Schemes' include six categories ranging from plans for projects with national significance (e.g. power stations, ports, airports, etc.) to those for particularly sensitive or problematic areas that require special attention by the National Board (e.g. the Mediterranean coastal area). Examples of these schemes include:

1. National Outline Scheme for Immigrant Absorption:

This scheme forecasted of one million new immigrants by 1995.

- In the first phase of plan preparation, a map of environmental constraints and restrictions was prepared. The plan also designated areas where development would be permitted provided measures are taken to prevent environmental degradation, such as areas of high sensitivity to water pollution.
- In the second phase, the planners checked the requirements for residential development and employment opportunities.
- The principles outlined in the third phase, and the planning documents submitted at the fourth and final phase gave strong emphasis to environmental management principles, including:
 - Development should be confined to existing urban settlements, using existing infrastructures;
 - rural development should be limited to minor expansion of existing settlements, within an overall policy of open space protection of rural agricultural landscapes;
 - High quality areas of natural and landscape value should be strictly protected;
 - Development should not be permitted in areas exposed to environmental degradation;

- Development must be accompanied by the adequate provision of facilities for sewage treatment;
- Development of industrial parks must include regulations to prevent environmental pollution.

The National Outline Scheme for Immigrant Absorption is accompanied by a non-statutory development plan designed to help guide the investment decisions of the various sectorial ministries. It includes requirements for sewage treatment facilities and for solid waste disposal sites.

2. National Outline Scheme for Power Stations:

This scheme deals with the location and operation of power stations for electricity production and supply throughout the country. Environmental considerations are incorporated in the plan's regulations on siting, construction and operation of the power plants.

3. The plan for the Hadera coal-fired power station

This plan included the first statutory example of 'environmental compensation.' It linked the construction of the plant to establishment of a park for Hadera residents as compensation for the siting of the power station adjacent to the town. This principle was followed with the next power station site at Ashkelon, where the town was compensated by funds for a marina project, to ensure that its tourist industry would not be damaged by the construction of the power station.

4. National Outline Scheme for Airports:

All plans for airports, including the Ben Gurion International Airport, include measures for noise abatement by choosing flight paths, regulating aircraft movements and preventing disturbance by night flights. The national plan for airports also imposes restrictions on building in areas exposed to high noise levels. The plan includes ongoing monitoring and enforcement procedures and establishes the authorities responsible for implementation.

5. National Outline Scheme for the Mediterranean Coast:

In 1970, the National Planning and Building Board recognized that Israel's coastlines should be treated as resources of national value, and issued an order for the preparation of national plans for all its sea and lake shores: the Mediterranean Sea, the Red Sea (Gulf of Eilat), the Sea of Galilee and the Dead Sea.

