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The Compact City: Utopian Vision or Practical Solution to Medium-sized Cities in  
Developing Countries - The Case of Jenin/State of Palestine

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## Abstract

The spatially dispersed pattern of urban development, often referred to as urban sprawl, challenges the sustainable development in most cities including the medium-sized cities in the developing countries. This pattern of urban development puts the land's resources under pressure and causes a range of social, environmental and financial problems. Since few decades, scholars and policymakers have been focusing the attention on finding policies to counteract this inefficient pattern of urban development and making urban development more compact. The developed compact city policies only address the large cities, especially in the developed countries. No policies have been yet developed to counteract urban sprawl in the medium-sized cities in the developing countries and guide the urban development more sustainably. Therefore, this doctoral research investigated the opportunities and challenges to mobilize the compact city policy to the medium-sized cities in the developing countries.

To enable this investigation, the available literature on the compact city policy and two empirical examples of the compact city policy were utilized to construct the policy model and identify the required conditions for implementing the policy successfully. The investigation was carried out using a qualitative research methodology, namely the case study methodology. Jenin, a medium-sized city in the State of Palestine, was selected as an intrinsic and instrumental case. The required data was captured through semi-structured in-depth interviews and was analysed using the thematic analysis method.

The investigation showed that the mobilization of a comprehensive compact city policy to the case study area is recommended. However, it showed that the domestic urban planning and urban development system does not have adequate capacity to operate a comprehensive compact city policy. The investigation identified a set of adaptations that are recommended to make the policy more compatible with the needs and characteristics of the case study area as well as with the common characteristics of the medium-sized cities in the developing countries. Similarly, it identified a number of actions that can enhance the capacity of the urban planning and urban development system in the case study area and enable the mobilization of the compact city policy to this context. Further research is recommended to draw detailed lessons on how to enable an urban planning and urban development system to implement a compact city policy successfully.

Key words: Urban sprawl, compact city policy, urban policy mobilities, medium-sized cities, developing countries.

## Zusammenfassung

Das räumlich verstreute Muster der Stadtentwicklung, oftmals als Zersiedelung bezeichnet, stellt die nachhaltige Entwicklung in den meisten Städten, einschließlich der mittelgroßen Städte in den Entwicklungsländern, vor Herausforderungen. Dieses städtebauliche Muster setzt die Ressourcen des Landes unter Druck und verursacht eine Reihe von sozialen, ökologischen und finanziellen Problemen. Seit einigen Jahrzehnten konzentrieren sich Wissenschaftler und politische Entscheidungsträger auf Maßnahmen, um diesem ineffizienten Muster der Stadtentwicklung entgegenzuwirken und eine verdichtete Stadtentwicklung voranzutreiben. Das entwickelte Leitbild der kompakten Stadt wendet sich nur an Großstädte, vorrangig in den entwickelten Ländern. Gegen die Zersiedelung von mittelgroßen Städten in Entwicklungsländern wurde noch keine Strategie entwickelt, um deren Stadtentwicklung nachhaltiger zu gestalten. In dieser Doktorarbeit wurden daher die Chancen und Herausforderungen untersucht, um die kompakte Stadt-Politik für mittelgroße Städte in Entwicklungsländern zu befördern.

Um diese Untersuchung zu ermöglichen, wurde die verfügbare Literatur zur kompakte-Stadt-Politik ausgewertet und zwei empirische Beispiele untersucht, um das Politikmodell auszuarbeiten und die erforderlichen Bedingungen für eine erfolgreiche Umsetzung der Politik zu identifizieren. Die Untersuchung wurde mittels einer qualitativen Forschungsmethodik, insbesondere der Fallstudienmethodik, durchgeführt. Dschenin, eine mittelgroße Stadt in den palästinensischen Autonomiegebieten, wurde als intrinsischer und instrumenteller Fall ausgewählt. Die erforderlichen Daten wurden durch semi-strukturierte Tiefeninterviews erfasst und mittels der thematischen Analysemethodik analysiert.

Die Untersuchung zeigte, dass die Mobilisierung einer umfassenden kompakte-Stadt-Politik für den Fallstudienbereich empfohlen wird. Es zeigte sich jedoch, dass das innerstädtische Stadtplanungs- und Stadtentwicklungssystem nicht über ausreichende Kapazitäten verfügt, um eine umfassende kompakte-Stadt-Politik zu betreiben. Die Untersuchung ergab eine Reihe von Handlungsempfehlungen, um die Politik besser auf die Bedürfnisse und Merkmale des Fallstudienbereichs sowie auf die gemeinsamen Merkmale der mittelgroßen Städte in den Entwicklungsländern abzustimmen. In ähnlicher Weise wurden eine Reihe von Maßnahmen ermittelt, die die Leistungsfähigkeit des Stadtplanungs- und Stadtentwicklungssystems im Bereich der Fallstudien verbessern und die Mobilisierung der kompakten Stadtpolitik in diesem Zusammenhang ermöglichen. Weitere Untersuchungen werden empfohlen, um detaillierte Lehren zu ziehen, wie ein Stadtplanungs- und Stadtentwicklungssystem in die Lage versetzt werden kann, eine kompakte Stadtpolitik erfolgreich umzusetzen.

Stichworte: Zersiedelung, kompakte Stadtpolitik, Urban-policy-mobilities, mittelgroßen Städten, Entwicklungsländer.

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## List of Abbreviations

BauGB: Federal Building Code

BRT: Bus Rapid Transport system

COHAB-CT: Curitiba's Housing Company

CSDU: The Compulsory Sub-division, Development or Utilization

DPC: District Planning Committee

EEA: European Environment Agency

FNP: Land Use Plan with Integrated Landscape Planning

HPC: High Planning Council

IPPUC: Institute of Research and Urban Planning of Curitiba

JDoLG: Jenin Directorate of Local Government

JM: Jenin Municipality

JMP: Jenin Master Plan

JUO: The Joint Urban Operations

LPC: Local Planning Committee

LR: Land Readjustment

MoLG: Ministry of Local Government

MoP: Ministry of Planning

NIS: Neighbourhood Impact Study

NSP: National Spatial Plan

OCDR: The Onerous Concession of Development Rights

PM: Perspective Munich

PPT: Progressive Property Tax

PPT: Progressive Property Tax

RPV: Munich Regional Planning Association

SDIP: Strategic Development and Investment Plan

SoBoN: Socially Equitable Land Use

TDR: The Transfer of Development Rights

URBS: Curitiba's Urbanisation Company

# **1 Introduction**

This introductory chapter offers the reader an overview of the issues discussed in the subsequent chapters of this thesis and the methods used. It also presents the research interest, questions, and illustrates briefly the thesis' structure.

## **1.1. Background and problem statement**

### **1.1.1. Urban sprawl in the global context**

Over the past few decades, the percentage of the world's urban population has been growing rapidly. Between 1950 and 2014, this percentage has increased from 30% to 54%; whereas the percentage of the rural population has decreased from 70% to 46% (United Nations, 2014, p.7). The growth of urban population is expected to keep increasing over the coming decades. By 2050, 70% of the world's population is expected to live in urban settlements (ibid). Most of this increase is expected to take place in the developing countries, which are currently less urbanized than the developed countries (UN-HABITAT, 2012, p.3). Within the next 20 years, it is estimated that 90% of the growth of the world's urban population will take place in the developing countries (ibid).

Sustainability concerns have arisen regarding the increase in the percentage of urban population. Among the reasons leading to these concerns is the dispersed spatial pattern, at which the cities are expanding to accommodate these population, which is often referred to as urban sprawl. According to a study addressing 120 cities in developed and developing countries, it is notable that the growth of urban population is accompanied by a decline in the average densities of the cities (Angel, Sheppard, & Civco, 2005, p.1). Consequently, cities' spatial demand rises dramatically, urging cities to expand excessively to accommodate the new residents (ibid). This pattern of urban development puts the land resources under pressure and stands as a challenge for the sustainable development. Studies show that urban sprawl is an increasingly common phenomenon in the global context (Peiser, 2001, p.276; Wilson & Chakraborty, 2013, p.3303). It is even considered as the most typical pattern of the late- twentieth-century urban development (Gillham, 2002, p.8). Most of all cities, including those in developing countries, are experiencing or have experienced this phenomenon (Bhatta, 2010, p.7).

Concerning the meaning of urban sprawl, several definitions are available in the literature. Scholars point out that urban sprawl is a multifaceted term, which is used to describe several comparable conditions in the field of urbanization and urban development (Galster et al., 2001, p.681). This study develops a comprehensive definition of the term, which builds on common distinguishing features and

partial intersections between sprawl defining attributes in several studies. Thus, urban sprawl is defined here as a physical pattern of urban development, which spreads beyond the edge of the city and service area, most often into the surrounding agricultural land; constructed in leap frog manner that is consisting of scattered residential neighbourhoods and commercial strip development; usually characterized by low-density, separated land uses, discontinuity, automobile dominance and requires excessive transportation (European Environment Agency, 2006, p.6; Freilich, Sitkowski, & Mennillo, 2010, p.8; Gillham, 2002, p.8; Sierra Club, 1998; Soule, 2006, p.260).

Traditionally, urban sprawl is designated as a disadvantageous phenomenon, considering the increasing international literature that is criticizing it (Szirmai, 2012, p.130). A considerable number of studies regard sprawl as an irresponsible and inefficient pattern of development, that randomly distributes human settlement and economic activities through the countryside rather than concentrating them in compact nodes (Soule, 2006), which in turn triggers social, fiscal and environmental problems (Couch, Petschel-Held, & Leontidon, 2007; Terzi & Bolen, 2009).

Environmental burdens are among the most concrete impacts caused by sprawl. Wilson & Chakraborty (2013, p.3308) argued that sprawl causes an enormous range of environmental problems in terms of air, energy, land and water. This includes: stimulating higher rates of energy consumption, mainly the non-renewable kinds; massive conversion of agricultural lands; forests and sensitive areas; fragmentation of ecosystems; deterioration of landscape quality mainly at the urban fringe; and degradation of air and water quality (Couch et al., 2007, p.91; R. Freilich, Sitkowski, & Mennillo, 2010, p.8; Squires, 2002, p.p:24-27). Moreover, a number of studies demonstrate that the overutilization of carbon-based energy transportation due to excessive travelling distances caused by sprawl, contributes to the international problem of global warming and climate change (European Commission, 1999, p.6; R. Freilich et al., 2010, p.8; Sierra Club, 1998; Squires, 2002, p.24) Likewise, certain social challenges can also arise from the sprawling pattern at which cities grow, including the increase of spatial social segregation between different social classes as well as it can cause fragmentation of a society (Couch et al., 2007, p.20; Soule, 2006, p.7). In terms of fiscal aspects, urban sprawl is blamed for creating fiscal insolvency and inflation of infrastructure and public services costs, including the great expenses to provide and maintain sophisticated infrastructure and expanded public facilities in new growth locations compared with costs in more compact locations (Bhatta, 2010, p.29; Freilich et al., 2010, p.8; Soule, 2006, p.260).

Contrary to conventional views, a number of scholars advocate the sprawl of cities. Sprawl defence is based mainly on choice, and economic grounds (Galster et al., 2001, p.681). On the one hand, sprawl defenders consider sprawl a matter of preference, choice, and personal freedom that shall not be restricted (Cannavo, 2007, p.97). Furthermore, Cannavo (2007) and Squires (2002) argue that sprawl

has good effects on the economy, where it creates affordable housing and efficient means of retail, which apparently contribute to the welfare of the region. Still, the opponents of urban sprawl and their argument tend to be more rational and of wider popularity both in science and practice.

Being an alarming phenomenon, urban sprawl has globally become a hot topic for investigation and discussion. Although this phenomenon has been existing since the early stages of history, it has never been a mass phenomenon before the twentieth century (Bruegmann, 2005, p.18). The phenomenon is even considered as the most persistent challenge for the sustainable urban development of the twenty-first century (Ravetz, Fertner, & Nielsen, 2013, p.13).

### **1.1.2. The Compact City – a global response to urban sprawl**

The growing concern about the negative impacts of urban sprawl has urged public authorities, and experts in several regions to seek remedial actions to counteract sprawl. It is held that in order to avoid urban sprawl and its undesired consequences, governments ought to regulate the development of urban areas and their related physical configuration (Dieleman & Wegener, 2004, p.308). Since the early 1990s, the concept of the compact city, which is often referred to as the city of short distance, has been increasingly promoted as an alternative development pattern to urban sprawl. The concept of the compact city can be initially defined as the process of ensuring that *“we make the fullest use of land that is already urbanized, before taking green fields”* (Lock, 1995, p.173). In its general meaning, the term contrasts the car-oriented urban sprawl of many modern cities and can be technically defined as *“a relatively high-density, mixed-use city, based on an efficient public transport system and dimensions that encourage walking and cycling”* (Burton, 2000, p.1969). In other words, the concept of the compact city is to a large extent premised on the principles of efficient land use, urban containment and intensification process, including the provision of concentration of mixed uses that focus the development and reduce the need for transport-based commuting (Jenks, Burton, & Williams, 1996, p.3).

Debates regarding the sustainability of the compact city are common in literature. On the one hand, supporters of the concept advocate that a compact city can reduce the consumption of energy and the correlated vehicle emission; make the provision of amenities and infrastructure economically viable and more accessible; reduce the rate of land consumption in a way that preserve farmland, countryside and natural areas; as well as it positively contribute to the social diversity and to the cultural and economic development (Nabielek, 2012, p.3). Nevertheless, there are concerns regarding the impacts of the compact city. Opponents argue that the compact city may suffer from loss of urban quality due to overcrowding, loss of open space and congestion of pollution (Jenks et al., 1996, p.4). Neither promoters nor opponents of the concept own scientific evidence to support their claims. Nevertheless,

in the reviewed literature, the intensity of the concept's support seems stronger and the justification of this support appears to be more persuasive.

Despite the lack of solid evidence about the sustainability of the compact city, the concept has been widely promoted in practice (Burton, 2000, p.1969). The primary supporter of the concept of the compact city is the Commission of the European Communities. In its Green Paper on the Urban Environment, the Commission of the European Communities has recommended the compact city policy, with focus on mixed land use development in existing urban areas and concentration of growth within urban boundaries (CEC, 1990, p.40). The commission attributes this promotion to the belief that the compact city is the most liable policy to limit the infinite sprawl and revitalize the urban cores (ibid). In 1999, the European Commission re-assured its support of the compact city concept. It advised its country members to pursue the concept of the compact city as a spatial development policy, in order to have better control over further expansion of the cities (European Commission, 1999, p.64).

It is remarkable that during the 1990s, the interest in compact city policies has been almost limited to developed countries such as the US, some European countries, Japan and Australia (Burgess & Jenks, 2000, p.10). Nowadays, the popularity of the compact city has been extended, and it became a leading concept in the fields of urban planning and sustainable city development (Westerink et al., 2013, p.474). Since the beginning of the 21<sup>st</sup> century, some experts and scholars have started promoting the implementation of the concept in the context of developing countries (Burgess & Jenks, 2000, p.10). For instance, the Executive Director of UN-Habitat, Dr.Joan Clos stated that the current period of rapid urbanization in developing countries provides an opportunity to utilize the compact city concept for developing countries, based on lessons and information learned from the long experiences of the developed countries (Clos, 2013, p.106). In this regard, he has pointed out clearly that *"all signs point to one broad type of urban form that we should promote: the compact city"* (ibid).

### **1.1.3. Urban sprawl in the State of Palestine**

This doctoral research focuses on the phenomenon of urban sprawl in the State of Palestine. This is a developing country that faces the challenges of land scarcity, high population growth rates, and rapid urbanization (Shaheen, 2013, p.231). More than 70% of the country population is living in urban areas (United Nations- Department of Economic and Social Affairs, 2014). Additionally, urban sprawl has been a prominent phenomenon in this country. This phenomenon is notable in the northern governorates of the State of Palestine, which is known as the West Bank. However, it is uncommon in the southern governorates of the country, which is called Gaza Strip. In the West Bank, the population density is 493

individuals/km<sup>2</sup>, whereas in Gaza Strip it is 4822 individuals/km<sup>2</sup> (PCBS, 2014)<sup>1</sup>. The fact that Gaza Strip is significantly smaller than the West Bank is the main reason for the differences in the urban development pattern and the population density.

Both the Palestinian government and scholars have already touched the existence of this problem. Since 1998, the Palestinian Ministry of Planning and International Cooperation has stated that the settlement system in the West Bank is characterized by the low density outspread of built-up areas into open land at the edges of the cities (Ministry of Planning and International Cooperation, 1998). Researchers have also outlined that the Palestinian urban form suffers from the spread of uncontrolled urban development in the cities, and the diffusion of urban sprawl around the cities within the landscapes (Abdelhamid, 2006, p.p.9-10). As of today, the urban structure of the West Bank in general consists of fragmented small sized urban centres that are distributed among its whole area. While the West Bank has a small area of only 5655km<sup>2</sup>, it contains 524 urban communities (Palestinian Central Bureau Of Statistics, 2012). It is important to point out that the average gross land per community in the West Bank is around 10 km<sup>2</sup> or 3 by 3 kilometres (Saleh, 2008, p.133).

Planning experts and environmentalist classify urban sprawl among the most critical challenges for the Palestinian sustainable urban and rural development. It is generating overexploitation of land in general and agricultural land in particular (Ministry of Planning and International Cooperation, 1998). Likewise, it causes deterioration in the Palestinian landscape, natural assets and the environment as well (ibid). In addition, several statements of the Palestinian ministry of agriculture consider urban sprawl among the foremost threats to the Palestinian agriculture (WAFA, 2011b). The ministry calls frequently for the need to preserve agricultural land and to protect it from urban sprawl, emphasizing the public role played by the agricultural production to achieve food security and to ensure the independence of the Palestinians (Palestinian Ministry of Agriculture, 2013).

Despite the unfavourable effects of urban sprawl in the Palestinian context, efforts to curb this phenomenon are still at the lowest point. So far, the responsible Palestinian governmental establishments have no urban sprawl containment strategy or any general countering guidelines neither at regional nor at the local level. Nonetheless, the first Palestinian National Spatial Plan project was launched in February 2011. The project aims at formulating an urban development policy to guide urban development sustainably and limit the rapidly increasing urban sprawl (National Spatial Plan, 2012). Simultaneously, it aims at preserving the natural resources and agricultural land (ibid). The only

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<sup>1</sup> The total area of the state of Palestine is 6209 km<sup>2</sup>, divided as 5844km<sup>2</sup> in the West Bank, and 365 km<sup>2</sup> in Gaza Strip (WAFA, 2011a).

part of this project that came into action is the Protection Plan. This is a regulatory plan that designates areas to be preserved from urban development due to its high importance.

Building on the results and recommendations of prior studies, the researcher attempts to investigate the opportunities and challenges to employing the compact city policy to limit urban sprawl and manage urban development more sustainably in the Palestinian context. To enable this investigation, the researcher selected one city in the West Bank as a case study for conducting the investigation. The selected case is Jenin city, which is located in the northern part of the West Bank. Jenin is a medium sized Palestinian city that has an area of 21 km<sup>2</sup>, with around 47.305 inhabitants (PCBS, 2015). A refugee camp is also annexed to the city, in which 16.000 Palestinian refugees are living (ibid). The city is the centre of Jenin governorate that includes 311.231 inhabitants distributed in 80 communities (ibid).

Jenin has been selected as a case study for following three reasons:

- A considerable part of the highly fertile agricultural zone in the West Bank, which is relatively scarce, is located within Jenin city and Jenin Governorate. Likewise, the area is considered the main pillar of the Palestinian agricultural production and food basket. There are frequent calls for limiting sprawl and protecting the agricultural land in this region. Hence, dealing with the city as a case may address its challenges and contribute to protecting the scarce and valuable resources in this region.
- The urban development challenges in Jenin, which are characterized by random and fragmented urban development, are also tangible in some other cities in the West Bank. Thus, addressing the challenges of this case is likely to contribute to addressing the challenges of the similar cities.
- The researcher experience in this city, through living in the area and conducting previous research on the context, is expected to facilitate the research process and enrich its findings.

## **1.2. Research rationale**

Despite the extensive efforts to limit urban sprawl, several locations around the world are still facing the challenge of urban sprawl without attempts to limit this challenge. The UN-HABITAT considers the search and establishment of integrated approaches to address the problem of urban sprawl and achieving more compact cities as basic principles of the new urban model for the 21st century (UN-HABITAT, 2013, p.8). The discipline of urban planning and urban development witnesses a rapidly growing literature on limiting urban sprawl. It is essential to make use of the available literature and expand its scope to serve urban areas that still lack means to limit urban sprawl.

The suitability of the compact city policy to developing countries and the opportunity to borrow from the experiences of the developed countries is coming to question. Studies consider the compact city a potential solution for developing countries in general (OECD, 2012, p.163). Nevertheless, scholars are

concerned about generalizing the suitability of the compact city approach to developing country cities. According to Burgess (2003, p.14), the significant difference in nature between developing country cities makes a generalization about the compact city-developing countries relationship invalid. Guy & Marvin (2000, p.11) asked researchers and policymakers to stop considering the compact city as a standard blanket solution that can be unquestionably and unproblematically applied in any given context. There is a wide consensus that the relevance of the compact city to a given urban area is context dependent, and that recognizing the context's characteristics and needs are the keys to finding compact city strategies that are most suitable for a given city or a settlement pattern (Guy & Marvin, 2000, p. 11; Jenks, Williams, & Burton, 2005, p.299; OECD, 2012, p.172). Along similar lines, Jenks (2003, p.350) call for developing additional compact city theories that match the context of developing countries. Jenks point out that the new theories need to customize selective choices of the compact city practices and policies in developed countries to match the new context. He also states that it is the task of local planners and policymakers to develop the pattern that matches their own environment. This theoretical debate validates the view that compact city strategies need to be contextualized not generalized. In addition, it reveals that developing countries do not need to reinvent the wheel; however, they can refer to the experiences of the developed countries as a raw model that they can re-shape and further develop.

Like many other sorts of urban settlements, many medium-sized developing country cities, including the Palestinian cities in the West Bank, are suffering from the consequences of urban sprawl<sup>2</sup>. However, investigating the literature shows the scarcity of studies focusing on sprawl management in such cities. Research focuses mostly on large or megacities and overlooks small and medium-sized cities. Likewise, little is known about the compatibility of the compact city policy to this sort of settlements.

In sum, the need of medium-sized developing country cities for more qualified urban development policies to limit urban sprawl and the signs that a properly adapted compact city policy could be a source for such qualified policies are major reasons making this research necessary. In other words, it is reasonable to investigate the prospect of the compact city policy to cope with urban sprawl in medium-sized developing country cities and determine the required customizations that are likely to enable the policy to operate successfully in the addressed context.

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<sup>2</sup> In this research, the term medium-sized city is being used to refer to those cities with population between 50,000 and 200,000.

### **1.3. Research approach**

The design of this research draws on the concept of urban policy mobilities, which focuses on the global circulation of locally produced and implemented urban policy models and planning ideas. Under this concept, academic research is considered one possible path to transfer policy models and best practices (Temenos & Baker, 2015, p.841). Mobilities' scholars such as Baker & Temenos (2015, p.825) and McCann & Ward (2013, p.9), identify three fundamental steps that ought to be carried out to enable the circulation of policy knowledge from one context to another, which are detailed as follows:

1. The assemblage or the construction of a policy model including the elements and aspects implemented within this policy in the context(s) of origin;
2. The mobilization of the policy model in the sense of abstracting and decontextualizing the model from the context of origin;
3. The recontextualization of the policy model in the sense of reshaping the policy model to match the needs and features of the landing context as well as reshaping the context to fit the model.

Additionally, mobilities' scholars identify aspects that contribute to the success of the policy mobilities such as understanding the context in which the policy is being successfully implemented and specifying the conditions and factors that support the policy implementation (McCann, 2011, p.110). Likewise, the scholars point out the need for an initial investigation to explore the probable relevance of the policy to the addressed context before working on the policy recontextualization (ibid, p.116).

### **1.4. Research objectives and questions**

The overall objective of this research is to explore the opportunities to utilize the compact city policy to counteract urban sprawl and guide urban development in a medium-sized developing country city like Jenin. The research tackles a broad research question: how suitable is the compact city policy to guide Jenin's urban development sustainably?

On this basis, the research addresses the following specific research questions:

1. What is the theoretical definition and structure of the favourable compact city policy?
2. Which general conditions are theoretically required for implementing the compact city policy successfully?
3. Which alternative approaches and actions can be used to operationalize the compact city policy in practice?
4. Which trends and practices are likely to enable an urban planning and urban development system to operate the compact city policy successfully?

5. How to assess the suitability of a compact city policy to guide urban development in a given urban settlement?
6. What are the characteristics of the embedded units of analysis in the case of Jenin?
7. To what extent is the compact city policy advisable to guide Jenin's urban development?
8. To what extent does Jenin's urban planning and urban development system have adequate capacity to operate a compact city policy successfully?
9. Which adaptations in the compact city policy model and in the urban planning system could boost the policy suitability to guide Jenin's urban development?
10. How could other medium-sized developing country cities benefit from this research?

## **1.5. Dissertation structure and research process**

This dissertation consists of the following briefly described chapters:

- Chapter one: Introduction

Is the current chapter; it introduces a broad overview of the addressed phenomenon of urban sprawl and the promoted concept to counteract this phenomenon, which is the compact city. Besides, it introduces the case study area of this research, describes briefly the problem of urban sprawl in this area and highlight the need for a counter policy. Moreover, the chapter presents the scope of the dissertation including the desired objectives of the research and the corresponding research questions. Lastly, it shows the structure and organization of this dissertation.

- Chapter two: Compact city in theory

This chapter reviews selected literature on the compact city policy and addresses the research questions 1 & 2. It represents a working definition of the favourable compact city policy and introduces the strategies comprising this policy. Likewise, it covers the theoretical debate on the sustainability of the compact city policy and the suitability of using this policy in developed-country cities.

- Chapter three: Compact city in practice – the case of Munich

This chapter studies an empirical example of successful compact city policies in a developed-country city, namely in Munich. The chapter describes the approaches and tools utilized to put the policy into practice. In addition, it illustrates how Munich manages to reduce the policy implementation barriers and limit its anticipated negative impacts. Finally, the chapter shows the factors that facilitate the successful implementation of the compact city policy in Munich.

- Chapter four: Compact city in practice – the case of Curitiba

This chapter studies an empirical example of successful compact city policies in a developing-country city, particularly in Curitiba. The chapter follows the same approach taken in the previous chapter. First, it describes the mechanisms that Curitiba uses to put the policy into practice and presents the employed means to reduce the policy's implementation barriers and negative impacts. Then, the chapter outlines the factors contributing to the success of the compact city policy in Curitiba.

- Chapter five: Decontextualizing the compact city policy

This chapter draws on the knowledge gained from reviewing the two selected examples of successful compact city policies to enrich the understanding of the policy substance and elaborate the required conditions to enable the policy success. The chapter addresses the research questions 3 & 4 through synthesizing and abstracting the findings obtained in chapters 3 and 4 while maintaining a connection to the findings of the literature review in chapter 2. Eventually, the chapter establishes a framework to guide the investigation of the suitability of the compact city policy to the selected case study, Jenin city.

- Chapter six: Methodology

This chapter focuses on research question 5, how to assess the suitability of a compact city policy to guide urban development in a given urban settlement. It provides an overview of the methodological aspects related to this research and justifies the selection of each aspect. Besides, it provides a detailed explanation of how the research is undertaken. Finally, it brings forth a model of the research process.

- Chapter seven: Jenin case study

This chapter addresses research question 6, which is concerned with the characteristics of the embedded units of analysis in the case of Jenin. The chapter offers a general overview about Jenin. In addition, it describes Jenin's urban context, which is the first unit of analysis in this case study. Likewise, it illustrates Jenin's urban planning and urban development system, which is the second unit of analysis.

- Chapter eight: The scope of the compact city policy in Jenin

This chapter tackles research questions 7 & 8. It presents the research findings concerning the suitability of the compact city policy model to guide Jenin's urban development. It shows the policy strategies that are advisable to Jenin's context, and those unadvisable or in need of adaptation. Additionally, it shows the capacity of Jenin's urban planning and urban development system to operate a compact city policy successfully.

- Chapter nine: Towards a customized policy and an effective planning system

This chapter addresses research questions 9 & 10. It introduces a discussion and interpretation of the research findings around the suitability of the compact city policy to guide Jenin's urban development

in the light of the reviewed literature and the description of the case study area. Additionally, the chapter offers recommendations to raise the suitability of the compact city policy to the case study area as well as to other medium-sized cities in the developing world.

- Chapter ten: Conclusion

This chapter synthesises the results of the entire study and offers a restatement of the answers to the ten research questions. Additionally, it highlights the contribution of this study to the available knowledge on the compact city policy. Finally, the chapter defines recommended areas for future research.

## **2. Compact city in theory**

As pointed out in chapter one, this research is concerned with investigating the suitability of the compact city policy to medium-sized developing country cities. In this chapter, the researcher reviews selected literature concerning the compact city to enable the intended investigation process. The literature review focuses on the definition of the compact city, the strategies and approaches comprising the compact city policy, and the required settings to enable the policy to contribute positively to the sustainable development, and the suitability of the policy to guide the urban context in developing countries. The chapter addresses the following research questions:

- What is the theoretical definition and substance of the favourable compact city policy?
- Which general conditions are theoretically necessary for implementing the compact city successfully?

The review relies on three main sources of literature: (1) academic journals (primarily ISI journal papers), (2) published books and e-books, and (3) reports, documents, memos and magazines published by governments or development organizations ('grey' literature). The last source of literature plays a significant role in this review, since many of the documentation on experiences, success and failure stories, and personal views on this particular topic tend to be left out of scientific results. The searching strategy drew on electronic repositories, platforms and search engines, including: The Sage Online Publications, Taylor and Francis Online, and EBSCOHOST. Supported by Google Scholar for an initial and quick tracking of resources, Web of science and science direct help to find and select further scientific articles, using the combination of the following keywords: 'Compact city', 'urban compaction', 'urban intensification'. To reduce searching time, certain search parameters such as language and time are modified in parallel; the searching results are limited to English publications of the last twenty years maximum. However, some prominent older publications have been identified through the review of the literature and were searched individually. At an advanced stage, the search was narrowed down to find more specific information. This includes limiting the search for sources combining compact city and sustainable development, or compact city and developing countries. The number of obtained literature is big; therefore it is not meaningful in terms of time to carry out a systematic review. It was necessary to use personal perspective to determine the most relevant resources and focus on them.

The chapter is divided into seven sections. The first section gives a brief overview of the resurgence of the compact city and its promotion in developed countries. The second section studies the notion of the compact city and introduces a working definition that is used in the subsequent parts of this dissertation. The third section addresses the theoretical claims arguing whether the compact city is sustainable, interprets the contradiction between these claims. Section four introduces shortly key trends of the compact city. Section five illustrates the common strategies and approaches embedded in the compact city policy and highlights the interrelations between these strategies. Section six investigates the chances and barriers to make use of developed world's compact city policies in developing country cities. Section seven concludes the general conditions under which the compact city policy is likely to contribute positively to the sustainable development. Finally, section eight introduces the conclusions of this chapter.

## **2.1. The resurgence of the Compact City in developed countries**

Worldwide, concerns about urban sprawl are increasing continuously (Dieleman & Wegener, 2004, p.308). Besides, there is a wide consensus that this pattern of development requires an urgent change (Jabareen, 2006, p.38). Scholars believe that governments and planning authorities have to manage the current pattern of urban development in order to avoid the undesirable consequences of urban sprawl (Dieleman & Wegener, 2004, p.308). In turn, this has provoked a wide-ranging discussion about appropriate urban development policies, to help cities grow and function in a more constructive and efficient manner than that resulting from urban sprawl. In this regard, planning literature focuses on the compact city, which has been widely proposed and traded as a counteraction to urban sprawl.

The compact city, which has currently become a leading concept in urban planning, is not new. However, the rationale for using the compact city currently is different from its predecessor. While the aim of the old compact city was the protection of the city itself; the current compact city aims at counteracting the urban expansion of the city and protecting the green countryside (OECD, 2012, p.47). In other words, the contemporary compact city is partially deployed as an urban containment strategy. The reintroduction of the concept in its contemporary manifestation dates back to the early 1970s, as the two American mathematicians Dantzig and Saaty issued their book: "Compact City: Plan for a Livable Urban Environment". The book presents a description and imagination of the compact city spatial form. The motivation behind the concept was the desire to ensure more efficient use of the resources, and above all achieving a richer quality of life (Dantzig & Saaty, 1973, p.224). This visionary approach of the

compact city was based on two main principles mainly space and time (Dajani, 1974, p.446). Briefly, the vision demonstrated that an efficient use of space requires better recognition of the vertical dimension while ensuring an even distribution of activities through the twenty-four hour day (ibid). In this context, it is important to point out that planners and architects including Le Corbusier and Jane Jacob's have tackled the issue of the compact city at earlier periods of the twentieth century, but not as clearly and comprehensively as Dantzig and Saaty did.

Since the 1990s, urban planning literature has been frequently addressing the term compact city. The concept which resurged initially in the USA has found more interest and follow up in Europe, where it was historically a native pattern of settlements. However, the essence of the concept was not abandoned in the USA; rather it has been further promoted under other labels such as smart growth and neotraditional towns (Neuman, 2005, p.12). Moreover, at this stage, the concept has started moving gradually from a visionary stage towards practical implementation.

Particularly, in 1990, the Commission of the European Communities has shown its support of the concept of compactness as well as it has encouraged its country members to pursue this concept in their urban policies (CEC, 1990, p.40). The commission designated the compact city concept as a mitigation strategy to address existing suburban sprawl, pollution and segregated land use planning as well (ibid). The enthusiasm of the European community towards the implementation of the compact city has not decreased or disappeared; instead, in 1999, the European Commission has again recommended the adoption of the compact city as a spatial development policy for better control over further expansion of the cities in its country members (European Commission, 1999, p.64). Likewise, the European Commission has reaffirmed that the compact city, which was advocated at the early 1990s, is still valid as a spatial development policy, but with paying more attention to the green structures within cities (European Union Expert Group on the Urban Environment, 2004, p.3).

Briefly, since almost three decades the compact city has been in implementation in Europe and much of the western world and has been gaining a good reputation (Jenks & Jones, 2009, p.4). The concept has been also highly admired and promoted as a spatial development policy by international bodies including UN, EU, OECD, EEA and by many local authorities (Jensen, Christensen, & Gram-Hanssen, 2011, p.51). The wide practice of the compact city policy in this context, and the lack of a rival solution to manage urban development in a more sustainable manner made this policy the focus of urban planning research. Scholars and policymakers investigate continuously the sustainability of the policy and the possibilities to adapt it to urban

settlements in different contexts, which are topics discussed in the upcoming sections in this chapter.

## **2.2. Compact city definition**

One of the most simple definitions that can be found in the literature is that describing the term compact city as the opposite of urban sprawl (Neuman, 2005, p.12). However, the existing literature offers plenty of definitions for the term compact city. It is notable that definitions can be divided into two categories. The first category deals with the compact city as a spatial/urban form and defines the compact city by describing the spatial characteristics and functions of this form. The second category deals with the compact city as an urban development policy and defines the term by describing the comprehensive processes and approaches comprising the compact city policy, which aims to achieve a compact urban form.

In terms of the urban form, the concept is generally taken to convey a model that is characterized by a relatively high-density, mixed-use city, which is based on efficient public transportation system and less commuter traffic, and has distinct (non-sprawling) borders between urban and rural land use (Burton, 2000, p.1970; Williams, 2004, p.1). This definition is largely consistent with the characteristics compiled by the study carried out by the OECD, which concludes that the compact city is a compact spatial form that is distinguished by dense and proximate development, facilitated connectivity between urban areas through efficient public transport systems, and that is also provided with good access to local services and jobs via walking, cycling or public transportation (OECD, 2012, p.27). It is important to mention, that the interpretation of "high density" in the compact city is not absolute, but it is a relative one that is culturally and contextually determined (Jenks, 2000, p.345). However, such definitions are subject to criticism as they highly focus on developing higher urban densities while overlooking the quality of urban living and the natural areas within the city. The identified shortcoming in the stated definitions of the compact city has led to an evolution in branding and defining the concept. Modified terms such as green compact city and the eco-compact city have been recently circulated. The Green Compact City refers to mixed-use and dense settlement structure that is characterized by an efficient distribution of human activities and an effective use of existing infrastructure and public transport and the promotion of non-car-based movement system, which is similar to the common mentioned definitions of the compact city. However, the Green Compact City is distinguished by maintaining a close link between urban design and landscape design to maintain considerable areas of green structures and preserve public urban spaces, so that it helps create an attractive and liveable environment

within the city (European Union Expert Group on the Urban Environment, 2004, p.19). Similarly, the Eco-compact City is defined as a city that is made of mixed-use blocks within clear boundaries, provided that it is maintaining a balance between its built-up area and natural environment, and has an optimum ratio between density and network of open public spaces (Eco Compact City Network, 2008). Both terms focus on the issue of public urban open spaces and green or natural structures as a fundamental feature of the compact city.

Based on the presented definitions, the researcher synthesizes a set of outcomes that cities seek from implementing the compact city policy:

- Accommodating urban development within existing urban areas and around transport nodes;
- Distinguishing boundaries between urban and rural land use;
- Creating multi-functional urban fabric, and a balance between housing, employment and urban facilities;
- Enhancing proximity and facilitating accessibility through walking, cycling and public transportation;
- Maintaining a significant rate of public open spaces within the city fabric;
- Using available resources and existing infrastructure efficiently;
- Creating living environment of high spatial quality;

In addition to the demonstrated definitions of the compact city as an urban form, the literature offers definitions of the compact city as an urban policy. Such definitions can help partly in translating the concept from theory to functionality. In this regard, Breheny (1997, p.209) defines compact city policies as “policies [that] typically promote urban regeneration, the revitalization of town centres, resistant on development in rural areas, higher densities, mixed-use development, promotion of public transport, and the concentration of urban development at public transport nodes”. Burgess (2000, p.9) introduces another definition of the concept, describing the compact city policy as a set of strategies “to increase built area and residential population densities; to intensify urban economic, social and cultural activities and to manipulate urban size, form and structure and settlement system in pursuit of the environmental, social and global sustainability benefits derived from the concentration of urban functions”. Correspondingly, in terms of more concrete urban planning strategies the compact city is also defined as a spatial development policy that seeks for more efficient use of land through a number of planning measures including the promotion of infill and brown-field

development, encouraging cluster and vertical development, setting density standards, demarcating urban growth boundaries, ensuring high degree of accessibility to mass transit use, and creating an attractive environment for cycling and walking (UNESCAP, 2012, p.84). The last two definitions present advancement in delineating the compact city policy. The reason is that they do not limit the policy to urban containment strategies. Instead, they identify the compact city as an integrated development policy, whose goals are extended to coincide with those of the sustainable development. Analyzing and grouping the strategies embedded in the presented definitions of the compact city policy, one may identify three sorts of strategies:

1. Strategies concerned with the density and location of urban growth. The strategies aim at accommodating urban growth within existing urban areas and around transit nodes, as well as reducing urban sprawl to the surrounding. This kind of strategies is usually referred to as urban containment strategies.

2. Strategies addressing the improvement of the living environment within existing urban areas while mixing the functions and activities. Examples of these strategies are the mixed land use zones, urban regeneration and urban revitalization in addition to many sub-strategies.

3. Strategies focusing on mobility and accessibility in integrity with the land use planning. They aim at connecting urban areas through efficient public transportation system while providing an attractive physical environment for non-motorized mobility.

In the following parts of this research, the researcher focuses on the compact city as an urban development policy, not as an urban form. The definitions of the urban form were presented in this chapter to demonstrate a common understanding of the compact city addressed in the research and derive the envisioned outcomes of the policy. However, the focus of the research is on the strategies and approaches that enable the achievement of these identified outcomes. In the remainder of this work, the researcher applies the following working definition of what a compact city policy is. That is a comprehensive urban development policy that aims at achieving more efficient use of land through the intensification of urban development in existing urban spaces at reasonable rates while reducing urban sprawl. Simultaneously, the policy embodies a number of strategies to endorse mixing the land use and improving the quality of the living environment and it holds a strong connection to transport and mobility planning to sustain the achievement of its objectives. Figure (2-1) summarizes the key strategies comprise the favourable compact city policy.