Appendix F

Examples of master plans of municipalities in the Gaza Strip

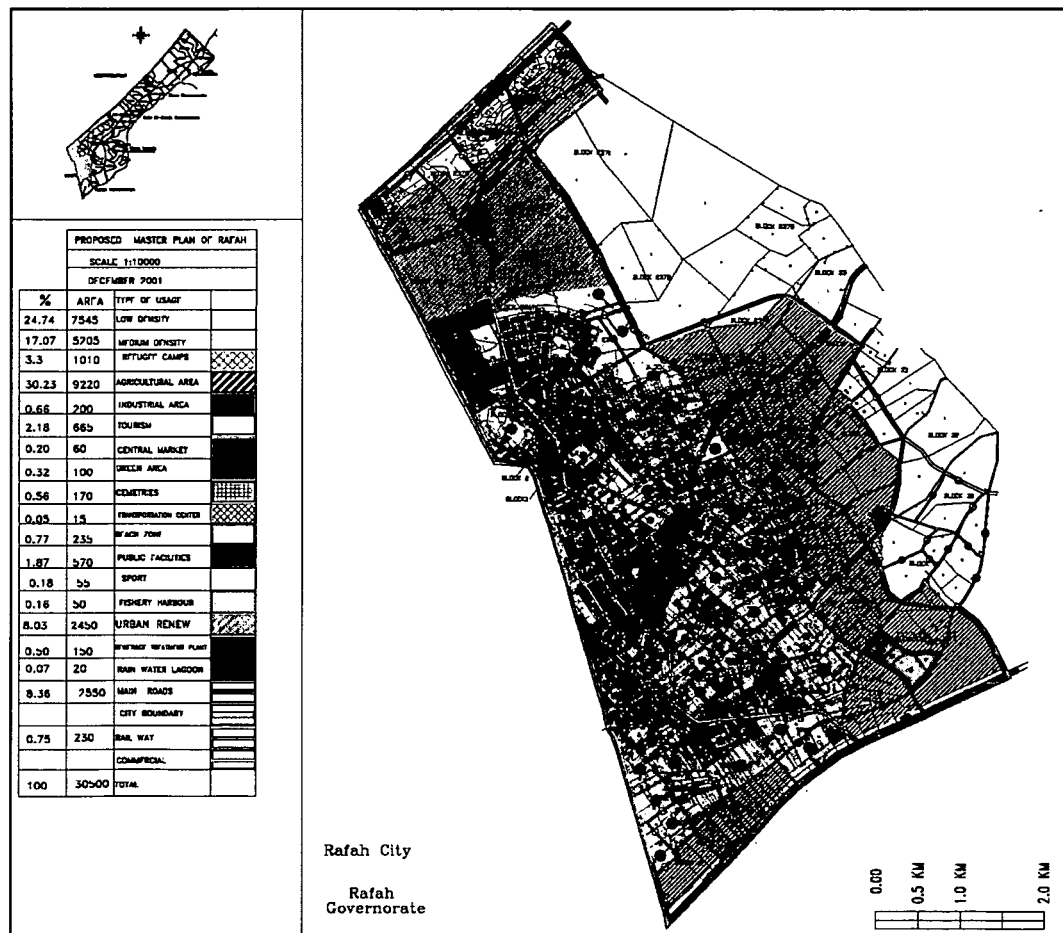


Figure F.1: Master Plan of Rafah City (Source: MOLG, 2004)

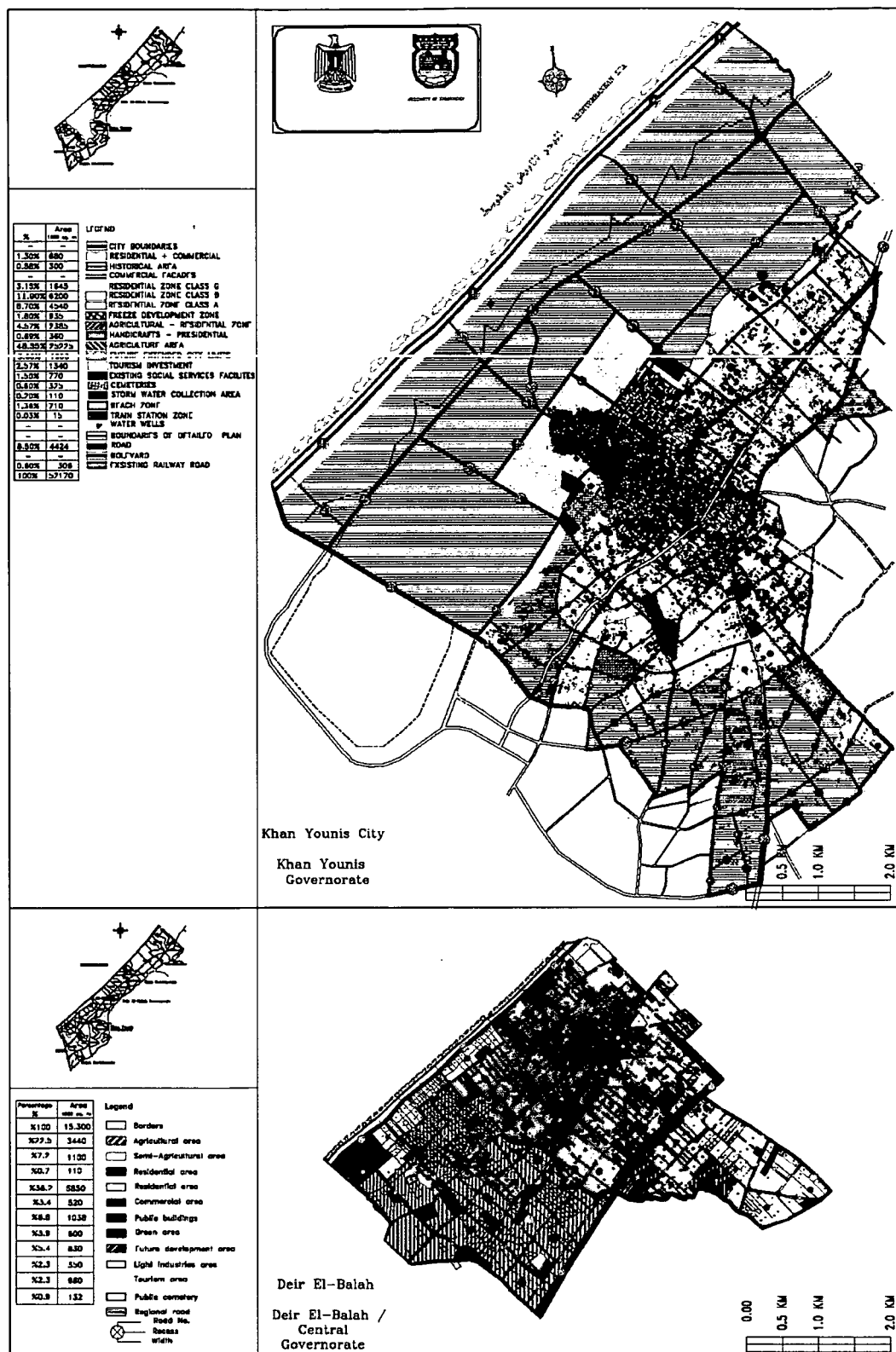


Figure F.2: Master plans of Khan Younis (source: MOKH, 2005) and Deir El-Balah (Source: MOLG, 2004)

Appendix G

Basis of the existing legislations related to physical planning in the Gaza Strip since 1921

This review is completely based on Halabi, 1997

1. Laws and regulations issued during the British Mandate period (1918 - 1948)

- Town Planning Ordinance (TPO) No. 3 of 1921
- TPO No. 28 of 1936
 - planning jurisdictions were distributed on local, regional, and national levels
 - regional outline schemes were made for six districts: Jerusalem, Nablus, Galilee, Haifa, Lydda and Gaza
- Town Planning (Amendment) Ordinance (TPAO) No. 8 of 1938.
 - The definition of construction was amended
- TPAO No. 5, of 1939.
 - the District Commissions have the authority to revise, suspend the implementation of, or abrogate any detailed scheme or outline scheme
- Regulation Concerning the Demolition of Dangerous Constructions of 1941
- Regulation Concerning Town Planning Licenses of 1941
- Regulation Concerning Erecting Walls and Fences, of 1941
- TPAO No. 31, of 1941
 - amendment to the TPO No. 28 of 1936
- Regulation Concerning Numeration of Buildings, of 1947

2. Israeli Military Orders Issued (1967 - Present) Gaza Region

- Military Order (MO) No. 125 of 1967
 - repealed the Egyptian AO No. 527 of 1957 and amended the TPO No. 28 of 1936
 - dictated that members of the Central Building and Town Planning Commission must come from the Israeli occupation authority
- MO No. 268 of 1969 concerning the MO No. 125 of 1967
- MO No. 288 of 1969 concerning the MO No. 125 of 1967 and MO No. 268 of 1969
- MO No. 347 of 1970 concerning Supervision of Construction
 - military commander can prohibit, suspend or restrict construction, if convinced that it is necessary to ensure the security of the Israeli army or to maintain public order
 - he can order that all or part of a building be demolished or removed
 - Order No. 19 of 1980 prohibited construction along Deir Al-Balah-Kisofin Road within 30 meters from the centre
 - Order No. 20 of 1980 prohibited construction along the Green Line and Sea Shore without license within a distance of 1000 meters from the green line, and 500 meters from the sea shore.
- MO No. 366 of 1970 concerning the MO No. 125 of 1967 and MO No. 268 of 1969, and MO No. 288 of 1969 (all about the composition of the District Commission for Building and Town Planning and related functions).
- New Town Planning Regulation (1971) concerning buildings
 - This regulation prohibits building without written authorization by the district commission in areas fifty or 75 meters from the town centre as stated in the regulation.
- New Town Planning Regulation (1972) concerning building fees
- MO No. 420 of 1972 concerning Prohibition on Construction
 - prohibited construction on land which had been expropriated and authorized the demolition of any building erected on such lands, pursuant to article 119 of the Defence (Emergency) Regulations of 1945
- MO No. 420 of 1974 concerning the TPO No. 28 of 1936
 - the area commander is given the authority to establish district commissions in a manner he deems necessary