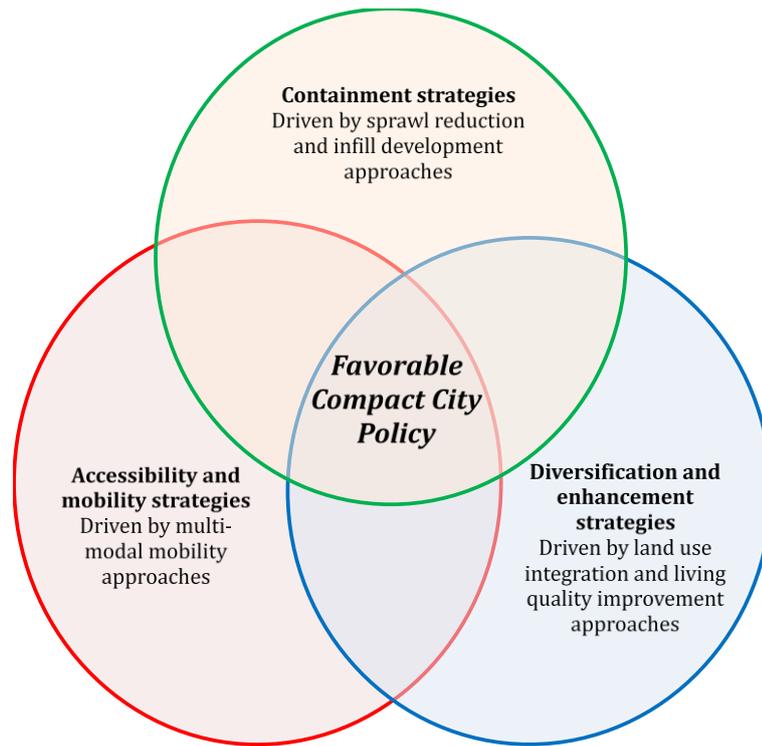


Figure 2-1: Favourable compact city policy structure.

### 2.3. Compact City Trends

Aside from the theoretical interpretations, the reviewed research provides an empirical representation of the contemporary compact city and compaction degree in real-world scenarios. In this regard, Frey (1999, p.41) emphasizes that current trends are absolutely irrelevant to those medieval compact cities with intense and ‘sharp-edged’, which often come to mind when mentioning the compact city. From the compact city research, it is recognized that absolute strictness, particularly concerning the location of development, is not applicable. Jabareen (2006, p.6) and Mike Jenks, Williams, & Burton (2005, p.298) point out that promoting immoderate and exclusive compact city schemes are neither desirable nor achievable. The issue of high density generates a state of anxiety when combined with the term compact city. It brings to mind an image of an overcrowded urban settlement, where there is hardly room for light and air, which is not the aim of the compact city policy. Scholars’ attempts to identify the aimed degree of compaction were useless. However, Jenks (2000, p.345) provides a smart answer for this undetermined question, indicating that the interpretation of "high density" in the compact city is not absolute, but it is a relative one that is culturally and contextually determined.

In the midst of the controversial debate about the acceptable degree of urban compaction, and the ongoing competition between centralization, monocentric-development and compaction

at one side and decentralization, polycentric-development and dispersal on the other, Breheny (1992) introduces a rational concept, which he calls 'decentralized concentration'. This concept, which is often referred to as polycentric compact city, is explained as "a multi-nucleated city or even city region in which uses concentrated in the mono-core of the compact city are dispersed into a number of smaller centres forming the nuclei of urban districts or towns or 'villages.'" (Frey, 1999, p.39). Breheny (1992, p.22) considers firm compact city policies idealistic and unwelcome as well as he assumes decentralization and suburbanization inevitable. Consequently, he concludes that the most appropriate development approaches are those working to contain urban growth and regenerate inner cities while retarding the decentralization process (ibid).

Breheny extends his debate about middle line approach between centralized and decentralized development approach, which he called compromise position. He argues that it is understandable that compromise views are generally not fashionable and attractive, and that is the reason while this proposal is not finding adequate appreciation quickly (Breheny, 2005, p.24). However, he demonstrates that adopting this position is logical rather ideological; his reasoning is that the position has a realistic approach and is based on combing the merits of centralisation and decentralisation while excluding their deficiencies (ibid). Consequently, cities may survive more satisfactorily by adopting the resulting hybrid approach, which can offer environmental benefits without casting heavy burdens on the quality of life; moreover the approach considers the role of land market forces without setting them absolutely unrestrained (ibid, p.26). Breheny concludes that "Even if sustainability gives us a motive for the big idea, that idea necessarily has to be tempered by a dose of realism. The compromise line might seem like a little idea, perhaps properly packaged, it could be big" (ibid).

The compromise position is admired by the academic community and planners. Jenks, Williams, & Burton (2005, p.298) also support the idea of searching for a development policy that is more inclusive than plain urban compaction or dispersal. They convincingly argue that urban compaction policies can to certain degree fulfil the needs of future development; nevertheless meeting the demand still requires new locations outside existing urban areas. In turn, adopting a balanced and flexible development policy rather than a radical compaction approach would be more reasonable (ibid, p.299). In addition, they assert that in the field of development, a balanced approach does not mean lack of opinion; however, it only reflects the commitment to choosing the most appropriate development approach that fits the unique characteristics of the area (ibid). Along similar lines, Goodchild (2008, p.205) points out that there is no distinctive border between urban compaction and urban dispersal growth models.

That is to say, both models are relative and a number of components of the two models can be merged into one domain (ibid). Goodchild indicates also that due to the diversity and multiplicity witnessed in the urban systems, no single urban growth model can present a satisfactory development scheme. Nevertheless, he argues that good planning practices refer to a combination of approaches to deal with the contradictory requirements of the reality, where these approaches can include infill development, limited expansions as well as new settlements (ibid).

In essence, the interpretation of high density in the compact city is not subject to universal standards; rather the local conditions determine the intensity of aimed compaction. Likewise, the middle position of understanding the compact city releases the compact city concept from being limited to large concentrated urban centres and allows variant forms and interpretations. Caves (2005, p.94) summarizes the attained trends as a set of urban forms that ranges between “concentrated dense cities” and “decentralized, interlinked compact settlements”.

## **2.4. The compact city sustainability debate**

Compact city policies and sustainable development are frequently correlated. A significant share of the reviewed literature couples the discussion of compact cities with the sustainable development. The sustainable development concept, which became popular in 1987, has been identified as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987). In a while, the concept of sustainable development, which is premised on three main pillars: economic development, social equity and environmental protection, (International Institute for Sustainable Development, 2010) has turned into a global guiding principle for many disciplines, including urban planning and development. In turn, the promotion of the compact city is justified based on its contribution to the goals of the sustainable development.

The strong re-interest in the compact city policy has provoked intensive debate on its contribution to the sustainable development. There is a continuous flow of compact city research investigating whether these policies and urban forms are really sustainable or not. There is no consensus whether the compact city contributes positively to the sustainable development. While a number of scholars state that the concept has a wide number of advantages and go for endorsing it, others are still in doubt of the concept’s advantages and oppose it. There are special concerns of the impacts which could result from the densification strategies and the resulting high densities related to the compact city. The following lines go

through the contradictory views of the advocates and opponents of the compact city policy and their reasoning with reference to the environmental, social and economic aspects of the sustainable development. Environmentally, literature focuses on three indices: pollution level, energy and resource consumption, protection of agricultural land and valuable natural areas. Regarding the social aspects, social equity and justice, as well as the quality of the living environment, are the two main discussed indices. Finally, on the economic aspect, most literature concentrates primarily on public finances and slightly on private finances. Considering the undetermined sustainability of the compact city policy, it is imperative to study the debate of the opponents and advocates in order to justify the selection of the compact city policy in this research.

#### **2.4.1. Arguments for the Compact City**

Since the early 1990s, compact city policies have come into view as a favoured response to the requirements of sustainability (Hofstad, 2012, p.2). It is expected that through influencing the use of space within the cities, integrated compact city policies can significantly enhance the environmental, social and economic performance of their cities (OECD, 2012, p.26). Increasingly, planning discussions argue that rendering the sprawling cities into more compact structures can reduce the negative impacts resulting from the rapid growth of the cities and contribute to their sustainability. A review of the detailed advantages attributed to the policy is following:

##### **1. Environmental Advantages**

It is held that compact cities are able to improve environmental sustainability and establish ways for environmental enhancements (UNESCAP, 2012, p.83). The situation that daily services are locally provided within walkable distances among pedestrian-friendly environments, and access to efficient public transportation is available would minimize commuting distances and reduce reliance on private cars (Frey, 1999, p.35). Hence, consumption of energy sources, mainly fossil fuels, would decrease and emission of greenhouse gases would accordingly decline (UN DESA, 2008, p.58; UNESCAP, 2012a). That is to say, compact city policies are likely to limit pollution, and protect resources (Frey, 1999, p.35; Neuman, 2005, p.21).

In addition, compact cities are assumed to be more sustainable as they generally result in more efficient land use and lower rates of land consumption (Neuman, 2005, p.21). Research has shown that the implementation of compact city policies, though hard to pursue, have strong potential to limit urban sprawl (Dieleman & Wegener, 2004, p.308). Scholars are also aware that implementing these policies cannot get rid of existing sprawl, but they assure its ability to

contain a further occurrence of the phenomenon (Hagan, 2000, p.349). Limiting sprawl and reducing land consumption through compact city approach help avoid green development on the urban periphery (UNESCAP, 2012a; Van Der Burg & Dieleman, 2004), thus minimize loss of green areas and vegetation (UN DESA, 2008, p.58), and protect agricultural land and valuable natural areas (Hofstad, 2012, p.11; Nabielek, 2012, p.3). In short, reducing the pressure of urban development on rural and agricultural land are also environmental benefits of the compact city.

## 2. Social benefits

Research has also suggested that compact city policies are positively associated with social sustainability and cultural development (Nabielek, 2012, p.3). It is noteworthy that social sustainability in this context involves two broad aspects, namely social equity and living quality (Bramley & Power, 2009, p.34). It is assumed that compact city policies can improve the quality of the urban life and enhance the social equity. More specifically, compact cities can directly increase the liveability of cities and provide a better quality of life through good public transport, proximity to services, opportunities for walking and cycling and preservation of green structures and public open spaces (Burton, 2000, p.1987; Jenks & Jones, 2009, p.3; UNESCAP, 2012b, p.83). Moreover, high urban density and mixing of land uses are anticipated to stimulate social interaction and cultural vitality; thereby, increase social mix, reduce social segregation and positively contribute to social equity (Burton, 2000, p.1969; M Jenks & Jones, 2009, p.9). In this regard, compact cities have been considered more socially equitable compared to urban sprawl; since sprawl, which is usually created by the higher class of the society, produces a spatial segmentation of the society based on their income (Gordon & Richardson, 1997, p.101). Likewise, the expected affordability of public transport and the enhanced overall acceptability can contribute to an equitable access to jobs and facilities thereby more social fairness (Burton, 2000, p.1987; Frey, 1999, p.36).

Furthermore, the correlation between compact city policies and housing affordability, as one aspect of social justice, has been frequently addressed. Supporters of the compact city hold the belief that the policy has a positive impact on housing affordability as it can increase the supply of affordable housing (Dieleman & Wegener, 2004, p.317). Given that urban compaction policies promote higher density land use including multi-family houses, which implies sharing a single land parcel among a number of dwellings, the final cost of each housing unit will decrease (Burton, 2000, p.1976). Increasing the available number of cheaper-price dwellings means enabling more households to afford reasonable housing. In turn, this can enhance the aim of creating inclusive communities and reduce social segregation.

### 3. Economic gains

Turning to the economic sustainability of the compact cities, literature has revealed that development of compact cities makes economic sense (UNESCAP, 2012b, p.82). There is some evidence that compact cities are likely to create a considerable reduction of the costs of utilities and physical infrastructure (Jones et al., 2009, p.158; Neuman, 2005, p.21). First, it is noticeable that higher densities allow for more cost-efficient delivery of services and utilities (UNESCAP, 2012a). Second, the development of compact cities can reduce the public spending and bring economic benefits to local governments by reusing existing infrastructure (Frey, 1999, p.35). Third, compact cities, which limit sprawl, can avoid the need for further construction of costly infrastructure in the suburban areas (UNESCAP, 2012a, 2012b). Overall, in terms of capital costs and running costs, studies have indicated that compact development is less costly as sprawl (Neuman, 2005, p.15). In turn, this saving would allow for further investment in inner-city areas and for an alleviation of the level of the delivered infrastructure; therefore enhance their living quality.

Yet, economic benefits associated with compactness are not limited to the costs of infrastructure. For instance, the reviewed literature shows that the anticipated revitalization of cities through compact city policies, in turn, can endorse their economic sustainability (Hofstad, 2012, p.6) Likewise, some scholars note that compact city policy can enhance business and trading activities within their borders (Frey, 1999, p.36). The justification is that highly populated urban areas, which are associated with compact cities, can reinforce local economies and support local businesses and services (Katie Williams, 1999, p.168).

Within the promoters of the compact cities, views varied about the significance of the policy's contribution to the sustainable development. Two major positions can be observed, one is exaggerating this contribution, considering the compact city a synonym of what is called 'sustainable city' or referring to the compact city policy as the sole approach to achieve the sustainable development (Jabareen, 2006). The second position tends to be more realistic, where its scholars are fully aware that the compact city alone is not sufficient for achieving the sustainable development; however, they are convinced that it provides a necessary physical setting for promoting this achievement (Nabielek, 2012, p.3; UN DESA, 2008, p.61). This position is based on the proposition that besides the physical and built environment, the sustainable development of the cities is determined by a range of ecological, social, economic, civic, and fiscal factors (Neuman, 2005, p.23). This research adopts the second position.

### **2.3.2. Arguments against the Compact City**

Despite the promotion that there are good examples where compact city policies have succeeded in achieving their intended objectives, the promotion of the policy is often based on beliefs rather than on scientific evidence (Jenks & Jones, 2009, p.2). This state gives the opponents of the concept greater opportunity to question its efficiency and its ability to contribute to sustainable development. However, it is hard to identify comprehensive methodologies to measure the holistic impacts of compact city policies. Therefore, it is remarkable that arguments supporting and opposing compact cities are disputed (Burton, 2000, p.1972). Roughly, for every supposed benefit of the compact city, opponents suggest a potential negative effect (Jenks & Jones, 2009, p.4). The major claimed negative effects of compact city policies on the goals of sustainable development are analysed in the same order in which its advantages have been reviewed and considering the same indices.

#### **1. Environmental Disadvantages**

Contrary to the mentioned earlier, a group of scholars have expressed their doubts about the ability of the compact city policy to reduce the demand for travel using energy-rich modes of transport (Katie Williams, 2000, p.37). They argue that it is not evident that compact cities can achieve a tangible shift in transport mode (M Jenks & Jones, 2009, p.3), and that it is not assured that compact cities will succeed in promoting more environmentally- friendly commuting patterns (Rérat, 2012, p.126). While compaction can reduce trips for daily local needs, it is not guaranteed that further trips for special purposes will not be generated (Katie Williams, 2000, p.34). Besides, the assumption that in compact cities accessibility is high and affordable might encourage further daily mobility, looking for a wider range of work and shopping options as well as it could generate additional weekend journeys out of the compact cities; therefore it is likely that compact cities may increase environmental burdens in terms of energy consumption and greenhouse gas emission instead of reducing them (Holden, 2007, p.145). Both claims regarding the impact of the policy on travel mode and the subsequent levels of energy consumption and pollution production sound reasonable. However, the point is that the form and density of the city are not the key determinants of these issues. Eventually, scholars have demonstrated that urban density and urban form are among other four factors that determine citizens energy consumption including social habits; prevailing knowledge and rules; the degree to which citizens are engaged; and the used technologies (Jensen, Christensen, & Gram-Hanssen, 2011, p.61).

Opponents also claim that further intensification of cities due to compact development policies may cause a significant decrease in the area of open space and compromise the ecological quality in the city ( Jenks & Jones, 2009, p.2), where those areas represent hosts for biodiversity and ecosystem services (Hofstad, 2012, p.6). Moreover, the loss of open green areas inside the cities, which function as absorbers of CO<sub>2</sub> and other pollutants, can adversely affect the level of pollution (Bueren, 2012, p.272). Nevertheless, an empirical investigation analysing 17 Korean cities between 1996 and 2009 has revealed that there is no clear impact of compact urban development on air quality (Cho & Choi, 2014, p.5968). Furthermore, the investigation has shown that the spatial concentration of pollutants, which is a result of increasing inner urban densities, does not necessarily trigger an increase in air pollution (ibid, p.5968).

Overall, the argued limitation of the compact city policy to change the residents' travel behaviour, which would accordingly restrict its contribution to enhancing the environmental performance of the city, is not an argumentation for discrediting the policy. On the contrary, compact city policies can pave the way for auxiliary policies to reduce motorized traffic and make travel patterns more in line with the principles of sustainability (Katie Williams, 2000, p.35). International institutions and national governments are convinced that implementing compact city policy is a mitigation approach to enhance the environmental performance of the cities that, in turn, can contribute to their sustainability; since improved technologies and enhanced energy efficiency solely are not sufficient to reduce pollution level (Gagné, Riou, & Thisse, 2012, p.124). Likewise, practical investigation suggests that despite the difficulty to confidently confirm a direct contribution of compact city policies to reduce air pollution, their probable output of increasing the proportion of green areas supports reducing air pollution (Cho & Choi, 2014, p.5980). In conclusion, the success of the compact city policy in contributing to the desired environmental goals is subject to the specifications of the targeted area as well as it is determined by the nature of the pursued compact city policy and the kind of strategies implemented besides the urban densification strategies.

## 2. Social Impacts

Concrete evidence about the impacts of compact development policy on social justice is also limited (Geurs & van Wee, 2006). Research reveals contradicting views of the impact of the compact city policy on social sustainability. While advocates perceive considerable potential in the policy to improve the living quality and enhance the social equity, as it has been previously introduced; opponents argue that it can adversely affect the social sustainability.

Regarding liveability, a considerable part of the investigated literature demonstrates great concern about the probability of urban compaction policies to create deterioration of the living environment. Ending up with overcrowded urban settlements, which suffer from a reduction in amenity and bad neighbour effects, is one of the most feared aspects (Williams, 2000, p.42). Besides, there are arguments that higher density and urban intensification policies can cause loss of open spaces, which may affect the noise level and air quality in the targeted cities (Hofstad, 2012, p.14). Moreover, compact city policies are occasionally accused of generating congestion and dangerous traffic and thereby creating an unsuitable environment for walking and cycling (Burton, 2000, p.1974; Jenks & Jones, 2009, p.4). Generally, there is anxiety that compact city policies may bring back the terrible living circumstances that prevailed during industrialization, which were among the triggers of sprawl phenomenon. Nevertheless, scholars consider it impossible to make an absolute judgment whether or not a compact city policy can improve the quality of life; as it is a function of interrelated factors (Williams, 2000, p.42). At the one hand, the impact of the compact city on life quality and liveability is a matter of social context, personal preference and perception (Jenks & Jones, 2009, p.9; Neuman, 2005, p.16). On the other hand, the way how the side effects of the compact city policy are managed in a local context determines the nature of the policy's impact on living quality (Katie Williams, 2000, p.42). For instance, it has been suggested that for a successful implementation of the compact city it is imperative to sustain a rich urban landscaping, which can accordingly reduce heat and noise level, filter pollution, ensure an access to open space, which accordingly adds to the enhancement of the quality of life (Reading University, 2014). If these aspects are considered, then the compact city is likely to enhance the livability of the targeted urban settlement.

Likewise, research shows incompatible debates over the impacts of compact city policies on housing affordability (Burton, 2000, p.1976). Beside those studies that demonstrate a positive impact of the compact city policy on housing affordability, a number of studies have criticized compact city policies for escalating housing prices and reducing housing affordability (UN DESA, 2008, p.59). However, in a study investigating the impacts of growth management strategies on housing affordability in Florida, findings revealed that the strategy did not reduce housing affordability in general, rather the affordability of single-family houses only (Anthony, 2003, p.282). The argument for the general decrease in the level of housing affordability is that trying to avoid urban expansion outside cities, the compact development policy limit the supply of developable land or even they can make it artificially scarce (Gordon & Richardson, 1997, p.96). Based on market forces and fundamental economic theories, this situation can raise land prices

and housing costs (ibid). Accordingly, housing affordability will be adversely affected, as a significant number of households, mainly those with relatively low-income, might not be able to afford the resulting houses prices (Jenks, 2000, p.346; OECD, 2014, p.191). Furthermore, a number of households might be urged to move out from central locations and to settle either legally or illegally at the edges of the cities, where living costs are for them bearable (Jones, 2000, p.38). Once urban compaction policies, as well as other forms of urban development policies, are unable to face the challenge of providing affordable housing, social equity and social sustainability will be negatively affected (Katie Williams, 2000p.38). The reason is that housing unaffordability would exclude certain social groups from living in targeted development areas, as well as it may stimulate informal settlements as means for survival.

Despite the displayed debate on the relation between compact city policies and housing affordability, it is not possible to confirm that compact city policies are absolutely good or bad for housing affordability. A number of scholars propose that urban compactness is among a set of various interrelated factors that affect housing affordability, and that compactness is not the most significant determinant of affordability (Anthony, 2003, p.286; Burton, 2000, p.1986). Along similar lines, research finds that a number of conditions determine whether the impact of compactness on affordability will be considerable or insignificant including the circumstances of the local land and housing market along with the pursued governmental policies to avoid negative predictable consequences of urban compaction on housing affordability (Porter, 2008, p.74). That is to say, if compact development policies maintain a balance between sprawl containment tools and instruments for sustaining the supply of affordable dwellings, then cities are less subject to face affordability problems in terms of housing (OECD, 2014, p.192). For instance, compact development policies that integrate housing programs including a diversity of housing options in terms of size, pattern and price can lead to housing affordability benefits (Schiffman, 2011, p.458). However, it remains not clear which housing programs can governments implement and how feasible and applicable are these programs.

Additionally, the compact city policy is accused of underweighting the individual level. Part of the reviewed literature considers the policy an encroachment on individual freedom and a limitation on the level of opportunities provided for citizens (Larice & Macdonald, 2013, p.379). Moreover, opponents of the policy perceive it as an imposed-antidemocratic policy imposed by governments and planners to force residents to live a pattern of life that counters their preference (UN DESA, 2008, p.59). It is held that residents prefer low density-sprawling cities to compact settlements (Jenks & Jones, 2009, p.4; Martine, 2012, p.212), and that they are

willing to have a single family house with a large garden that is only accessible by a private car (UN DESA, 2008, p.60). Nevertheless, it is unreasonable to support the destructive sprawling pattern as means to enable the rich enjoy the level of luxury they wish (Martine, 2012, p.212). The argument is that due to financial reasons the majority of the residents would be excluded from enjoying the claimed benefits of sprawl while they have to suffer from its negative consequences (ibid, 2012). In this regard, the compact city policy is more in line with the common good of the entire community as in the case of urban sprawl.

### 3. Economic drawbacks of the compact city

Although supporters of the compact city policy promote certain economic advantages of the policy, literature demonstrates that it is difficult to find a confirmation of a clear connection between the compact development policy and the economic viability (Jenks & Jones, 2009, p.3). Likewise, the relation between the compact city, as an urban form, and the economic sustainability has been rarely investigated in practice (Geurs & van Wee, 2006). Even those limited obtained studies focus mostly on transport costs and sometimes on housing benefits (ibid). Scholars argue that the economic impact of the compact city, as well other urban forms can be neglected, due to its limited influence compared with other factors (Jenks & Jones, 2009, p.4).

In contrast, it has been also suggested that implementing the compact city policy, which limits sprawl phenomenon, can be disadvantageous for the economic efficiency. That is because urban sprawl supplies the residents with land parcels with a variety of choices in terms of size, location and housing pattern and within more reasonable prices as in the case of the compact city (Millward, 2006, p.474). This brings the discussion back to the issue of housing affordability and the impact of the compact city on land price and housing costs, which has been discussed in the previous section.

#### **2.3.3. Remarks on the Sustainability of the Compact City Policy**

The examined scholarly research lacks scientific evidence to prove or disprove the correlation between the compact city policy and sustainable development. This finding is reasonable, considering the unavailability of common frameworks to measure the contribution of the compact city policy to the sustainability. The fact that the sustainable development is a broadly and loosely defined term turns it extremely challenging to develop such a common and precise framework. A significant share of the reasoning for and against the compact city in the reviewed research is based on assumptions and consequent interpretations rather than empirical measurements. In addition, a limited number of the reviewed pieces of literature study the

relation between particular aspects of the compact city policy in relation to sustainability's sub-objectives in real life case studies.

The reviewed research holds also contradictory positions regarding the contribution of the compact city policy to the goals of the sustainable development. Table 2-1 presents a summary of these views combined with a brief conclusion. Neither advocates nor opponents of the policy are absolutely mistaken. A significant share of the provided arguments by both sides sounds convincing considering the assumed scenarios in either case. The tangible contradiction between the obtained positions is partially due to the absence of a conventional understanding of the compact city policy. In Table 2-2, the researcher draws a set of pre-assumptions embedded in the discussions of the advocates and opponents. The pre-assumptions show that the pro-arguments refer to comprehensively designed compact city policy that is implemented in integration with other policies in compatibility with the context characteristics. On the other hand, the contra arguments refer to narrowly designed compact policy, implemented in separation from other policies and without considering the context characteristics. The arguments also reveal that success of the policy is significantly context-based. Among the key context's characteristics that need to be considered are the spatial capacity to accommodate further growth, availability of public green structures, infrastructure capacity, the situation of housing affordability and the efficiency of urban planning and development system. Moreover, the social acceptance of the approach needs to be considered.

Sustainability Aspect	Index	Advocates	Opponents	Conclusion
Environmental	Land and natural resources	<p>Lower the rate of land consumption</p> <p>Reduce rural land loss</p> <p>Protect agricultural land and valuable natural areas</p>	<p>Decrease the area of open space</p> <p>Compromise ecological quality in cities</p>	<p>The characteristics of the targeted context and the complementary policies that are applied along with the process of intensification determine whether a compact city policy positive or negative impacts on the environmental goals of the sustainable development.</p>
	Energy use	<p>Reduce energy consumption (reducing travel distance and enabling more sustainable modes of mobility)</p>	<p>No proof that compact city makes travel behaviour more environmentally-friendly</p> <p>Increase energy consumption (Affordability of public transport encourage more daily journeys)</p>	
	Pollution level	<p>Limit pollution produced by daily mobility</p>	<p>Increase pollution produced by daily mobility</p> <p>Increase pollution due to spatial concentration of pollutants</p>	

<b>Social</b>	Livability and quality of living environment	<p>Contribute to a better life quality</p> <p>Good Public transport</p> <p>Proximity to services</p> <p>Opportunities for walking and cycling</p> <p>Preservation of green structure and public open spaces</p> <p>Alleviation of the level of the delivered infrastructure</p>	<p>Deterioration of the living environment</p> <p>overcrowded urban settlements</p> <p>Overloaded infrastructure and amenities</p> <p>loss of open spaces</p> <p>Increase noise level and affect air quality</p> <p>Traffic congestion and unsuitable walking environment</p>	<p>To enable a compact city policy to contribute to a better life quality this objective shall be embedded in the core of the policy. Likewise, the policy shall not come in action before assessing the possibility to provide sufficient area of green structures and open space and evaluate the capacity of the available infrastructure system to match the new demand and the likelihood to upgrade it.</p>
	Social justice	Increase the supply of affordable housing	Escalating housing prices and reducing housing affordability	<p>Urban intensification is a single factor among interrelated factors affecting the status of housing affordability.</p> <p>The situation of the local land and housing market, the potential to regulate the market, and the ability to provide governmental policies and programs to maintain an acceptable level of housing</p>

				affordability determine the nature of the compact city impact on the sustainable development social objectives.
	Social equity	Increase social mix and reduce social segregation  Equitable access to services and facilities	Exclusion of low- or middle-income families from living in some areas  Encroachment on individual freedom due to limited housing opportunities provided for citizens	If compact city policies can ensure housing affordability and provide a diversity of housing options, then it is most likely that they have a positive impact on social equity.
<b>Economic</b>	Public finances	More cost-efficient delivery of services and utilities	-	There are strong indications that compact city strategies rationalize public expenditures on infrastructure and services. Concerning other economic aspects, no clear relations with compact city strategies was figured out.
	Private finances	Enhance business and trading activities	Assign additional financial burdens to individuals due to the increase in housing prices	

Table 2-1: Summary of the debate about the compact city sustainability.

Aspect	Advocates Pre-assumption	Opponents Pre-assumption
<b>Policy overall approach</b>	Moderate urban containment strategies, seeking a balance between inward and outward expansion	Radical urban containment strategies, seeking absolute constraint of outward expansion
<b>Intended density</b>	Contextually determined density standards considering physical, environmental and social aspects	Generally imposed extreme high density
<b>Policy scope</b>	Consists of comprehensive strategies considering multiple aspects of urban settlements	Limited to urban containment
<b>Relation to other policies</b>	Integrated with other governmental policies to foster its benefits and minimize negative impacts	Implemented in isolation of other governmental policies
<b>Relation to the targeted context</b>	The policy is tailored to match context's specifications	Overlook context's characteristics including spatial capacity, level of infrastructure, and availability of open spaces

*Table 2-2: Embedded Pre-assumptions in pro and counter compact city arguments.*

Besides the general contradiction between the two positions, a degree of exaggeration of the benefits and disadvantages attributed to the policy is also remarkable; for not all assumed benefits and disadvantages sound reasonable. Hence, the compact city policy is neither an exclusive approach to deliver sustainable urban settlements nor the generator of most the ills of these settlements. In addition, it is undeniable that beside their multiple advantages for sustainable development, the compact city policies may cause a number of drawbacks, as well as that a number of their claimed benefits are only attainable if certain conditions are fulfilled. The main side-effects that the policymakers need to avoid are overcrowded settlements, insufficient infrastructure, loss of open space, escalation of housing affordability problems and additional traffic congestion. However, according to Williams (1999, p.167), the potential side-

effects are not a reason to discredit the compact city policy, but a call for comprehensive policies considering these aspects through design and implementation in order to avoid failure.

Based on the foregoing remarks, the compact city policy can be considered as a comprehensive urban development policy that guides spatial development in a manner that generates social, environmental and economic benefits contributing to the sustainable development; however, the policy is unable to deliver sustainable development on its own. In addition, one may conclude that the impact of the policy on the sustainable development may be positive or negative depending on the consideration of the context's characteristics, the strategies comprising the policy, and how the implementation of the policy is managed.

## **2.5. Putting the Compact City into Practice**

Despite the lack of a scientific evidence to confirm the sustainability of the compact city, the policy is widely executed in practice. In this regard, Williams (2000, p.45) indicates that in the field of urban planning and urban development there is strong belief that executing the compact city policy can guide urban development efficiently. Reviewing the literature on the compact city in practice reveals the availability of diverse means to execute the policy. Goodchild (2008, p.201) attributes this diversity to the fact that the compact city refers to a broad concept rather than a concrete one. Westerink et al. (2013, p.493) consider this broadness an advantage, as it provides sufficient room for the flexibility and adaptability of the interpretation and implementation of the concept.

In practical terms, differences between the approaches and the measures pursued by different regions adopting compact city policies are notable. Rationality necessitates such implementation differences, as in the field of spatial planning and spatial strategies the principle 'one size fits all' is not applicable, and compact city strategies need to be carefully adjusted and developed in order to match the conditions of the targeted urban context (OECD, 2014, p.109). Other scholars have also supported the belief that compact city solutions are not 'blanket solutions' and that the success of the solutions is primarily based on understanding and considering the local needs and the qualities of the addressed urban context in addition to tailoring authentic compact city solution matching the local needs and qualities (Jenks et al., 2005, p.299; Westerink et al., 2013, p.493). For example, developing their own compact city strategies, cities witnessing rapid urban growth should put more focus on growth management, while those suffering from inner-city decay shall pay particular attention to brownfield development strategies and inner-city revitalization (OECD, 2014, p.109).

Considering variation and distinction of the compact city policies is not an argument for denying the existence of preliminary schemes explaining how compact city policies can be promoted. Research demonstrates the existence of common approaches and instruments to put the compact city concept in practice; at the same time, it emphasizes that the common approaches can never present a completed solution that is ready for local implementation (Mike Jenks et al., 2005, p.299). That is to say, the common compact city thinking is the raw material for producing authentic policies. Planners and policymakers have to address the 'missing link' between the general policies and the local circumstance (OECD, 2012, p.162). It is also understandable that compact city strategies are concerned with the process of urban development of existing cities as well designing new settlements. Nevertheless, dealing with existing cities is the only concern of this thesis.

Like many other spatial policies, compact city policies consist generally of a complex of regulatory tools, planning controls and urban management programs and practices; policy documents in the form of directives, plans or guidelines at different spatial levels; as well as fiscal tools including both incentives and disincentives (Jenks, Burton, & Williams, 2005, p.238; OECD, 2012, p.164). The OECD report identified another vital component; it is the strategic projects by governments aiming at making cities more attractive, and that are financed by the government themselves or through certain public-private partnership arrangements (OECD, 2012, p.120).

The implementation of the compact city is not limited to a certain spatial level. It necessitates a wide framework of concerted efforts and approaches at different levels. This includes a bunch of policies and practices ranging from neighbourhood practices to national policies (Jenks et al., 2005, p.239). Leaving room for formulating and developing compact city solutions locally is fundamental for a successful implementation of the compact city policy (ibid, p.300). Besides, coordination between the local authorities in the district and regional guidance are also crucial (Pratt & Larkham, 2005, p.247). It is also understandable that the national level plays a fundamental role in promoting and implementing the compact city. Quite often, the national level takes the responsibility to arrange the scene for smooth and coordinated implementation of the compact city at the local level through national policies and legal frameworks (OECD, 2012, p.217). However, this research focuses mainly on compact city practices at the local level. The following sections present a closer look at the three identified strategies of the compact city policy, focusing on the local level. The aim of these sections is developing an initial understanding of the practical mechanism through which the compact city approach is transmitted from concept to reality.

### **2.5.1. Urban containment strategy**

Urban containment stands as a key strategy in a compact city policy (Al-Tai, 2013, p.122). Current research seems to indicate that urban containment is an inevitable way for existing cities to realize the compact city (Katie Williams et al., 2005, p.71). Almost in all areas, where compact city thinking is being adopted, urban containment strategies such as urban intensification and brownfield development can be observed (Westerink et al., 2013, p.491). At its heart, urban containment is a spatial development strategy that aims to limit the outward expansion of the urban areas, while trying to contain urban growth within the existing urban area mainly by encouraging infill development (Nelson, 2004). In other words, urban containment deploys a number of approaches to influence urban growth in terms of intensity, type, location and timing (ibid).

It is notable that urban containment strategies usually combine two key approaches. The first approach involves setting boundary lines around urban areas while running interventions to promote development inside this boundary line and restrict scale development beyond it (Nelson, 2000). Based on their specific concepts, the boundary lines are given several names such as urban growth boundary, urban service limit, urban growth stop line or green belts (Connerly, Chapin, & Higgins, 2007, p.85). The growth boundary lines are mainly regulatory tools that control development; nevertheless, fiscal tools are so often integrated to strengthen the regulatory tools (OECD, 2012, p.119).

The second key approach comprising the urban containment strategy is infill development. The key theory of infill development refers to the accommodation of further development within existing urban and suburban areas through different intensification modes (Wheeler & Beatley, 2004, p.138). In this context, urban intensification is a general term referring to a range of measures that aims at making cities more compact through the intensification of the built structure or/and the intensification of the urban activity within existing urban areas (Williams et al., 2005, p.72). A set of physical and socio-economic planning tools are usually integrated into these measures (Burgess, 2000, p.21). Infill development and urban intensification are used interchangeably. Infill development includes development on unused sites within the already-developed district as well as the redevelopment of previously-developed sites and structures that are abandoned or underutilized (Williams et al., 2005, p.72). The reviewed literature focuses significantly on redevelopment and its measures rather than infill development. In terms of redevelopment, "brownfields" is a term often associated with infill. It constitutes a specific subset of infill sites that can be described as abandoned or underused sites, which are located within developed urban areas, and which efficient reuse necessitates

intervention, as they are or might be contaminated (CABERNET, 2006, p.3). In addition to the achievement of urban compaction and increasing the efficiency of land use, infill development has the potential to enhance the existing built-up areas, regenerate urban cores and allow for efficient public transport system and enhanced infrastructure (Al-Tai, 2013, p.122; Burgess, 2000, p.21; OECD, 2012, p.23).

Definitely, a certain level of infill development takes place autonomously. However, observed growth trends reflect that infill development occurs at lower rates as development on green sites at the urban fringe (Wheeler & Beatley, 2004, p.138). In infill development research, there seems to be general agreement that the approach is confronted by a number of challenges; hence realizing a significant level of infill development requires interventions to facilitate its occurrence. Examples of challenges that are often cited in the literature include:

- Social resistance is one challenge confronting the realization of infill development. Cohen (2011, p.172) points out two forms of social resistance; first, the opposition of the residents of existing urban areas to this pattern of development due to the fear that increasing density will negatively affect their access to adequate services, privacy as well as it will generate undesirable features in their neighbourhood; second, the resistance of future residents and developers to this pattern which is not expected to meet the preference of the consumers looking for a good level of life quality and those looking for single-family houses with private gardens. In this regard, Wheeler & Beatley (2014, p.143) suggest that municipalities and local planning authorities prepare context-based urban design guidelines and local plans that can spread the image of the aimed infill development and ensure an enhanced impact on the quality of the neighbourhoods.
- Difficulty to provide adequate public open spaces, which contributes to making existing urban areas attractive development locations, is another serious challenge confronting infill development and urban intensification process (Hofstad, 2012, p.16). It is not clear how to acquire such sites and protect them from urban development in the long term (ibid).
- Unavailability of vacant land, not in a physical term, rather in terms of market accessibility, due to land market deficiencies and the speculative investment in land is another barrier (Aly & Attwa, 2013, p.456). In such cases, developers will bypass vacant land in existing urban areas for more affordable land at the urban periphery. Without finding the right policies and mechanism to regulate the land market, infill development is unlikely to take place.

- Lack of urban infrastructure and services or inadequacy of their quality hinders the implementation of infill development as this situation reduces consumer willingness to such development (Cohen, 2011, p.172). Moreover, the upgrade or further investment in urban infrastructure can be expensive and presents a challenge to municipalities limited budgets (Frederick & Steiner, 2012, p.260).
- The inconsistency of the land use regulations and local development plans with aims of infill stands as a regulatory barrier to implement infill development (Frederick & Steiner, 2012, p.260; Wheeler & Beatley, 2014, p.141). Such inconsistency would make infill more difficult and less feasible (Wheeler & Beatley, 2014, p.141). Therefore, there would be a need to review the land use regulations and change inconsistent parts where it is possible (ibid).
- Financial and governance limitations of the planning authorities and the governmental bodies form also serious constraints on the successful implementation of infill development (OECD, 2012, p.207). This challenge is not limited to infill development approaches, rather applies to all compact city strategies (ibid). Wheeler & Beatley (2004, p.141) indicate that unless planning authorities and municipalities take a lead in the stimulation and the coordination of the urban development process, infill development is unlikely to take place efficiently. For example, investment in infrastructure and public transport, provision of public spaces, housing programs, coordination of transport and land use planning, organizing public participation and preparing public-private partnership arrangements are all complex and demanding tasks, which can only be conducted by authorities of advanced capabilities.

### **2.5.2. Utilization variety and enhancing urban quality strategy**

As pointed out previously, compact city policies are likely to function properly if urban containment is combined with strategies to enhance the diversity and the quality of the living areas. The diversity is often addressed in terms of spatial functions, although the social mix is also included in a number of advanced compact city policies. In this section, only the physical diversity in terms of the integration of the land uses is tackled. The social mix, which its strategies fail to appear clearly in general discussions of the compact city, is traced in the next chapter. A number of key approaches are typically employed to mix the land use. Pursuing land use regulations that promote multi-functionality instead of those enabling mono-functions solely is the main approach for achieving diversity (Scheurer & Humanities Education of Social Science, 2001, p.172). Although multifunctional or mixed-use zones do not have an exact

prescription, zones promoting the mixing of commercial, business and residential uses are repeatedly encouraged (OECD, 2012, p.186). Special arrangements are needed in such zones to provide a quiet living environment for the residents (ibid). Another common approach to increase the land use diversity is the intensification of activities carried out in existing buildings or sites (Williams, Burton, & Jenks, 2005, p.72). The approach implies a modification in existing spaces, changing their uses and raising the number of their users (ibid). Intensification projects usually target areas where buildings are vacant or underutilized. Therefore, intensification could lead to efficient use of these assets, bringing liveliness to the area, integrating residential and working functions, and creating space to deliver local services in existing built-up areas (Lehmann, 2010, p.7). The implementation of the intensification approach requires a strong involvement of the local planning authorities and municipalities in provoking and implementing the projects. In addition, the mixed land use regulation would facilitate the realization of intensification. Urban regeneration and brownfield development projects are further approaches to foster multi-functional development in existing urban areas (OECD, 2012, p.186). In addition to mixing the land use, such projects help provide local services including retails, restaurants, banks, community centres, etc (Scheurer & Humanities Education of Social Science, 2001, p.174). In order to achieve equitable regeneration projects, with minimal social injustice, planners and local authorities are obliged to pay careful attention to avoid the development of spaces that exclude the less - privileged sectors of the society (ibid).