- the area commander had the authority to define the borders of town planning areas
- New Town Planning Regulation (1974) concerning building licenses
- New Town Planning Regulation (1974) concerning new methods for collecting fees
- MO No. 506 of 1975 concerning the TPO No. 28 of 1936
 - the area commander is authorized to
 - * establish a Special Planning Commission with the same jurisdiction as a Local Commission for Building and Town Planning
 - * to establish an Objections Commission to hear appeals from the decisions of the Special Planning Commission.
- New Town Planning Regulation (1981) concerning a new method for counting the building areas and the amounts of the license fees
- Amendment to the Town Planning Regulation of 1981 concerning the obligation to having a written approval from the district commission in order to license the construction of public buildings.
- MO No. 777 of 1982 concerning the TPO No. 28 of 1936
 - all regulations, schemes or permits issued by a district or local commission prior to the appointment of the Special Planning Commission, remained in force
- MO No. 912 of 1986 concerning the TPO No. 28 of 1936
 - Article 5(a) gave the district commissions the right to establish permanent secondary commissions
 - Article 7(a)c granted the chair of the Special Planning Commission the same authorities as the chairs of the local and district planning commissions.
 - Article 9(a) imposed a penalty on a member of any planning commission who grants a permit or authorizes as project knowing that it contravenes a planning scheme.
 - Article 34(a) provided new definitions, and increased fines and prison sentences.
 - Article 35(a) permitted the chair of a district or local planning commission to register a document in the registry office against any violator of the Ordinance.

- Article 36(a) authorized police officers of rank inspector or higher to issue an administrative order to cease building where there is a reasonable basis to believe that the building is being constructed without a license.
- Article 36(f) authorized the chairs of the district and local planning commissions to issue demolition orders if the building activity continued in contravention to the administrative order.
- Regulation Concerning Maps (1987)
 - This redefined the method of map preparation, content, required scale, goal specifications, goal indicating colours, and the number of copies required of an abbreviated scheme (7 copies) and a detailed scheme (6 copies).

3. Legislation issued by the Palestinian Authority

- Order Concerning Multi-Storey Buildings in the Gaza Region (1994)
 - deals with the construction of multi-storey buildings in the Gaza Region in accordance with the stipulated conditions and specifications
 - Article 36 stipulates that the provisions of the TPO No. 28 of 1936, in addition to its amendments and the regulations issued concerning buildings, shall remain in force unless provided for in a special clause of the regulation.

Appendix H

Priorities of clusters of natural resources in the Emergency Resources Protection Plan(ERPP)

Priority	Location	Area (km ²)
Water catchment 1- Nature conservation (WC1 & NC)	Northern area closed to the Israeli border	5.835
	The area closed to Rafah including the settlements	11.484
	Gaza Valley	2.710
	Tal El Hawa area	0.411
Water catchment 1- Agriculture 1 (WC1 & A1)	Northern area in Beit Lahia	10.017
	The area close to Rafah and close to the sea shore	7.353
Agriculture 1 (A1)	Northern area closed to the Israeli border and close to the sea shore	4.833
	The area surrounding the middle camps	18.967
	The area west side of Khan Younis and close to the sea shore	4.223
Agriculture 2 (A2)	The eastern area between Rafah and Khan Younis	10.520
	The eastern area between Gaza and Jabalia	3.971
Water catchment 2- Agriculture 2 (WC2 & A2)	The area between Rafah and Khan Younis, and between water catchment 1 and agriculture 2 (WC1 & A2)	11.485
	The area close to agriculture 1 west of Khan Younis	3.741
	The area located between the ring road and the eastern border to Israel	24.286
Recreation (R)	Whole the sea shore and far away 300m from the center of the coastal road to the east	10.230
Archaeological sites (AS)	Tal Ajjoul	
	El Montar	
	Old Harbour	

Table H.1: Priorities of clusters of natural resources in the Gaza Strip (Source: MOPIC, 1995)

Appendix I

Proposed treatment to projects in resources areas by the Emergency Resources Protection Plan (ERPP)

Project	WC1 & NC	WC1 & A1	A1	WC2 & A2	A2	R	AS
Sand quarrying	NP	P	P	P	P	NP	NP
Housing complex (1)	NP	NP	NP	NP	NP	NP	NP
Hotel/ tourism accommodation	NP	NP	NP	NP	NP	P	NP
Industrial area (2)	NP	NP	NP	NP	NP	NP	NP
Single polluting industry (3)	NP	NP	NP	NP	NP	NP	NP
Refinery	NP	NP	NP	NP	NP	NP	NP
Chemical storage tanks	NP	NP	NP	NP	P	NP	NP
Petrol station	NP	NP	P	P	P	NP	NP
Highway	NP	P	P	P	P	P	NP
Railway	NP	P	P	P	P	P	NP
Harbor	NP	P	P	P	P	P	NP
Airport	NP	NP	NP	NP	NP	NP	NP
Power plant	NP	NP	NP	NP	NP	NP	NP
Controlled solid waste dump	NP	NP	P	NP	P	NP	NP
Sewage treatment plant	NP	P	P	P	P	NP	NP
Agricultural land reclamation (4)	NP	NP	P	P	P	P	NP
Notes WC1 & NC: Water Catchment 1 and Nature Conservation WC1 & A1: Water Catchment 1 and Agriculture 1 A1: Agriculture 1 WC2 & A2: Water Catchment 2 and Agriculture 2 A2: Agriculture 2 R: Recreation AS: Archaeological Site P: Prior approval NP: Non-Permissible		(1) Being a housing project for the construction of more than 10 dwellings. (2) Being an area of more than 15 dunums (1.5 ha) for the development of one or more industrial establishments. (3) Being an industry with a single, large emission of gaseous or fluid substances, or producing a considerable amount of noise. (4) Being an area of more than 20 dunums.					

Table I.1: Proposed treatment to projects in resources areas by the Emergency Resources Protection Plan (ERPP) (Source: MOPIC, 1995)

Appendix J

Main points and respective responses of the interviews in Gaza

A series of interviews were held in the Gaza Strip in February 2004 with several persons from different areas related to landscape planning. Interviewed persons can be categorized into two main groups:

- Professionals non-participants (in the planning process between 1994-2005):
 1. Dr. Mohammed Al-Kahlout (Islamic University Of Gaza)
 2. Dr. Ibrahim Abu-Hmaid (Director General for Policies and Urban Planning at the Ministry of Public Works and Housing): Professional,
 3. Dr. Khaled Al-Ghalayeen (Ministry of Public Works and Housing- Gaza): Professional,
- Participants (in the planning process between 1994-2005), but non-professionals:
 1. Mr. Hisham Matar (Deputy Director General, Environmental Quality Authority)
 2. Arch. Eng. Mohammed Al-Eila (Environmental Quality Authority)
 3. Arch. Eng. Tayseer Mushtaha (Environmental Quality Authority)
 4. Eng. Walid Zaqout (Environmental Quality Authority)
 5. Eng. Husam An-Najar (Ministry of Planning)
 6. Arch. Eng. Nabeel Ayad (Ministry of Planning)
 7. Arch. Mona Dorninji (Ministry of Planning)

The main points discussed during these meetings included the following:

1. 'Landscape', as a distinct subject in planning activities done in Gaza Strip in the period 1994-2003, has been defined and treated according to:

- a) The aesthetic visual aspects: 'landscape is the external visible surface of the earth that is useful, beautiful, sustainable, productive and spiritually rewarding'
- b) The cultural aspects: 'landscape is the meeting ground between human and nature where places had been shaped by human use over the centuries and contain valuable natural and cultural features'
- c) Scientific-ecological discipline: 'landscape is a dynamic process developing on the visible earth surface, resulting from the interaction between biotic, abiotic and human factors which vary according to site and time'
- d) Wholeness and totality aspects: 'landscape is the total spatial and visual entity of human living space integrating the geo-sphere with the bio-sphere and its man-made artefacts'
- e) None of the previous: what's then?