Approaches improving the quality of the living environment in existing urban areas are partly interlinked with those promoting the mixed use. For example, balanced urban intensification approaches, which consider green structures and public open spaces, lead to an upgrade of the living environment and raise its quality (Williams, 2000, p.37). These approaches also offer the residents better access to local services and increase the attractiveness of the urban areas in which they are implemented (ibid, p.38). Likewise, urban regeneration and brownfield development approaches can enhance the quality of existing built-up areas. These approaches usually regenerate sites that adversely affect the urban environment and turn them into potential spots for offering services in proximity to the local residents (OECD, 2012, p.183). Briefly, intensification and regeneration may revitalize and retrofit existing urban areas; hence, increase their attractiveness and directs urban growth inward (Lehmann, 2010, p.7; Scheurer & Humanities Education of Social Science, 2001, p.174). Another approach used by urban planning and development authorities to improve the quality of the living environment involves upgrading the installed infrastructure systems in existing urban areas (UNESCAP, 2012a). Likewise, planning authorities would use the provision of public open spaces with optimal

location and configuration among the approaches used to attain a good quality of the living environment (OECD, 2012, p.188; Williams, 2000, p.36). This latter mentioned approach is essential for the successful implementation of a compact city policy as these public green spaces would compensate the decrease in the private open space and the increasing density. In chapter three, specific approaches to generate and secure the provision of public green spaces are traced in the analysed cases.

### **2.5.3. Multi-modal mobility strategy**

In executing multi-modal mobility strategies, planning and development authorities tend to utilize a combination of transport approaches in coordination with urban planning. The first key approach is the stimulation of non-motorized transport modes, benefiting from the integrity of the land uses and proximity to facilities and jobs, which result from the urban containment and diversification strategies. The stimulation process incorporates urban design and traffic approaches that facilitate non-motorized modes of mobility, and provide safe and attractive spaces for pedestrian and bicycles riders (Lehmann, 2010, p.6). Such urban environment that supports significant accessibility through walking and cycling could help reduce the demand for vehicular travel, hence reduce traffic congestion and energy consumption (Scheurer & Humanities Education of Social Science, 2001, p.172).

The second crucial approach that planning and urban development authorities tend to use is launching a local public transportation system that connects the city's districts (OECD, 2012, p.165). Energy-efficient public transportation systems of low environmental impacts, with convenient services that are efficiently distributed and easily accessible, are very often described in compact city policies (Lehmann, 2010, p.6; Thomas & Cousins, 2005, p.46). These systems can facilitate mobility and accessibility efficiently and can offer an alternative to the private car (Lehmann, 2010, p.6). To ensure the efficiency and feasibility of public transportation systems, the distribution of population and their densities are addressed as significant determinant factors; therefore, policymakers recommend integrating densification strategies around public transportation nodes and routes to sustain their feasibility (OECD, 2012, p.184).

To sum up, integrating the two mentioned mobility approaches to offer a variety of accessibility choices can bring several benefits. For example, this helps reducing travel demand in general and automobile travel in particular, avoiding anticipated traffic congestion, reducing environmental impacts, and enhancing the quality of the living environment (Lehmann, 2010, p.6; OECD, 2012, p.165; Williams, Burton, & Jenks, 2000, p.352).

## 2.6. Compact City and Developing Countries

The significant promotion of the compact city policy in developed countries has encouraged many developing country cities to opt for this track. However, there is great uncertainty whether the policy is appropriate for the developing countries. Despite this uncertainty, a number of developing countries are “striving” to pursue a sort of spatial urban compaction policy (OECD, 2012, p.160). Recent literature extensively addresses the question whether the compact city policy can be successfully implemented in developing countries, and the results reveal uncertainty and contradiction in the obtained views about the potential of the policy to manage the urban development in developing countries sustainably.

The first obtained view denies the potential of the compact city policy to manage urban development in developing countries. There is a relatively small body of literature presenting this view. Williams (2004) is one of the few who strongly oppose the implementation of urban compaction policies in developing countries. She firmly concludes that the compact city policy generally and the urban intensification specifically are "wholly inappropriate for cities in developing countries" (ibid, p.5). Her justification is that the success of the approach in achieving the sustainability objectives is based on two main determinants; they are the context characteristics and the way the approach is managed to downsize its unpleasant impacts and raise its benefits (ibid, p.4). Her argument goes, that developing country cities will most likely be unable to handle an urban containment strategy successfully as they already suffer from high rate of urbanization and informal development, which go along with poor urban planning and management system and inadequate infrastructure capacity (ibid, p.5). Although the conclusion is initially based on a logical rule regarding the success determinants, it is not convincing. The reason is that Williams used a general assumption about the characteristics of the urban context in developing countries, which despite their similar characteristics they still have considerable context differences. Likewise, the conclusion has not been based on a real-world study of the countries that have been judged.

In contrast to the lately introduced view, a larger body of literature appears to support the view that the compact city policy might have a potential to manage urban development in some developing countries' cities. For instance, Jenks (2003) argues that cities of the developing countries, which currently face tremendous pressure because of rapid urban growth, are the places that need urgently to implement new theories as pathways for sustainability. Furthermore, he suggests that these cities can use the advantage to benefit from the experiences of the developed countries in implementing compact city policies. In the words of Jenks (2003, p.350): *“drawing selectively from best practice may be more helpful. For the cities*

*of developing countries, the choices are there. The choice exists, for example, to use the most appropriate ideas from the developed world to guide, shape and control the future form of the huge cities in the developing world".* He builds his reasoning on the fact that the compact city approach has recently several trends and practices and that some of them are indeed relevant to the developing countries (ibid). Additionally, he firmly emphasizes that the main challenge in this track is to tailor the selected approaches so that it precisely fits the local environment, and assures that the planners and policy makers of those countries are the ones who are supposed to take responsibility of this questionable duty (ibid).

Along similar lines, Burgess (2003) investigates the prospect of several components of the compact city policy to realize sustainable urban development in developing countries. He concludes that cities of developing countries differ notably from each other in terms of density and urban structure; therefore it is not precise to make general comparisons between them as one entity and developed country cities as the other entity (Burgess, 2003, p.18). In other words, the question whether an urban compaction policy is suitable for a certain urban area has to be investigated within the local context and based on its determinants rather depending on general perceptions. Likewise, Burgess has highlighted in several parts of his study the challenges and threats that may face compact city policies in developing countries. However, he has asserted that "Guided densification in a planning style based on community enablement, local authority involvement and democratic 'stakeholding' arrangements would seem to offer the greatest opportunities for sustainability gains" (ibid).

Similarly, in its report the "Compact City Policies: A Comparative Assessment, OECD Green Growth Studies", OECD argues that the compact city policy is still desirable. OECD puts forward the statement that "...compact city could be a sound reasonable model for regions in developing countries as well if adapted appropriately" (OECD, 2012, p.163). Like many other studies, this report stresses the need for taking actions and measures to avoid "excessive densities" and downsize the social and environmental problems that may arise due to densification, mainly as the financial weaknesses of some of the developing countries may hinder adequate investment in infrastructure to match higher-density (ibid, p.160). In addition, the report summarizes a set of major characteristics distinguishing the urban context of developing countries that should be taken into account when considering an urban compaction policy in these areas. These characteristics include rapid demographic growth as well as high existing urban densities; inefficient urban planning and management system; limitation of financial resources for urban investment; as well as the challenge of informal settlements (ibid).

Exploring local case studies that investigate the appropriateness of the compact city concept in their context shows conditional favour of the implementation of the concept. For instance, investigating the applicability of the compact city for the Indian cities, scholars have confirmed a promising role of urban compaction in their cities, in form of corridors and nodes, given that the complications and consequences of the concept are deeply understood, analysed and managed (Kotharkar, Bahadure, & Vyas, 2012, p.6). Besides, the scholars emphasize that an implementation of the concept that is primarily based on direct imitation of the strategies adopted in the developing countries is neither reasonable nor beneficial (ibid, p.2). In Indian cities analysis reveals undesirable results of the implementation of the compact city, such as overcrowding and environmental deterioration due to the malfunctioning institutional framework (ibid). In this context, the scholars conclude that sustaining the benefits of the compact city policy and maintaining a balance between high densities and life quality require supporting measures such as enhanced urban management system, better regulations and further investment in infrastructure (ibid, p.3). Moreover, they point out the certain distinctiveness of the Indian urban areas that should be seriously considered when adapting a compact city policy such as large variation of income levels among the citizens, little investments in developing the infrastructure, unaffordable housing prices and informal development (ibid, p.2).

A case study that examines the compact city in developing countries generally, and in Iranian cities mainly, shows a middle-ground position. The results of this study neither oppose nor support the implementation of the compact city policy in the Iranian context. However, it emphasizes that cities in developing countries shall not automatically adopt urban strategies that are prevailing in developed countries (Ardeshiri & Ardeshiri, 2011, p.31). Choosing the most proper urban development policy and urban form must be based on a deep assessment of the city's own development process and the local circumstances (ibid, p.30). Likewise, opting for a centralized or decentralized spatial development approach is also dependent on the situation and characteristics of the existing development process (ibid, p.31). The study attempts to shed the light on a number of differences between the cities of the developed and developing countries, which need to be taken into account very carefully when assessing the suitability of the compact city policy to an urban area, and when designing a local compact city policy. The differences include high urbanization rates, the inability of authorities to control the land market, serious housing affordability problems, and spread of informal settlements (ibid, p.20).

To sum up, the reviewed literature shows that partial agreement that compact city policy is a potential sustainable solution for the developing world. Nevertheless, the literature emphasises the inevitable need to investigate the relevance of the policy locally, considering the urban dynamics of each individual case. Scholars underline a set of aspects that stand as potential barriers to implement the compact city successfully in developing countries and that require special attention when designing a compact city policy in these countries. These aspects include high population growth, high existing densities, informal settlements, housing affordability problems lacking effective solutions, inefficient urban planning and management system, and financial limitations. Scholars do not tend to consider these foreseen barriers a reason to disregard the policy in developing countries, rather a motivation to learn from the experiences of the developed countries how to reduce these barriers. A number of the identified policy barriers in developing countries are to a certain extent similar to those indicated earlier in developed countries context; which justifies the probability to benefit from the developed world experiences. However, scholars alert to the dangers of direct transfer of learned lessons and consider their local customization the key to successful implementation. The next chapter focuses on the way successful cities deal with housing affordability problems, generate revenues for urban investment, and the practices that their urban planning and management system tend to utilize to manage the compact city policy effectively.

## **2.7. Success determinants of the compact city policy**

In the previous sections, the review of the compact city policy research has revealed a number of theoretical propositions concerning the settings or conditions that are necessary to enable a compact city policy to succeed to contribute positively to the sustainable development objectives. In this section, the researcher combines these propositions and represent them clearly, due to their importance in conducting the empirical investigation in this study. The theoretical propositions about the policy's success determinants are detailed as follows:

**1. Implementing a moderate and comprehensive compact city policy that integrates urban containment, utilization variety and quality enhancement, as well as multi-modal mobility strategies.** This proposition has emerged in several areas during the literature review. First, in the definition of the favourable compact city policy and the substance of this policy, where scholars considered a policy that integrates these three strategies in balance as favourable policy. Second, in discussing the sustainability of the compact city policy. In this regard, the scholars indicated the plausibility of some negative side-effects for implementing a compact city policy, particularly as impacts of implementing an urban containment strategy. However,

the scholars suggested that a commitment to an inclusive and moderate compact city policy would downsize these side-effects. Overcrowding, traffic congestion, inadequate infrastructure and loss of public open spaces are examples of negative impacts that are subject to decrease through an optimal policy design, which create equilibrium between incorporated strategies as well as between aimed compaction and allowed dispersion. Third, in demonstrating how to put the compact city policy into practice. While the scholars noted the likelihood to face a number of barriers that hinder putting the policy into practice, they suggested that seeking a comprehensive policy with an active integration of its three strategies is one approach to reduce the barriers. For instance, providing adequate public green spaces and raising the quality of the urban environment in existing areas would decrease the social resistance to infill development. Fourth, the comprehensive policy design was also indicated in discussing the relevance of the compact city policy to cities in developing countries. In this regard, the scholars emphasized again the importance of seeking a comprehensive policy that integrates urban containment while attempting to enhance the urban quality as well as facilitating mobility through multiple mobility modes.

**2. Adapting the compact city policy model to match the needs and characteristics of the local context.** This condition was significantly tangible in much of the reviewed literature regarding the compact city. In the discussion of the policy sustainability, the scholars emphasized that understanding the context characteristics and designing the policy in response to these characteristics are fundamental practices to enable the policy to make a positive impact on the sustainable development. Regarding the policy implementation, the scholars emphasized that the implementation of the compact city policy does not follow the principle “one size fits all”. They also emphasized that the success of the policy depends on tailoring an authentic policy that matches the characteristics of the targeted urban context. Similarly, scholars addressing the relevance of the compact city policy to cities in developed countries warned against copying the policies implemented in the developed countries whereas they stressed the need to adapt the available policy approaches to match the local context.

**3. Having an effective urban planning and urban development system in charge of the compact city policy.** This condition has been correlated with the success of the compact city policy in three of the reviewed topics about the compact city. First, it was indicated when discussing the sustainability of the compact city policy. The scholars noted probable incidence of a number of adverse effects as impact to the policy implementation. The plausibility of side effects was not considered a disqualification factor of the policy; rather the competence to limit these adverse effects is regarded a determinant of the policy success. In addition, the scholars indicated that

the competence to limit the adverse effects depends partly on having an effective urban planning and urban development system that can establish links to auxiliary strategies and programmes to downsize the negative effects. For example, escalation of housing affordability problems, though not confirmed a negative impact of the policy, is partially mitigated through establishing strong linkages to housing affordability programmes. Second, this condition was indicated while demonstrating how to put the policy's strategies into practice. In this regard, the scholars listed a number of barriers that are likely to hinder the policy implementation. The scholars also noted that cities are unlikely to succeed in implementing the compact city policy unless having effective urban planning and urban development system that can reduce these barriers and create encouraging conditions to bring the policy in action. Third, this condition emerged repeatedly in the review of the suitability of the compact city policy to cities in developing countries. In this respect, the lack of effective urban planning and urban development system in these cities was considered a main threat to the policy success.

## **2.8. Conclusion**

Since the early 1990s, the concept of the compact city has resurged in the field of urban planning and urban development. The new appearance of the concept was triggered by the need to replace the phenomenon of urban sprawl which creates negative consequences on the society, economy and the environment. Several developed countries promote the use of the compact city as a spatial development policy. Additionally, a group of international bodies that are engaged in urban planning and urban development issues also promote the use of the concept.

A considerable amount of literature has been published on the compact city. These studies offer many definitions for this concept without offering a conventional definition. However, being the focus of urban planning scholars and practitioners for several decades, the notion of the compact city and its embedded strategies are eventually better understood. Recent studies have pointed out a number of aspects that are recommended or opposed in the contemporary compact city designation. Compiling and synthesizing these aspects at the beginning of this chapter led to formulating a definition of the favourable compact city policy. It is a comprehensive urban development policy that aims to enhance the economic, social and environmental performance of the cities by running certain strategies in parallel; the sought strategies are an integration of urban containment, mixed land use and urban regeneration, and multi-modal accessibility and mobility strategies. In a similar manner, the compact city as an urban form is defined in this current chapter. As pointed out earlier, the term compact city

is used to express an urban model and urban policy interchangeably. The compact city policy is the main focus of the subsequent parts in this dissertation. This lately stated definition is crucial to put forward the studied issue with minimum ambiguity.

Furthermore, the obtained literature has addressed the degree of acceptable compaction and the actual trends of the compact city. In this regard, there is a level of consensus that compaction has relevant nature and that defining common standards of intended compaction is unreasonable. Likewise, the review reveals that in real-world scenarios, the compact city has no single trend, rather various trends ranging from centralized monocentric urban settlements to decentralized polycentric urban settlements. Yet, moderate compact city policies, which significantly focus on infill development whilst allowing moderate outward expansion, are designated as the most successful and acceptable.

Much of the current literature has focused on the sustainability of the compact city. This literature has reported contradictory views about the compact city sustainability. While many scholars suggest that the concept could contribute positively to the objectives of the sustainable development, other scholars question the ability of the compact city to deliver this positive contribution. In this chapter, the researcher has analysed a group of studies advocating and denying the policy's sustainability. The analysis revealed that both sides lack scientific evidence to support their arguments about the sustainability of the compact city. In addition, the analysis indicated that the absence of a conventional definition of the compact city could be one of the reasons causing this contradiction. For example, some of the arguments that consider the compact city unsustainable appeared to look at the policy as being merely an urban containment strategy. Based on this analysis, the researcher derived the conclusion that the contribution of the compact city policy to the objectives of sustainable development is context-based; and that it depends on the characteristics of the urban context, the features of the policy design, and the modality of the policy implementation.

The existing literature on the compact city has offered insights on the approaches used to put the policy's strategies into practice. The available body of literature provides significant details regarding the urban containment strategy, whereas it offers little details concerning the utilization variety and enhancing urban quality strategy and the multi-modal mobility strategy. Hence, further research on the approaches of diversification, enhancement of living quality as well as on mobility and accessibility within the two analysed examples of compact cities is conducted in the next two chapters.

In addition, the theoretical review concludes that putting the compact city policy into action is challenging. A set of limitations are listed as barriers to implementing a compact city policy; namely, social, physical, regulatory, financial and governance limitations. The limitations are mainly demonstrated in correspondence with the urban containment strategy. However, the last-mentioned barrier is marked as a fundamental barrier to the whole policy. The available evidence seems to suggest that unless the barriers are surmounted, it is unlikely to bring the compact city policy into action. Like in the case of addressing the side effects, the comprehensive design of the compact city policy and the active integration of the three strategies is the theoretical approach to reduce the barriers. In addition, an effective urban planning and management system that has a leading role in stimulating urban containment and reducing its barriers is also fundamental to the policy success. Empirical examples of how to reduce the policy barriers will be investigated in chapters three and four.

Another aspect addressed in the literature review was the scope to adapt the compact city policy from cities in developed countries to cities in developing countries. The question whether this kind of policy approach constitutes a sustainable solution to developing-country cities is frequently investigated. In this regard, reviewed research appeared to validate a number of views. First, compact city policies are likely to attain success in developing country cities. Second, the relevance of the compact city to developing country cities is not absolute, rather subject to the characteristics of the given case. Third, customizing the learned model of the compact city to match local cases is an imperative condition for success. Rapid demographic growth rate, existing high densities and a large degree of informality in urban settlements are aspects calling for special attention when planning a compact city policy in a developing country city. Likewise, the inefficiency of the urban planning system and the financial limitations are pointed out as threats to the policy success in developing country cities.

To conclude, this theoretical review has suggested that the success of the compact city policy in contributing to the sustainable development in any given context is determined by the degree of comprehensiveness and rationality of the policy design; the compatibility between the policy and the characteristics of the urban context; and the extent of effectiveness of the policy implementation process. In the next two chapters, the researcher analysis two examples of successful compact city policies in practice and investigates how these cases managed to fulfil the success requirements. Based on this analysis, the research further develops the success conditions established in this chapter, which will be later used to investigate the suitability of the compact city policy to guide urban development in Jenin.

### **3. Compact City in Practice: Successful Case – Developed Countries**

In chapter two, the theoretical review of the compact city research has led to developing an initial model of the favourable compact city policy and identifying the general success' determinants of the compact city policy. In this chapter, as well as in the next chapter, the researcher reviews two empirical cases of successful compact city policies as an attempt to develop practice-based knowledge to elaborate the theoretically defined policy model and success determinants. The intended objectives are to find out which approaches and instruments do these cities use to implement the compact city policy and how they manage to overcome the policy implementation barriers and reduce the anticipated negative impacts of the policy implementation.

This chapter reviews a case of successful compact city policies in a developed-country city, namely in Munich. The chapter provides deep insight into the characteristics of Munich's urban context, the substance of the executed compact city policy, and the modality of the policy's implementation. The review of this case builds on three groups of resources. The first group comprises urban planning documents, reports and information published by the city administration, known as "City of Munich" both in print and online at the city portal. The second group includes the national urban development policy and the planning legislation which are prepared by the Federal German Government and that affect Munich's urban development. The third group involves a number of peer-reviewed articles, conference papers, books, or publications of the European Commission, which present the Munich compact city policy as a good example.

The chapter comprises eight sections. Section one briefly describes Munich's urban context. Section two explains why Munich's compact city policy is perceived successful. Section three reveals how inclusive and moderate is Munich's compact city policy. Section four lists the approaches and tools utilized to implement the compact city strategies in Munich. Section five reports the empirical means used to reduce the policy implementation barriers which were identified in the theoretical review. Section six describes the means used in Munich to limit the negative impacts that are theoretically expected to happen when implementing a compact city policy. Section seven derives a set of factors that facilitated the successful implementation of the compact city policy in Munich. Finally, section eight presents the conclusions derived from the previous sections.

### **3.1. Overview of Munich**

Munich, the third largest German city, is located in the south-east of Germany. It is the capital of the state of Bavaria and located within Munich metropolitan region which is known as Munich Greater Area. The area of the city is 310 km<sup>2</sup>, while the area of the metropolitan region is 27.700 km<sup>2</sup> (LH Muenchen, 2015b). Munich is a densely populated city with an average density of 4.500 inhabitants/km<sup>2</sup> (Thierstein & Schmidt, 2008, p.1). According to the statistics of 2016, the city has 1.530.359 inhabitants (LH Muenchen, 2016e). In terms of population growth, Munich is classified as a growing city and expected to maintain this growth pattern in the future. The projections show that a population increase of 15.4% is estimated for the period 2013 to 2030 (Referat fuer Stadtplanung und Bauordnung, 2013, p.45). The city administration attributes a degree of this increase to the immigration from other German cities, Europe and from other places around the world (ibid). The reviewed literature mentions two factors that make Munich an attractive city. These features are the prosperous economic status of the city and the outstanding position of a number of its universities and research centres at the European and international level (Thierstein & Schmidt, 2008, p.1).

In Munich, the main local entity in charge of the planning and management of the urban development is Munich Department of Urban Planning and Building Regulations (LH Muenchen, 2016g). The department is composed of four main units, all of which consist of more specialized sections (Department of Urban Planning and Building Regulations, 2016). These units are namely: Urban Development Planning, City Planning, Urban Regeneration and Housing Development, and the Local Building Committee (ibid). At the regional level, Munich Regional Planning Association (RPV) is the statutory planning union of all municipalities in this region. The association includes the city of Munich and seven surrounding districts (RPV, 2012). As an integral part of this planning association, Munich works continuously on enhancing the cooperation process with the regional partners in favour of the whole region (City of Munich, 2015a, p.7).

### **3.2. Perceived success**

In terms of sustainable development, Munich is one of the cities acknowledged for their advantageous urban development approaches. The following lines present indicators of the admiration of Munich's urban development policy in several contexts. For instance, in academic research, Newman et al. (1992) have referred to Munich as one exemplar for achieving high-quality urban life through compact development. Here, the utilization of the

Munich example lies within the efforts of Newman et al. to draw on good planning experiences to inspire the Australian planners.

Regarding prizes, Munich has received the 1999 European Sustainable Cities and Towns Award for the positive influence of its urban planning and urban development policy on a number of sustainability areas (Evans et al., 2005, p.51). In addition, the award attaches particular importance to how Munich's urban policy has been dealing with traffic, housing, and redevelopment of brownfields (ibid).

In the context of empirical research, some comparative studies of urban development at the European level have shed the light on the merits of Munich urban development policy. For example, in a comparative study addressing urban sprawl in twenty-four European cities, Munich has been one of the two cities which have shown obvious success in limiting urban sprawl (Kasanko et al., 2006, p.128). The study has utilized the change of the ration of the built-up area per inhabitant as one indicator to assess the cities' success in limiting urban sprawl. In this regard, Munich has been the only city that has managed to decrease this ratio, thus keeping a slow pace of urban expansion (ibid). The study has attributed Munich's success to its effective operation of an integrated land use and transportation policy. In a more recent comparative study of the land use change in a number of European cities, findings have shown that Munich is among few cities which have been consuming land least intensively (European Commission, 2014, p.120). The findings have also shown that within the study period, 2006 to 2012, Munich has become more compact and more sustainable (ibid).

In addition, the European Environment Agency (EEA), an agency of the European Union, has advocated Munich's urban development policy as a model in the field of urban sprawl containment. This can be clearly observed in the EEA report "Urban Sprawl in Europe: the ignored challenge", which has provided a deep insight into Munich's urban development policy as a source of good practices for European cities experiencing urban sprawl. The report has considered the policy successful because of its ability to create a compact city without compromising the multiple objectives of the sustainable urban development (EEA, 2006, p.45). In essence, the reviewed examples lead to the statement that the ability to contain urban sprawl while keeping the city an attractive place constitutes the merit of Munich urban development policy.

According to Munich city administration and some scholars, the success of Munich in keeping the city both compact and attractive is the result of its long tradition and distinctive planning approach as well as its contemporary urban development policy, known as Perspective Munich

(PM) (City of Munich, 2008; Ludlow, 2009, p.71; Thierstein & Schmidt, 2008, p.3). In a broad sense, the two causes are interrelated, for PM is an advancement of the city's deep-rooted planning vision and a series of former city development plans dated to 1963, 1975 and 1983 (Ludlow, 2009, p.71). These former plans have been described as far-sighted since they have adopted the principles of comprehensive urban planning and development before these principles have gained their popularity (ibid). Concerning PM, Munich city administration has defined this development framework as a strategic proactive urban development concept that presents an integrated long-term approach in order to sustainably guide the urban development with a focus both on the city and its surrounding region (City of Munich, 2005, p.8). In addition, the city administration has emphasized that the concept is designed flexibly in order to adapt to any changing conditions (ibid, p.7). PM, which has been established in 1998, has gone through several updates (City of Munich, 2015a, p.3). According to the City of Munich (2015b, p.39), the latest version of PM consists of :

- A guiding principle, “city in balance”, which includes eight key statements;
- Four strategic guidelines which link the general guiding principle with specialized thematic guidelines. The strategic guidelines are: “Foresight and Cooperative Management”, “Open Atmosphere and Attractive Appearance”, “High Quality and Characteristic Urban Spaces”, “Caring and Committed Urban Society”;
- Sixteen thematic guidelines which represent specialized objectives on almost all the important urban development issues;
- Ten action areas which consist of individual city districts that are characterized by special development opportunities while facing certain threats that call for actions from the cities departments and multiple participants;
- Sixty lead projects which fulfil the objectives of the thematic guidelines.

A quick glance at the presented components of PM reveals its hierarchical structure. This structure ranges from general orientations to specific programmes and projects that translate the adopted general orientations into reality. This sort of structure helps to make the city's urban development policy flexible and sound at the same time. The following sections move on to present a closer look at how PM has been facilitating an effective implementation of the compact city policy.

### **3.3. Inclusive and moderate compact city policy**

The review of PM and some related documents shows significant focus on the theoretically identified strategies of the favourable compact city policy, which include urban containment, utilization variety and quality enhancement, as well as providing multi-modal mobility options. For instance, among its objectives, PM pursues the strategic guideline: “High quality and characteristics urban spaces”. Explained in the words of PM, this guideline implies the commitment to achieve “High quality, mixed-use quarters and settlements with attractive open spaces and short distances” (City of Munich, 2015b, p.44). This explanation indicates partly the integration of the compact city policy strategies in the city’s development framework. Furthermore, the specific spatial development objectives embedded in this strategic guideline, which are summarized in Figure 3-1, shows clearly the integration of the three strategies. Moreover, these specific objectives reveal a balance between inward and outward development. This can be detected through the specific objective that promotes “strengthening of the city centre and creating a network of multiple centres”, which is known a polycentric development.

The integration of the strategies of the favourable compact city policy in Munich’s urban development policy appears more clearly when examining the thematic guidelines attached to the strategic guideline mentioned in the previous paragraph. The difference between the thematic and strategic guidelines is that the former are specific statements prepared based on accurate knowledge as well as being binding for implementation (City of Munich, 2014, p.6). Accordingly, the thematic guidelines can be considered as the first transporter of the strategies from the list of objectives into the reality. In this regard, two of the sixteen available guidelines are of interest in this section, namely the guidelines number five and seven, and will be described below.

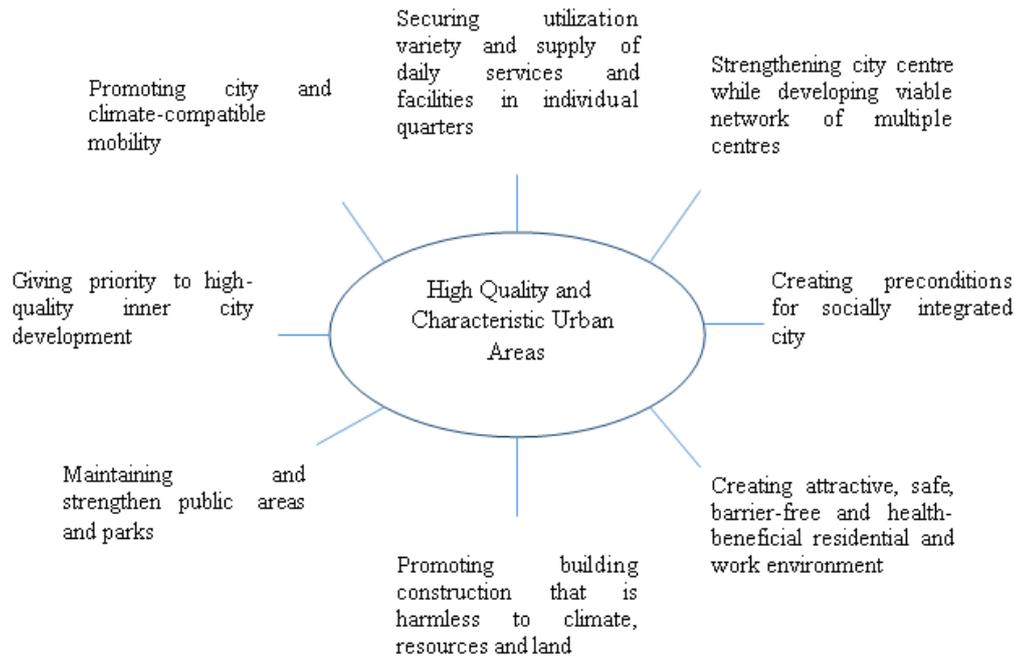


Figure 3-1: Specific objectives of Munich's spatial development. Source: the researcher based on (City of Munich, 2015a, p.11)

The thematic guideline number five, which is concerned with the spatial development, promotes “Creating future-oriented residential structures through qualified inner-city development” and adopts the three-fold motto “Compact, Urban, Green”(City of Munich, 2015a, p.17). Through this guideline and the related motto, the city sets a number of fundamental rules to guide its spatial development sustainably. Drawing on City of Munich (2015a, p.17), these rules can be summarized as follows:

- Maintaining a poly-central development trend;
- Minimizing the consumption of greenfield sites at the city outskirts and concentrating development within existing municipal area. According to this rule, the development on the city's outskirts is not absolutely forbidden, rather the outskirts are considered the last option to sustain land parcels for urban development;
- Promoting densification of housing development in strategic locations, such as those located around the public transportation routes;
- Preserving and extending the green areas and parks within the city;
- Seeking measures to further integrate the functions within existing areas.

Scholars like Illing & Thiel (2005) provide elaborated explanation of the motto “Compact, Urban, Green”. Compact stands for a dense, polycentric city structure with attractive features

to encourage living in the inner city, and where the buildings are energy and space saving (Illing & Thiel, 2005, p.15). Urban means mixing the land use so that working, shopping and leisure are possible in proximity to the living place, creating a social balance and promoting a city of short distances (ibid). Green represents maintaining and enhancing a sequence of green spaces as an integral part of the city structure to improve the natural environment and enhance the quality of life (ibid). To summarize, the thematic guideline number five combines urban containment with the diversification and enhancement strategies. It emphasises the relevance of the quality and diversity of making urban containment attainable. Furthermore, it employs good mobility and accessibility in boosting urban containment. In addition, it seeks a balance between urban containment, presented in inner-city development, and the development of multiple centres on compatible locations.

Whilst the thematic guideline number five focuses on spatial development, the thematic guideline number seven focuses on mobility and transportation planning. This last guideline promotes “Maintaining and improving mobility for all” and adopts the motto “city-compatible traffic management” (City of Munich, 2015, p.51). This thematic guideline aims at decreasing the overall traffic size and increasing the dependence on more environmentally-friendly means of transportation (City of Munich, 2015a, p.17). In its details, the guideline addresses comprehensively a number of themes, including public transport, car traffic, parking, commercial transport, traffic and mobility management, cycling, walking, and road network (Reiss-Schmidt, 2013, p.12). The city administration considers the guideline crucial for planning its urban development effectively and deals with it as a precondition for attaining the planned densification and sought quality (City of Munich, 2015a, p.17). This last statement shows how the city administration employs an individual policy strategy, the mobility strategy, to enable the proper implementation of the other two strategies, the urban containment and the enhancement of the urban quality.

In essence, the review of the strategic guideline and the two thematic guidelines supports the statement that PM seeks the strategies defined in favourable compact city policies in an integrated manner. The guidelines promote cross-cutting urban development principles and measures related to the containment of urban growth, development of mixed use and high-quality city quarters, and providing several modes of mobility. In addition, the review supports the statement that PM pursue a moderate compact city policy by stressing the development of polycentric city structure. This statement is justified by the theoretical review of compact city trends, where polycentric development is categorized as a moderate trend of compact cities.

### **3.4. Policy implementation tools**

#### **3.4.1. Implementation tools of the urban containment strategy**

The previous overview of Munich's urban development policy reveals the policy's interest in an urban containment strategy. The city employs several approaches to enable the implementation of this strategy, including stimulation of infill development and limitation of urban sprawl. In addition, it employs a set of integrated tools that are established at different spatial levels to implement the strategy's approaches. These tools include informative tools, regulatory instruments, as well as strategic projects and will be illustrated in the following sections.

##### **3.4.1.1. Informative tools**

In Munich, the utilized informative planning tools to implement the urban containment strategy comprise the documents related to PM and some local planning studies and reports. These tools inform respective stakeholders about the city's urban development concept and objectives, which include the prioritization of inner city development and the restriction of new development on the outskirts. Furthermore, the tools guide stakeholders to realize the objectives by illustrating a general implementation framework as well as exemplary cases. Munich provides conditions to secure a significant role of these informative tools in guiding its urban development sustainably. For instance, it has turned the specific objectives of PM as binding objectives for the city departments and sectoral plans (City of Munich, 2015b, p.11). Likewise, the city council adopts PM and gives it priority over the land use plan, although the adoption of an urban development policy is not mandatory in the Federal German law (Evans et al., 2005, p.51). Accordingly, PM has become a key informative instrument to promote urban containment in Munich.

The Munich Regional Plan, developed by RPV, is another informative tool facilitating the implementation of the urban containment strategy in Munich. Through its detailed texts, the plan offers a long-term development concept, and a number of objectives and principles of the intended regional development (RPV, 2001). In addition, the plan outlines the regional green belts, the recommended locations for future settlement, and the development axes of the public transportation system (RPV, 2014b). In terms of settlement development, the plan aims at concentrating development within existing districts, integrating residential areas and workplaces, reducing vehicle-based mobility, and coordinating the settlement development with the development of public transportation system (RPV, 2014a). The regional plan is a binding planning instrument; thus, it has a strong effect on the local land use plans (ibid). To

sum up, this regionally-established informative tool supports Munich implementing its urban containment strategy through countering urban sprawl and focusing new development in existing urban areas and around public transit routes.

Additionally, the national level offers a number of informative planning tools supporting the implementation of urban containment strategies at the local level. A significant example is the Federal Building Code (BauGB), according to which local land use plans must be prepared. This tool comprises statements and regulations delivering informative and regulatory functions. As an informative tool, the BauGB strongly promotes infill development concepts and discourages outer development (ARL, 2008, p.205). Accordingly, states' governments and municipalities are required to integrate infill development in their land-use plans as well as in their urban development programmes (IMF, 2016, p.17).

Another example of national informative tools is the National Urban Development Policy. This is a joint initiative that aims at developing and exchanging innovative solutions for well-functioning cities (BMUB, 2015, p.6). The initiative consists of three strategic elements: Good Practices, a Campaign for City and Urbanity, and a Communication Platform (ibid). The Good practices have been focusing on schemes that promote the implementation of infill development such as the "Urban Redevelopment West" and the "The Social City", which are also applied in Munich and will be detailed later in this chapter. The initiative guides the efforts to elaborate these schemes and sustains continuous funding for the schemes' implementation (BMUB, 2013).

The National Sustainable Development Strategy is one further example of informative tools launched by the Federal Government that facilitate the implementation of the urban containment strategy in the German cities including Munich. This tool sets 21 sustainable development rules in combination with specific goals and measurable indicators (Press and Information Office of the Federal Government & Government, 2012, p.28). One of the strategy rule, namely the fourth rule, promotes sustainable land use that supports intergenerational equity. Under the umbrella of this rule, the Federal Government aims at reducing the consumption of undeveloped land for urban development and transportation purposes to 30 hectares per day by 2020 (ibid). In order to achieve this aim, the Federal Government has been adopting a parallel policy to strengthening infill development in existing urban areas and has launched a nationwide project to identify infill potentials in the cities (Federal Institute for Research on Build Urban Affairs and Spatial Development, 2013).

### 3.4.1.2. Regulatory tools

In addition to the informative tools, Munich integrates regulatory instruments to realize its urban containment strategy. At the local level, Munich utilizes the Land Use Plan with Integrated Landscape Planning, which is often called the zoning plan or preparatory land plan. This land use plan is adapted to the principles of the regional plan (LH Muenchen, 2016, p.1). It is a formal planning instrument for the long-term development of the entire area of the city (LH Muenchen, 2015a). It regulates the spatial distribution of various utilizations, including building areas, green spaces, and sites for public facilities (LH Muenchen, 2016, p.1). Owing to the fact that this is a preparatory plan, it grants no construction rights to property owners (ibid). Yet, it enables the residents to see the long-term developments (ibid). For the city departments, the plan constitutes a binding basis for all consequent development decisions and plans (ibid). For instance, only districts designated for urban development in the zoning plan are eligible to obtain development rights (City of Munich, 2015a, p.16). The land use plan is different from traditional zoning plans that control the location of development. The difference is reflected in enabling the planning authorities to manage the timing of development. That is to say, the plan gives the authorities the right to reject granting a building permit if they believe that it is not yet the right time for developing this location (City of Munich, 2005, p.44). The planning authorities in Munich utilize this plan as a tool to facilitate the concentration of development in areas within the city and reduce the use of undeveloped land (ibid). Priority in granting development permissions is given to inner city projects rather than those on the outskirts (ibid). In order to maintain a balance, the needed area of undeveloped land is calculated regularly (ibid). In brief, this regulatory tool provides a margin of power and flexibility to slow down the outward expansion while avoiding shortcomings in the supply of land.

In addition to the Land Use Plan, the Federal Building Code is another fundamental regulatory tool supporting the implementation of Munich's urban containment strategy with a focus on the infill development approach. Sections 161 to 174 of BauGB regulate the use of an instrument known as Urban Development Measures, which can be used to stimulate a rapid and uniform development of urban areas significant for the public interest. In Munich, this instrument facilitates the execution of large-scale projects for the development or the redevelopment of urban districts according to the municipal urban development goals (LH Muenchen, 2017b). The instrument includes measures such as acquiring land parcels by the municipality and readjusting the involved land parcels in order to meet the public demand for space and create districts provided with adequate social and technical infrastructure, amenities, public transportation, and public green space (ARL, 2008, p.264). In terms of the

development costs, these are significantly covered by the gains of the increase in property value resulting from upgrading the area (LH Muenchen, 2017b). To enable the successful implementation of this instrument, a well-functioning land administration departments is essential to restructure the property rights technically and legally (ARL, 2008, p.264).

Likewise, the sections 136 to 171 of BauGB offer another regulatory instrument to support to infill development that is called Urban Redevelopment Measures. The sections define the meaning of urban redevelopment and stipulate how to plan, execute and fund urban redevelopment. In this context, urban redevelopment conveys diverse infill development interventions with several purposes including the alleviation of urban deficits. In addition, the sections illustrate the meaning of urban deficits and point out two major states of deficits. First, the inability of a district to meet the needs of its citizens due to deteriorated physical conditions. Second, the incompetence of a district to provide sufficient utility compatible with its position and function.

#### 3.4.1.3. Fiscal tools

Munich employs a bundle of fiscal tools to partly cover the costs of the approaches of its urban containment strategy. One of these fiscal tools is a fund provided by the German Federal Government and The Bavarian State Government. Both governments adopt specific programs assisting municipalities to cover the costs of urban redevelopment measures (Federal Office for Building and Regional Planning, 2000, p.6). The utilization of these funding programmes is regulated by BauGB (ibid). According to these regulations, each government shall often share one-third of the total cost (ibid, p.8). The main utilized funding programs can be described as follows:

- “The Social City” is a prominent program for funding redevelopment which has been launched in 1999. It supports municipalities to secure sustainable development in disadvantaged districts while focusing on the strengthening of social cohesion in the addressed districts (BMUB, 2015c). Within the framework of this program, the states’ governments and the municipalities are supposed to seek comprehensive urban development concepts and objectives (ibid). In addition, they should elaborate the program to match their contexts (ibid). In Munich, the city administration has been incorporating the program into the guidelines and projects of PM (LH Muenchen, 2008). For instance, the city administration has been using the programme to increase the supply and the quality of the housing units in the targeted districts, to improve the open spaces,

and to establish social infrastructure and programs in these districts (City of Munich, 2005, p.43).