Which of the planning products in Gaza Strip in the period 1994-2003 may support your selection?

2. The term 'Planning' has been used in Gaza Strip in the period 1994-2003 to indicate:
 - a) A purposeful development activity that consciously and explicitly develops a set of objectives and seeks the best means to reach these objectives
 - b) The deliberate consideration of alternatives in seeking the most desirable course of actions to be taken
 - c) The use of scientific and technical information to provide options for decision makers
 - d) The activities done to produce policies, laws and regulations
 - e) None of the previous: what's then?

Which of the planning products in Gaza Strip in the period 1994-2003 may support your selection?

3. Landscape planning had been considered in planning activities in the period 1994-2003
 - a) very much
 - b) considerably
 - c) rarely
 - d) had NOT been considered at all
4. The institution that is supposed to hold activities of landscape planning is:
 - a) Ministry of planning
 - b) Environmental Quality Authority

- c) Ministry of Local Governance
 - d) None of the previous: what's then?
5. The most effective factors on urban and rural planning issues had been: a) Political
- b) Social
 - c) Economic
 - d) All of the previous
 - e) Others: (please indicate)
6. Problems facing planning process are:
- a) failure in determining aims and goals
 - b) failure in determining approaches and methodologies
 - c) failure in determining or using planning tools and instruments
 - d) difficulties in public participation
 - e) lack of public awareness
 - f) lack of planning experts
 - g) Others: (please indicate):
7. Problems of planning implementation are mainly because of
- a) Problems of introducing management issues in the planning process
 - b) lack of management experts
 - c) Israeli occupation and military operations in the Palestinian land.
 - d) lack of public participation and awareness
 - e) Others: (please indicate):
8. Urban changes on the expense of open landscapes can greatly noticed in:
- a) South of Gaza City- Tal Al-Hawa area and Az-Zahra'a town and Wadi Gaza area.
 - b) North of Gaza City- Jabalia and Beit Lahia
 - c) Others: (Please identify)
9. Challenges facing the process of enacting policies are because of
- a) Lack of experts in laws
 - b) Israeli restrictions
 - c) Problems of approval process
 - d) Distribution of responsibility among institutions
 - e) Others: (Please identify)

What policies and laws had been developed in the period 1994-2003 and what institutions were responsible?

10. Challenges facing the implementation of plans and policies are because of
- a) Problems in management
 - b) Lack of strong enforcement bodies
 - c) Israeli restrictions
 - d) Problems of public response
 - e) Distribution of responsibility among institutions
 - f) Others: (Please identify)
11. Non-governmental organizations participated in planning activities in the period 1994-2003 a) very much
- b) considerably
 - c) rarely
 - d) did NOT participate at all
- In case of positive answer, which organizations?
12. Landscapes of Gaza Strip can be described as
- a) Outstanding
 - b) Good
 - c) Disturbed
 - d) Distributed among the previous
- None of the previous: what's then?
13. Planning in the period 1994-2003 was influenced by the existence of foreign experts
- a) very much
 - b) considerably
 - c) rarely
 - d) was NOT influenced at all
- In case of positive answer, please clarify how?
- Examples:
14. Planning system and institutions in the period 1994-2003 were organized
- a) very well
 - b) considerably
 - c) somewhat
 - d) was NOT organized at all
- In case of negative answer, please clarify how and why?
- Examples:

The brief result of the meeting and interview related to the main points mentioned above are shown here in table J.1.