- “The Urban Redevelopment West” is a further funding program that has been initiated in 2004. The programme focuses on the concept of urban development without outward expansion (BMUB, 2013). Accordingly, it supports the redevelopment of urban districts that undergo functional losses due to demographic, economic or military structural changes (BMUB, 2012). The program assigns priority to comprehensive development concepts that aim at strengthening inner-city districts, revitalizing abandoned sites, or creating further solutions to develop residential areas (ibid).
- “The Active City and Districts Centres” is a grant program that has been established in 2008. It offers funding for comprehensive development schemes aiming to strengthen central urban areas -at various level- and increasing their functional diversity (BMUB, 2015a). The program involves measures that are socially oriented as well as urban and environmentally compatible (ibid). The programme addresses several themes that play role in strengthening urban centres such as jobs, housing, public spaces, mobility, services and facilities as well as the architectural identity.

In addition to the mentioned programmes, which are used in several German cities, Munich employs a locally initiated fiscal tool to finance the approaches of its urban containment strategy and other urban development approaches. The tool, which has been launched in 1994, is known as the Socially Equitable Land Use (SoBoN). It involves a set of rules requiring the beneficiaries of approved development plans to share a portion of the resulting costs (City of Munich, 2015c). Accordingly, private property owners have to share up to two-thirds of the increase in the value of their land (ibid). The generated share is utilized for providing social and technical infrastructure, public green spaces as well as subsidized housing (ibid). Moreover, SoBoN regulates the context of partnership and cooperation between the city and the civil society, including investors, landowners and the construction industry (ibid). Likewise, the previously mentioned Urban Development Measures and Urban Redevelopment Measures provides fiscal arrangements to finance projects serving urban containment in Munich, including the redevelopment of many former military camps or railroad (LH Muenchen, 2017a). Besides using fiscal instruments to provide funding for the implementation of the approaches of the urban containment strategy, Munich utilizes a fiscal tool to encourage the implementation of these approaches. The city administration uses a sort of fiscal incentives to stimulate the implementation of urban redevelopment schemes. These incentives are offered

in the form of a reduction in the income tax for private owners who take part in redevelopment projects (LH Muenchen, 2016f). BauGB offers the legal foundation for this incentive (ibid). The city administration refers to this incentive to convince more private owners to engage in redevelopment schemes voluntarily.

#### 3.4.1.4. Strategic programmes and projects

In addition to the ordinary policy implementation tools, Munich has been significantly employing strategic development project to achieve the objectives of its urban development policy and its urban containment strategy. Since the early 1990s, the city administration has been running a number of brownfield development projects in line with its objective of creating qualified internal development and minimizing the consumption of unsealed lands (City of Munich, 2005, p.17). Munich has special conditions that help to implement this type of projects. For instance, the relocation of a number of functions to new locations, including some industrial and commercial sites, Munich-Riem Airport, the central railway and the post office area, as well as the abandonment of many military barracks (ibid, p.44). These conditions have led to the clearance of large inner-city sites and making them available for redevelopment (ibid). The city administration has been regularly searching for these sites and investigating how to use them optimally (ibid). Through the implementation of megaprojects, Munich has managed to transform these brownfields into lively quarters integrating housing dwellings, employment, daily services and facilities, as well as leisure activities (Thierstein & Schmidt, 2008, p.3). Until 2008, the city has managed to generate 60.000 housing units through the redevelopment projects (ibid).

The planning of the projects is quality-oriented, focusing on the technical and social infrastructure and the ecological operability (City of Munich, 2005, p.17). Extensive analysis of the individual cases has been conducted to evaluate the feasibility, the compatibility and the impacts of the projects as well as to determine the appropriate compensatory measures to ensure a qualified development (ibid, p.44). In addition, the administration has organised urban planning competitions and involved all related stakeholders to secure the intended quality (Thierstein & Schmidt, 2008, p.5). Public-private partnership agreements between the city administration, property owners and developers have been ruling the development of these projects (City of Munich, 2005, p.47). The agreements have been drawing on SoBoN principles and Urban Development Measures (ibid). Additionally, the development of such projects necessitates a land information system that includes specialized geodata. Beside its cadastre system, Munich gradually expands the databases of its land information system, carrying out systematic surveys to collect focused information (City of Munich, 2005, p.46). The City Council

consider this land management instrument a prerequisite for enabling such urban development projects (ibid).

Development reports show that most of Munich's brownfields have been reused (LH Muenchen, 2016d). The reports also show that the emergence of such vast vacant sites is unlikely to take place soon (ibid). Accordingly, Munich has launched the Long-Term Settlement Development Project to enable the city to continue providing sustainable development options in the midst of the growing urban population and predictable housing shortage (ibid). The project has been exploring new scenarios for inner-city development and acceptable development of Greenfields within the city limits (ibid). In cooperation with three teams of external experts, the city administration has agreed on a number of potential sites and the associated development scenarios of these sites as follows (City of Munich, 2014c):

- Qualified densification of the quarters that were developed between the 1950s and 1980s, which resembles a quarter of Munich's populated areas. Three types of residential quarters have been investigated: uniformly structured settlements, single-family housing districts, and residential quarters in the city centre. In the coming years, the uniformly structured settlements are the most prominent target for the densification projects. The densification projects include the addition of new storeys, the extension of existing buildings and in limited cases replacing old buildings with new ones;
- Conversion of selected commercial zones into mixed-use zones. This kind of projects implies restructuring the existing buildings and creates new housing units;
- New development on the urban outskirts within the city limits. The planning of this development strategy gives special consideration to the balance with the landscape.

Actual examples of urban development projects relating to these development scenarios are integrated into the plans of the ten action areas - special city districts - that are addressed in Munich's urban development framework<sup>3</sup>. For instance, the 1<sup>st</sup> and 4<sup>th</sup> action areas involve the construction of new quarters at the city peripheries. The 2<sup>nd</sup> action area engages a densification project of existing housing area as well as it includes a conversion of commercial zones into mixed zones and introducing housing units. Likewise, the 3<sup>rd</sup>, 8<sup>th</sup>, and 9<sup>th</sup> action areas constitute restructuring projects of existing commercial areas to integrate residential functions<sup>4</sup>. The

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<sup>3</sup> For more details, look into Munich Future Perspective: Strategies, Guidelines, Projects (City of Munich, 2014c)

<sup>4</sup> For further details on individual projects visit (City of Munich, 2014c)

reuse of vacant military sites, such as the Bayernkaserne, is also involved in the 8<sup>th</sup> action area, as the aim is to integrate the whole potentials of an area. The design of each project as a result of a competition and is subject to stakeholders' participation. A closer look at a number of these densification and conversion projects reveals that they fall under urban renewal projects. This fact explains why such infill development projects benefit from the funding tools and programs mentioned before.

### **3.4.2. Implementation tools of the land-use mixture and the quality enhancement strategy**

In its urban development, Munich seeks the integration of land-uses and services in its individual quarters as well as enhancing the quality of the living environment in these individual quarters. A set of informative, regulatory, and fiscal tools and large-scale projects facilitate the implementation of this strategy. Owing to the fact that Munich adopts a comprehensive development approach, it is very likely to find implementation tools that serve more than policy's strategy. Thus, a number of the implementation tools that has been demonstrated in the urban containment strategy shows up again in the remaining strategies.

#### **3.4.2.1. Informative tools**

In Munich, informative tools establish the foundation for attaining a mixed-use development and an enhanced urban quality. The city's urban development policy, PM, is a fundamental local informative tool promoting the diversification and the enhancement strategy. Its strategic guideline that seeks high quality and characteristic urban areas and many of its thematic guidelines aim at securing the utilization variety in individual quarters and raising the quality. These guidelines have been addressed in section 3.3. PM identifies mixed-used development as integrating the residential and commercial facilities and providing a significant share of daily facilities in near proximity (City of Munich, 2015, p.10). Likewise, PM highlights diverse aspects contributing to quality enhancement. Examples include the compatible mixture of uses, proximity to facilities, efficient infrastructure, the quality of the building stock and cityscape, sufficient parks and opens spaces, the social integration, as well as the control of air and noise pollution (ibid, p.11).

In addition to PM, the Munich Regional Plan is another informative tool that promotes the mixed-use development in the city. Among its development principles, this regional plan advocates planning settlements' structures that provide employment opportunities, shopping and other daily facilities within the living area (RPV, 2014a).

#### 3.4.2.2. Regulatory tools

In addition to the informative tools, Munich's city administration employs few regulatory tools to implement the strategy of mixing the land use and enhancing the urban quality. The land use plan constitutes a primary regulatory tool to realize homogeneous mixed-use development and urban districts of adequate quality. In Munich, this tool integrates three components, which are the Land Use Plan with Integrated Landscape Planning, the Binding Land Use Plans, and the Land Use Ordinance. The Land Use Plan, the preparatory plan, identifies the general types of land use throughout the entire municipal territory (ARL, 2008, p.167). The Binding Land Use Plan defines the specific uses and the characteristics of the development within a local area, in agreement with the preparatory plan (ibid). The stipulations of both plans draw on the regulations of the Land Use Ordinances (ibid). These three components enable the integration of functions by two means. On the one hand, they introduce mixed-use areas as one of the four general types of land use in the city. Accordingly, Munich's preparatory Land Use Plan allocates exclusive zones for mix-use development. On the other hand, the regulations concerning the permitted uses in several specific categories enable blending uses and providing diverse services within individual quarters. For example, in the General Residential Areas and in the Special Residential Areas, it is permitted to construct shops, restaurants, facilities for religious, health, social, cultural, and sports purposes, as well as commercial enterprises that do not interfere substantially with living<sup>5</sup>. In short, multi-functionality is legitimate in most zones with varying degrees.

Regarding the enhancement of the urban quality, the land use planning creates several means to realize this strategy. First, the Land Use Ordinance set the preconditions for an adequate level of quality (City of Munich, 2015a, p.11). Second, the Land Use Plan ensures compatible distribution of land uses, safeguards green spaces and natural areas, and coordinates equitable distribution of public amenities and facilities. Third, the Binding Land Use Plans enforce commitment to the elaborated development schemes and the involved quality requirements.

#### 3.4.2.3. Fiscal tools and strategic projects

In Munich, a set of fiscal tools and strategic projects contribute jointly to the implementation of the strategy of mixing the land use and enhancing the urban quality. Existing urban areas and new development are both targeted. Urban renewal/redevelopment<sup>6</sup> projects and their

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<sup>5</sup> For detailed information on the permitted constructions to each land-use category visit (City of Munich, 2014c).

<sup>6</sup> The use of two terms: urban redevelopment and urban renewal results of the interchangeable use of the two terms in Munich context. Although the used German term "Stadtsanierung" means urban

associated funding programmes are prominent examples within existing districts. Since 1976, Munich city administration has been actively running urban renewal projects (LH Muenchen, 2016h). Reviewing the contents of such projects has shown that the city's administration puts together a set of measures and projects addressing interdisciplinary focal areas. This includes the infill development projects stated earlier, such as brownfield restoration, urban densification and urban restructuring. These projects have multiple goals among which is the mitigation of the physical deficits in existing urban areas (ibid). Other goals include increasing the social cohesion, the economic viability, the ecological operability, the energy efficiency as well as enhancing the open spaces and the social infrastructure (ibid). The projects are subsidized through diverse funding programs (ibid). Examples are the previously mentioned programmes the Social City and The Active City and Districts Centres in addition to the "Basic Urban Renewal" and the "Architectural Monuments" programmes (ibid). The programmes are co-subsidized by the German Federal Government, the Bavarian State Government, and Munich City Administration.

In addition to their role in existing built-up areas, leading projects play a vital role in securing a mixture of land-use and enhancing quality in new development areas. This role is exemplified in the ongoing development of two new districts on the city's periphery, namely Freiham and Munich's North-east. The two projects are part of the Long-term Settlement Development project presented in the previous section. Freiham has a surface area of 350 hectares, on which 8.000 housing units and 7.500 jobs have been planned (City of Munich, 2014b, p.7). Likewise, Munich North-east covers 595 hectares, which will offer home for 10.000 residents and 2.000 jobs (ibid, p.9). The two projects resemble exemplary green urban districts developed in coordination with the expansion of public transportation (City of Munich, 2014a, p.57). In addition to the mixed-use development, the districts are characterized by efficient social and physical infrastructure (ibid). Special attention is given to the landscape in respect of recreation and protection (ibid). Besides, energy efficiency solutions are integrated into the design of these projects, primarily in Freiham (City of Munich, 2014b, p.7).

The city administration attaches significant importance to both types of the mentioned projects, in existing built-up areas and at new locations. A number of these projects have emerged as part of the city's urban development policy and has even been incorporated in its 10 action areas. This situation reflects the importance of these projects in translating the city's

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renewal, in some of the official documents in English language the term urban redevelopment is used instead. Example is (City of Munich, 2014c)

urban development objectives into the reality. The city's administration has been regularly publishing detailed information about the preparation and implementation of such projects. The municipal report "Projects, Planning and Prospects: Work Report – 2014" is one of these publications, which is offered in English. Reviewing this publication as well as reviewing the specific information that has been published about the included projects on the city's official portal leads to the following observations:

- Before starting the planning process of these projects, preparatory investigations are carried out. This includes surveys, experts' opinions, data collection and analyses from diverse departments.
- The public are early informed about the projects and are comprehensively involved in the various phases of the planning process. Several public events and workshops are often organized to inform and include the citizens. The suggestions of the public are considered when setting basis specifications of a plan or project. Likewise, their feedback and comments are considered while developing the plan and completing it.
- The city's departments prepare the groundwork of the plans and seek the approval of the city council on the basics of the plan. The planning departments consider the public needs, in cooperation with owners and developers. In some cases, the City of Munich is the owner of the projects' sites.
- For most projects, urban development and landscape design competitions are performed in order to prepare optimal designs. The costs of the competitions are subsidized using the principle of Socially Equitable Land Use.
- The results of the design competitions are presented to the citizens through explanatory public events. The suggestions and feedback of the public are considered in revising the final revision of the projects' designs.
- The amended winning designs set the foundation for the binding land use plan that will regulate the development of a given area. This plan is the contract committing all parties to the planned development.
- Not all projects are addressing sites that are owned by the city of Munich. This situation implies cooperation and negotiation with property owners and developers. Likewise, not all sites are vacant. Accordingly, the city of Munich needs to settle several issues with owners, tenants and other users. The BauGB regulates most of these issues.

- The implementation of the projects is carried out in cooperation with large companies specialized in housing construction and renovation. Observed examples are GEWOFAG, GWG and MGS. The information offered in the listed examples states the involvement of the City of Munich in these companies, in holding their shares and in their supervisory boards. This means that the City of Munich shares the tasks with similar companies for faster and easier implementation while it keeps supervising the process.

### **3.4.3. Implementation tools of the accessibility and mobility strategy**

Munich focuses heavily on mobility strategies within its urban development policy. It maintains mobility planning closely connected to urban development planning. The institutional structure of its planning department facilitates this integration. The Transport Planning is one of the four sections of the Urban Development Planning unit (Department of Urban Planning and Building Regulations, 2016). The city administration employs instruments to define the intended mobility strategies, design implementation schemes, and help realize them.

#### **3.4.3.1. Informative tools**

The urban development policy, PM, constitutes the primary informative tool to guide the implementation of Munich mobility strategy. Its guidelines demonstrate the intended vision of the mobility development in the city and its surrounding. In this regard, the overall aim is to enhance all modes of mobility with attention to the social, economic and environmental sustainability. This involves solving inner-city traffic problems, maintaining attractive public transportation system, and facilitating walking and cycling (City of Munich, 2005, p.22).

The guidelines of PM are supported by an elaborated informative tool on mobility, known as the Transport Development Plan. This is a medium-term plan addressing the traffic development and management at different spatial scales within Munich (City of Munich, 2006, p.2). The plan is based on concrete data, deep analyses as well as forecasts of urban, demographic, economic and technical trends (ibid, p.4). It aims to reduce private-vehicle traffic, enable ecologically-sustainable transport modes including walking, cycling and collective transportation, as well as limiting traffic congestion (ibid, p.2). To achieve these aims, the plan sets concrete statements respecting the various modes of transport and their areas of application, such as parking spaces, pedestrian movement and cycle traffic, traffic management, or traffic and the environment (ibid). In addition, it defines a bundle of measures to be employed in the field of transport, like the road network or the public transportation system (ibid, p.3). The action measures are divided into three categories: definite, prospective,

and optional depending on their planning status (City of Munich, 2005, p.59). Integrating these action measures in the plan helps to raise the influence of this plan.

In addition to the local informative instruments, Munich employs regional planning instruments to direct its urban mobility strategies. The integral relationship with its surrounding, which generates extensive daily commute, demands regional mobility solutions (City of Munich, 2005,p.22). The previously introduced Regional Plan offers a comprehensive section on Mobility. It establishes a set of objectives, principles, and plans to develop all modes of mobility and their corresponding infrastructure as well as managing traffic (RPV, 2014b). The plan seeks objectives similar to those sought locally in Munich. Yet, the focus on the regional context enhances the accessibility of the city with the other centres in the region while managing the resulting traffic.

The “Settlement Development and Mobility in the Munich Region” project is an informative tool to guide transport development based on the regional analysis. It investigates the favourable conditions for new development in relation to transport routes while considering housing affordability (PV, 2010). The project has prepared strategies and recommendations for enhancing the implementation of the integrated local settlement and mobility policy in coordination with the regional plan (PV, 2010). It informs decision makers and developers about sustainable development locations in connection with mobility options.

#### 3.4.3.2. Regulatory tools

The Transport Development Plan, which is introduced as an informative implementation instrument, functions also as a regulatory tool to implement the mobility strategy. The plan is integrated with the Land Use Plan (City of Munich, 2005,p.59). Thus, it stands as a reference for plans and decisions related to transportation infrastructure and traffic management (ibid). In this way, the plan becomes binding for the city development.

#### 3.4.3.3. Strategic projects

Moreover, Munich uses the strategic projects to implement its mobility strategy. The city has been running strategic projects to enhance mobility and reduce traffic congestion. The “Park and Ride” and “Bike and Ride” projects are examples, which enable commuters to switch from private mode to public mode of mobility within the same journey and avoid unnecessary private automobile trips (City of Munich, 2005, p.60). Further examples are car-sharing and car-pooling (ibid, 58). The city has developed such projects through cooperation with scientific and business communities like the “Inzell Initiative”. This is a co-founded platform by the Munich City and BMW Group that involves traffic experts from governmental, scientific and industrial

institutions (Inzell Initiative, 2016). The involved parties share their experiences to develop solutions to mobility problems and test them through pilot projects (ibid). Accordingly, they hand their recommendations and guidelines to the responsible administrations (ibid). Measures that prove successful in the testing phases are usually adopted and employed extensively.

### 3.4.4. Policy implementation summary

After illustrating the instruments that Munich has been using to implement each of the strategies of the compact city policy, the instruments are summarized in this section. The summary is presented in Table 3-1. This four-columned table combines the policy strategies, the specific approaches involved among these strategies, the actions taken to realize these approaches, and finally the policy tools used to implement these approaches. This table will be used to elaborate the compact city policy model in chapter five.

Strategy	Approach	Action	Implementation instrument
<b>Urban containment</b>	Restricting urban sprawl	<p>Constraining development beyond growth boundary</p> <p>Prioritizing inner-city locations in terms of building permissions</p>	<p>Informative tools: National Development Strategy, National Urban Development Policy, Munich Regional Plan, and Munich Urban Development Framework</p>
	Promoting infill development schemes on previously-developed sites	<p>Redeveloping brownfields</p> <p>Increasing density of underutilized residential areas</p> <p>Increasing density and functions in underutilized commercial districts</p>	<p>Regulatory tools: Land Use Plan with Integrated Landscape Planning, Binding Land Use Plans, Federal Building Code BauGB, and Land Use Ordinance</p> <p>Strategic projects: Action Areas in Munich Urban Development Framework, Large-scale urban renewal and redevelopment projects, and large-scale urban development projects</p>
	Directing new development towards optimal locations	<p>Accelerating urban development process in selected new locations and equipping these locations with infrastructure, public transportation and amenities</p>	<p>Fiscal tools: Funding programmes from the German Federal Government, the Bavarian State Government, and Munich city administration, Urban development agreements based on the principles of Socially Equitable Land Use, and tax incentives for redevelopment projects</p>

<b>Utilization variety and enhanced urban quality</b>	Promoting proximate development	<p>Allocating exclusive zones for mixed-use development</p> <p>Permitting varying degrees of multi-functionality in most zones</p> <p>Coordinating equitable distribution of daily services and amenities in proximity to individual quarters</p> <p>Establishing a network of qualified district-centres in coordination with public transportation</p>	<p>Informative tools: Munich Regional Plan, and Munich Urban Development Framework</p> <p>Regulatory tools: Land Use Plan with Integrated Landscape Planning, Federal Building Code BauGB, Land Use Ordinance</p> <p>Strategic projects: Action Areas in Munich Urban Development Framework, large-scale development projects, large-scale redevelopment projects</p>
	Mitigating physical, social, economic, and ecological deficits in existing quarters	Running comprehensive urban renewal schemes, in integration with infill development schemes	<p>Fiscal tools: Funding programmes from the German Federal Government, the Bavarian State Government, and Munich city administration, Urban development agreements based on the principles of Socially Equitable Land Use</p>
	Developing new quarters of optimal quality	Carrying out project-oriented planning of new settlements with optimal urban and landscape design scenarios	
<b>Multi-modal mobility options and accessibility enhancement</b>	Facilitating mobility through efficient and environmentally-friendly public transportation system	<p>Coordinating settlement development with the extension of public transportation facilities</p> <p>Supervising the operation of the public transportation system</p> <p>Collaborating with the private sector to provide the public transportation systems</p> <p>Involving the scientific and industrial community to increase the efficiency of the system and reduce its environmental impact</p>	<p>Informative tools: Munich Regional Plan, Settlement Development and Mobility in the Munich Region, Munich Urban Development Framework, Transport Development Plan</p> <p>Regulatory tools: Transport Development Plan</p> <p>Strategic Projects: Inzell Initiative</p>
	Sustaining accessibility of reachable destinations through non-motorized mobility modes	<p>Coordinating mobility and land use policy</p> <p>Providing pedestrian and cycling facilities and road infrastructure</p> <p>Developing traffic management solutions for a safe and attractive environment</p>	

	Endorsing reduction of private automobile trips	Offering alternative services like car-sharing, Bike and Ride, and Park and Ride	
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Table 3-1: Summary of the compact city policy implementation in Munich

### 3.5. Reducing implementation barriers

This section explains how Munich has managed to reduce the theoretically expected barriers for the implementation of the compact city policy. The reviewed implementation tools in the previous section and other information that has been published by Munich City Council constitute key sources to understand the barriers' reduction mechanism. As indicated in chapter two, the expected barriers include social resistance, public investment budget deficit, loss of public open space, and finally fiscal disincentives to infill development.

#### 3.5.1. Reducing social resistance

Munich City Council has reported that not all residents are in favour of increasing urban densities (City of Munich, 2014a, p.2). The council has been adopting two mechanisms to gain the support of the residents. These mechanisms are exemplified in the combination of the densification projects with interventions that increase urban quality, such as upgrading the social and technical infrastructure, enhancing the public transportation facilities, reducing noise and extending the public green spaces, as well the involvement of the citizens in all planning phases and decision making (City of Munich, 2014a, p.2 , 2014b, p.33). In Munich, it is notable that the community participation is highly considered in the planning process. This significance has appeared while reviewing the strategic projects to realize the urban diversification and regeneration strategies earlier in this chapter. The city council has been using several means to distribute information about urban planning and development and discuss current issues with the citizens (City of Munich, 2014b, p.28). In addition, the council has reported the incorporation of several media to safeguard the involvement of a wide range of the citizens. For instance, Munich City Council has been running an information centre for the urban development known as Plan Treff and it has been organizing an annual exhibition called City of the Future (ibid).

#### 3.5.2. Overcoming budget deficits

Dealing with the budget deficits, Munich has undertaken a well-established approach to generating sustainable revenue for public investment. The earlier review of the strategies' implementation has revealed significant mechanisms that are used to fund the development projects. These are the urban development grants from the German Federal Government and

the Bavarian State Government, the financial arrangements concerning the Urban Development Measures, as well as the principles of the Socially Equitable Land Use. The governmental grants share two-thirds of the investment costs of a set of redevelopment projects. In addition, the principles of the Socially Equitable Land Use requires the beneficiaries of urban development projects to share the burdens of the development costs. In short, through these two fiscal instruments, the national government, the regional government and the civil society share the responsibility of financing the costs of the urban development including the provision of the social and the technical infrastructure. In addition, the city exploits public-private partnerships to implement urban investments for the public interest.

### **3.5.3. Preventing loss of public open space**

Securing open spaces is a challenging task in a densely-populated city like Munich. However, Munich has shown commitment to maintaining a balance between urban densification projects and the provision of sufficient public open spaces in terms of quality and quantity. The previously introduced urban development motto “Compact, Urban, Green” seeks a balance between the built environment and the green spaces. The city administration has explained that the determination to develop open spaces stems from the city’s awareness of the role of these areas in offering leisure areas for the dwellers, increasing the city’s aesthetic value and enhancing the environmental and ecological conditions (LH Muenchen, 2005, p.12). The city has been attempting to interconnect a series of diverse open spaces throughout its area, including large parks, neighbourhood green areas, plazas and streetscapes (City of Munich, 2015a, p.11). In practice, the city administration has been utilizing several instruments to meet the city’s needs of open spaces:

- The Land Use Plan with Integrated Landscape Planning is a distinctive planning tool that balances the built environment and the green areas. It forms the basis for the long-term development of open space areas (City of Munich, 2005, p.44). Drawing on the Bavarian Nature Conservation Act, the plan designates the valuable areas for natural protection, landscape management as well as for leisure purposes (ibid, p.34). The BauGB grants the landscape plan a legally binding status (ibid). In addition, Munich enforces a rule that implies the provision of 17m<sup>2</sup> of green public space for every inhabitant (Thierstein & Schmidt, 2008, p.4).
- Providing and enhancing public green spaces is partly realized through long-term key projects and programs embedded in Munich Urban Development Framework (LH Muenchen, 2005, p.7). The main projects include Munich Green Belt, Concept for the Inner

City, the Sequence of Large Green Area Developments, and the Isar Plan. Through such projects, the city attempts to offer a variety of functions that match the space potentials and strengthen them. For instance, Munich Green Belt incorporates a collection of projects aiming to provide recreational areas, foster the economic prosperity, and serve ecological purposes (City of Munich, 2005, p.55). Furthermore, it incorporates a cycle path of different thematic routes that are connecting Munich's cycle path ring with routes of the outlying communities (ibid). The Sequence of Large Green Area Developments Programme is another important example, which aims at upgrading the city's green structure and open spaces through extending 14 existing large area green connections (ibid). The programme aims at creating a continuous network of green structures starting from the green areas in residential quarters, passing through the major city parks, arriving finally to the Munich Green Belt (ibid).

- The urban redevelopment projects offer the opportunity to provide the existing districts with green areas and other public open spaces and to connect them with the major green areas in the city (City of Munich, 2015a, p.17). In selecting the ten action areas in PM, attention was given to areas where the provision of green and open space is below the city's identified average (City of Munich, 2014a, p.59). All regeneration/redevelopment projects address the development of green and open spaces (LH Muenchen, 2016c). The positive impact of green spaces on the physical, social and ecological qualities of the districts is the reason to include them in all regeneration projects (ibid). In order to meet the diverse interests and achieve aimed quality, landscape design competitions and public workshops are carried out (International Intervention Institute, 2006). The development of these green spaces is partly financed by municipal subsidy programmes (LH Muenchen, 2016c).
- The Socially Equitable Land Use rule is another instrument that Munich utilizes to establish the aimed green and open spaces. The beneficiaries of the urban development share their contribution to the development costs in the form of land instead of money (LH Muenchen, 2009, p.9). Thus, this instrument helps to provide the land plots to meet the local needs for green and open spaces as well as areas for compensation for nature and ecological system (ibid). Accordingly, the city can develop new areas according to its identified quality standards without exhausting the city with unbearable financial burdens.
- The city administration is currently developing an additional strategy for the long-term development of open spaces. It has commissioned a team of experts to investigate further strategies and potentials to create open spaces. In December 2015, the experts delivered

the conceptual report Munich Open Spaces 2030 (LH Muenchen, 2016b). The report has focused on three strategies for creating open spaces, which are the deceleration, densification and conversion (ibid). In 2016, the proposed strategies were presented and discussed with the citizens through an exhibition and related discussions (ibid). The city administration is evaluating the citizens' feedback before making its final decision respecting the use of these strategies (ibid).

### 3.5.4. Reducing fiscal disincentives of infill development

Little information has been obtained on how Munich deals the financial disincentives of infill development. The revealed mechanisms respecting the reduction of fiscal disincentives of infill development and land speculation are as follows:

- The Preparatory Land Use Plan, which shows clearly the future development of the entire municipal territory transparently, comprises one mechanism to mitigate real property speculation (LH Muenchen, 2015a).
- The principles of sharing benefits and costs of development included in the Socially Equitable Land Use help reducing the revenue of holding land for profit thus reduce speculation.
- The Urban Development Measures, which allow the municipality to acquire and force development of lands that are significant for public interest and their owners are unable or unwilling to develop these lands as planned. These measures which are actively utilized in Munich are likely to be playing role in discouraging speculation in the land market.

Table 3-2 below summarizes the mitigation mechanisms utilized in Munich to reduce the implementation barriers of the compact city policy.

Barrier	Mitigation mechanism
<b>Social resistance</b>	Quality oriented urban development and densification Regular publicity of urban planning and development information Citizens' involvement in planning and decision making
<b>Financial limitations</b>	Established grants from national and state governments to finance a share of public investments. Rules to share the costs of development with the beneficiaries (investors, owners)
<b>Loss of public open space</b>	Adopting a guiding principle of creating an interconnected series of public spaces and natural areas of diverse functions and properties Binding landscape plan integrated with the land use plan, comply the rule of providing 17m <sup>2</sup> of green public space per inhabitant.

	<p>Long-term projects embedded in the PM to enhance green areas serving economic prosperity and ecological and recreational purposes.</p> <p>Urban redevelopment projects. The urban development agreements and urban development measures stipulate financing the cost of open spaces.</p> <p>Seeking external experts' opinion to search further potentials for providing public open spaces.</p>
<b>Reducing speculation impact</b>	<p>Transparency and publicity of long-term plans</p> <p>Properly calculated and collected land taxation</p> <p>Urban development measures allowing the forced development of strategic locations for the common interest</p> <p>Socially Equitable Land Use principles requiring the share of costs and benefits of development</p>

*Table 3-2: Mitigation mechanisms of the compact city policy implementation barriers - Munich*

### **3.6. Mitigating anticipated negative impacts**

This section introduces the mechanisms practised in Munich to mitigate and avoid the anticipated negative impacts of urban containment strategies. Based on the previously identified negative impacts in the literature review, this section concentrates on avoiding the deterioration of the living environment, calming traffic, and reducing the escalation of housing affordability problems.

#### **3.6.1. Avoiding deterioration of the living environment**

Munich employs a number of approaches to safeguard the urban quality and avoid the deterioration of the living environment. These approaches focus on the avoidance of overcrowded quarters, overloaded social and technical infrastructure and loss of public open space. The approaches can be described as follows:

- Carrying out concrete analyses of the demographic, economic, social and environmental circumstances and features for defining the suitable locations for the densification.
- Preparing extensive investigation of the individual densification or redevelopment projects and determining the required interventions to avoid undesirable impacts and to increase the quality of life.
- Seeking experts' opinions for qualified densification scenarios and organizing competitions to look for more sustainable designs under the lead of the city administration. In addition, considering the citizens' needs and interests in the densification projects.
- Urban densification or redevelopment projects are undertaken under the umbrella of the comprehensive development that aims at increasing density while expanding green public

space, enhancing living conditions, upgrading social and technical infrastructure, enhancing mobility and reducing noise or other sorts of pollutions.

### **3.6.2. Calming traffic**

Likewise, Munich adopts a number of approaches that assist calming the traffic in the city and its surrounding. The approaches include:

- The adoption of a polycentric transit-oriented development model, in which the citizens' mobility is facilitated through several modes including the public transportation and non-motorized modes like walking and cycling.
- The interconnection between the development of the urban areas and the provision of the public transportation facilities, which creates an encouraging environment to use public transportation.
- The adoption of the concept of the city of short distances in designing the urban areas, which make services and activities accessible within a walkable distance.
- The utilization of various initiatives to reduce the use of the private automobiles, such as car-sharing, park and ride, bike and ride, as well as the cooperation with scientific and business community to elaborate such initiatives and prepare innovative solutions to manage the traffic.

### **3.6.3. Reducing housing affordability problems**

Alleviating housing affordability problems is among the most challenging tasks for Munich. Reviewing the documents of the city's urban development policy and some related development reports has revealed that Munich suffers two sorts of problems in the housing sector. First, the ongoing population growth has been increasing the housing demand in the city (LH Muenchen, 2012, p.13). This situation is pushing the real estate prices and the rental cost that have been already standing for years at a high level even higher and reducing the availability of affordable living places (City of Munich, 2015b, p.18). Second, the spatial gap between the different social- income groups is enlarging leading to a growing social polarisation (City of Munich, 2015b, p.8; LH Muenchen, 2012, p.13). The city administration has been addressing the housing problems as follow:

- Munich's urban development framework, PM, aims at relieving the housing market and making the living place more affordable (City of Munich, 2015b, p.44). Using planning and development instruments, PM has been attempting to establish the required conditions

for an adequate housing development, both qualitatively and quantitatively (City of Munich, 2015a, p.11). PM has launched an action programme known as Living in Munich, which identifies targets and actions for new housing construction as well as it introduces a housing policy (City of Munich, 2005, p.37). The policy aims at developing an adequate supply of regular and subsidised housing and achieving a socio-spatial population mix.

- Living in Munich V, which is the action program for the period 2012-2016, has pursued a set of techniques to realise the aimed housing objectives. The first technique comprises setting an annual target for the required housing units in general and for the subsidised housing units in particular. These targets are set based on concrete analyses and projections. In addition, the program has launched a working group known as Housing Construction Offensive that is responsible for the continuous activation of the achievement of the identified targets with deep engagement in individual projects. The second technique includes expanding the targeted groups of the different housing initiatives and programmes as well as increasing the budget assigned to social housing. This also includes the share for social housing in accordance with the principles of the Socially Equitable Land Use. The third technique focuses on the regulating the market of the residential municipal land to reduce the impacts of speculation and limit the price increase. The fourth technique includes providing legislations concerning the rental housing sector that can protect the tenants and control the increase in rents.
- In consideration of socially balanced housing development approach and an appropriate socio-spatial mixture, Munich plans new quarters according to the principles of 50-50 solutions (City of Munich, 2015b, p.44). According to this principle, 50% of the constructed housing units shall be developed through funding programmes and initiatives like Muenchen Modell, the income-oriented funding, the allocation of urban spaces to building societies, building communities and rental housing on a conceptual basis (ibid). In private development projects, the percentage of subsidised housing falls to 30%. In line with Socially Equitable Land Use, 30% of each private housing development project shall be suitable for middle-income social groups (LH Muenchen, 2012, p.22). Moreover, in areas that need strengthening of the social mixture while lacking municipal land, the city shall buy land parcels for subsidised housing projects with a target of up to 150 apartments per year (ibid, p.23).
- Munich has been largely depending on the redevelopment of brownfields to provide new housing units, particularly subsidised housing. Nevertheless, the estimations demonstrate that by 2030 housing needs will be two to three times the existing reserve and housing

market, mainly the market of the state-funded housing, will accordingly face critical challenges (City of Munich, 2015b, p.17). To avoid such a situation, PM utilizes long-term spatial development concepts to reduce housing problems. These concepts involve the densification of residential quarters established between the 1950s and the 1980s; restructuring commercial areas and converting it to mixed-use development generating new housing units, as well as expanding the urban growth at targeted locations such as the north-eastern periphery (ibid).

- Munich cooperates with the surrounding municipalities that enjoy potentials for further housing development to reduce the housing problems (City of Munich, 2015b, p.17). Relying on this regional approach has stemmed from the awareness of Munich City Council that solving problems like housing affordability and meeting the increasing demand can better succeed if targeted at a regional level, rather than being limited to the city level (ibid, p.14).

Table 3-3 below summarizes the mechanisms utilized in Munich to avoid the potential negative impacts of the compact city policy.

Potential negative impact	Limitation mechanism
Deterioration of the living environment	<p>Seeking optimal development/densification scenarios in cooperation with experts and academics</p> <p>Assessing the potential impacts of the scenarios and define the required intervention and compensation procedures</p> <p>Undertaking densification projects of comprehensive objectives</p>
Traffic congestion	<p>Adopting polycentric transit-oriented development</p> <p>Following the concept of the city of short distance and sustaining walking and cycling</p> <p>Running initiatives to reduce private automobile mobility</p> <p>Adopting a traffic management plan</p>
Escalation of housing affordability problems	<p>Adopting a housing policy aiming at relieving housing affordability problems</p> <p>Implementing an action programme that develops empirical solutions to housing affordability problems</p> <p>Running various housing development concepts for a balanced socio-spatial mixture</p> <p>Utilizing infill development schemes and guided development of new quarters to sustain housing supply and provide a share of subsidized housing</p>

Table 3-3: Approaches to reduce the negative impacts of the compact city policy - Munich

### 3.7. Factors facilitating the policy success

Based on the review of the compact city policy in Munich, the researcher has derived a set of factors that seem to facilitate the successful implementation of the policy. The factors are distributed in relation to the individual component of the urban planning and urban development systems, which are the planning authorities, the planning legislations, the urban development plans and policies, the process of preparing the plans, the process of implementing the plans, and finally the process of revising the plans. The derived factors are presented in Table 3-4 below.

Aspect	Facilitating factor
Planning authorities – roles and interrelations	Guidance provided by national planning institutions to direct the efforts of local planning institutions towards the sustainable urban development
	Cooperation between regional planning committee and local planning institutions seeking metropolitan development in integration with the regional development aims
	The inclusion of multidisciplinary departments under the umbrella of local urban planning and urban development institutions carrying out the urban planning and urban development jointly, examples are the planning departments of - spatial development and land use, landscape and green areas, urban renewal and housing development, mobility and transportation, and social development
	The assignment of the formulation of urban development plans, decision making, and distribution of resources to local planning institutions and the local council
Planning legislations	The correspondence of the legislations to the sought urban development visions and objectives
	Considering social justice in the legislation including the rules to establish subsidized housing in development projects, and avoiding the harm of low-income social groups in urban renewal projects
	The regulation of natural protection, preservation of biodiversity and green spaces, and the control of pollution in the urban development process
	Stipulation of how to share the costs of urban development (including technical and social infrastructure, and public green space) with the landowners and beneficiaries (Socially Equitable Land Use Principles and Urban Development Measures)
	Regulation of the public-private partnership agreements in urban development projects
	Stipulation of the use of the land management tools such as land readjustment in the implementation of urban development plans
	Permission of the acquisition of undeveloped or abandoned land by the municipality to ensure the availability of land for development

Plans' preparation process	Performance of the urban planning task on a continuous basis – regular update- considering the changes in the context circumstances
	Comprehensive consideration of the social, spatial, economic and environmental aspects of the planning process
	Targeting multiple spatial levels in the planning process – entire municipal area, quarters, projects
	Dependence on concrete datasets, reports, statistics in-depth analysis on various planning related aspects to understand the context
	Reliance on land information system with systematic surveys and inventories that keep geo-database updated
	Cooperation with external experts from the scientific institutions and business firms to find optimal development scenarios
	Outsourcing planning tasks at preparatory stages to private firms (example: urban design competitions) seeking optimal development alternatives
	Citizens' involvement in each of the planning and decision-making activities
	Assessment of the potential impacts of the planned scenarios and defining required compensation procedures
	Formulation of interventions and measures to achieve planned scenarios
Planning documents and policies	Adoption of national urban development policy guiding local development towards nationally agreed principles
	Joint formulation of a regional plan coordinating settlement development, expansion of the public transportation, and the protection of natural areas
	Preparation of comprehensive urban development policy (Perspective Munich) guiding the spatial development of the entire city in coordination with the social, economic and environmental aspects
	Formulation of preparatory land use plan showing clearly the aimed urban development on the medium and long-run
	Integration of specific sectoral plans with the comprehensive urban development plan and the land use plan such as landscape plan, mobility and transportation plan, and housing affordability action programs
	Formulation of comprehensive urban development plans for specific districts known as action areas
	Development of detailed plans for specific city districts known as binding land use plans
	Establishment of detailed plans describing the required interventions to achieve designed plans
Implementation process	Governmental grants from the federal and state governments to co-fund urban redevelopment projects
	Utilization of property tax revenue to finance urban development as a municipal resource to cover the development costs
	Execution of large-scale urban development/redevelopment projects for the fast and effective achievement of planned development

	Significant efforts by the city administration and local planning institutions to conclude urban development agreements with the private sector to implement large-scale development/redevelopment projects voluntarily or based on a formal act
	The rules of the urban development agreements providing for sharing the cost of urban development with the beneficiaries
	The rules of urban development agreements facilitate the re-adjustment of the addressed land parcels to implement the development plans and provide land for public use
	Taking the advantage of the well-functioning cadastre and land administration facilitating land re-adjustment and other land management tools and transfer of property rights involved in the urban development agreements
Monitoring and evaluation	Setting specific targets for the planned development and defining scales for measuring the amount of achievement
	Contracting external experts to measure and evaluate the achievement
	Publishing work reports on the achievement regularly, including detailed budgets of individual projects

Table 3-4: Factors facilitating the compact city policy success - Munich

### 3.8. Conclusion

Munich urban planning and urban development policy has been acknowledged for its merits among professionals and scholars. The review of Munich’s policy has shown the adoption of the strategies identified theoretically in the favourable compact city policy. The review has also illustrated the approaches, actions, and policy implementation tools that the city administration utilizes to implement the policy strategies. The identified approaches and actions will be used in chapter five to elaborate the model of the compact city policy. It is remarkable that the tools are designed in harmony so that they complete each other. For example, the directive tools present a planning vision where the legislations and development projects are designed to contribute strongly to realize this vision. In addition, the individual tools are designed to achieve cross-cutting objectives and serve multiple strategies simultaneously. For instance, urban densification plans consider upgrading the quality of the urban environment, providing several functions and services, and the coordination with the public transportation development plan and bicycle lanes. These two observations are likely to sustain the policy success. Furthermore, the review has revealed the unique role played by the development projects in implementing the policy. Such large projects appear to have a significant and quick impact on shaping the urban development as intended. However, the review has also shown the massive efforts made by the city council and corresponding authorities to plan the scenarios of these projects and to implement the projects. Yet, the well-

established urban planning and urban development system in Germany and in Munich offers regulatory tools and fiscal tools to facilitate the realization of these projects.

In addition, the review has helped to create an understanding of how Munich has managed to create an encouraging environment to implement the policy strategies and eliminate the anticipated negative impacts. The comprehensive and moderate design of the policy, which exceeds urban containment strategies turns to be a major mechanism. This helps maintain a balance between social, environmental, and economic sustainable development. Other detected measures include the establishment of sustainable means to fund urban development costs, such as the principles of Socially Equitable Land Use, and the involvement of the citizens in the various stages of the planning process. Finally, the study ends up deriving a group of factors that facilitated the successful implementation of the policy. In chapter five, these factors will be combined with the factors resulting from the other reviewed case in this research in order to elaborate the theoretical success determinants of the compact city policy.

## **4. Compact City in Practice: Successful Case – Developing Countries**

Like the previous chapter, this chapter aims at extending the theoretical knowledge on the compact city policy depending on empirical examples. Yet, this chapter addresses the compact city policy of Curitiba, an example of successful compact city policies in a developing-country city. The selection of this case, a developing-country city, is to explore the policy implementation in a context of different characteristics and obtain broader knowledge. It is important to mention that it was not possible to find rival alternatives of successful compact city policies in developing countries. The reviewed research indicates the uniqueness of Curitiba in implementing sustainable urban development policy in the context of developing countries.

The review of this case study builds on three groups of resources. The first group comprises Curitiba's master plan and other urban planning documents published by Curitiba's city administration and by the Institute of Research and Urban Planning of Curitiba. The second group includes primarily the Brazilian national urban development policy, which is known as The Statute of Cities. The third group comprises a number of peer-reviewed articles, conference papers, books' chapters, and reports that address Curitiba's urban development policy.

The design of this chapter and the adopted approach to constructing the needed knowledge are similar to those of the previous chapter. This chapter consists of eight sections. Section one provides a brief overview of Curitiba's urban context. Section two illustrate why Curitiba's compact city policy is perceived successful. Section three describes Curitiba's compact city policy and shows how inclusive is this policy. Section four reports the approaches and tools utilized to implement the strategies of the compact city policy in Curitiba. Section five presents the empirical means that Curitiba uses to create an encouraging environment for the policy implementation and reduce specific anticipated barriers. Section six describes the means used in Curitiba to limit the negative impacts that are theoretically expected to happen when implementing a compact city policy. Section seven derives a set of factors that facilitated the successful implementation of the compact city policy in Curitiba. Finally, section eight presents the conclusions of the previous sections.

## **4.1. Overview of Curitiba**

Curitiba, presenting the developing world, is the second reviewed case in this chapter. It is the capital of the Brazilian state of Parana in the South Region. The city is the largest in the state and the eighth in the country with a population of around 1.8 million people (Portal da Prefeitura de Curitiba, 2014b). It is part of the Curitiba Metropolitan that comprises twenty-six municipalities with 3.2 million inhabitants (ibid). The city occupies an area of 435km<sup>2</sup> and has a population density of 4317 inhabitants/km<sup>2</sup> (City Population, 2015). The current population growth rate is 1.7% (Portal da Prefeitura de Curitiba, 2014b).

## **4.2. Perceived success of the adopted urban development approach**

Curitiba has been promoted as an outstanding developing-country city that pursues a sustainable urban development policy following a transit-oriented development approach (Mercier, Duarte, Domingue, & Carrier, 2015, p.1455). The city's outstanding position stems from being an uncommon context for sustainable cities. It is held that developing countries are not typical contexts for sustainable development. For instance, in his book "Alternative Routes to the Sustainable City", Moore (2007) has named the chapter dealing with Curitiba's urban development "The Miracle of Curitiba". Similarly, Rabinovitch & Leitman (1996, p.46) have described Curitiba as a developing-country city that has challenged the conventional wisdom and that has managed to overcome challenges and create a sustainable urban environment relying on low technology approaches. In addition, some scholars have emphasized that Curitiba did not owe a special potential for a unique pattern of urban development (Macedo, 2013, p.335; Macleod, 2002, p.2). Curitiba faced urban-related problems similar to those in the southern Brazilian region, including tremendous pressure caused by an intensive flux of rural migration, where the majority of the migrants were poor (ibid). Additionally, the city had other problems such as inadequate services and infrastructure, loss of green spaces, traffic congestions and air pollution, informal settlements and flooding events (GIZ and ICLEI, 2014, p.1). Despite the mentioned problems, the city administration has succeeded to enhance the sustainability of the urban environment and improve the life quality (Rabinovitch & Leitmann, 1993). It is notable that this success has been acknowledged in several contexts.

In the context of international development organizations, many organizations have acknowledged the success of Curitiba's sustainable urban development policy. In this regard, Moore (2007, p.73) has listed a number of prominent organizations that have been considering Curitiba an example of sustainable cities. Among these organisations are the United Nations Education, Scientific, and Cultural Organization, the United Nations Environmental Program,

and the International Institute for the Conservation of Energy (ibid). In addition, Macedo (2013, p.349) has highlighted an earlier example of recognizing the city's sustainability, which is the selection of Curitiba as a showcase to host the 1992's UN-sponsored World Urban Forum in preparation for Rio-92. In the context of awards, Curitiba's aspiring urban development policy has been valued by some international awards. For instance, in 2010, the city was awarded the Globe Sustainable City Award for its excellent sustainable development, including its well-framed holistic policy and implementation (Globe Award, 2010). In 1997, Curitiba received the World Habitat Award for its innovative urban planning and management approach (Building and Social Housing Foundation, 1997). In the context of academic research, a considerable number of scholars have studied Curitiba's urban development. Searching for "Curitiba and Sustainable City" in the search engine Google Scholar brings about 11,400 results<sup>7</sup>. This example is just an indicator of the amount of international attention given to this case, considering that the search is limited to the English language. Many of these scholars have been interested in understanding the reasons behind Curitiba's success and have attempted to draw lessons from these factors (Macedo, 2013, p.347).

Previous scholars have indicated that among the major drivers of Curitiba's successful sustainable urban development is the urban planning and urban development policy that the city has been adopting (Macedo, 2013, p.347). This policy, which Curitiba's city administration calls a master plan, has enabled Curitiba to alleviate the problems associated with its rapid urban growth such as urban sprawl, housing challenges, social inequalities and the deterioration of its urban environment (GIZ and ICLEI, 2014, p.1; Gustafsson & Kelly, 2012, p.5). In this regard, attention is paid to the 1966 Master Plan, which presents a turning point for the urban development of the city. Curitiba maintains the vision and strategic guidelines of the 1966 Master Plan in its current master plan (Llyod Jones, 1996; Portal da Prefeitura de Curitiba, 2014a). The 1966 Master Plan has replaced the 1943 plan, which failed to manage the city's urban development effectively (Macedo, 2013, p.339). The reported disadvantages of the 1943 plan include the focus on physical aspects only, the separation of land uses, the concentration of most services in the city centre, and the reliance on a radial road system (ibid, p.345). In contrast, the 1966 Master Plan has the advantages of being an integrated planning scheme targeting multiple urban challenges and reshaping the radio-centric structure (Acioly Jr., 2003, p.132; Macedo, 2013, p.339). Additionally, the 1966 Master Plan was prepared

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<sup>7</sup> The search is carried out in February 2017 and is limited to the English language.

through a national competition, where the community was moderately involved through a series of seminars (IPPUC, n.d.).

Curitiba's current master plan is the result of accumulative adjustments of the 1966 Master Plan. The preliminary plan comprised a set of strategic guidelines, a zoning map, and the law of land use and zoning (IPPUC, 2004, p.32). Until 2000, moderate amendments were made to the plan to match the city changing dynamics (Macedo, 2004, p.542). In 2004, significant adjustments were applied to meet the legal provisions of the Statute of Cities<sup>8</sup> (UF Department of Urban and Regional Planning, 2011, p.115). This statute represents the national Brazilian urban policy, which seeks an urban reform through promoting the following key norms: "the social function of the urban property<sup>9</sup>; the fair distribution of the costs and benefits of urbanization; and the democratic management of the city" (Cities Alliance and Ministry of Cities, 2010, p.25). It appears that Curitiba's outstanding experience in sustainable urban development has allowed the city's authorities to take part in preparing this national policy. Curitiba is cited among few municipal authorities which participated in the formulation of the Statute of Cities (Cities Alliance and Ministry of Cities, 2010, p.35). Simultaneously, Curitiba has benefited from the statute by raising the effectiveness of its master plan and reinforcing the legal basis of its urban policy instruments (UF Department of Urban and Regional Planning, 2011, p.115). The municipal law no.11.266/2004 promulgates the new plan, which complements the guidelines established in the 1966 Master Plan, incorporates the policies and guidelines proposed at later stages, and matches the guidelines and instruments provided by the Statute of Cities (IPPUC, 2004, p.80). Drawing on IPPUC (2008b, p.5) and UF Department of Urban and Regional Planning (2011, p.116), the major adjustments of the master plan include:

- Defining and incorporating the directions of public policies for the municipality and metropolitan region: urban development policy, urban environmental policy, socio-economic policy, and the democratic management;
- Launching sectoral plans to deepen the foundation of the defined public policies and directing the public investment priorities;

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<sup>8</sup> The Statute of Cities is the Federal Law Nº 10.257 of 10 July 2001 which establishes the national policy for urban development through stipulating the contents of master plans and regulating their implementation instruments (Cities Alliance and Ministry of Cities, 2010, p.20).

<sup>9</sup> The social function of urban property can be defined as "Placing restrictions on the right of private land and property ownership with a view to constructing fairer and less environmentally predatory cities" (Cities Alliance and Ministry of Cities, 2010, p.16).

- Dividing Curitiba into nine administrative regions to enable the decentralised management of the city;
- Developing Regional Plans to incorporate the directives of the public policies in the administrative regions.

The Master Plan 2014 – 2024 is the latest revision of Curitiba’s master plan<sup>10</sup>. In this context, IPPUC (2014, p.2) considers the plan as a basic instrument for guiding and controlling the integrated development of the municipal territory. Additionally, it defines the plan as a municipal law which is drafted with all and aims to provide better conditions for the integrated, harmonious and sustainable development of Curitiba with the Metropolitan Region (ibid). The law 14.771 / 2015 delivers provisions and comprehensive details of the Master Plan including the elaborated adjustments. According to the provisions of article 4, paragraph 3 of this law, Curitiba’s Master Plan is composed of:

- Municipal legislation: law of land subdivision, law of land use and zoning, and the legislation of the urban policy instruments
- Sectoral Plans: administrative acts bringing the projects and actions to implementation, considering the principles of the Master Plan
- Strategic Plans: specific actions and projects in practice areas that cover the whole municipal territory
- Plans of the Regional Administrations: action plans for each of the regional, based on their needs and characteristics, considering the principles of the Master Plan, Sectoral Plans and other plans
- Neighbourhood development plans and neighbourhood plans: prioritizing development actions considering the interest of the community and the guidelines of the Master Plan and other plans
- Action and investment plans.

In addition to the urban development policy, scholars have considered the institutionalization of the planning and development process among the major drivers of Curitiba’s successful sustainable urban development. Parallel to the plan development, Curitiba has launched a number of institutions to be permanently committed to the planning and development process

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<sup>10</sup> According to the legislations of the Statute of Cities the master plan must be reviewed every ten years (IPPUC, 2014, p.3).

(Macedo, 2004, p.541). This involves the establishment of the Institute of Research and Urban Planning of Curitiba (IPPUC), which is an independent public authority in 1965 (Portal da Prefeitura de Curitiba, 2014b). The current mission of IPPUC includes coordinating and monitoring the urban planning and development process; and stimulating the implementation of the master plan through the formulation of detailed plans and projects including the elaboration of budget proposals (IPPUC, 2015a). Simultaneously, Curitiba's Housing Company (COHAB-CT) has been created as a metropolitan housing authority for financing, planning, constructing and managing low-income housing in Curitiba (Macedo, 2004, p.543). Among its other responsibilities, COHAB-CT has been in charge of accommodating families relocated from informal settlements (Macedo, 2013, p.345). Likewise, in 1963, Curitiba's Urbanisation Company (URBS) has been initiated to manage and regulate Curitiba's integrated transport network (Rabinovitch & Leitmann, 1993, p.22). This institution has been entrusted with the strategic planning, the public transport services, the taxi system, the public parking and the paving programs (ibid).

Besides the above-mentioned institutions, Curitiba has established an automated cadastre and land information system to support the planning authorities (Acioly Jr., 2003, p.133). Since the early 1980s, the system has been providing a platform that facilitates the planning process and provided planning authorities with a concrete base of information (ibid).

### **4.3. Inclusive and moderate compact city policy**

This section shows the extent to which Curitiba's compact city policy integrates the three favourable strategies of the compact city policy and how moderate is Curitiba's compact city policy. The section draws on the review of the policy's guidelines, which are laid in the 1966 Master Plan and in the public policies of the 2014 - 2024 Master Plan. The latter plan involves an urban development policy complemented with seven related public policies, which are Spatial Development, Urban Mobility, Environmental Protection and Cultural Heritage, Urban Landscape and Public Space, Housing, Metropolitan Region Development, and Funding of Socially Vulnerable Districts.

Before addressing the policy's inclusion and moderateness, it is important to mention that none of Curitiba's plans or policies calls the adopted policy as a compact city policy or uses compaction-related terms directly. Yet, the reviewed studies have validated the view that Curitiba's urban development policy is an example of compact development. For instance, Burgess, (2003, p.19) has introduced Curitiba's transit-oriented development as one of four common approaches to achieving a sustainable urban compaction. Similarly, Raven et al. (2012,

p.191) have addressed Curitiba's urban development policy as a compact development policy that can generate sustainable cities. Likewise, Rabinovitch & Leitmann (1993, p.9) have considered the transformation of Curitiba's urban development pattern into a linear, transit-oriented model as an adoption of a compact development policy. In short, Curitiba's urban development policy has been considered compact based on its detected characteristics rather than the label that the city authorities have been giving to this policy.

Turning to the inclusiveness and moderateness of Curitiba's compact city policy, the review of the 1966 Master Plan has shown that Curitiba's urban development policy is based on a three-fold guiding principle, which coordinates the pattern and density of the land use with the hierarchy of the road network and the public transportation system (IPPUC, 2004, p.28). This guiding principle promotes high-density, mixed-use development along major transit corridors, known as Structural Axes, while considering the social, economic, and environmental dimensions (IPPUC, 2004, p.28; Macedo, 2004, p.542). This guiding principle has been elaborated in the overall guideline of the current Spatial Development Policy, which is included in the 2014 - 2024 Master Plan. It seeks the association of the urban growth and urban densification with the integration between the public transport and the road system considering the social, environmental and economic sustainability (Article 17, law 14.771 / 2015). In addition, the review has shown that both master plans have further guidelines focusing more clearly on the theoretically identified strategies of the favourable compact city policy, which are urban containment, utilization variety and quality enhancement, as well as providing multi-modal mobility options. These guidelines, which can be found in the 1966 Master Plan and in the Urban Development Policy and the Spatial Development Policy of the 2014 - 2024 Master Plan, are listed in Table 4-1 below.

The listed guidelines show that Curitiba pursues an inclusive compact city policy, as the policy addresses the three theoretically defined strategies of the compact city policies. Regarding urban containment, the policy seeks sprawl containment, densification targets and prioritization of development within already developed areas. Concerning mixing the land use and enhancing quality, the policy adopts the principles of integrated functions, qualified and efficiently distributed services and public green spaces. In regard to the urban mobility, the key guidelines are established on collective transportation and pedestrian movement as well as traffic management. Elaborated guidelines on urban mobility and urban landscape are provided in the responding policy chapters in Law 14.771 / 2015.

Policy Strategy	1966 Master Plan <sup>11</sup>	Urban Development Policy <sup>12</sup>	Spatial Development Policy <sup>13</sup>
<b>Urban containment</b>	Accommodate growth along structural axes Limit development on the fringe	Maintain a balance between natural and built environment	Stimulate development in targeted densification districts  Promote the development of undeveloped, underutilized or unused sites in areas already provided with infrastructure and facilities
<b>Mixing the land use and enhancing the quality</b>	Integrate functions including residential use and economic activities, as well as entertainment  Revitalize and preserve historical area  Increase public green areas  Upgrade infrastructure and services  Qualify centre-neighbourhoods and neighbourhood-centres  Providing economic support	Integrate the urban functions  Promote the quality of life and environment  Preserve and extend the urban landscape  Reduce the social, economic and environmental vulnerabilities	Promote diverse typologies of buildings and land use  Integrate diverse, compatible functions  Distribute public services efficiently  Stimulate diverse activities in the historical area  Qualify neighbourhood centres in terms of infrastructure, public amenities and commercial and social activities;  Revitalize urban areas
<b>Enhancing mobility and increasing accessibility</b>	Operate an efficient and affordable public transportation system  Preserve areas for pedestrians  Reduce traffic congestion in the central district	Prioritize public transport system  Ensure accessibility to goods and services	Expand areas for pedestrian use  Facilitate the movement of all traffic sorts

Table 4-1: Promoting the compact city policy in Curitiba's urban development guidelines

In addition, the listed guidelines in Table 4-1 give indicators for the moderateness of Curitiba's compact city policy. For instance, the policy seeks reducing pressure on the central district while qualifying sub-centres, which are mentioned as centre-neighbourhood and

<sup>11</sup> Based on (ADB, 2008, p.2; Macedo, 2004, p.542; Rabinovitch & Leitmann, 1993, p.9)

<sup>12</sup> Based on the guidelines stated in (Law 14.771 / 2015 - Art.13)

<sup>13</sup> Based on the guidelines stated in (Law 14.771 / 2015 - Art.17)

neighbourhood-centres. Likewise, in planning the future development, the policy neither promotes the concentration of the development in narrow spots nor promotes the distribution of the development all over the city. In contrast, the policy promotes accommodating the future development along designated axes that are supported by public transportation and services.

#### **4.4. Policy implementation tools**

Urban planning and development institutions in Curitiba employ a combination of urban planning and management instruments to activate its development policy. The tools prescribed in this section are either previously mentioned by other scholars or presented in the current Master Plan. The new structure and the modified instruments of the Master Plan are rarely addressed in academic research. Consequently, the material provided by IPPUC is the main informing source about these instruments.

##### **4.4.1. Implementation tools of the urban containment strategy**

The previous section has shown that Curitiba's urban development policy aims to implement an urban containment strategy. The section has also shown that Curitiba employs several approaches to implement this strategy, including the accommodation of urban growth along the major transit routes, the stimulation of urban development in selected districts, and the restriction of urban development on the urban periphery. In addition, Curitiba employs a set of integrated tools to implement the approaches of its urban containment strategy. These tools include informative tools, regulatory instruments, as well as strategic projects and will be illustrated in the following sections.

###### **4.4.1.1. Informative tools**

In Curitiba, the Master Plans constitutes the main informative tools guiding the implementation of the urban containment strategy. The guidelines presented earlier in Table 4-1 articulate the intended norms and the parameters of this urban containment strategy. The guidelines seek limiting the dispersal of urban development, densifying growth along major transport corridors, and promoting development within developed districts, else known as infill development. In the 1966 Master Plan, the delineation of a series of major public transportation axes presents a fundamental directive to guide Curitiba's urban growth (Burgess, 2003, p.21). Another directive is the definition of secondary centres along the structural axes, as targets for development and densification (IPPUC, 2014a).

Moreover, the 2014-2024 Master Plan provides a set of non-binding plans that guide the long-term development process. For example, the Urban Structure: Future Vision is a directive plan informing future actions and investments (Law 14.771 / 2015 - Art.18). The plan is a spatial presentation of the urban development guidelines. It involves diverse themes, including the environmental protection areas and natural reserves, the urban landscape and linear parks, the existing and the proposed structural axes as well as other the road connections and the transportation terminals, the development centres, and the connections with the Metropolitan region (IPPUC, 2014a). The plan also identifies the level of intended densities in each of the city's districts (ibid).

The Macro-Zoning and the Occupation Densities are further examples of preparatory plans provided by the 2014-2024 Master Plan and stand as informative tools guiding the implementation of the urban containment strategies. These two plans direct the land use planning and the urban growth management in Curitiba (Law 14.771 / 2015 - Art.20 – paragraph.1). The Occupation Densities classifies the city's districts based on their gross densities into three categories, high-, medium-, and low-density districts, and defines the intended density range for each category (Law 14.771 / 2015 - Art.20 – paragraph.2). Additionally, the Macro-Zoning divides the city into eight macrozones based on their land use typology and their density (Law 14.771 / 2015 - Art.19). Table 4-2 summarizes the eight macrozones introduced in this plan and their respective description. As the table shows, three of these macrozones, namely the structural axes, the densification axes, and the medium density-areas, are key targets for urban densification, which is one of the approaches of urban containment strategy. Within these macrozones, the city administration defines sub-zones that designate roughly the areas that are subject to further densification, which are known as densification microcenters (Law 14.771 / 2015 - Art.23). The definition of the densification microcenters requires a Neighbourhood Impact Study (NIS) to investigate the impacts of the planned densification on the environment, infrastructure, roads and community as well as to determine required mitigation measures (ibid).

Macrozone	Description
Structural axes	Main growth axes, have characteristics of an urban centre, mixed-use and high density, supported by major public transport routes
Densification axes	Growth axes, complementary to Structural Axes, used for mixed development and medium density
Medium- density areas with a residential predominance	Benefit from the high capacity transport system, priority is given to Multi-family housing, neighbourhood services and commercial activities

Low-density areas with a residential predominance	Priority given to residential uses, respecting the natural environment and the infrastructure capacity
High, medium and low-density mixed-use areas	Areas used for residential uses, commercial activities and services with occupation density, respecting the natural environment and the infrastructure capacity
Areas for specific use	Areas used or designated for large institutional, industrial, commercial and service uses
Areas of controlled use	Areas where large forest cover exist or areas with relevant environmental characteristics, where the occupation of areas free of forest cover should be intensified, with the aim of seeking a balance between occupation and environmental preservation
Environment protection area	Areas reserved for the protection and conserving of the environmental quality and ecosystems

Table 4-2: Overview of land use and density macrozones in Curitiba. Source: Researcher based on (Law 14.771 / 2015 - Art.19)

#### 4.4.1.2. Regulatory tools

The law of zoning and land use is one of the regulatory tools that contribute to the realization of Curitiba's urban containment strategy. On the one hand, the law restricts urban sprawl by providing adequate control over the development on the urban periphery (ADB, 2008, p.4). On the other hand, the law supports infill development by facilitating the urban densification at targeted locations (Rabinovitch & Leitmann, 1993, p.17). The zoning regulations permit higher density and mixed uses along major transit routes (Macedo, 2004, p.542). The general concept of Curitiba's zoning implies a decrease in the density the further a land parcel is located from the centre of a Structural Axis (Rabinovitch & Leitmann, 1993, p.17). Figure 3-1 illustrates this zoning concept.

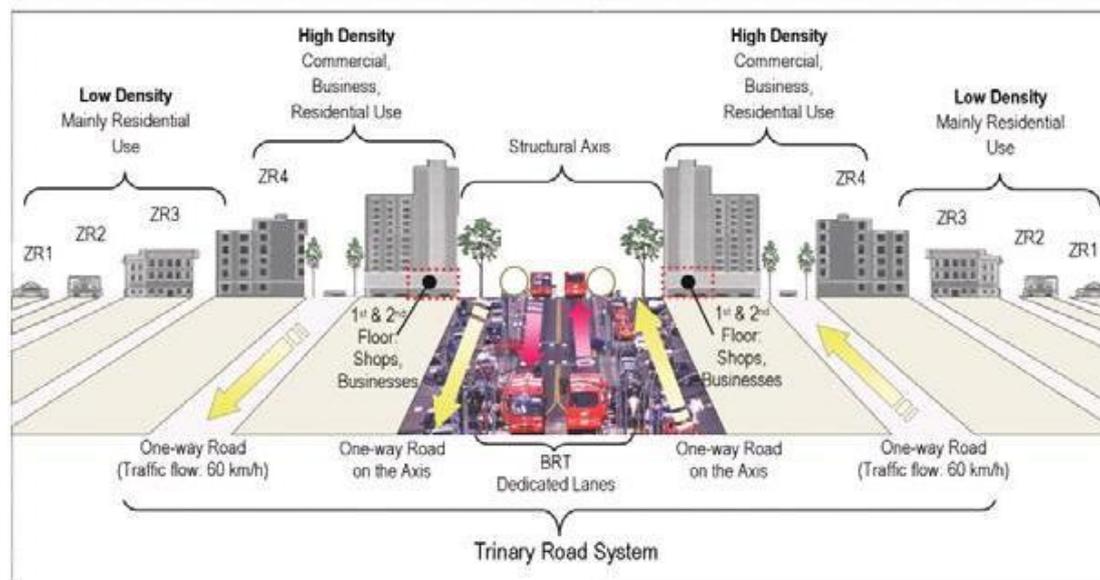


Figure 4-1: Curitiba's zoning system. Source: (ADB, 2008, p.28)

The Urban Policy Instruments constitute a further source of legal tools to implement the urban containment strategy in Curitiba. The instruments are part of the municipal legislation which draws on the urban development principles that are set in the Statute of Cities. The goal of the instruments is the full development of the social functions of the city and urban properties (Law 14.771 / 2015 - Art.131). This means development which is socially just, environmentally balanced, and compatible with available infrastructure and public services (Law 14.771 / 2015 - Art.16). It is notable that a set of these urban policy instruments contribute significantly to the implementation of the urban containment strategy. The respective policy instruments can be described as follow:

- The Compulsory Sub-division, Development or Utilization (CSDU) is an instrument that promotes an efficient and timely development of strategic urban areas, primarily the areas designated for densification. CSDU authorizes the Municipality to require the proper use of undeveloped, underutilized or non-used urban properties within clearly defined requirements and timeline<sup>14</sup>. Fiscal sanctions in form of Progressive Property Tax (PPT) and expropriation shall be respectively applied if requirements are not met within the given deadline. Additionally, CSDU is a legal instrument to limit the retention of land on speculation basis and increase the access to well-served urban areas (Cities Alliance and Ministry of Cities, 2010, p.97). Thus, CSDU is legal instrument regulating the land market and supporting the development and redevelopment of inner-city locations.
- The Onerous Concession of Development Rights (OCDR) is an instrument that allows existing urban fabrics to accommodate further development in conjunction with other goals. OCDR entitles the sale of additional development rights, beyond those established by basic zoning regulations, in areas already qualified to absorb densification <sup>15</sup>. In this context, granting an additional development potential is associated with the financing of urban interventions, including social housing construction, public space creation, or infrastructure and public facilities implementation. OCDR has roots in Curitiba's early urban development practices. Although the name was not stated directly, Rabinovitch & Leitmann (1993) and Acioly Jr. (2003) shed the light on one of Curitiba's practices of concept and mechanism similar to those of OCDR. The mentioned practice allowed developers to buy the right to develop up to two extra floors beyond the allowed limit from

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<sup>14</sup> Art.132 and art.133 of the Law 14.771 / 2015 provides detailed criteria for defining the areas where CSDU may be applied, the required obligations and penalties for not meeting these penalties.

<sup>15</sup> Art.146 – Art.151 of the Law 14.771 / 2015 stipulate the implementation of OCDR

the Curitiba's Housing Company in exchange for the funding of low-income housing (Acioly Jr., 2003, p.134; J Rabinovitch & Leitmann, 1993, p.28).

- The Transfer of Development Rights (TDR) is a further instrument that allows higher density urban development. TDR implies transferring the development rights from one urban property to elsewhere within the city<sup>16</sup>. For instance, the restricted development rights of urban properties that are preserved for natural, environmental or cultural purposes can be transferred to properties located in the densification zones. The owners of preserved land may either enjoy the development right on another owned property or sell this right to a third party. In addition, landlords who donate land for social housing can receive additional development rights under the same instrument. TDR has been early traded as a distinctive urban instrument in Curitiba. Rabinovitch & Leitmann (1993, p.28) consider TDR as means for urban compactness, preservation of the cultural heritage and promotion of social housing. Rabinovitch & Leitman (1996, p.50) highlight the role TDR play in generating revenue for funding social housing. Additionally, Jenks (2003, p.348) emphasises the role of TDR in distributing the costs of urban development equitably and in promoting a sustainable pattern of land use.

#### 4.4.1.3. Fiscal tools

Fiscal tools are significantly integrated into enforcing Curitiba's urban containment strategy. Several previous studies have focused on the influence of fiscal incentives in guiding the city urban development and giving momentum to the densification process. For instance, ADB (2008, p.13) has considered combining fiscal incentives with land use controls a significant aspect for realizing its prescribed linear development. Similarly, Fazzano & Weiss (2004, p.3) have considered the offered incentives as a key instrument for realizing Curitiba's urban development vision. They have also acknowledged the role of the incentives in giving flexibility for the urban development process and overcoming the rigidity of the Master Plan (ibid). Examples of the incentives that have been used to offer developers more return and promote the intended densification process include:

- Basic zoning incentives offered by the land use regulations that enable developers to establish high-density buildings in densification areas (ADB, 2008, p.4);

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<sup>16</sup> Art.152 – Art.156 of the Law 14.771 / 2015 establish the legal conditions relating to the application of TDR

- TDR that relaxes the land use regulations in target locations (ADB, 2008, p.4; IPPUC, 2009, p.9; Jonas Rabinovitch & Leitman, 1996, p.50);
- OCCR that grants extra building rights in densification areas (Mobiliza Curitiba, 2014).

Moreover, fiscal disincentives have been part of the fiscal tools that Curitiba has been implementing to achieve its urban containment strategy. The most prominent example is PPT which penalizes the holding of undeveloped or underutilized urban property in vital areas (Law 14.771 / 2015 - Art.139). Consequently, the economic advantages of holding property in this manner shall decrease. It is assumed that owners not gaining expected profit would either develop the property properly or transfer it. Theoretically, such retention of urban property, which challenges infill development, shall be reduced. However, the search of literature fails to find studies evaluating the actual effectiveness of PPT in reducing land speculation and guiding urban growth in desired directions. In addition, neither the municipality of Curitiba nor Institute of Research and Urban Planning of Curitiba provide details concerning the use of this instrument. However, a report prepared by a collation of social movements that are concerned with monitoring and enhancing the implementation of the Master Plan provides little information in this regard. The report indicates a limited application of the PPT to encourage the development of unbuilt and underutilized properties (Mobiliza Curitiba, 2015). In addition, the report recommends the preparation of an inventory of the addressed plots in the city by IPPUC, or the dissemination of the inventory to the public if available to activate the use of the mechanism (*ibid*). In addition, a popular survey to map unbuilt and underutilized lots in vital areas is launched by the Mapping Curitiba Campaign. In an early study, Llyod Jones (1996, p.49) has called for an action to enable an intensive implementation of PPT, thus reduce the real estate speculation and realize the social function of urban properties.

#### 4.4.1.4. Strategic projects and programmes

The implementation of strategic projects has been playing a key role in realizing Curitiba's urban containment strategy and energizing its transit-oriented linear model. For instance, the gradual implementation of a series of prescribed Structural Axes is among the influential projects guiding the development of the city (Llyod Jones, 1996). Likewise, the concentration of public investment in the technical and urban infrastructure within targeted development locations was undertaken to facilitate and encourage the intended densification in these locations (Acioly Jr., 2003, p.132).

On the other hand, Urban redevelopment projects, which are typical projects undertaken in urban containment strategies have been rarely mentioned in studies addressing Curitiba's

urban densification. Acioly Jr (2003, p.128) has mentioned that urban redevelopment projects aiming to reuse high-heritage value buildings are carried out drawing on TDR. Likewise, Llyod Jones (1996) has noted that Curitiba has been referring to the restructuring projects of existing spaces to use resources more sparingly and reduce expansion and has given the example of industrial buildings transformed into other functions. However, none of the two scholars has demonstrated the scope of these projects and how they are implemented in practice. It is important to mention that the stipulations of CSDU require redevelopment of underutilized property; however, the implementation mechanism and the role of the municipality in implementing this instrument are not illustrated.

#### **4.4.2. Implementation tools of the land-use mixture and the quality enhancement strategy**

The previous overview of Curitiba's urban development policy has shown that the city seeks the realization of several approaches that are related to the land-use mixture and the quality enhancement strategy. The approaches include the integration of the urban functions, the efficient distribution of public services, the qualification of neighbourhood centres, and the revitalization of urban areas. A set of informative, regulatory, and fiscal tools as well as many projects have been utilized to facilitate the implementation of these approaches.

##### **4.4.2.1. Informative tools**

In Curitiba, the guidelines of the 1966 Master Plans are among the main informative tools that guide the achievement of the integration of urban functions and the enhancement of the quality of urban environment. The guidelines of the 1966 Master Plan have been promoting a mixed-use development in integration with a fabric of urban parks and public services (Acioly Jr., 2003, p.132). In addition, the guidelines have delineated a network of development corridors and multiple centres. Moreover, the guidelines have been promoting the creation of a sound quality of the urban environment in individual city districts. The review of the details of these guidelines has shown the specific approaches that the city has been adopting. These approaches include preserving the nature and extending public green space, optimizing infrastructure and public transport and qualifying neighbourhood centres, regenerating the historical district, and revitalizing vulnerable districts suffering social, economic and environmental deficiencies. These approaches are associated with the context specifications, particularly those prevailed during 1970s parallel to the rapid urbanization that Curitiba has experienced at that time. For instance, the insufficient infrastructure systems, the congested city centre with neglected historical buildings, congested streets and disorganized public

transportation, and informal settlements in environmentally hazardous locations (Schwartz, 2004, p.40).

In addition, the 2014-2024 Master Plan comprises additional guidelines addressing the urban quality enhancement, which can be found in specific public policies attached to the Plan. For instance, the guidelines of the Municipal Policy of the Natural and Cultural Environment promote the conservation, protection, recovery and rational use of the environment, in its natural and cultural aspects (Law 14.771 / 2015 - Art.61). In addition, the Municipal Policy of Urban Landscape and Public Spaces sets specific guidelines concerning the maintenance and enhancement of the urban landscape and public spaces and their quality (Law 14.771 / 2015 - Art.71). Previous studies have shown that the city's environmental and green policy has been launched since the early 1970s (IPPUC, 2015c). The policy has been targeting the preservation and expansion of green areas, vegetation and forests to attain a balanced urban ecosystem and provide leisure areas for the residents (ibid, p.393).

Moreover, the Sectoral Plans, which are plans embedded in the 2014-2024 Master Plan to support the public policies, constitute a source of informative tools with binding nature. For example, the Municipal Plan for Environmental Control and Sustainable Development is a Sectoral Plan guiding the enhancement of Curitiba's urban environment (IPPUC, 2015b). The plan covers diverse themes, including environmental protection and pollution reduction, waste management, biodiversity conservation, rational use of land, natural resources and water, preservation and extension of green areas, and preservation of the cultural heritage. According to Curitiba's Municipal Secretary of Environment, the plan aims at reconciling the development of the city with the conservation of the environment (IPPUC, 2015c). It comprises diagnoses, fundamental guidelines, and proposals with timetables and specific goals (IPPUC, 2015b). The plan is prepared drawing on statistical data, indicators, and finding of empirical research carried out by IPPUC and respective public bodies (IPPUC, 2008b, p.9). In addition, the municipal budget status and possible financing mechanisms are considered in the plan preparation (ibid). Federal funding programmes, donations from global organizations and loans from international financing institutions are incorporated along with local resources (ibid). Another example of Sectoral Plans that contribute to the enhancement of the urban quality is the Basic Sanitation Municipal Plan (IPPUC, 2015b). It seems that the lack of infrastructure, particularly the sewerage system is still a challenge for urban development in Curitiba. In this regard, Macedo (2004, p.542) has highlighted the challenge of informal settlements that lack the effective infrastructure for proper disposal of sewage. It is important to mention that the Sectoral Plans has been focusing on the enhancement of the urban quality without addressing the integration

of the urban functions. None of the six available Sectoral Plans is tackling the mixing of the land use.

The 2014-2024 Master Plan offers another informative tool to mix the land use and enhance the urban quality, which is the earlier presented Macro-zoning plan. The plan assigns a major macro-zone for mixed-use development as well as it prescribes the integration of urban functions in several macro-zones, see Table 3-2. In addition, the plan plays a key role in directing the implementation of the quality enhancement approach. On the one hand, the macro-zones “Areas of controlled use” and “Environmental protection” endorse land use serving the protection and recovery of the environmental quality, which comprises part of the quality enhancement strategy. On the other hand, the Macro-zoning map introduces a macrozone subdivision known as “Development Poles”. This sub-zone schematically defines urban districts where urban regeneration/renewal shall be carried out (Law 14.771 / 2015 - Art.22, paragraph.1). The Development Poles are determined based on established criteria and specific indices, which are explained in the same law (ibid).

#### 4.4.2.2. Regulatory tools

In Curitiba, the main regulatory tools that endorse mixing the land use and enhancing the urban quality are the law of zoning and land use and the zoning map. For instance, the zoning law requires allocating a minimum of 30% of the municipal territory to low-density development (Curitiba, 2016). Likewise, the law requires the residential plots outside the densification targets to keep at least 50% of the plot areas unbuilt (ibid, p.39). The law of zoning and land use (Law 9.800 / 2000) was amended in line with the development of the 2014-2024 Master Plan (Agencia de Noticias da Prefeitura de Curitiba, 2016). The amendment was undertaken to enable the implementation of the newly emerging components in the Master Plan (ibid). The objectives of the amended zoning law include: stimulating the integration of urban activities with a balanced spatial distribution of services and activities, stipulating land use parameters that create adequate and functional urban spaces and provide quality of life for the population, and preserving the natural, cultural and landscape values of the city (Law 9.800 / 2000 - Art.2). The review of the legal provisions of the law of zoning and land use shows that they allow the integration of the land use functions in several zones, rather than limiting this characteristic to the zone titled: mixed use.

In addition, the law of zoning and land use and the zoning map designate zones and sub-zones subject to specific regulations in view of the enhancement of the quality of urban environment, such as: Environmental Protection Areas, Special Sector of Green Areas, Special Sector of the

Sanitary-Environmental Conservation Ring, Special Historical Sector (Law 9.800 / 2000, Art.33). The Sanitary-Environmental Conservation Ring comprises areas surrounding rivers, where the zoning law provides for transforming these areas into preserved zones to control floods, thus, making the city more resilient to climate change (Agencia de Noticias da Prefeitura de Curitiba, 2016). The prescribed land use regulations of such zones provide a legal basis for their preservation. Furthermore, the zoning defines a specific zone known as Urban Containment Zone. It comprises the peripheral area of the Municipal territory that is allocated natural preservation and environmental protection (Law 9.800 / 2000, Art.14). Drawing on the parameters of this zone and its allocation one may describe it as a green belt.

Moreover, Curitiba enforces specific pro-green space legislations to improve the quality of the urban environment. Rabinovitch & Leitmann (1993) and IPPUC (2015b) have drawn the attention to a set of these legislations, which address the preservation of forests and trees. For instance, the areas designated as forests shall not be converted to other uses when the vegetation cover is deteriorated, rather the responsible institutions shall restore these areas. In addition, the preservation of scattered forests on private properties is encouraged through a municipal legislation providing fiscal incentives in the form of, property tax reduction or suspension. In this regard, both scholars appreciate the role of the land administration system which maintains the land cover as one of the registered parameters. Moreover, the municipal legislation requires public permission for the cutting of trees from the Environmental Secretary. The plantation or donation of specific trees by landowners is a prerequisite for the permission.