Qu.	Professional				Participants in planning works								All
	1	2	3	Total	1	2	3	4	5	6	7	total	
1.	d	d	e	2d, 1e	e	d	a	a	d	d	a	3a,3d 1e	3a, 3d, 2e
2.	a,b,c	a,b,c	e	2a,2b, 2c,1e	e	a	a,b, d	b	c	b	b,c, d	2a,4b,2c 2d,1e	4a, 6b, 4c, 2d, 2e
3.	a	b	d	1a,1b, 1d	c	c	c	b	b	a	c	1a,2b,4c	2a, 3b, 4c, 1d
4.	a	d	d	1a 2d	c	b,c	c	c	a,c	a,b	b	2a,3b,5c	3a, 3b, 5c, 2d
5.	d	d	d	3d	d	d	d	d	d	a,c	d	1a,1c 6d	1a, 1c, 9d
6.	b,c,d, e,f	c,d,e, f	b,c,d, e,f	2b,3c,3d 2c,3f	a	a,b, c,d	e,f	b	d,e	a,c, d,e	b,c, d,e,f	3a,3b,3c 4d,4e,2f	3a, 5b, 6c, 7d, 6c, 5f
7.	c,d	b,c,d,	a,b,c, d	1a,2b,3c 3d	a	c,d	a,d	a	c,d	a,c, d	a,b, c,d	5a,1b,4c, 5d	6a, 3b, 7c, 8d
8.	a,b	a,b	a,b	3a, 3b	a	a,b	c	a	a	c	a	5a,1b,2c	8a, 4b, 2c,
9.	c,d	a,b,c, d,e	a,b,c, d	2a,2b,3c 3d,1e	d	b,d	d	d	b,c, d	a,b, c,d	b,c, d	1a,4b,3c 7d	3a, 6b, 6c, 10d, 1e
10.	b,c,d, e	b,c,d, e	a,b,c, d,e	1a,3b,3c 3d,3e	a,b,c, d,e	b,c	b,d, e	c	a,c, d,e	b,c, d,e	a,b,c, d,e	1a,5b,6c 5d,5e	2a, 8b, 9c, 8d, 8e
11.	d	d	d	3d	d	c	d	c	c	c	c	5c,2d	5c, 5d
12.	b,c,	d	c	1b,2c 1d	c	c	c	d	c	a	c	1a,5c,1d	1a, 1b, 7c, 2d
13.	b	b	b	3b	a	b	b	b	b	a	a	3a,4b	3a, 7b
14.	c	d	d	1c 2d	c	c	c,d	c	c	c	c	7c,1d	8c, 3d

Table J.1: Responses to the main points of the interviews in Gaza

Appendix K

Data on building licenses between 1996 and 2004

Period	Number of Licenses						Licensed Area (1000 sq. m)			Licensed Dwellings			
	Total	New Buildings	Additions to Licensed Buildings	Additions + Existing Parts	Existing Buildings	Existing Extensions	Total	New Areas	Existing Areas	New		Existing	
										No.	Area (1000 sq.m)	No.	Area (1000 sq.m)
1996	7610	4540	2062	75	809	124	2592.5	2290.1	302.4	13139	1640.9	1679	227.8
1997	8388	4789	1994	187	1155	263	2892.0	2391.9	500.1	13230	1768.5	2759	391.8
1998	8956	5117	2252	265	1144	178	2974.8	2505.7	469.1	12826	1786.7	2735	387.1
1999	9918	5803	2055	475	1470	115	3414.4	2860.1	554.4	14587	2050.6	3675	439.0
2000	8301	4498	1852	448	1318	185	2940.0	2457.6	482.4	10708	1646.1	2730	383.3
2001	5133	2781	1181	273	774	124	1974.8	1633.9	341.0	7037	1041.9	1847	256.0
2002	3325	1913	675	131	554	52	1252.1	1080.4	171.7	5089	794.4	975	137.6
2003													
Quarter I	892	493	219	22	142	16	370.6	332.5	38.1	1265	212.1	547	23.7
Quarter II	1416	778	332	39	234	33	560.8	492.4	68.4	1960	314.7	392	53.5
Quarter III	1585	949	357	41	203	35	638.4	565.6	72.8	2511	389.6	440	61.2
Quarter IV	1342	761	360	36	170	15	528.1	481.3	46.8	2416	317.8	292	37.4
Total	5235	2981	1268	138	749	99	2090	1863.9	226.1	8152	1234.2	1671	175.8
2004													
Quarter I	1131	680	269	30	130	22	437.9	386.6	51.4	1906	280.6	243	33.7
Quarter2	1356	790	320	46	174	26	538.5	483.9	54.6	2194	345.8	284	37.2
Quarter3	1215	716	290	38	140	31	497.2	449.0	48.2	1888	308.0	286	37.2
Quarter4	1348	778	241	35	262	32	555.7	487.9	67.8	2196	314.3	416	53.5
Total	5050	2964	1120	149	706	111	2029.3	1807.4	222	8184	1248.7	1229	161.6

Table K.1: Data on building licenses between 1996 and 2004 (Source: PCBS, 2005d)

Appendix L

Data on housing projects of the General Housing Plan (1995-2015)

The table in this appendix is mainly based on the General Housing Plan (1995-2015). This plan has been represented by a map over which 49 housing projects have been allocated. The map also included information about each project such as the governorate where it has been planned, the status of construction, required area of land, and proposed housing units. Comparing to other maps, it has also been possible to include other information for each project such as ownership of land, and land use proposed by the Regional Plan for Gaza Governorates.

Proj. No.	Housing Units	Area 1000 sq. m	Area (sq.m / unit)	Land Use	SOC	OSH	MLC	GOV	Notes
1.	350	102	291	NR	RC	▽	2	N	LU: Land use, from the Regional Plan for Gaza Governorates
2.	200	18	90	UD	AC	□	1	N	
3.	1750	141	81	UD	UC	▽	4	G	
4.	1440	200	139	NR	AC	▽	2	N	
5.	1500	280	187	UD	RC	▽	4	G	NR: Important nature reserve
6.	160	5	31	BA	AC	□	4	G	
7.	600	6	10	BA	AC	□	4	G	
8.	4620	400	87	UD	UC	▽	4	G	
9.	7200	600	83	CA	FC	▽	MOLG	G	SOC: Status of construction:
10.	140	14	100	BA	AC	□	12	D	
11.	2400	200	83	NR	FC	□	12	D	
12.	480	40	83	UD	AC	□	19	K	
13.	260	23	88	UD	AC	□	19	K	OSH: Ownership of Land:
14.	280	30	107	BA	AC	□	19	K	
15.	218	21	96	UD	AC	○	19	K	
16.	1560	130	83	NR	RC	□	19	K	
17.	420	20	48	NR	AC	□	24	R	GOV: Governorates:
18.	740	65	88	BA	AC	▽	24	R	
19.	1500	140	93	BA	AC	□	24	R	
20.	5000	500	100	NR	FC	□	19	K	
21.	139	139	1000	NR	UC	▽	2	N	MOLG: Ministry of Local Governance
22.	360	200	556	NR	AC	▽	MOLG	N	
23.	1500	150	100	BA	UC	□	1	N	
24.	3500	500	143	UD	UC	▽	2	N	
25.	300	30	100	BA	AC	□	2	N	MLC: Municipalities and Local Councils
26.	600	60	100	BA	RC	□	2	N	
27.	3000	360	120	UD	AC	▽	3	N	
28.	2260	334	148	CA	UC	▽	5	G	
29.	1000	100	100	UD	FC	⊗	9	D	1: Beit Hanoon Municipality (N)
30.	300	30	100	NR	FC	□	11	D	
31.	3320	465	140	CA	FC	⊗	14	D	
32.	2400	200	83	CA	FC	⊗	15	K	
33.	100	8	80	CA	AC	□	15	K	2: Beit Lahia Municipality (N)
34.	1440	102	71	NR	FC	▽	24	R	
35.	12000	1200	100	CA	FC	⊗	22	R	
36.	2000	200	100	CA	FC	□	16	K	
37.	3000	300	100	CA	FC	□	24	R	3: Jabalia Municipality (N)
38.	2000	200	100	CA	FC	⊗	21	K	
39.	750	150	200	UD	RC	□	24	R	
40.	120	3	25	BA	AC	□	4	G	
41.	19	9	474	NR	AC	□	12	D	4: Gaza Municipality (G)
42.	2000	200	100	NR	FC	□	12	D	
43.	2000	200	100	NR	FC	□	8	D	
44.	2000	200	100	CA	FC	○	7	G	
45.	2000	200	100	CA	FC	□	6	G	5: Az-Zahra'a Municipality (G)
46.	40	3	75	UD	AC	□	MOLG	G	
47.	2000	200	100	NR	FC	□	1	N	
48.	206	103	500	UD	RC	□	4	G	
49.	255	28	110	NR	AC	□	12	D	6: Juhra Ad-Deek Council (G)
Total	81427	8809	Av=108						

Table L.1: Data on housing projects of the General Housing Plan (1995-2015)

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