#### 4.4.2.3. Fiscal tools and projects

Projects and fiscal tools support the realization of the planned mixed-use development and enhanced quality. In Curitiba, the role of these instruments is more apparent regarding the quality enhancement. The Strategic Plans, which are newly integrated components into the Master Plan, are examples of specific actions that implement the guidelines of the Master Plan. A number of these plans, which are under construction, addresses themes related to the quality enhancement such as the Plan for Mitigation and Adaptation to Climate Change, Urban Landscape Plan, Urban Forestation Plan, Sport and Leisure Facilities Plan, and the Plan for Integrated Management of Water Resources (IPPUC, 2015).

Unlike the integration of urban functions, the realization of urban quality enhancement owes largely to urban projects and fiscal tools. The reviewed body of literature has shed the light on the accumulative impact of small-scale projects and short-term programmes subsidized through innovative fiscal instruments. For instance, Moore (2007, p.88) has introduced such

“incremental projects”, which he defines as narrow and fast actions, as a strategic means to run the urban infrastructure efficiently and improve the urban quality between 1970 and 2000. Likewise, Macedo, (2004, p.541) has listed several projects which have been executed gradually under the supervision of IPPUC during the same period. The executed projects have targeted several fields and locations, such as infrastructure systems, road network and public transportation, new industrial district, as well as natural and historic preservation (ibid). Schwartz (2004), has confirmed the progressive approach in the urban renewal and revitalization of Curitiba. In addition, he has mentioned the integration of the municipal financial assets, support programmes offered by the State of Parana, and loans from development agencies to finance the urban projects (Schwartz, 2004, p.30). Rabinovitch & Leitman (1996, p.50) have considered the efficiently-collected property tax a fundamental resource for Curitiba’s municipal income, which is transparently used to finance urban projects. Nevertheless, no detailed information concerning the implementation and financing of such projects is available. In this regard, Moore (2007, p.91), has criticized the poor documentation of how Curitiba implemented such programmes and projects.

The previously introduced TDR is one policy instrument that is usually indicated in the implementation of urban development projects such as the regeneration of Curitiba’s city centre. It is notable that the city centre has suffered from the deterioration of its physical environment and the abandoning of its old buildings (Schwartz, 2004, p.40). Curitiba’s local government has launched initiatives to preserve the historical building drawing on the TDR as a fiscal instrument to finance the preservation (Schwartz, 2004, p.40). The local government has been providing fiscal incentives to stimulate the conversion of the abandoned commercial and industrial buildings into houses, restaurants or cultural spaces (Acioly Jr., 2003, p.133; Rabinovitch & Leitmann, 1993, p.25). The adaptive use of these vacant buildings has helped to protect the cultural heritage, increases the vitality and efficiency of using space and create space for diverse functions and activities in these places (ibid). No literature has been found to illustrate how the regeneration/renewal projects are carried out. TDR is utilized to subsidize other actions related to quality enhancement including the preservation of natural areas and open spaces (Schwartz, 2004, p.40). Both the Law of the Master Plan and the Law of Land Use and Zoning provide elaborated legislations that regulate the use of TDR.

The Joint Urban Operations (JUO) is another policy instrument enabling the local government to implement large-scale urban projects. Through JUO, the municipal council may coordinate a set of urban instruments and interventions to create a structural transformation in an urban area that leads to social, environmental and economic improvements (Law 14.771 / 2015

- Art.157). The instrument focuses on areas in which the densification of land use and intensification of urban functions is intended, and/or quarters necessitating revitalization (Law 14.771 / 2015 - Art.159). The previously introduced sub-macrozones Development Poles is an example of application area of JUO. Likewise, a map is annexed to the Master Plan defining roughly the sites that have higher priority concerning the implementation of JUO. It is notable that this policy instrument allows the implementation of various measures to enhance the urban quality, such as expanding public spaces and preserving natural areas, enhancing infrastructure and public facilities, improving public transport system and the road network, regularizing informal settlement and providing social housing (Law 14.771 / 2015 - Art.161). The design of JUO offers a solution to some of the financial problems that hinder the realization of such projects as it allows the municipality to sell certificates of additional development rights to invest in urban facilities and infrastructure (Law 14.771 / 2015 - Art.163, §1). In other words, the previously mentioned instrument OADR is one of the instruments incorporated in urban operations. The generated revenues and the additional development rights granted in the operation shall be implemented only in the defined operation area. In addition, the provisions of JUO assist organizing agreements between the municipality, permanent users, owners, investors, and executing companies to regulate the costs and benefits owed by each side (Law 14.771 / 2015 - Art.162). Based on these provisions one may interpret that JUO facilitates sharing the cost and benefits of investment in urban facilities among local government and other stakeholders. Likewise, it sustains the public-private partnership from the legal perspective.

It is important to mention that JUO is among the urban instruments promoted by the Statute of Cities. However, the reviewed literature has documented an earlier application of the instrument in Curitiba, namely since the early 1990s. In this regard, Acioly Jr. (2003, p.131) has indicated the voluntary utilization of this instrument, resting on the negotiations between the municipal council and developers. Acioly Jr. has attributed the success to apply the instrument to the high degrees of autonomy granted to local authorities in Brazil and a well-established and updated land registry (ibid, p.132). Similarly, Montandon & Souza (2007, p.116) have mentioned that, since the 1990s, Curitiba has been enforcing the urban operations instrument to realize urban redevelopment/renewal projects incorporating public and private investment in urban facilities. In addition, they have considered the further stipulation of the instrument drawing on the City Statute a great potential to boost the applicability and efficiency of the instrument (ibid, p.130).

Recently, Curitiba has started running large-scale urban renewal projects under the reshaped JUO instrument, such as the Green Line Urban Operations. This urban operation refers to the adaptation of an underutilized transit corridor to launch sixth structural axes with clean and rapid transportation, and high urban density of mixed-use development (Suzuki, Murakami, Hong, & Tamayose, 2015, p.14). The implementation of the operation was launched in 2009, combining the physical and environmental upgrade of the transportation and roads with the redevelopment of the underutilized industrial areas and vacant lots around the corridor (Curitiba, 2015). Between 2002 and 2009, an extensive economic feasibility analysis and a number of neighbourhood impact studies have been prepared before starting the implementation process (Curitiba, 2015). Twenty-two neighbourhoods are targeted in the renewal project, where the carried inventory reveals significant potential for renovation (ibid). The neighbourhoods are characterized by horizontal development, with residential and commercial use of low and medium standard (ibid). In addition, the renewal operation incorporates the provision of 20.000 m<sup>2</sup> linear parks along, with a 6-km bicycle lane and a tree planting programme (Lindau, Hidalgo, & Facchini, 2010, p.279). The views concerning the degree of effectiveness of the instrument are varying. On the one hand, Suzuki, Murakami, Hong, & Tamayose (2015, p.14) present the operation as a good example that partially covers the implementation costs by the revenue generated by the operation itself, namely through OADR. On the other hand, Neto & Moreira (2012, p.1), criticize the effectiveness of the operation in distributing the development costs and producing sufficient revenues to fund the planned interventions. In addition, they recommend further elaboration of the implementation mechanisms to take full advantage of the effective potential provided by the legal base (Neto & Moreira, 2012, p.6). In addition, (Neto & Moreira, 2012, p.5) criticize the limited involvement of the civil society in the planning and managing the Green Line operation, though the current legal framework establishes a wider domain for such involvement.

In addition to JUO, the City Statute has offered another policy instrument that facilitates the implementation of urban projects, which is the Land Readjustment (LR). The City Statute promote the utilization of these two instruments drawing on the belief that urban development projects are vital elements to materialise the objectives of the master plans (Montandon & Souza, 2007, p,116). LR can be described as rearrangement of land parcels to promoting greater use of the property with the provision of public facilities and infrastructure (Law 14.771 / 2015 - Art.169). The articulated provisions of LR demonstrate its applicability to create or expand parks and bicycle routes, provision of land for infrastructure and roads or to support social housing and points out that the Regional Plans shall define areas where LR shall be

implemented (Law 14.771 / 2015 - Art.160). The research process fails to obtain results of practical examples of LR in Curitiba. However, it turns out that a technical cooperation between IPPUC and the Japan International Cooperation Agency has been established since 2005. This cooperation aims at enhancing the technical and administrative capacity of Curitiba's planning related organizations to implement land readjustment projects drawing on the Japanese and Columbian experiences in land readjustment projects. In 2012, pilot projects have been launched in Curitiba to proceed with the adaptation of the instrument to the local planning system. Enabling the land readjustment projects to be self-financing is the main focus of these pilot projects, considering that the instrument was previously used in Curitiba successfully for purposes other than enabling urban projects.

#### **4.4.3. Accessibility and mobility implementation tools**

##### **4.4.3.1. Informative tools**

Curitiba's transit-oriented development endorses strategies enhancing urban mobility and increasing residents' accessibility to services and activities. As stated earlier, the city planning approach integrates the road network and the public transportation planning with the land use planning. The 1966 plan presented the vision of distributing development along corridors of mixed-use secondary-centres, that are provided with services and public transportation. A set of informative tools, established in the 2014 Master Plan, guides the implementation of these strategies. For example, the guidelines of the Urban Development Policy and the Spatial Development Policy (table 3.1) outlines the general character of these strategies. They promote keeping urban functions and services readily accessible through an integrated transport network, which facilitates a variety of displacement modes including motorized and non-motorized modes, as well as individual and collective modes. In addition, the Urban Mobility Policy (Law 14.771 / 2015 - Art.39) presents a list of comprehensive guidelines to facilitate the movement of people and goods in the city and consolidate the metropolitan integration. The guidelines address several aspects that enhance the performance of the urban mobility system and mitigate the environmental impacts and socio-economic barriers. Moreover, a set of non-binding plans annexed to the Master Plan coordinating the future spatial scenarios of mobility and accessibility. This includes the previously mentioned plan Urban Structure: Future Vision in addition to the Road Structural Axes Plan and the Public Transportation Structural Axes Plan. The Sectoral plan for Urban Mobility and Integrated Transport constitute is a binding informative instrument directing the mobility and accessibility strategies. The plan establishes technical guidelines and explicit vision for the accessibility and mobility enhancement in

Curitiba and its metropolitan connections (IPPUC, 2015c). It seeks mobility with less aggressive factors to the community and the environment, prioritizing the walking, cycling and public transport (ibid, p.2). It addresses a set of themes including: accessibility, road system and traffic, public transportation, and freight transportations (IPPUC, 2015). The plan draws on analysis and forecast of topics related to the involved themes (URBS, 2008, p.10). Examples include conditions of roads and infrastructure, the status of operating systems, management models, threats and weaknesses, existing and planned funding programmes and investments, policies and management models, and forecast of future scenarios (ibid, p.11).

#### 4.4.3.2. Regulatory tools

Regulatory planning instruments also contribute to the implementation of Curitiba's intended urban mobility and accessibility strategy. For instance, the Law of Land Use and Zoning Map which requires mixed-uses development and high-density in zones around the structural axes and major roads with access to public transportation. Thus, the Law of Land Use and Zoning Map helps to make the services and activities easily accessible by walking or through using the public transportation. In this regard, Acioly Jr. (2003, p.136) has pointed out that this arrangement has enhanced the mobility in Curitiba, reduced the energy consumption and distributed the traffic load evenly instead of concentrating pressure on the city centre.

The land use plan is another example of the regulatory planning tools that have helped Curitiba to implement its urban mobility and accessibility strategy. Using this plan, the municipality has managed to dedicate significant areas for pedestrian traffic to facilitate walking as a mode of urban mobility (Macedo, 2013, p.343; Rabinovitch & Leitman, 1996, p.51). Similarly, the municipality has managed to provide 120 km of bicycle paths, which are mostly used for leisure activities rather than for daily commuting (Macedo, 2004, p.345). Scholars have mentioned that the biking has been dropped from the list of Curitiba's transport modes due to the city's topography and climate, which are not suitable for biking (Miranda & Rodrigues da Silva, 2012). Despite the priority Curitiba's assign to non-motorized transport modes, the empirical studies have revealed that their infrastructure and facilities are still less advanced than those of the motorized-modes (Miranda & Rodrigues da Silva, 2012). The municipality is studying a proposal to replace segments of the bus system with an underground rail system and to use the roads to expand the urban facilities for non-motorized modes of transport (Rosário, 2016, p.115).

#### 4.4.3.3. Projects and fiscal tools

Urban projects are playing a leading role in realizing Curitiba's planned strategy to enhance mobility and accessibility. The key applications include the gradual establishment of the

structural axes that has started since the 1970s (Macedo, 2004, p.544). Since then, the city has constructed five structural axes, where each axis is made up of a Trinary Road System (Rabinovitch & Leitman, 1996, p.48). In this system, the central road is assigned for express buses and surrounded by two roads for local traffic and parking, whereas the two lateral roads are high-capacity one-way roads flowing into and out of the city (Llyod Jones, 1996). The design of each axis assigns a significant priority to the public transportation system, which is currently a bus system. This design has several advantages such as contributing to the efficiency of the public transportation system, reducing the traffic congestion as well as providing opportunities for future transformation to a light rail system (Llyod Jones, 1996). A sixth structural axis, the Green Line, is under construction.

Parallel to the construction of the structural axes, Curitiba has established an efficient public transportation system based on buses, known as Bus Rapid Transport system (BRT) (Acioly Jr., 2003, p.132). The loans obtained from international organizations, such as the World Bank and IDB, constitute the main source to finance the development of its public transportation system (Schwartz, 2004, p.39). The system has a metro-like design of an integrated network going along with the hierarchy of the roadway system and the land use plan (Asian Development Bank, 2008, p.5). The system consists of five express bus routes along the structural axes, which are complemented by a number of inter-district bus lines on parallel arterial roads as well as an extensive feeder bus network on local roads (ibid). The city has intentionally decided for a low-technology transport system since this choice is more financially affordable for the city and more flexible compared with a light rail system (Rabinovitch & Leitman, 1996, p.49). For example, the city can also make use of existing roads and the local private firms can deal better with the operation and maintenance of buses (ibid). The low cost and low technology solution have saved the city enormous burdens and helped the project to be self-financing (ibid). Curitiba's bus system is managed by URBS that is the public entity responsible for guiding and regulating the process and works in cooperation with IPPUC to develop the system further (Rabinovitch & Leitmann, 1993, p.22). A number of private companies, which receive licences from URBS, operate the system according to imposed standards and regulations (ibid). The city applies taxes on certain modes of urban transport for using the urban infrastructure (Law 14.771 / 2015 - Art.40). This tax works as a fiscal disincentive to the use of private cars and as a funding tool to public transportation infrastructure (ibid).

In addition, scholars have pointed out that the integration of the public transportation system with the road hierarchy and the land use planning has been contributing to its efficiency (Macedo, 2004, p.544). The moderate cost of using the system, partly due to adopting a low

technology, has increased its attractiveness and efficiency (Rabinovitch & Leitman, 1996, p.49). The system pays attention to environmental protection and attempts reducing the consumption of non-renewable energies (Asian Development Bank, 2008, p.13). Since 1995, Curitiba has launched pilot projects and experiments to run buses with biofuel to increase the environmental advantages of its bus system (IPPUC, 2016). In 2009, the URBS has introduced the Green Line where the operating buses are run on biodiesel (ibid). In 2016, the Curitiba has launched a new project to develop new transportation solution aiming to reduce pollution and fuel consumption (ibid). This project focuses on electro-mobility as an attempt to take advantage of the high capacity generation of hydroelectric power in the region (ibid). The project receives fund from urban mobility programmes promoted by the Federal government (ibid). The city runs other projects and programmes to enhance non-motorized modes such as the Bicycle Traffic Strategic Plan and the Pedestrian Traffic Strategic Plan.

#### 4.4.4. Policy implementation summary

After illustrating the instruments that Curitiba has been using to implement each of the strategies of its compact city policy, the instruments are summarized in this section. The summary is presented in Table 3-3. This four-columned table combines the policy strategies, the specific approaches involved among these strategies, the actions taken to realize these approaches, and finally the policy tools used to implement these approaches. This table will be used to elaborate the compact city policy model in chapter five.

Strategy	Approach	Action	Implementation instrument
Urban containment	Restricting urban sprawl	Constraining development on the fringe  Strong control on large-scale shopping malls	Informative tools: Master Plan, Plan of Urban Structure: Future Vision, Plan of Macro-zoning, Plan of Occupation Densities
	Guiding urban development towards densification targets	Defining densification microcenter  Stimulating development along major transit corridors	Regulatory tools: Law of Zoning and Land Use, Urban policy instruments including the Compulsory Sub-division, Development or Utilization, the Onerous Concession of Development Rights, the Transfer of Development Rights
	Promoting infill development	Restoring historical buildings  Reusing underutilized/ abandoned buildings  Provoking development of undeveloped sites in	Strategic projects: Urban policy instruments including the Compulsory Sub-division, Development or

		areas provided with infrastructure and facilities	Utilization, the Onerous Concession of Development Rights, the Transfer of Development Rights  Fiscal tools: incentives offered from the Transfer of Development Rights and the Onerous Concession of Development Rights in addition to the disincentives of the Progressive Property Tax
<b>Utilization variety and enhanced urban quality</b>	Promoting proximate development	Integrating diverse compatible uses of lands in individual zones  Distributing public services efficiently throughout the city  Qualifying neighbourhood centres in terms of infrastructure, services, commercial and social activities	Informative tools: Master Plan, Municipal Policy of Natural and Cultural Environment, Sectoral Plan for Environmental Control and Sustainable Development, Basic Sanitation Municipal Plan, Development Poles in the Macro-zoning plan  Regulatory tools: Law of Zoning and Land Use, the Special Sub-zones, the Forests and trees preservation legislations
	Revitalizing urban areas and reducing social, economic, and environmental	Preserving historical buildings  Regenerating city centre  Coordinating urban operations to enhance the quality of selected areas with the provision of public facilities and infrastructure  Regularizing informal settlement  Extending public green areas and preserving forests and natural areas	Fiscal tools: the property tax, legal arrangements of the public-private partnership, and urban poly instruments including the Transfer of Development Rights and the Onerous Concession of Development Rights  Strategic projects: Plan for Mitigation and Adaptation to Climate Change, Urban Landscape Plan, Urban Forestation Plan, Sport and Leisure Facilities Plan, Integrated Management of Water Resources Plan, miscellaneous small-scale projects and short-term programmes, large urban renewal projects in Development Poles using the policy instruments the Joint Urban Operations, and the Land Readjustment
<b>Multi-modal mobility options</b>	Operating an efficient, affordable, and environmentally-	Integrating road network, public	Informative tools: Master Plan, Urban Development Policy, Urban Mobility Policy,

<b>and accessibility enhancement</b>	friendly public transportation system	transportation, and land use  Constructing structural axes and prioritizing public transport lanes  Launching public transportation system  Developing Green Line  Investigating Electro-mobility	the plan of Urban Structure: Future Vision, Road Structural Axes Plan, Public Transportation Structural Axes Plan,  Regulatory tools: binding Sectoral Plan for Urban Mobility, Law of Land Use and Zoning, Zoning Map  Strategic projects: gradual projects to establish the public transportation system
	Facilitating the movement of all traffic modes	Preserving areas for pedestrians  Reducing traffic congestion	Fiscal tools: Loans from development organization, and Federal subsidy

*Table 4-3: Summary of the compact city policy implementation in Curitiba*

## **4.5. Reducing implementation barriers**

This section demonstrates the mechanisms employed in Curitiba to overcome the theoretically defined obstacles for the implementation of the compact city policy. The section draws on the information stated directly by the city planning institutions or scholars, and on the interpretation of the information presented in the previous section. Four major barriers are addressed including social resistance, public investment budget deficit, loss of public open space, and finally fiscal disincentives to infill development.

### **4.5.1. Reducing social resistance**

It is held that urban compaction policies provoke social resistance from the residents of the targeted densification areas and lack of preference of prospect users. Little research was obtained respecting the social resistance against the planned densification in Curitiba. The conducted research has provided evidence confirming the success of the city to achieve high densification targets whereas it has failed to indicate how appealing was the densification to the citizens (Mercier et al., 2015; Moore, 2007). Drawing on the compact city theories and the performed review of Curitiba's urban development studies, three aspects seem to contribute to reducing the social resistance to this approach, which can be detailed as follows:

- The moderate involvement of the community in the planning process. However, this involvement has been criticised for being more informative rather than participatory, with clear comparison with the western model and disregarding the military regime prevailed in Brazil until the 1980s (Portal da Prefeitura de Curitiba, 2014a). During the elaboration of the 1966 Master Plan, the city council has organized a series of seminars and public forums through which the elaborated plan was presented and citizen's feedback collected (ibid).

In this regard, Macedo (2013, p.345) has reported that in 1965, Curitiba's mayor has established this voluntary approach to make the planning process democratic, contrary to the prevailing in other Brazilian cities. Macedo has criticised this approach for being an incomplete participation process; yet, he has appreciated the impact of this participation in the context of Curitiba (ibid). In addition, Rabinovitch (1992, p.72) has considered the well-informed citizens through an accessible information system, and the involvement of the citizens in planning their neighbourhoods according to the local authority guidelines catalyst to endorse the development plans. Currently, the Statute of Cities requires Citizens' participation in the planning process and provides rules and guides to ensure its effectiveness (Cities Alliance and Ministry of Cities, 2010).

- The resulting equilibrium between the increasing in density and the enhancement of the quality of life in the city. The provided infrastructure and public facilities in the densification areas seem to have increased the citizens appeal to such locations. There is adequate evidence that the city's integrated development policy managed to enhance the living quality and run the urban system efficiently for several decades. Mercier et al. ( 2015) and Moore (2007), who are quoted above for criticizing the level of citizens' participation have confirmed the success of the policy to enhance the quality of life in the city. Payne & Jennings (2002, p.40) have stated that the city has the highest average standard of living among Brazilian cities and that it is the most planned green city among the cities of Least Developed Countries' cities. In a more recent study, Rosário (2016, p.117) has listed a number of indicators which show the continuous enhancement of the urban quality in Curitiba. A significant indicator is the ranking of Curitiba as the best Brazilian city in 2015 where this ranking was based on an assessment that addresses 500 aspects in 5665 Brazilian municipalities (ibid).
- Curitiba's tapered zoning system that offers a variety of land use patterns. Thereby, it meets the demand of citizens' looking for lower-density development, however, in a regulated manner rather than diffused.

#### **4.5.2. Overcoming budget deficits**

Generating sustainable revenue for public investment is among the main challenge for implementing a compact city policy as well as other types of policies. The project and fiscal tools introduced earlier in the implementation of the three strategies indicate a number of sources that are used to finance public investment in the city. These sources are:

- Urban instruments that are already enforced such as TDR, OADR and JUO, which facilitate sharing the costs of urban development and establishing a partnership with the private sector. In addition, the LR instrument which is subject to further development with the hope to enable self-financing urban readjustment projects. As well as the sought utilization of PPT that shall be employed in public investment.
- Property tax, where the efficient land information system and transparency mentioned as aspects sustaining the effectiveness of this source (Rabinovitch & Leitmann, 1993, p.28).
- Funding programmes from the state of Parana and the Federal government.
- Loans from international development agencies.

#### **4.5.3. Preventing loss of public green spaces**

Preserving and extending the public open spaces is one of the dilemmas in implementing a successful compact city policy. A vast body of the reviewed literature has highlighted Curitiba's success in addressing this dilemma. Curitiba has been adopting a policy known as Design with Nature, which aims at integrating the built environment with the green spaces (Rabinovitch & Leitman, 1996, p.48). As part of this policy, the Park and Green Space Construction Programme has managed to create a network of urban parks and green spaces, increasing the area of green space in the city from 0.5 to 52m<sup>2</sup>/capita<sup>17</sup> and planting more than 1.5 million trees (Llyod Jones, 1996; Macedo, 2013, p.346). Curitiba has 34 public parks that cover around 18% of the city area (Suzuki et al., 2010, p.175). This significant expansion of the green structure has enabled Curitiba to have one of the world's highest rates of green area per capita despite the implementation of urban densification and the rapid population growth (Acioly Jr., 2003, p.133).

Curitiba's success in extending its green spaces is strongly related to its specific local conditions. The city is surrounded by rivers and has been suffering from serious problems due to frequent floods (Suzuki et al., 2010, p.175). Instead of opting for a technical drainage system to control floods, Curitiba has chosen a natural flood management system. This natural solution implies the transformation of the areas along the river basin and some other areas that are subject to flooding into parks as well as the construction of artificial lakes within these areas (Rabinovitch & Leitmann, 1993, p.38). The implementation of this solution was facilitated by Curitiba's zoning and its related regulations (ibid). The zoning has classified these areas as protection

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<sup>17</sup> Most recent survey indicate the raise of this figure to 58 m<sup>2</sup> per inhabitant (Rosário, 2016, p.114)

zones and the land use legislation has restricted the right to build on them (ibid). Scholars have considered this solution which created parks and leisure areas while solving the flood problems as a win-win solution (Suzuki et al., 2010, p.175). Likewise, this natural solution has saved the city substantial investment in a technical drainage system as the estimated cost of the technical system is five times the natural one (ibid). In this regard, it is important to mention that the cost included the relocation of landless people who used to live in the area and paying compensation; nevertheless, those people were moved to areas beyond the city boundary and that is also classified as environmentally hazard zones (Moore, 2007, p.86). Part of the financing of this project was generated through the property tax revenue, which has increased significantly since the value of the real-estates increased due to the establishment of the parks (Suzuki et al., 2010, p.176).

In addition to the floodplain parks, has developed a set of measures that form what the city calls pro-green policy (Rabinovitch & Leitmann, 1993, p.39; Spathelf, 2011, p.393). These measures include:

- A network of bicycle paths that are designed with integration with nature has been developed to connect the individual parks as part of the mobility plan.
- Preservation of existing woods through land use legislation, charging woods a lower rate of property tax as an incentive, and using TDR as a fiscal instrument to enable the preservation of the natural areas
- Intense greening and planting programs along the road network.

Finally, the policy instruments JUO and LR have been contributing to the extension of Curitiba's green structure. Additionally, the 2014-2024 involves a public policy on Urban Landscape and the Public Space.

#### **4.5.4. Reducing fiscal disincentives of infill development**

A number of detected mechanisms seem to help to mitigate the fiscal disincentives of infill development in Curitiba. These mechanisms are:

- The Law of Zoning and Land Use, which is integrated into the city densification policy. This law allows high-density development in areas designated for densification and allows a regulated increase in this density using urban instruments like TDR and OADR. Accordingly, the development at the densification areas is likely to bring higher benefits for developers and help to reach better equilibrium with the high prices of land in these vital areas.

- The urban policy instrument CSDU, though not fully implemented, provides a mechanism to reduce land speculation. The use of this instrument would regulate the land value in the market. Thus, the fiscal barriers to access land in densification zones could be reduced.
- The well-established and regularly-updated land information system, including the market value of land (Acioly Jr., 2003, p.133). This system helps to reduce the impact of speculation by providing information transparently to the citizens and authorities (Rabinovitch & Leitman, 1996, p.50). In addition, it increases the efficiency of the property taxation system; thereby, reduce the benefit from holding a property for speculation purposes (ibid).

Table 3-4 below summarizes the mechanisms utilized in Curitiba to reduce the implementation barriers of the compact city policy.

<b>Barrier</b>	<b>Mitigation mechanism</b>
<b>Social resistance</b>	Well-informed citizens and moderate civic involvement in the planning process The equilibrium between densification and quality enhancement Tapered zoning allowing a variety of land use patterns
<b>Financial limitations</b>	Urban instruments allowing the share of urban development costs and partnership with the private sector Property tax Funding programmes from the state of Parana and the Federal government Loans from international development agencies
<b>Loss of public open space</b>	Adopting a policy “Design with Nature” Creating a network of parks and green spaces through the “Park and Green Space Construction Programmes” Constructing floodplain parks “Pro-green policy” including bicycle paths through linear parks, forest preservation, and planting programmes Urban policy instruments JUO and LR
<b>Reducing speculation impact</b>	Law of zoning providing for high density and making development at densification targets attractive for developers Efficient property taxation system Urban policy instrument CSDU

*Table 4-4: Mitigation mechanisms of the compact city policy implementation barriers - Curitiba*

#### **4.6. Mitigating anticipated negative impacts**

This section introduces the practices and mechanisms adopted in Curitiba to avoid anticipated negative impacts of urban compaction or mitigating their impact. Regarding the previously

identified negative impacts in the literature review, this section concentrates on avoiding the deterioration of the living environment, calming traffic, and reducing the escalation of housing affordability problems.

#### **4.6.1. Avoiding deterioration of the living environment**

The prevention of deterioration in the urban environment includes avoiding overcrowded settlements and overloading of infrastructure and preserving the public open space. Reviewing Curitiba's urban compaction policy, one may conclude that the city has managed to mitigate such side-effects by using the following means:

- Adopting a guided densification policy that allows densification in areas that have been selected purposefully. The densification is only allowed in areas in which infrastructure and services can cope with the increase of the density in order to avoid negative impacts (Rabinovitch & Leitmann, 1993, p.28). In addition, the city authorities attempt to concentrate efforts and resources to qualify the districts assigned to urban densification. The current Master Plan defines Densification Microcenters as initial selections for further densification.
- Carrying out concrete studies to analyse the anticipated impacts of a densification process, and restricting the implementation of the densification processes to the areas in which no negative impacts are figured out (Serra, Dowall, Motta, & Donova, 2004). The current municipal legislation requires carrying out impact studies prior to licensing large-scale projects including those projects increasing the urban density (Law 14.771 / 2015 - Art.176). The studies analyse and identify the potential impacts on the environment, infrastructure and community and define the required compensatory measures accordingly (Law 14.771 / 2015 - Art.178). The analysis considers a variety of aspects including the population density, the facilities and services, the generated traffic and the demand for public transportation, the ventilation and lighting, as well as the urban landscape and the natural and cultural heritage (ibid).
- Regulating the densification process through the municipal law, which defines the maximum allowed density increase by each urban instrument or intervention, such as Article. 151 & 156 of the Law 14.771 / 2015.
- Integrating various instruments to enhance the quality of the urban environment in all city districts. The presented instruments in the quality enhancement section reflect the city's approach to qualifying the neighbourhood centres, regenerating the historical districts,

revitalizing vulnerable quarters and regularizing informal settlements, as well as preserving the natural environment and the landscape. In addition, the elaboration of Regional Plans and Neighbourhood Plans seems to contribute to the quality enhancement with a focus on the individual areas. The JUO which facilitates large-scale urban regeneration project is another promising mechanism for further enhancement of urban quality.

#### **4.6.2. Calming traffic**

The review of Curitiba compact city policy has shown that the city has been adopting a number of measures to ease the congestion of traffic in the city. These approaches are:

- The linear transit-oriented development model, which distributes the urban activities along the structural axes and the secondary-centres. Thus, avoid concentrating the pressure on limited centres and reduce the need for mobility.
- The efficient public transportation system and the integration with land use, including the design of the road network.
- The diverse instruments the city implements to support multi-modes of transportation and manage traffic in addition to the sought Urban Mobility Policy.

#### **4.6.3. Reducing housing affordability problems**

Curitiba has been pursuing a comprehensive policy to alleviate the housing affordability problems prevailing in the city. The rapid urbanisation has caused serious housing problems in Curitiba and has created a significant deficit of affordable housing (Serra, Dowall, Motta, & Donova, 2004). The rapid population growth has been accompanied by an increasing rate of the urban poverty, which in turn has led to the spread of informal settlements (Building and Social Housing Foundation, 1997). Estimates have shown that between 10% and 15% of Curitiba metropolitan region population are living in informal settlements, where the limited space within the city itself pushes the majority into neighbouring municipalities outside the city boundary (ibid). Nevertheless, and as stated earlier, Curitiba has been addressing the housing sector as an integral part of its urban development policy and has established a specialized housing authority that works with close cooperation with IPPUC, in parallel to the development to the city master plan. The 2004-2014 Master Plan comprises a housing policy, which strongly emphasises housing affordability as social right for citizens. In addition, the Master Plan incorporates an independent policy for upgrading and regularizing informal settlements, known as More Human Curitiba Fund.

Besides, Curitiba's actions and efforts to provide low-income housing have been internationally recognized. The World Habitat Award, which Curitiba was awarded in 1997, has highlighted some of Curitiba's innovative and good practices in terms of housing (Building and Social Housing Foundation, 1997). These good practices can be summarized as follows:

- A continuous supply of low-income housing units through the development of housing complex while attempting to construct a larger number of complexes with smaller areas to achieve a better social integration.
- Providing funding mechanisms for self-build projects.
- Continuous research efforts in cooperation with the public sector to identify innovative techniques to construct quality housing at low cost; likewise developing sample projects following the identified methods.

Besides the national funding for housing programs, the TDR which has been previously introduced as an urban management tool for densification is a major source for financing housing programs (Acioly Jr., 2003, p.133; Macedo, 2013, p.346). Part of these housing programmes focuses on the regularization of informal settlements (Macedo, 2004, p.542). TDR has shown success in achieving more social justice and makes financial surpluses available for social housing in Curitiba (Acioly Jr., 2003, p.127). Further urban instruments like the OADR and JUO which are employed for densification and quality enhancement contribute partly to the development of social housing.

In addition to the regular housing programs, Curitiba has randomly developed large-scale low-income housing projects, mainly while developing the structural axes and major transport routes. Such projects were constructed on land parcels that the city purchased and left aside while planning the road and transportation network (WAFA, 2011a). These measures reflect a far-sighted planning vision and serious attempts for an integrated planning policy rather sticking to a static master plan.

Table 3-5 below summarizes the mechanisms utilized in Curitiba to avoid the potential negative impacts of the compact city policy.

Potential negative impact	Limitation mechanism
Deterioration of the living environment	Adopting guided densification approach Densification impact assessment and identification of compensatory measures Defining upper limit for densification

	Integrating instruments to enhance the quality of the urban environment
Traffic congestion	Linear transit-oriented development The innovative design of the public transportation system Traffic management solutions sought in Urban Mobility Policy
Escalation of housing affordability problems	Housing policy is an integral part of urban development policy Running a specialized housing authority Regular actions to provide low-income housing Utilizing urban policy instruments for densification and quality enhancement to subsidize social housing Random development of large-scale social housing projects

Table 4-5: Approaches to reduce the negative impacts of the compact city policy - Curitiba

#### 4.7. Factors facilitating the policy success

Based on the review of the compact city policy in Curitiba, the researcher has derived a set of factors that seem to facilitate the successful implementation of the policy. As mentioned in the review of the previous case, the factors are distributed in relation to the individual component of the urban planning and urban development systems, which are the planning authorities, the planning legislations, the urban development plans and policies, the process of preparing the plans, the process of implementing the plans, and finally the process of revising the plans. The derived factors are presented in Table 3-6 below.

Aspect	Facilitating factor
Planning authorities and interrelations	Providing national guidance to sustain the success of local planning institutions in urban development
	Granting local planning institutions and the City Council of Curitiba adequate autonomy to make decisions independently on development plans and budgets, and giving a margin of freedom for local innovation
	Involving multidisciplinary departments within the local planning institutions such as land use planning, housing authority, urban transport planning authority
	Appointing an independent local authority -The Institute of Research and Urban Planning in Curitiba- to formulate innovative development proposals and to steer, coordinate and supervise the urban planning and urban development
Planning legislations	Providing controls and parameters serving the aims sought in the development plans -for instance, the urban densification and the enhancement of the living environment
	Facilitating the implementation of the “Social Function of the Urban Property” including a rational use of land that is socially just, environmentally balanced, and compatible with the available infrastructure and services

	<p>Providing legislation on the use of land management tools - Urban Policy Instruments – such as the readjustment of land parcels, the change (transfer or increase) of assigned development rights, the acquisition of land or enforcement of subdivision or development of a land parcel for the public good</p> <p>Providing fiscal instruments to direct the urban development process towards the aimed objectives</p>
Plans' preparation process	Addressing the urban development process comprehensively considering spatial, socio-economic, and environmental dimensions
	Executing the urban development planning at various spatial levels: entire municipal territory, administrative regions, and neighbourhoods
	Updating the development plans every ten years
	Incorporating spatial data provided by Curitiba's land information system
	Cooperating with various local departments to collect information, statistics and develop analysis to understand the conditions on the ground
	Involving the community at low to moderate levels in the planning process
	Carrying out a continuous search for innovative solutions on how to implement the planned development
	Assessing the impacts of planned interventions on the context and identifying compensatory measures
	Cooperating with the planning research institute to assist local planning institution in the planning process
	Establishing development targets and prioritizing the achievement of the targets according to needs and resources
Planning documents and policies	Adopting a binding urban development policy guiding the development of the municipal territory -Master Plan
	Integrating sectoral public policies and plans with the Master Plan that further define the directions of the municipal development including urban environmental policy, socio-economic policy, and the housing development policy
	Formulating sectoral plans and strategic plans translating the policies into actions and projects
	Elaborating detailed plans for regional administrations and individual neighbourhoods which decentralizes the implementation of the urban planning and urban development processes
	Formulating development plans for disadvantaged urban districts
	Developing investment plans showing the municipal budget and priority public investments
	Creating preparatory long-term development scenarios showing the orientations of future development, especially concerning roads, transportation and green areas

Implementation process	Stimulating and supervising the implementation of the development plans by IPPUC
	Utilizing the Urban Policy Instruments as a local funding mechanism for the costs of urban development and realize the planned quality of the living environment
	Utilizing the Urban Policy Instruments to acquire land for providing public amenities – including public green spaces
	Utilizing the Urban Policy Instruments to hinder holding land for speculation
	Generating municipal revenue through properly calculated and collected property tax
	Employing the property tax – and progressive tax – as a tool to reduce the feasibility of holding land for speculation
	Running an automated cadastre and land administration system to enable the use of urban policy instruments and proper evaluation of the property tax
	Making use of governmental grants to support the implementation of urban development projects and infrastructure
	Benefiting from loans made available by international agencies to finance urban development interventions of proven feasibility
	Opting for low-technology development solutions to rationalises the financial costs and bringing economic benefits to the city by integrating local firms and labour
	Following an accumulative implementation approach of small-scale projects
	Occasional implementing of changes and large-scale urban development or urban renewal projects
Monitoring and evaluation	Coordinating inter-departmental cooperation to provide required information and analysing the achievements of the urban planning and urban development process
	Establishing agreements with civil society organizations to monitor the execution of the master plan compared to the announced principles and objectives
	Producing a yearly report revising the achievement of the Master Plan and assessing its adequacy

*Table 4-6: Factors facilitating the compact city policy success - Curitiba*

## 4.8. Conclusion

The review of the Curitiba compact city policy has shown the promotion of this policy as a unique and successful example in the developing countries. The review has also shown the adoption of the policy's strategies that the theory considers favourable. The adopted strategies represent a state of balance between concentrating urban development along major transit corridors, distributing sub-centres of multiple functions and diverse daily services, and providing a good access to public transportation services. In addition, policy combines densification efforts with the upgrading of the deteriorated physical environment, the

mitigation of flood problems and the regularization of informal settlements. Furthermore, the review has also illustrated the approaches, actions, and policy implementation tools that Curitiba utilizes to implement the policy strategies, which will be used in the next chapter to elaborate the model of the compact city policy.

The review has shown the utilization of the city's master plan including its guidelines, binding plans, and the annexed zoning regulations to implement the policy strategies. It has also revealed the application of land management tools to enable the realization of the policy strategies both spatially and fiscally. In addition, it has highlighted the practised mechanisms to reduce the obstacles that challenge the policy implementation. A prominent example of these mechanisms is the establishment of a planning research institute to take the responsibility of forming development interventions and funding mechanisms. Besides, the rational financial approach that the city has been adopting including the small-scale projects and the domestic and low-technology solutions. Likewise, the adequate given autonomy to the local government simplifies the implementation, as in operating the land management tools and the fiscal incentives related to them, and the decisions on settlement regularizations and flood mitigation solutions. Concerning the avoidance of the anticipated side-effects, the study points to the comprehensive policy design, and the performance of impacts analysis of planned interventions and the identification of the compensatory measures as positive contributors. Finally, the chapter has presented a set of factors that facilitate the successful implantation of the policy. In the next chapter, these factors will be combined with those derived in the case of Munich to expand the factors that determine the success of a compact city policy.

## **5. De-contextualizing the Compact City Policy**

In the previous chapters, two cases of successful compact city policies have been analysed, Munich and Curitiba. This chapter draws on the findings of these cases to extend the compact city policy model and elaborate the policy success determinants that were developed based on the literature review. The chapter focuses on three aspects that aroused through the theoretical review and have been explored in the two cases: the degree of comprehensiveness and rationality of the policy design; the compatibility between the policy and the characteristics of the urban context; and the extent of effectiveness of the policy implementation process. The chapter addresses two research questions, which are:

- Which alternative approaches and actions can be used to operationalize the compact city policy in practice?
- Which trends and practices are likely to enable an urban planning and urban development system to operate the compact city policy successfully?

The chapter is divided into five sections. The first section compares the utilized policy strategies in the two cases with the theoretically identified favourable policy strategies. In addition, it assembles potential approaches and actions to implement each strategy. Accordingly, it presents a portable compact city policy model including the favourable strategies, and potential approaches and actions to put these strategies into practice. The second section sheds the light on a number of the context characteristics in Munich and Curitiba, which the reviewed literature has considered critical in shaping the policy design. Moreover, the section compares the impact of these characteristics on the design of the compact city policy in each case. The third section combines the factors that facilitated the effective implementation of the compact city policy in each case and constructs propositions on the trends and practices that can facilitate the effective implementation of the compact city policy. The fourth section develops a conceptual framework of the settings that enable the compact city policy to contribute positively to the sustainable urban development. This framework will establish the basis for the empirical research in the next chapters. Finally, the fifth section presents the conclusion of this chapter.

### **5.1. Comprehensive policy design**

The previously constructed theoretical propositions about the success determinants of the compact city policy state that adopting a policy of comprehensive and moderate design is an essential aspect to the policy success. The reviewed body of literature has shown that a

moderate and comprehensive policy incorporates strategies focusing on urban containment, utilization variety and quality enhancement, and multi-modal mobility. In addition, the reviewed literature has offered information on the approaches used to put the policy's strategies into practice. Nevertheless, the offered information is not detailed, especially concerning the utilization variety and enhancing urban quality strategy and the multi-modal mobility strategy. Therefore, the implementation of these strategies was extensively investigated in the review of the compact city policies of Munich and Curitiba.

The investigation of the two cases has revealed the utilization of the above mentioned favourable policy strategies. Both policies comprise strategies focusing on urban containment, functional mix and urban quality, as well as multi-modal mobility options. In addition, the investigation has identified the approaches embedded in each strategy and the actions contributing to their implementation, which will be highlighted in the following sections.

### **5.1.1. Urban containment strategy**

The investigation has shown that the two cases employ similar approaches to implement the urban containment strategy. Table 5-1 below presents the identified approaches and actions that are utilized in Munich and Curitiba to implement the urban containment strategy. The listed approaches show that both cases focus on the restriction of urban sprawl, the promotion of infill development, the direction of urban growth towards selected locations with different weights. The table shows that Munich concentrates on infill development with special attention to the re-utilization of previously developed sites, whereas, Curitiba gives priority to directing urban growth to selected locations. This difference reflects the consideration of local circumstances in each case. In addition, it shows that both cases employ a bundle of actions to implement the approaches. Some of the actions are similar in the two cases, such as the land use controls to restrict sprawl or the use of land management tools (urban development measures/urban policy instruments) to force the development of vital locations, though the action is usually avoided in both cases. Other actions seem to be unique. For instance, in Munich, the extensive utilization large urban development and redevelopment projects under the supervision of the local government, to enable the infill development and the direction of urban growth. On the other hand, in Curitiba, one notes wide-ranging utilization of fiscal incentives integrated with land management tools to enable the same approaches. Another unique action is the Munich attempt to restrict the dispersal of urban development even within the growth boundary, through its land use and building regulations which gives the priority to inner-city locations in terms of building permissions.

Policy content		Munich	Curitiba
Urban containment strategy	<b>Approach 1</b>	<b>Restricting urban sprawl</b>	<b>Restricting urban sprawl</b>
	Action 1-1	Constraining development beyond the growth boundary	Constraining development on the urban periphery
	Action 1-2	Prioritizing inner-city locations in terms of building permissions	Restricting the allowed locations for developing shopping malls
	<b>Approach 2</b>	<b>Promoting infill development</b>	<b>Promoting infill development</b>
	Action 2-1	Redeveloping brownfields	Restoring the historical district
	Action 2-2	Densifying underutilized residential neighbourhoods	Revitalizing abandoned buildings
	Action 2-3	Increasing the density and functions in underutilized commercial districts	Provoking/enforcing the development of undeveloped sites in areas provided with services and infrastructure
	<b>Approach 3</b>	<b>Directing the new development towards selected locations</b>	<b>Directing new development towards areas along transit corridors</b>
	Action 3-1	Increasing the attractiveness of the selected locations by providing good services and public transportation facilities	Defining the targeted areas for densification and providing them with advanced services
	Action 3-2	Stimulating the development large projects to accelerate development in the selected locations	Stimulating the development along the transit corridors through fiscal incentives
	Action 3-3	Using urban development measures to force the development of vital locations	Using urban policy instruments to force the development of vital locations

Table 5-1: Summary box of the urban containment strategy

### 5.1.2. Increasing the utilization variety and enhancing the urban quality strategy

Table 5-2 below presents the identified approaches and actions that are utilized in Munich and Curitiba to implement the utilization variety and the enhanced urban quality strategy. The table shows that both cases adopt approaches focusing on increasing the functional mix and the proximity of services to the individual quarters, and the revitalization of the existing urban environment. Yet, Munich adopts a further approach to enhance the urban quality, which is the development of new quarters, in the form of projects, with a strong emphasis on the sustainable development principles. Both cases utilize the zoning regulations to create the planned functional mix, whether absolute mixed-zones or residential zones with economic activities and services. In addition, they develop a network of secondary centres provided with daily services and connected with each other through public transportation. To mitigate the

shortcomings of the living environment in existing quarters, both cases execute urban renewal projects. Whereas Munich has been involving the physical, social, economic and environmental dimensions in its renewal/redevelopment projects, Curitiba has recently extended the scope of its operations to exceed the physical environment. Likewise, both cases focus on the maintenance and expansion of the public green network to revitalize the urban environment. Furthermore, Curitiba runs regularizing and upgrading projects to mitigate the challenge of informal settlements and revitalize the living environment in such settlements and their surroundings.

Policy content		Munich	Curitiba
Utilization variety and quality enhancement strategy	<b>Approach 1</b>	<b>Promoting proximate development</b>	<b>Promoting proximate development</b>
	Action 1-1	Allocating exclusive zones for mixed-use development	Integrating diverse compatible uses of land in individual zones
	Action 1-2	Permitting varying degrees of multi-functionality in most zones	Distributing public services efficiently throughout the city
	Action 1-3	Establishing a network of qualified district-centres in coordination with public transportation to ensure equitable distribution of daily services	Qualifying neighbourhood centres in terms of infrastructure, services, commercial and social activities
	<b>Approach 2</b>	<b>Mitigating physical, social, economic, and environmental deficits in existing quarters</b>	<b>Revitalizing urban areas and reducing social, economic, and environmental</b>
	Action 2-1	Executing comprehensive urban renewal schemes in integration with infill development schemes	Preserving historical buildings and regenerating city centre
	Action 2-2	Extending the network of public parks and linear green areas	Coordinating urban operations to enhance the quality of selected areas with the provision of public facilities and infrastructure
	Action 2-3	-	Regularizing and upgrading informal settlements
	Action 2-4	-	Extending public green areas and preserving forests and natural areas
	<b>Approach 3</b>	<b>Developing new quarters of optimal quality</b>	-

	Action 3-1	Carrying out project-like urban development plans to establish new settlements with optimal urban and landscape design scenarios	-
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Table 5-2: Summary box of the utilization variety and quality enhancement strategy

### 5.1.3. Multi-modal mobility strategy

Table 5-3 below lists the identified approaches and actions to implement the multi-modal mobility strategy in Munich and Curitiba. As can be seen in the table, both cases focus on two comparable approaches: facilitating mobility through a public transporting system and enabling non-motorized modes of mobility. Remarkably, in both cases, the coordination of the land use planning and the mobility/transportation planning, others known as transit-oriented development, is a substantial action for endorsing both approaches. For instance, the planning of the secondary centres makes accessibility to services using non-motorized modes feasible. Likewise, the high density and the functional mix at those centres besides their interrelation with other centres contribute to the feasibility of the public transportation system. Another common crucial action is the operation of a public transportation system – buses, light rails, underground or mixed-system depending on the needs and resources – that serve the citizens needs and considers the environment. The cooperation between the public authorities and the private sector assists the success of the public transportation system. Likewise, the cooperation with the scientific and industrial communities facilitates the development of more environmentally-friendly public transportation system. To sustain the non-motorized mobility approach, both cases employ the provision of street infrastructure for pedestrians and riders - including greenery- and the proper management of the traffic. In Curitiba, cycling is given less consideration than that in Munich due to cultural aspects, and climatic and topographic challenges. Munich focuses on a third approach which aims at reducing the use of private automobiles by providing convenient alternatives.

Policy content		Munich	Curitiba
Multi-modal mobility strategy	Approach 1	Facilitating mobility through efficient and environmentally-friendly public transportation system	Operating an efficient, affordable, and environmentally-friendly public transportation system
	Action 1-1	Coordinating settlement development with the extension of public transportation facilities	Integrating road network, public transportation, and land use
	Action 1-2	Supervising the operation of the public transportation system	Constructing structural axes and prioritizing public transport lanes

	Action 1-3	Collaborating with the private sector to provide the public transportation systems	Launching a public transportation system
	Action 1-4	Involving the scientific and industrial community to increase the efficiency of the system and reduce its environmental impact	Developing Green Line and investigating Electro-mobility
	<b>Approach 2</b>	<b>Sustaining accessibility of reachable destination through non-motorized mobility modes</b>	<b>Facilitating the movement of all traffic modes</b>
	Action 2-1	Coordinate mobility and land use policy	Preserving areas for pedestrians
	Action 2-2	Providing street-facilities for walking and cycling	Reducing traffic congestion
	Action 2-3	Developing traffic management solutions for a safe and attractive environment	-
	<b>Approach 3</b>	<b>Endorsing reduction of private automobile trips</b>	-
	Action 3-1	Offering alternative services like car-sharing, Bike and Ride, and Park and Ride	-

Table 5-3: Summary box of the multi-modal mobility strategy

#### 5.1.4. Expanding the compact city policy model

In summary, the findings of the investigation of the two cases support the validity of the theoretical proposition that a compact city policy focusing on urban containment, utilization variety and quality enhancement, and multi-modal mobility is likely to fulfil its promises on the sustainable urban development. In addition, the findings help to extend the knowledge on the substance of the favourable compact city policy. The obtained approaches and actions are abstracted and attached to the previously developed model of the favourable compact city policy in chapter two. Consequently, elaborating a portable model of the compact city policy including the theoretically defined strategies and the potential alternative approaches and actions that are defined empirically, which is presented in Table 5-4. This model can be utilized as a raw material of the compact city policy, which must be customized to fit the circumstances of the context to which it is transferred. The use of this model is not restricted to the case study area of Jenin; however, can be used by scholars and policymakers in any other context.

Strategy	Approach	Action
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Urban containment	Restricting urban sprawl	<p>Defining growth boundary</p> <p>Prohibiting development beyond growth boundary</p> <p>Phasing the permission of development within the growth boundary</p>
	Guiding urban development towards selected locations	<p>Defining preferable destinations</p> <p>Increasing the physical attractiveness of the destinations' through public transportation, social/technical infrastructure and/or public amenities</p> <p>Increasing fiscal attractiveness of destinations through higher density land use parameters</p> <p>Employing land management tools to force the development of vital sites for the common good- such as those provided with services and access to public transportation</p>
	Promoting infill development	<p>Redevelopment of abandoned sites, former industrial locations, neglected historical buildings</p> <p>Increasing density of underutilized areas</p> <p>Increasing urban activity in commercial districts</p> <p>Provoking /enforcing development of undeveloped sites in areas provided with infrastructure and services</p>
Utilization variety and enhanced urban quality	Promoting proximate development	<p>Allocating exclusive zones for mixed-use development</p> <p>Permitting limited degree of multi-functionality in mono-use zones</p> <p>Developing a network of qualified neighbourhood-centres which provide daily services and have access to public transportation</p>
	Revitalizing existing urban areas	<p>Executing comprehensive urban renewal schemes targeting physical, social, economic, and environmental dimensions</p> <p>Preserving historical districts</p> <p>Upgrading the physical environment and infrastructure</p> <p>Running programs to maintain and extend public green spaces</p>
	Developing new quarters in compliance with the principles of the sustainable urban development	<p>Preparation of detailed land use plans</p> <p>Accelerating the implementation of detailed land use plans in by bringing the owners and private developers together</p>

Multi-modal mobility options and accessibility enhancement	Facilitating mobility through efficient, affordable and environmentally-friendly public transportation system	<p>Coordinating land use planning with transportation planning</p> <p>Collaborating with the private sector to establish/run a public transportation system</p> <p>Seeking innovations to create a more environmentally-friendly transportation system</p>
	Facilitating accessibility to services and activities through walking and/or cycling	<p>Coordinating land use planning with accessibility planning</p> <p>Providing street infrastructure for pedestrians and riders, including plants</p> <p>Providing safe commuting environment through traffic management</p>

Table 5-4: Portable model of the compact city policy

## 5.2. Compatibility between policy design and context

Besides adopting a compact city policy of comprehensive design, the previously constructed theoretical propositions state that adapting the policy approaches and actions to match the needs and characteristics of the addressed context is a fundamental aspect affecting the policy success. In addition, the reviewed literature reports a set of characteristics that need to be considered when customizing the compact city policy model. These characteristics include the degree of availability of undeveloped land, the degree of availability of land for redevelopment, the available areas of public green space and their spatial distribution, the level of adequacy of the existing infrastructure, and the extent of availability of the informal settlement challenge. These characteristics, among others, were explored through the study of the compact city policies in Munich and Curitiba. The related findings are compared and discussed in this section.

In terms of the availability of land for new development, the review of Munich case study has shown the scarcity of unsealed land available for development. This status of scarcity has been reflected in the conservative use of unused sites, which is exemplified in the clear identification of these sites and the search for optimal plans to guide their development. On the contrary, in Curitiba, there is no mentioning of the scarcity of new lands. Tracking the city development has shown that much of the development is taking place on unsealed land while adopting land-saving development concepts.

Regarding the availability of potential sites for urban redevelopment, Munich used to have vast areas of abandoned sites such as the evacuated military bases, the former railway and airport, and many relocated industrial sites. This moderate availability of potential sites for redevelopment has a notable impact on the utilized approaches and actions of Munich's compact city policy. The used approaches focus widely on brownfield development and urban renewal. The city has been directing the urban development towards the underutilized or abandoned locations. The city has been following the rule of granting 50% of the building permissions to the redevelopment of previously used locations. Currently, the city is searching for less traditional redevelopment options such as underutilized residential quarters from the 1960s to 1980s, and mono-function commercial zones. In contrast, in Curitiba, it is not clear how significant is the size of abandoned or underutilized sites. There are calls for establishing an inventory of vacant sites both undeveloped and abandoned as well as underutilized districts known as "development poles". Nevertheless, the review has revealed the implementation of a limited number of urban renewal projects in the historical district and some redevelopment projects in deteriorated areas. In addition, the review has revealed the implementation of a special form of urban redevelopment, which is embedded in the regularization of informal settlements to increase the efficiency of using the space and providing an adequate level of services. The later mentioned action of urban redevelopment illustrates the customizing of the infill development approach to matching the specific needs and characteristics of Curitiba.

In regard to the public green spaces, Munich is known for its long tradition of maintaining public green spaces and parks. The city provides 17m<sup>2</sup> public green space/inhabitant and attempts an equitable spatial distribution of the spaces. However, the city inventories indicate that in a number of quarters these spaces are below the city standards in term of area, quality or both. The city urban development policy integrates special actions to solve this problem both focusing on landscape development independently and within the urban development and redevelopment projects. Likewise, Curitiba's urban development policy has managed to increase the area of the public green space to 54m<sup>2</sup>/inhabitant, though not fairly distributed through the cities. The provision of this area resulted from the natural flood-management solution which is incorporated in the city's urban development policy. This action shows clearly how Curitiba has developed a unique approach to creating public green spaces while creating a solution to the floods that have been threatening the city. In addition, Curitiba adopts a set of programmes to develop further parks and linear green spaces, and to preserve existing forests. The focus on existing forests is another example of how Curitiba adapt the approaches of the compact city policy to fit its characteristics.

Concerning infrastructure capacity, there is no indication that Munich suffers general problems concerning the technical infrastructure. However, the city's development reports have indicated relative deterioration of the technical and social infrastructure in few specific quarters. Munich has been utilizing the urban redevelopment projects, in connection with other actions, to upgrade the infrastructure in such quarters. On the contrary, in Curitiba, there are indicators of severe problems in terms of basic infrastructure mainly at the initial stages of implementing the compact city policy. Curitiba has been addressing this problem by concentrating urban development within specific zones and combining the public and private resources to serve the residents at these locations. Opting for this solution shows how Curitiba involves actions to solve its infrastructure problems in the planned densification projects.

In terms of informal settlements, no traces of informal development have been found in Munich. In contrast, Curitiba experiences serious informal development challenges. The gradual regularization of the existing informal settlements and the development of a housing policy concerned with providing affordable housing solution to low-income groups are part of Curitiba's compact city policy.

In sum, the two cases show varying context characteristics. This result supports the validity of the proposition that the success of the compact city policy is not limited to cities of specific physical conditions and that the success of the compact city policy is a function of the adaptation of its strategies to match the context physical characteristics. In other words, what helps Munich and Curitiba implement the policy successfully is not the initial physical characteristics of the space. Instead, it is the adaptation of the policy strategies and approaches to use the strengths of the space and treat its weaknesses as well as the understanding of these strengths and weaknesses. For instance, the use of the approaches of the urban containment strategy at specific locations to facilitate the provision of adequate infrastructure, and the redevelopment of underutilized settlements both to create further spatial capacity and provide public green spaces. In addition, the use of the approaches of the utilization variety and the quality enhancement strategy to regularize and upgrade the existing informal settlements.

### **5.3. Effective policy implementation**

In addition to the comprehensive policy design and the adjustment of this design to fit the characteristics of the addressed context, the theoretical review shows that an effective urban planning and urban development system is a requirement for a successful implementation of the compact city policy. Without an effective urban planning and urban development system, it is unlikely to implement the compact city policy effectively. The validity of this broad

theoretical construction is not analysed in this research, for it presents a common sense. Yet, it is necessary to define the empirical trends and practices that comprise the effective system. The reviewed literature fails to illuminate these trends and practices. However, it indicates the tasks that an effective urban planning and urban development system is expected to do. These tasks include integrating the compact city policy with other public policies, creating an encouraging environment for the implementation of the compact city policy, and downsizing the policy anticipated negative impacts. In the two reviewed cases, these three required tasks were investigated. Based on the obtained findings, an inference of the trends and practices that have enabled each of the urban planning and urban development systems to implement the policy effectively was made in the respective chapters. As stated earlier, in this research, the urban planning and urban development system is divided into six components including the planning authorities that operate the system, the legislations that rule the function of this system, the plans and policies that the system produces, and the followed processes to prepare these plans, implement them as well as revising the plans and updating them.

This section combines and synthesises the identified trends and practices that contributed to the effectiveness of the urban planning and urban development systems in Munich and Curitiba. The aim is to construct an account of the trends and practices that are likely to enable an urban planning and urban development system to implement the compact city policy effectively in any given context. Table 5-5 below lists the previously identified trends and practices of the urban planning and urban development systems of the two cases. These trends and practices are categorized into three clusters: those which are similar in both cases, those limited to Munich, and those limited to Curitiba. The similar trends and practices are directly adopted into the constructed account of the effective urban planning and urban development system whereas the distinctions are discussed to determine whether to adopt them or not.

System component	Comparison	Trend or practice
Planning authorities	Similarities	<p>The supervisory role of national planning institutions on how to plan urban development in complying with sustainability principles</p> <p>Adequate autonomy is given to municipalities facilitating decision making on planning matters and distribution of financial resources</p> <p>The active role of local planning institutions in planning, steering, and supervising the city's urban development</p>

		Multidisciplinary structure of local planning institutions including units for spatial planning, landscape planning, housing development, and transportation planning
	Limited to Munich	Cooperation between local planning institutions and regional planning committees seeking integrated regional development
	Limited to Curitiba	Running a research institute to assist local planning institutions
Planning legislations	Similarities	<p>The consistency of planning legislations with the sought visions and objectives of urban planning and urban development</p> <p>Legal scope to consider social, economic, environmental aspects in relation to spatial planning</p> <p>Legal scope to facilitate the integration of land management tools -land readjustment, transfer of development rights, land acquisition, etc. -in the urban planning and urban development process</p> <p>Permission of forced development of undeveloped or abandoned lands to ensure the availability of land for development</p>
	Limited to Munich	<p>Regulated conditions for the public-private partnership agreements</p> <p>Stipulation of how to share development costs with users, owners and developers</p>
	Limited to Curitiba	Legal scope to utilize fiscal incentives in guiding the urban development process
Plans' preparation process	Similarities	<p>Continued performance of the planning process with a determined timeframe to update plans</p> <p>The comprehensive domain of the planning process considering the social, economic, and environmental dimensions in integration with the spatial dimension</p> <p>The multiple spatial levels targeted in the planning process – entire municipal area, quarters, projects</p> <p>Reliance on the land information system to provide the planning process with spatial/geodata</p> <p>Involvement of data, statistics and reports from different city departments to build planning process on an accurate understanding of the conditions on the ground</p> <p>Assessment of the impact of the planned interventions on the community, economy, infrastructure, and the natural environment and identification of compensatory measures during the planning process</p> <p>Elaboration of solutions on how to achieve planned development – implementation-oriented planning process</p>
	Limited to Munich	Cooperation with external experts from the scientific institutions and business firms to find optimal development scenarios

		Outsourcing planning tasks at preparatory stages to private Strong community involvement in the planning process and decision-making activities
	Limited to Curitiba	Dependence on a research institute to assist local planning institution in the planning process Low to moderate involvement of the community in the planning process Establishment of development targets and prioritization of the achievement of the targets according to needs and resources
Plans and policies	Similarities	National planning policies orienting local plans Comprehensive plan guiding the spatial development of the entire municipal territory in coordination with the social, economic and environmental development Binding land use plan/ Master plan indicating aimed spatial development on the medium- and long-run Specific plans/public policies on landscape and green structure, housing, public transportation, economic development, and environmental protection Detailed (sectoral) plans describing the interventions and projects required to achieve planned development Detailed plans for individual districts/neighbourhoods Plans for the development of areas of special potentials and threats
	Limited to Munich	Joint formulation of a regional plan coordinating settlement development, expansion of the public transportation, and the protection of natural areas
	Limited to Curitiba	-
Plans' implementation process	Similarities	Significant efforts by the planning institutions and city administration to stimulate the implementation of the plans in cooperation with the private sector Local mechanisms to enable the implementation of the plans financially including land management tools and property taxation Land management tools to enable the implementation of the plans spatially Governmental grants for public investment Well-functioning cadastre and land administration system to facilitate the use of land management tools and proper administration of property taxation
	Limited to Munich	Large-scale urban development projects for effective achievement Urban development agreements allow sharing development costs with civil sector

	Limited to Curitiba	Loans from international financing agencies Low-technology and domestic solutions Accumulative implementation of small-scale projects Rare implementation of large-scale projects and radical changes
Plans' monitoring and evaluation process	Similarities	Setting specific targets/objectives and related time-frame for achievement Agreements/contracts with external experts/organisations to measure the achievements compared to announced targets and analysing the adequacy of plans Regular publications on the achievements including budgets
	Limited to Munich	-
	Limited to Curitiba	-

*Table 5-5: Observed trends and characters contributing to the effectiveness of the urban planning and urban development system*

The comparison of the findings of the two cases demonstrates that the similarities between the trends and practices significantly outweigh the distinctions. The distinctions concerning each of the system's components are the concern of the following lines. Starting with the first component, the planning authorities, regional cooperation between the planning authorities is observed solely in the case of Munich. Yet, this trend shall be among the adopted trends and practices. The reason is that the reviewed literature criticizes Curitiba for the inadequate regional planning efforts. On the other hand, Curitiba's local planning authorities show continuous cooperation with an independent planning research institute. This is seen as a supplementary quality to sustain the capacity of the planning institutions. Accordingly, this issue is not taken as it is. Instead one suggests that local planning authorities need to have an adequate technical capacity by internal or external means.

In addition, the comparison reveals a few distinctions concerning the planning legislations. In Munich, the distinctive observed legislations address the public-private partnership and the sharing of the development costs with owners and investors. In Curitiba, the distinction focuses on the use of fiscal incentives to steer the implementation of urban development plans. The mentioned distinctions in both cases indicate that enacting planning legislations regulating the financial aspects of the urban planning and urban development process is another trend that can contribute to the effectiveness of the urban planning and urban development system.

Likewise, the comparison introduces few distinctions concerning the process of preparing the urban development plans in Munich and Curitiba. Among the distinctions is the degree of the

community involvement in this process. Whereas Munich shows strong involvement, Curitiba attempts to strengthen the weak involvement of its citizens in the planning process. This distinction suggests that the moderate involvement of the civil society in preparing the urban development plan can be a further practice contributing to the efficiency of an urban planning and urban development system. Furthermore, in Munich, one observes the outsourcing of planning tasks to the private firms as well as the cooperation of the planning authorities with the scientific and business communities. On the other hand, in Curitiba, one observes employment of a research institute to sustain the planning process. Hence, it is seen that the urban planning process can be effectively facilitated through the cooperation with scientific, business, or industrial community and private planning firms in order to elaborate optimal development scenarios. Finally, the case of Curitiba reveals establishing development targets and prioritizing the achievement of these targets. Though not observed in Munich, this issue shall be also adopted in the constructed account. The reasoning is that setting priorities of achieving planning objectives, within limited resources, can positively contribute to the effectiveness of the planning process.

The obtained results concerning the utilized urban development plans and policies show a significant similarity between Munich and Curitiba. However, in Munich, one finds regional development plans that coordinate the development of urban settlement, the expansion of the public transportation system, and the protection of natural areas in harmony with the entire region. As mentioned earlier, Curitiba is criticized for failing to develop an effective regional plan. Hence, it is seen that the adoption of a regional development plan is among the trends and practices that contribute to the effectiveness of the planning process.

Regarding the process of implementing the urban development plans, the observed trends and practices reveal broad consistency between the two cases. Remarkably, both cases employ the land management tools, which are supported by a well-functioning cadastre and land administration system, to facilitate the process of implementing the urban development plans spatially and financially.

Nevertheless, the comparison reveals few distinctive trends and practices, especially concerning the urban development projects. In Munich, the executed projects have been covering vast areas and requiring huge investments, which are partially shared with the civil society. In contrast, in Curitiba, most of the executed projects are small-sized and low-technology based. In addition, the loans obtained from international development agencies are a major observed mechanism in financing the rare implementation of large-scale projects in Curitiba. Taken together, these distinctions propose that the implementation of urban

development projects that consider the available financial resources and the domestic technologies is among the practices making an urban planning and urban development system effective.

In terms of the monitoring and evaluation of the urban planning development plans and policies, the two cases show significant conformity and no fundamental distinctions are observed. Both cases attempt to measure the ability of their compact city policies to achieve their objectives. In addition, both cases refer to external entities to evaluate the performance and achievement of their policies. This trend reduces the bias in the evaluation process and constructs trust in the obtained results of the evaluation. Figure 5-1 below summarizes the constructed trends and practices of the effective urban planning and urban development system that is likely to execute a compact city policy successfully.



Figure 5-1: Trends and practices of the effective urban planning and urban development system

## 5.4. The conceptual framework of the policy success

Based on the theoretical propositions concerning the success determinants of the compact city policy, which were reviewed in the previous sections of this chapter, the researcher develops a conceptual framework of the success potential of the compact city policy, Figure 5-2. The framework demonstrates that the degree of the policy success is determined by the choices on comprehensive compact city policy, the adequate operational capacity of the urban planning and urban development system to execute the policy effectively, and adaptation of the policy strategies to match the addressed context. In the following chapters, this framework establishes the foundation for investigating the suitability of the compact city policy to the selected case study, Jenin city. Further illustration of how to employ the framework to assess the policy suitability is presented in the research methodology, in the next chapter.

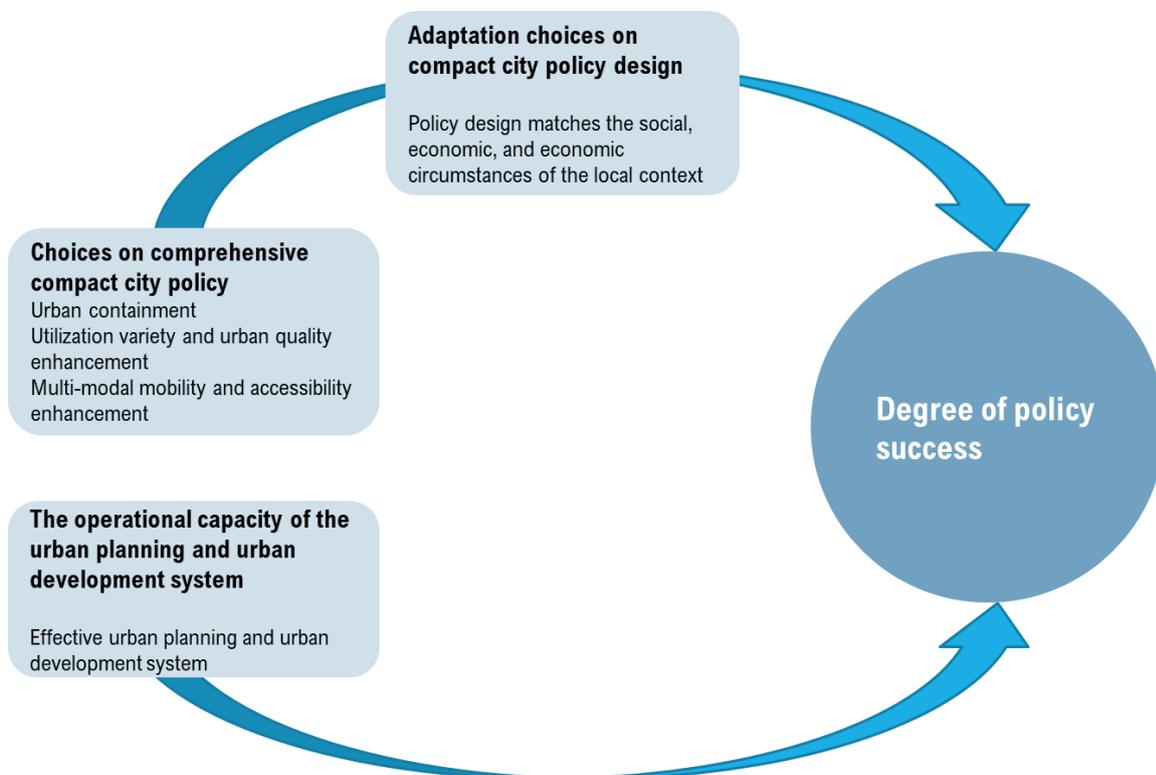


Figure 5-2: Conceptual framework of the compact city policy success

## 5.5. Conclusion

This chapter has combined the findings of the theoretical review with those of the case studies and extended the knowledge about the substance of the favourable compact city policy and required conditions to enable the policy success. The major outcomes of this chapter include a portable model of the compact city policy, and the bundle of trends and practices that contribute to the effectiveness

of an urban planning and urban development system and facilitate the effective implementation of the compact city policy. These two outcomes are the answers to the research question that the chapter aimed to address, which focus on the alternative approaches and actions can be used to operationalize the compact city policy in practice and the trends and practices are likely to enable an urban planning and urban development system to operate the compact city policy successfully. Finally, the chapter has developed a conceptual framework of the success degree of the compact city policy. This framework will guide the investigation of the suitability of the compact city policy to the case study area in the subsequent chapter.

## **6. Research Methodology and Design**

This chapter focuses on the design of the investigation of the suitability of the compact city policy to the selected case study area. The chapter presents the adopted philosophical assumptions and the research approach. Additionally, it illustrates the design of the case study and the methods that are used to collect and analyse the required data. Finally, it represents the instruments that are used to ensure the validity of the findings resulting from the obtained data. The chapter addresses the research question:

- How to assess the suitability of a compact city policy to guide urban development in a given urban settlement?

The chapter is organized as follows: section one presents an overview of the research design; section two describes the adopted philosophical assumptions incorporated in the empirical studies and explains why these assumptions are adopted; section three defines the selected research strategy and the justification standing behind this selection; section four explains how and why the case study methodology is utilized to execute the empirical study; section five demonstrates the methods employed to collect required data and section and analyse and interpret this data; section six illustrate how to construct the validity of the findings obtained through data collection and analysis; and finally section seven presents the conclusion of the chapter.

### **6.1. Overview of the research design**

In the previous chapter, it was stated that the conceptual framework of the compact city policy success will form the foundation for investigating the policy suitability to the case study area. This statement is based on the relation between the policy success and the policy suitability, where the suitability is used to express the success potential of the policy in a given context. However, for the assessment of the policy suitability, the previously developed framework of the policy success has to be partially altered, namely by omitting the aspect of the degree of the adaptation of the policy's strategies to match the context's characteristics. The reason for this alteration is that the investigation of the policy suitability addresses a proposed policy model rather than addressing an existing policy that is in implementation. The altered framework, which demonstrates the conceptual framework of the compact city policy suitability, is presented in Figure 6-1 below.

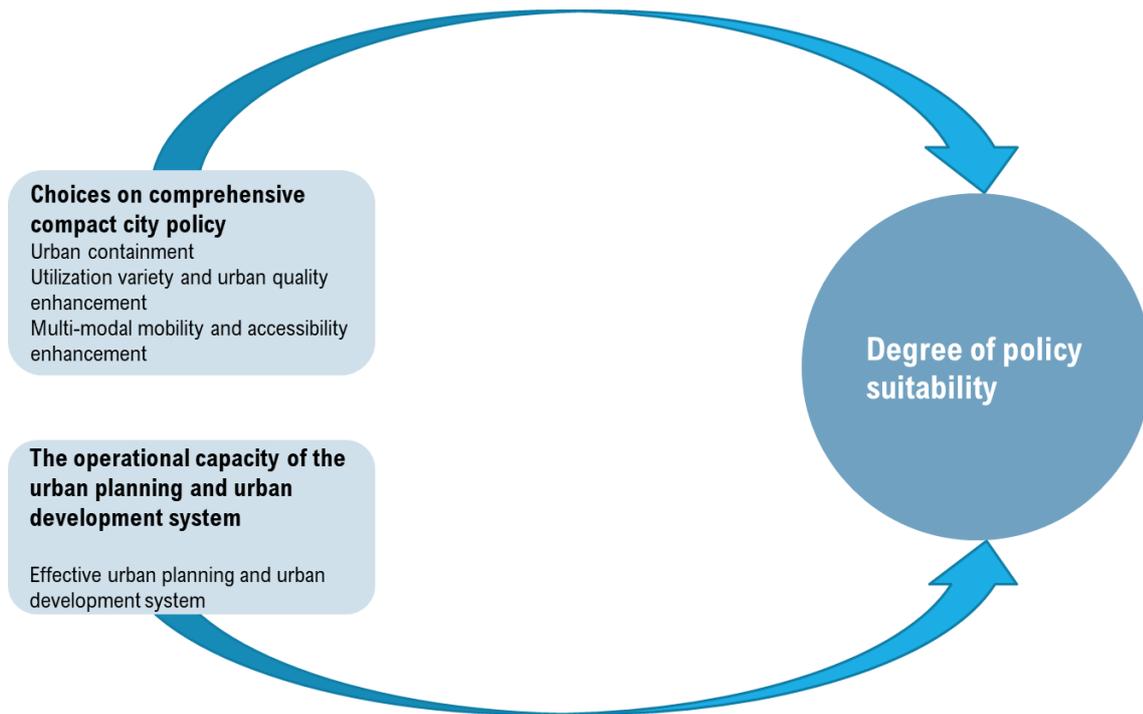


Figure 6-1: Conceptual framework of the compact city policy suitability

Figure 6-1 shows that examining the policy suitability in a given context implies investigating the advisability of implementing a comprehensive compact city policy in that context and examining the adequacy of the operational capacity of the context’s urban planning and urban development system to implement a comprehensive compact city policy. Accordingly, the major research question of how to assess the policy suitability is divided into two sub-questions:

1. How to assess the advisability of a comprehensive compact city policy to a given context?
2. How to assess the adequacy of the operational capacity of an urban planning and urban development system to implement a comprehensive compact city policy?

To address these questions, the outcomes of the previous chapter are engaged to construct the settings of the investigation. In the first question, investigating the policy advisability is carried out by investigating the advisability of its strategies and approaches which were introduced earlier in the portable model of the compact city policy in Table 5-4. The advisability of the strategies constitutes the investigated general aspects whereas the advisability of the approaches under each strategy constitutes the specific aspects to be investigated directly. In this research, the term advisability refers to the prospect of a strategy or an approach to bring benefits to the social, economic or environmental dimensions of the sustainable development in the case study area. In the second question, examining the adequacy of the operational capacity of the urban planning and the urban development system is based on examining the adequacy of the system’s components, which were presented in Figure 5-1, which constitute the general investigated aspects. The trends and practices associated with each component, presented in the same figure, constitute the specific aspects on which the data is directly

collected. Accordingly, the researcher establishes a model of the empirical investigation of the compact city policy suitability Figure 6-2. The model illustrates the relation of the studied concept in this empirical research, the policy suitability, with the defined sub-concepts and the general aspects and specific aspects to be studied within each sub-concept. The subsequent sections illustrate the questions related to the identified aspects, the data required to answer these questions, and the way these data are collected and analysed.

The design of the empirical research rests on Creswell's (2009, p.3) notion of the scientific research design as “plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis”. Creswell’s definition implies a research design of three coherent components including the philosophical assumptions on which the research is based; the strategy of inquiry that is consistent with the chosen philosophical assumptions and other research determinants; distinct methods or procedures to collect, analyse and interpret the data (ibid, p.5). In addition, the research adopts the two aims of the research methodology and design that Du Toit (2015, p.61) presents as explaining how empirical reality is engaged in the research in order to allow answering the research question and ensuring the validity of the research findings.

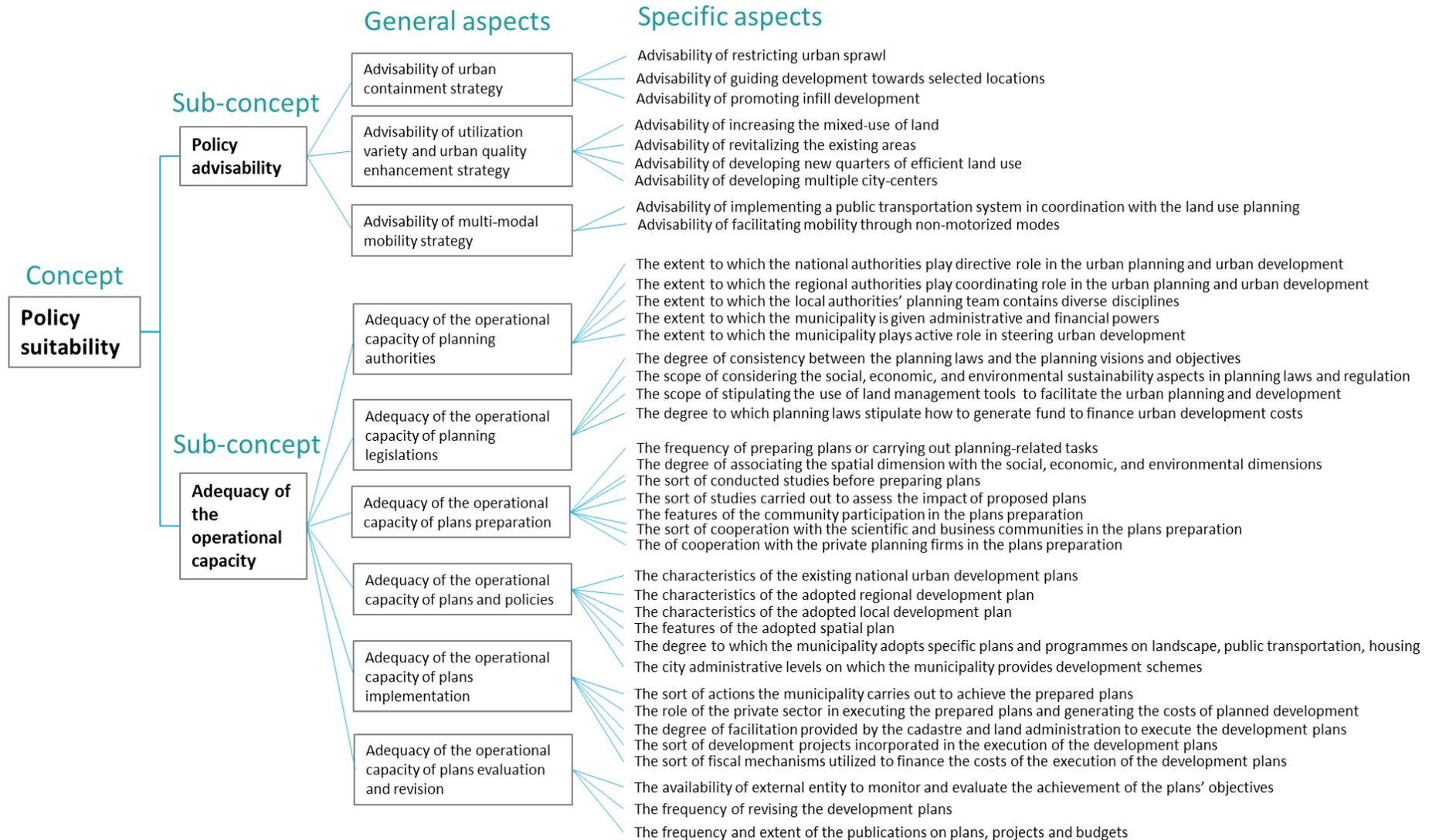


Figure 6-2: Tree of the empirical investigation of the compact city policy suitability

## 6.2. Research paradigm and assumptions

This section addresses the selected research paradigm and the respective philosophical assumptions. The research paradigm refers to the general framework of the basic philosophical assumptions, including the epistemological<sup>18</sup> and ontological<sup>19</sup> assumptions, to which the researcher refers to organise the logical context of the research process (Guba & Lincoln, 1994, p.107; Maxwell, 2005, p.36; Neuman, 2011, p.94). In addition, the research paradigm includes the axiological assumptions<sup>20</sup> that have been lately considered among the basic beliefs that identify a research paradigm (Given, 2008, p.52; Lincoln & Guba, 2000). The research literature advises scholars to illustrate the philosophical stance on which their research draws (Maxwell, 2005, p.36; Neuman, 2011, p.91).

This research draws on the social constructivist paradigm to assess the suitability of the compact city policy to a medium-sized developing country city. Before justifying this selection, it is useful to briefly present the philosophical assumptions comprising this paradigm. Epistemologically, the paradigm is characterised by a subjectivist epistemology, where meanings are constructed by investigators and participant through their interpretation of the world in which they are engaged (Crotty, 1998, p.42; Schwandt, 2000, p.222). The experience of the inquirer and the participants, as well as the settings of the investigated context, have a direct impact on the interpretations (Given, 2008, p.908). Ontologically, the constructivist paradigm holds that reality is relative and the constructed meanings “are not more or less true, in any absolute sense, but simply more or less informed and/or sophisticated” (Guba & Lincoln, 1994, p.11). In terms of axiology, a research adopting the social constructivist paradigm is value-laden as the values of researchers of this paradigm are included in the research and are formative, as they play a significant role in research choices (Lincoln & Guba, 2000, p.166).

Three reasons contribute to the selection of the social constructivist paradigm to conduct this research. First, the nature and scope of the research question, which investigates the policy suitability to sustainably guide the urban development from a domestic perspective. The way suitability is defined in this research makes the concept unlikely to be measured objectively using exact formulas of objective nature. It is true that certain aspects of the compact city

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<sup>18</sup> Epistemology: “An area of philosophy concerned with the creation of knowledge; focused on how we know what we know or what are the most valid ways to reach truth” (Neuman, 2011, p.93).

<sup>19</sup> Ontology: “An area of philosophy that deals with the nature of being, or what exists; the area of philosophy that asks what reality is and what the fundamental categories of reality are” (Neuman, 2011, p.92).

<sup>20</sup> Axiology: “The branch of philosophy dealing with ethics, aesthetics, and religion” (Lincoln & Guba, 2000, p.169)

policy, like those related to transportation or environmental issues, have been investigated objectively following the positivist paradigm. Nevertheless, it was difficult to find examples of research dealing with the overall compact city policy objectively. In addition, the field under which this research is categorized – urban policy mobilities - recommends utilizing the social constructivist paradigm to investigate whether an urban policy is suitable to be re-contextualized in a new given context (McCann, 2011, p.116). The second reason is the nature of the research problem that is context specific and requires a research paradigm that is sensitive to the context and that enables understanding the context from an inner perspective. The social constructivist paradigm can facilitate achieving these requirements. According to Neuman (2011, p.107), the research techniques related to the social constructivist paradigm consider the research context and allow the scholar to understand the world from an inner perspective. The third reason is the characteristics of the addressed context as a medium-sized city in a developing country, where little of the municipal or governmental policies and practices are documented or published. Therefore, to understand the context there is a need to refer to local key informants as one major data source, which is facilitated through the social constructivist paradigm.

To sum up, the suitability of the compact city policy to the selected medium-sized developing country city is investigated according to the stances of the adopted social constructivist paradigm. The researcher cooperates with local key-informants to identify the degree of the advisability of the policy strategies to the local context and the operational capacity of the context's urban planning and urban development system. The obtained views of the key-informants and the researcher are not claimed to be true rather they only inform about the studied context. The subjectively co-constructed assessment is relative to this given context, as the positions are developed using views and experiences build on interaction with this context. The value embedded in this research is to find a workable solution to a context that witnesses unsustainable pattern of urban development and that is overlooked by policymakers and scientific community. The next sections show who the engaged key-informants are, how they are engaged, and how the engagement contributes to answering the research question.

### **6.3. Research approach and strategy**

This section presents the adopted approach of inquiry and the strategy used to draw conclusions in this research. A qualitative approach is selected to conduct the research. Creswell (2012, p.282) defines the approach as “an inquiry process of understanding based on a distinct methodological approach to inquiry that explores a social or human problem. The

researcher builds a complex, holistic picture; analyses words; reports detailed views of participants; and conducts the study in a natural setting". The major characteristics of the qualitative approach include:

- Stressing the socially constructed nature of reality (Merriam, 1998,p.6); hence focusing on meanings individuals or groups have constructed and the way they make sense from their experience (Creswell, 2007,p.44; Denzin & Lincoln, 2011,p.8);
- Aiming at understanding a phenomenon or a problem from an inner perspective and in its natural context, not in designed settings like in laboratories (Creswell, 2007,p.44; Flick, 2008, p.ix).
- Allowing researchers to have an active role in generating the research findings both by communicating with the participants and investigating their perceptions, as well as by the contribution they make based on their perceptions and experiences ( Denzin & Lincoln, 2011, p.8; Flick, 2008, p.x; Merriam, 1998, p.6);
- Enabling the research process to have a significant level of flexibility. It is unlikely that the research design is firmly described at the early stages of the research (Creswell, 2007, p.47). In addition, the research process can also be described as emergent (ibid, p.44).

Several reasons explain why to adopt the qualitative approach to conduct this research. First, the consistency of the qualitative approach with the philosophical assumptions of the social constructivist paradigm (Merriam, 1998, p.8). Thus, the approach supports the research design in which the researcher refers to individuals involved in the urban planning and urban development field to assess the suitability of the compact city policy to the context in which they live and work. Second, the exploratory nature of the research problem, for little theory is known about the suitability of the compact city policies in medium-sized developing country cities. In this regard, Creswell (2009, p.4), emphasizes the advantage of using a qualitative approach when the studied issue is new or when little theory has been developed about it. Third, the approach facilitates developing a holistic and general understanding about the potential to implement the compact city approach in the addressed context. Merriam (1998, p.6) states that unlike quantitative research that focuses on certain variables, the qualitative approach allows addressing the studied entity or problem as a whole (ibid, p.6). Finally, the utilization of qualitative statements obtained from local actors, reports, documents and field observations and notes enables conducting a holistic research within a reasonable period.

A further choice that needs illustration is the strategy/logic of reasoning used to draw conclusions and answer the research questions. In this research, an inductive research strategy

is applied. This strategy starts with the collection of evidence from empirical data before drawing conclusions and theories using the inductive logic (Ormston et al., 2013, p.6; Wheeldon & Ahlberg, 2012, p.7). The inductive logic can be explained as a form of reasoning that uses "evidence as the genesis of a conclusion" (Ormston et al., 2013, p.6). It is important to mention that a number of researchers deny the existence of 'pure' inductive strategy. Ormston et al., (2013, p.6) and Blaikie, (2007, p.83) argue that although inductive researchers do not test hypotheses, they necessarily hold certain assumptions or propositions in mind. They also add that these assumptions are not generated from the scratch, but they are usually based on background theory and previously carried out research in the field. In this research, the investigation of the suitability of the policy to medium-sized developing country cities is inspired by the policy suitability to large-scale cities and developed country cities.

The methodological consistency of the inductive strategy with the social constructivist paradigm and with the qualitative approach is one reason to select this strategy. Neuman (2011, p.105) and Wheeldon & Ahlberg (2012, p.7) point out that the tendency of the social constructivist scholars to provide interpretative explanations of the studied issues based on inductive research strategies. Creswell (2007, p.45) and Fox (2008, p.429) state that qualitative researchers often build their findings utilizing inductive research strategies. Another reason to select the inductive strategy is the role it can play in conducting an exploratory research, which is the case in investigating the suitability of the compact city policy to the addressed context. Little scientific knowledge can be obtained on what are the chances and barriers to implementing the policy in a medium-sized developing country city. Available theoretical claims refer to the likely inefficiency of the urban planning system as an obstacle for the policy suitability without providing a deeper view on what exactly not working properly and to which extent it is likely to improve the system efficiency. Hence, in this research, relevant themes are investigated in a real-world case in this context to draw conclusions on the scope of the policy in that new context. Fox (2008, p.430) and Stebbins (2008, p.327) mention the use of the inductive strategy in the exploratory research to draw general conclusions or to extend existing theories into contexts with little scientific knowledge.

#### **6.4. The case study methodology**

This research opts for the case study research methodology to inquiry the empirical research questions. The case study is a widely used methodology in urban studies (Yin, 2009,p.4). This methodology refers to *"an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and*

*context are not clearly evident*" (Yin, 2009, p.18). By reviewing definitions of the case study methodology that are introduced by key scholars in this field (Blatter, 2008, p.68; Creswell, 2007, p.73; Stake, 1995, p.xi; Yin, 2009, p.18), a number of characteristics of the case study methodology can be concluded as follows:

- Investigating a phenomenon extensively and deeply;
- Contributing to a rich and holistic understanding of the addressed phenomenon;
- Giving significant importance to the context of the studied phenomenon and its circumstances;
- Identifying clearly the spatial and temporal dimensions within which the phenomenon is located;
- Taking advantage of existing theoretical propositions to direct the design of the study, the range of themes to be investigated, and the data to be collected;
- Incorporating several methods of data collection and multiple sources of information to draw conclusions.

The above-mentioned advantages of the case study methodology explain the relevance of this qualitative approach for the current research and show the consistency of the methodology with the philosophical underpinnings of the adopted social constructivist research paradigm. For instance, the nature of the research problem, which is strongly context-dependent, is among the aspects showing the claimed relevance of the methodology. It is illogical to interpret the suitability of an urban policy to a certain context in isolation of close investigation and deep understanding of the addressed place and its settings. In addition, Flyvbjerg (2006, p.225) states that the closeness to the studied problem, which is provided by the case study methodology, allows getting more feedback from those directly engaged with the studied object and it helps the researcher avoid working in 'blind academic alleys'. In this research, the involvement of actors engaged in urban planning and urban development system in the case study area helps to construct informed knowledge of the policy suitability. Moreover, the fact that case study methodology allows integrating multiple sources of evidence help the constructed knowledge on the policy suitability to be more informed. The investigation of a range of topics related to the suitability in local planning documents, governmental reports, or through observations facilitate validating the views of the involved actors and derive entire and insightful interpretations on how suitable the policy to the addressed case is. For these aspects, the case study methodology is considered the most pertinent for this research.

### 6.4.1. Case study design

This section presents the selected case, the questions tackled in this case, the type of this case, and the reason behind the case selection. In research methodology, a case is considered “a specific, a complex functioning thing” (Stake, 1995, p.2). While research design makes it possible to conduct a single case or multiple cases either holistically or by including a number of embedded sub-units (Yin, 2009,p.46), this current research conducts a single case of embedded units of analysis. The selected case is Jenin, a medium-sized city in the State of Palestine – a developing country. The study of the case is focused on two embedded units of analysis, these are Jenin’s urban context and Jenin’s urban planning and urban development system, see Figure 6-3 below.

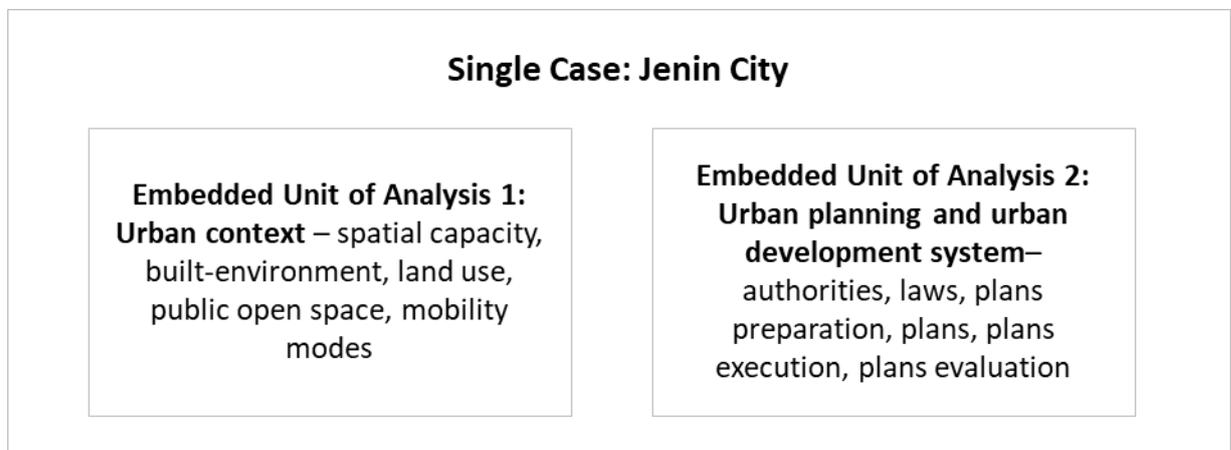


Figure 6-3: Case study composition

In this research, the conducted case study has an exploratory nature, where it aims at identifying the extent to which the compact city policy is suitable to guide Jenin’s urban development. As stated earlier, the degree of suitability depends on the degree of the advisability of the policy to the urban context and the degree of the adequacy of the operational capacity of the urban planning and urban development system to implement the policy. Accordingly, the answer of the suitability question is derived from the answers of the two specific questions: how advisable the compact city policy strategies and approaches are to guide the urban development in Jenin, and how adequate the operational capacity of the urban planning and urban development system is. The first question studies the compact city policy in relation to the characteristics of urban context in the case study area, while the second investigates the policy in relation to the urban planning and urban development system within the same case. The process of answering these sub-questions involves identifying the recommended strategies and approaches to the existing urban context, and the deficiencies of the urban planning and urban development system that can hinder the implementation of the

strategies and approaches. The next sections illustrate what evidence is required to answer these questions and how to collect this evidence.

In terms of type, the selected case is considered an intrinsic and an instrumental case. Intrinsic cases refer to cases that are studied due to a specific interest in the case itself and aiming to develop a particular understanding of the case (Stake, 2005, p.445). Instrumental cases are cases mainly studied to generate a deep understanding about an issue and draw generalizations about it; the case itself is not the focus, rather it is a supportive medium to advance the understanding of the issue (ibid). Jenin's case is selected because of its uniqueness and its commonality. On the one hand, the researcher focuses specifically on drawing conclusions on the suitability of the compact city policy to guide Jenin's urban development. The uniqueness of Jenin's case in the Palestinian context calls for assigning attention to this case. It is true that all cities in the West Bank suffer the impacts of unsustainable urban sprawl; however, the location of Jenin within the most fertile agricultural land in the West Bank makes the search for a solution to urban sprawl in Jenin a special concern. In addition, the researcher's deep knowledge of the chosen context and the possibility to access required data sources can facilitate conducting the case study and producing rich knowledge. On the other hand, Jenin's case is used to draw conclusions for similar cases. The research considers the case of Jenin as a typical or representative case of medium-sized developing country cities, thus refers to Jenin as an instrumental case. According to Yin (2009, p.48), the lessons and conclusions drawn from conducting such a type of cases are considered to be enlightening for similar cases. It is true that the characteristics of urban development are context-dependent and that they differ from one context to another; nevertheless, compared to large urban regions in the developed countries, urban development in medium-sized developing country cities have a certain degree of commonality. In this regard, Stake (2005) supports studying cases while combining specific and general interests. He argues that "There is no hard-and-fast line distinguishing intrinsic case study from instrumental, but rather a zone of combined purpose" (ibid, p.445). It is important to emphasize that the significance of Jenin as an intrinsic case exceeds its significance as an instrumental case as it is recommended to study multiple cases to draw more valid conclusions for medium-sized developing country cities in general.

## **6.5. Empirical research methods**

This section illustrates the process of collecting and analysing the required data to answer the two specific questions that determine the suitability of the compact city policy to the case study area. Again, these questions are:

To which extent are the strategies and approaches of the comprehensive compact city policy advisable to guide Jenin's urban development sustainably?

To what extent has Jenin's urban planning and urban development system adequate operational capacity to implement a compact city policy effectively?

Before illustrating the data collection methods, it is required to delineate the aspects on which the data was gathered. This contributed to gathering sufficient and appropriate data to answer the case study questions. The earlier defined specific research aspects in Figure 6-2 were the focus of the data collection process. The next sections illustrate the methods of data collection and analysis that were applied to answer the empirical questions in this research.

### **6.5.1. Data Collection Methods**

In this research, several methods were utilized to collect the data from primary and secondary sources. The literature on the case study methodology requires using multiple methods and diverse sources of information to answer the research questions properly (Creswell, 2007, p.73; Maxwell, 2005, p.78). Neither of the sources has an advantage over other sources, rather all sources need to be used in a complementary manner (Yin, 2009, p.101).

#### **6.5.1.1. Primary data**

The primary data was captured through interviews and observations. These data collection methods can be illustrated as follows:

- In-depth interviews

In-depth interviews were conducted with 12 respondents/key-informants comprised the main source of data collection in the case study. A diverse sample of key informants was purposefully selected, representing influential stakeholders engaged in the urban planning and urban development system in the case study area. The sample included four governmental officers working at national, regional, and local authorities that are responsible for urban planning. Additionally, the sample comprised eight academics engaged in planning consultations beside the teaching activities. The academics were selected from two Palestinian universities which offer urban planning programmes. The list of key informants is provided in Appendix 1.A. The diversity of the sample seeks diverse relative realities and a wide spectrum of views on the investigated aspects. The different working experiences of the key informants are likely to generate diverse views. For instance, the planning officers at different levels may hold different points of view because of their different positions. Likewise, academics are expected to have their other views, which are likely to be more theoretical than those views held by the officers.

It is important to mention that the size of the sample was not calculated based on certain formulas. In this regard, Maxwell (2005, p.78) highlights the difficulty for pre-determining the sample size in qualitative studies, and that the context and the richness of the obtained data are the main determinants of how sufficient the sample size is. In this research, the number of persons engaged in the planning process and the size of the planning units are both small. This situation imposed the relatively small sample size, specifically 12 key informants. However, the second condition, namely the small size of the institutions enables the key informants to have a broad range of experience about the institutions they present. In turn, this contributes to creating a rich data set.

The interviews were carried out by the researcher in summer 2016. Each key-informant was interviewed at his workplace. The duration of each interview ranged from about 90 minutes to 120 minutes, depending on the key-informant. The interviews have a semi-structured format of open-ended questions. The interviews were conducted to explore the key informants' views on the advisability of the proposed policy components to the case study area and identify the reasons leading them to these views. Additionally, the interviews were conducted to find out the key informants' assessment of the operational capacity of the urban planning and urban development system, in which they are involved. The utilized interview guides are provided in appendix 1.B and 1.C. Due to the wishes of the key-informants, only ten of the twelve conducted interviews were recorded. Additionally, each key informant was given an ID, such as R.1, to ensure the anonymity of the two key informants who preferred not to mention their names. These two informants are from the academics not from the planning officers.

The selection of the interviews as the main source of data collection has several justifications. First, this method is in line with the philosophical epistemology of the selected social constructivist paradigm, in which the researcher shares with the key informants the construction of required knowledge to determine the degree of policy advisability and assess the operational capacity of the urban planning and urban development policy to run the proposed policy effectively. In addition, the method helps construct knowledge that is relative to the studied urban settings and planning system. Accordingly, the method facilitates an internal understanding of the scope of the compact city policy in the case study area. Second, the method is compatible with the selected qualitative research strategy. It allows collecting the subjective views constructed by the key informants based on their experiences in the form of descriptive statements. Third, interviews are considered a fundamental source of data in qualitative case studies in general (Yin, 2009, p.107). This option can be explained based on the

method ability to enable a close an internal look at the case study and understanding it through the meanings constructed by those who belong to this case.

- Direct observations

These observations were collected by the researcher through field visits constitute another method of collecting primary data in this research. The observations were recorded in the form of textual field notes or pictures. This method was utilized to collect information on the characteristics of the built environment and existing mobility modes, which all belong to the unit of analysis concerning the urban context. Yin (2009, p.109) indicate that collecting data through direct observations is a major strength of the case study, which is the result of conducting the study in 'natural settings'. This strength has enabled the research to overcome the lack of data regarding characteristics of several parts of the city and the quality of existing quarters, the availability of public green structures was collected through direct observations.

#### 6.5.1.2. Secondary data

In addition to the primary sources, secondary data was acquired from documents. The documents were utilized to further explore the advisability of the proposed policy and find out evidence that supports or opposes the suggested policy approaches. In addition, the documents were utilized to collect further evidence on the assessment of the operational capacity of the urban planning and urban development system. This evidence was combined with the subjective assessments collected from the key informants. Yin (2009, p.101) lists documentation among other common data sources in qualitative case studies. In this research, data was derived from the review of the following forms of documents:

- Governmental documents including reports, formal studies, laws, plans, and policy documents. These documents are obtained in print or digital format during the interviews with the representatives of planning authorities or the websites of these authorities. Among the most used documents: Palestinian Cities and Villages Planning Act and Regulations, sectoral studies on the preparation of the National Spatial Plan, study of preparing Jenin's Master Plan, Jenin's Master Plan, Strategic Development Plan of Jenin, Strategic Development Plan of Jenin's District, The Physical Planning Manual, and the Strategic Planning Manual.
- Maps and spatial data that were obtained directly from Jenin Municipality or through a licensed access to the spatial datasets of GeoMOLG.

- Earlier studies including journal articles, conference proceedings and theses in relation to the research specific aspects obtained through web-based search.
- News reports that address urban development-related issues in relation to the specific aspects studied in this research. These reports (clips) are obtained from the websites of local news agencies and newspapers.

### **6.5.2. Data analysis and interpretation method**

Before starting the process of data analysis, the recorded interviews were transcribed using Microsoft Word. Then the transcribed data was organized by compiling the 12 obtained answers for each of the interview's questions in a separate table to facilitate the subsequent steps in the data analysis. Each table is two-columned, representing the key informant's ID and her/his answer.

The thematic analysis method was applied to analyse the interviews' transcripts. The thematic analysis is a qualitative data analysis method that primarily involves the identification and reporting of the explicit and implicit themes in the analysed texts to establish a detailed account of the investigated aspects (Braun & Clarke, 2006, p.77; Punch, 2009, p.7). A theme can be defined as "a pattern found in the information that at the minimum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon"(Punch, 2009, p.7). This means that the generated themes have different levels of inference. Besides defining the themes, the thematic analysis involves other essential steps that take place before preparing the themes including the process of coding and the creation of categories (Green et al., 2007, p.546). The coding process stands for breaking the textual data into several segments and assigning descriptive labels, often referred to as codes, to the data segments (ibid, p.548). The categorization is the process of creating abstract labels showing what the codes represent (ibid).

The thematic analysis of the interviews' transcripts was facilitated by using a technique known as the thematic networks. This technique organizes the thematic analysis by establishing connections between the themes generated at different levels of the data analysis process (Attride-Stirling, 2001, p.387). This technique help representing the results of the data analysis in an explicit and systematic way as well as support generating an evidence of adequate quality (ibid, p.386). Following the thematic networks technique three sorts of themes were generated in analysing the interviews' transcripts, these are the basic themes, the broad themes, and the global themes. Each of the three sorts of themes represents a specific level of inference. For instance, the basic themes represent the lowest level of inference and represent immediate

meanings that are observed in the data segments (ibid, p.388). The broad themes represent a medium level of inference by pulling the basic themes into clusters and revealing the meaning of the basic themes (ibid, p.389). The global themes represent the highest level of inference as they combine the broad themes and conclude the meaning behind the entire transcripts (ibid). Figure 6-4 demonstrates the organization of the three sorts of themes in the investigation of the advisability of the compact city policy to guide Jenin's urban development, whereas Figure 6-5 demonstrate their organization in the investigation of the operational capacity of Jenin's urban planning and urban development system.

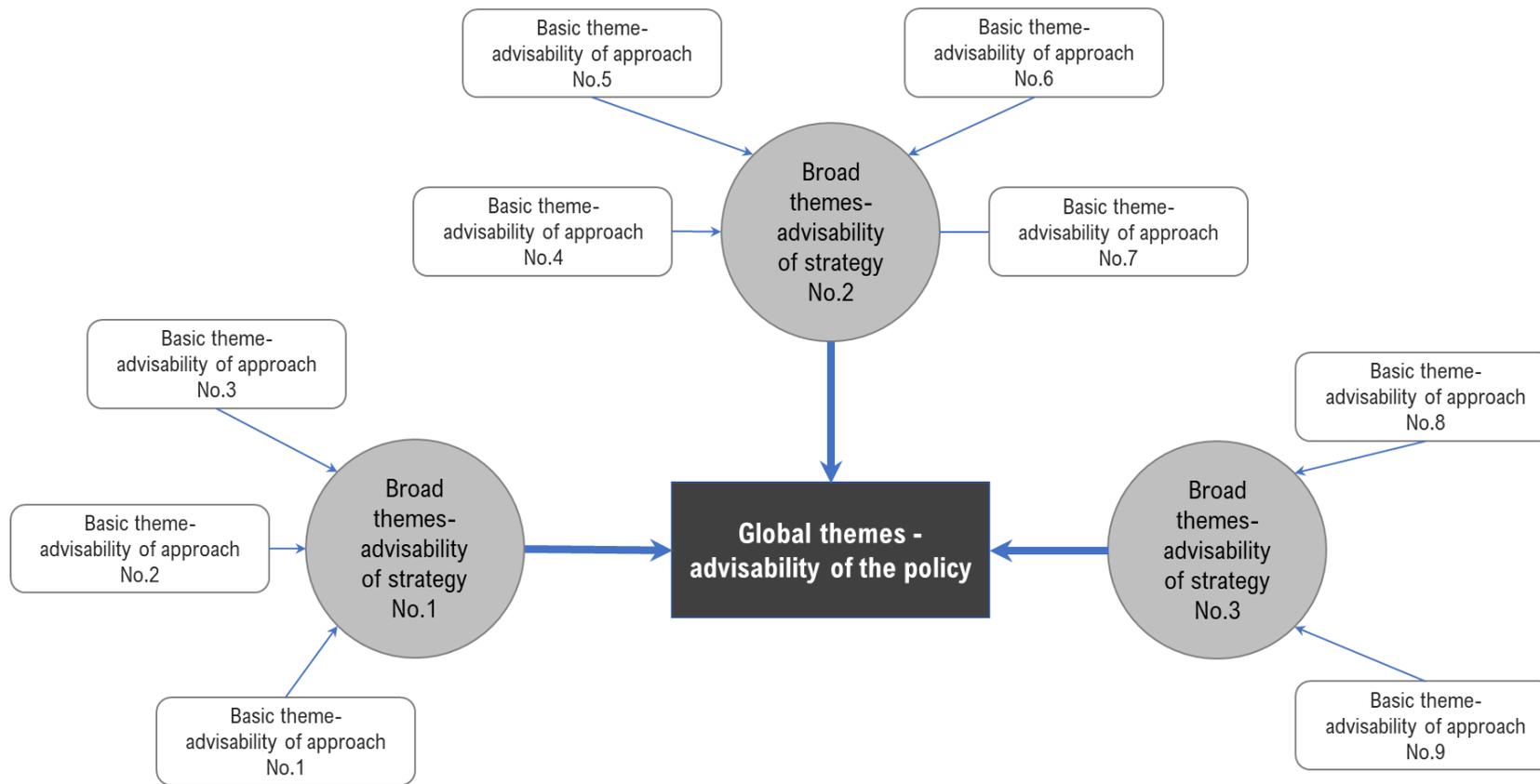


Figure 6-4: Organization of the thematic networks of the policy advisability

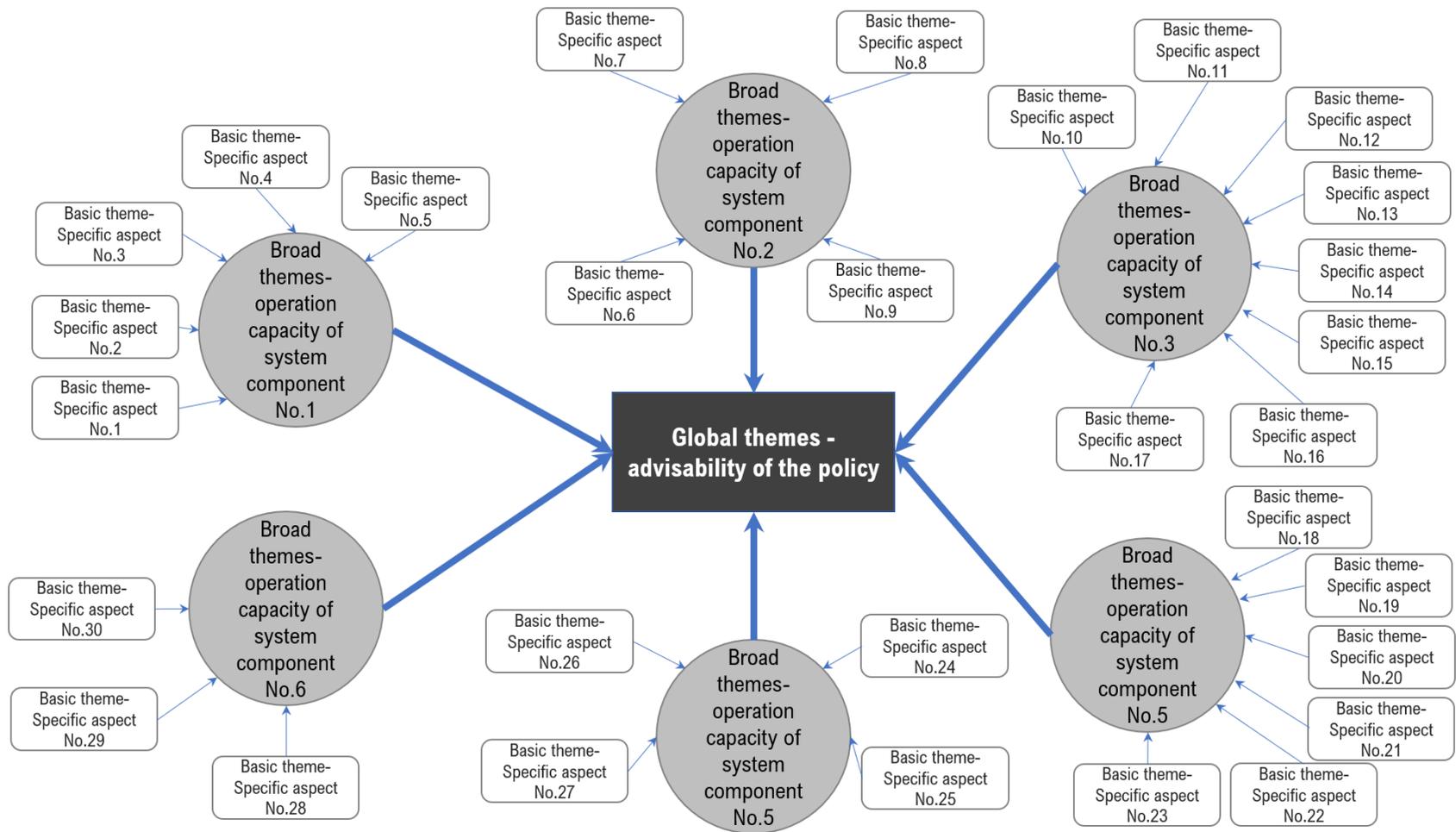


Figure 6-5: Organization of the thematic networks of the operational capacity of Jenin's urban planning and urban development system

The conducting of the thematic analysis and the identification of the themes followed the hermeneutic analytical approach on which the thematic networks technique is based (Attride-Stirling, 2001, p.388). This analytical approach focuses on the interchangeable dependence of the parts and the whole of an issue on each other. It assumes that understanding the whole is dependent on the understanding of the parts, and that the process of understanding the parts depends on the constructed meaning of the whole (Patton, 2002, p.497). Accordingly, the understanding of the advisability of the compact city policy depends on the advisability of the strategies of the policy and the advisability of the approaches of these strategies. Likewise, the understanding of the operational capacity of the planning system depends on the understanding of the operational capacity of each of the system's components and the understanding of specific aspects comprising the efficiency of each of these components. Moreover, the research adopted Gummesson's (2000) Hermeneutic Spiral to organize the relation between the above-mentioned levels of understandings, which represent the three levels of themes used in this analysis. Gummesson (2000, p.70) defines this spiral as "an iterative process whereby each stage of our research provides us with knowledge; in other words, we take a different level of preunderstanding to each stage of the research". Figure 6-6 demonstrates the loops comprising the hermeneutic spiral of understanding the advisability of the compact city policy to the cases study area whereas Figure 6-7 demonstrates the loops comprising the hermeneutic spiral for understanding the operational capacity of the urban planning and urban development system in the case study area. The inductive logic was used to interpret each theme and generate the next level of themes. Finally, the inductive logic was also employed to interpret the suitability of the compact city policy to the case study area. This step has also followed the hermeneutic approach assuming that the understanding of the suitability depends on understanding the degree of the advisability of the policy and the degree of the operational capacity of the planning system.

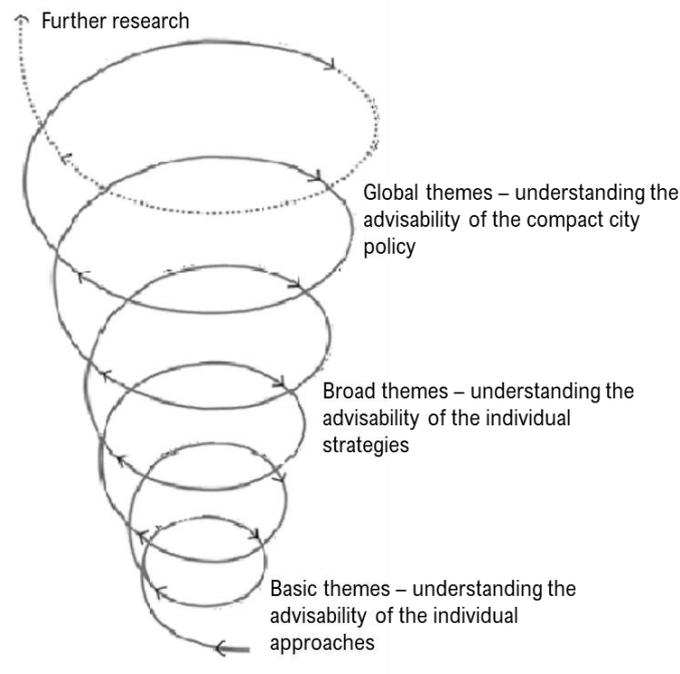


Figure 6-6: Hermeneutic spiral of understanding the advisability of the compact city policy. Based on: (Gummesson, 2000)

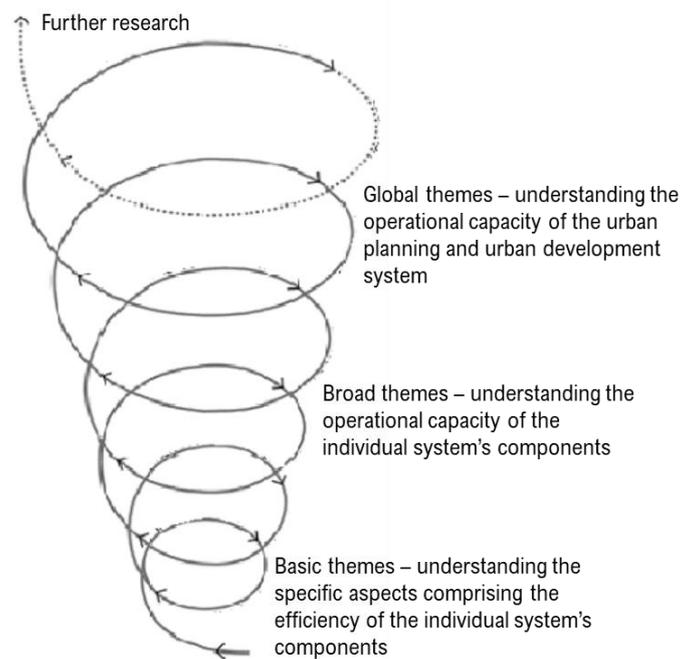


Figure 6-7: The hermeneutic spiral of the understanding of the operational capacity of the urban planning and urban development system. Based on: (Gummesson, 2000)

## 6.6. Validity

This section focuses on the strategies used for achieving trustworthiness of the research findings. In qualitative research, several terms and techniques are used to establish the credibility of the account and achieve trustworthiness. In this research, the stance of Creswell

(2007) is adopted. Unlike other scholars, who use specific terms regarding the research validity, Creswell opted for a general term that he called 'validation'. This concept refers to "an attempt to assess the "accuracy" of the findings, as best described by the researcher and the participants"(Creswell, 2007, p.206). There are several accepted approaches that can be employed while conducting the research in order to deal with validity threats and increase the credibility of the findings. Maxwell (2005) encourages researchers to imply at least two to three research validation techniques, taking into consideration not only those that are feasible but also the ones that are effective for the given research. The approaches utilized in this research are described in the following sections.

### **6.6.1. Triangulation**

The triangulation is one of the most used techniques to increase the research validity. This technique is adopted in the data collection phase following Yin (2009) approach, which implies collecting multiple sources of evidence in a convergent manner. Maxwell (2005) emphasises the role of this technique in reducing the risk of systematic biases resulting from the implementation of a specific method. In this case, the researcher collects evidence on the advisability of the compact city policy and the adequacy of the operational capacity from a diverse sample of key informants. The sample includes governmental planning, whose responses are likely to be affected by their practical experience, and planning academics, whose responses are likely to be ideal or theoretical. The diversity of the sample aimed at inquiring the different experiences and knowledge from different perspectives. In addition, the researcher reviews miscellaneous forms of existing documents on the same aspects addressed in the interviews and combine notes from the field observations. Combining and comparing the results of these multiple sources of evidence is supposed to construct the quality of the obtained responses.

### **6.6.2. Members checking or respondent validation**

Member checking is another popular technique to reduce the validity threats. The technique can be defined as soliciting participants feedback on data and conclusions drawn on their perspectives as means to judge the accuracy and credibility of the account as well as avoiding bias and misinterpretation of what the participants said (Creswell, 2007, p.208; Maxwell, 2005, p.126). In designing case studies, Yin (2009, p.42) considers reviewing a draft of the case study reports by the key informants a vital technique to construct the research validity. In this research, the interviews' transcripts are sent through e-mail to the respective key informants

to check the validity of their contents before the data analysis phase starts. However, three key informants did not respond.

### **6.6.3. Analytic tactic**

The analytic tactic is a technique that addresses the data analysis phase. Yin (2009, p.43) suggests using a clear and explained analytic tactic in case studies, in which the researchers need to make inferences. Clarifying the followed logic of inference leading to the findings is an important means to make these findings convincing. In this study, the researcher employs the developed compact city policy suitability framework, Figure 6-1, and the model of empirical investigation of the compact city policy suitability, Figure 6-2, to guide the process of data analysis and construct the validity of the obtained answers of the research specific questions. In addition, in the data analysis section the researcher explained the method and techniques used to analyse the transcripts and answer the research questions.

### **6.6.4. Rich data or thick descriptions**

Rich data or thick descriptions is a technique that requires the researchers to provide a detailed description of the participants, the settings of the study and a literal documentation of interviews as a research validation approach (Creswell, 2007, p.209; Maxwell, 2005, p.126; Yin, 2009, p.45). This approach is considered very important for the transferability of the findings of the case study. While the generalization of the findings of the single case study has been often debated, a specific version of generalization has been proposed for single or intrinsic case studies called transferability (Maxwell & Chmiel, 2013, p.542). This form of generalization does not require identifying the required conditions to make the findings valid, however, it helps to transfer the knowledge from the case study to other relevant contexts (ibid). Stake (2005, p.450) mentions that it is the task of the readers to determine the relevance of their context and draw their own conclusions provided that the researcher presents a thick description of the case study. Due to the differences in specific characteristics of medium-sized developing countries and the difficulty to generalize in a traditional way from the single case study, this research has opted for the transferability. To enable the transferability process, the research presents a detailed overview of the urban dynamics in the case study area to enable readers to make comparisons and develop their own interpretations.

## **6.7. Conclusion**

This chapter answered the methodological question of how to assess the suitability of the compact city policy in the selected pattern of urban settlements. The chapter illustrated how

the results of the literature review and the real-world examples of compact city policies were utilized to guide the empirical research. Hence, the methodological question was divided into two sub-questions: how to assess the advisability of the compact city policy and how to assess the adequacy of the operational capacity of the urban planning and urban development system. Likewise, the results of the literature review and the examples of the compact city policy were employed to identify the individual specific aspects that were investigated in the empirical research.

The chapter showed the adoption of the philosophical assumptions of the social constructivist paradigm as a basis to conduct the investigation of the suitability of the compact city policy to a medium-sized developing country city. The selection of this paradigm facilitated the development of a subjective understanding of policy suitability to the case study area depending on the view of internal key informants. In addition, the chapter explained the utilization of a qualitative inquiry approach and the use of the inductive strategy to draw a conclusion on the policy suitability to the addressed context. The qualitative approach has also facilitated the study of the subjective views of the internals as intended in the social constructivist paradigm. The inductive strategy facilitated drawing conclusions on the policy suitability building on the constructed meanings which the researched has acquired from the internals. In line with the selected philosophical assumptions, the research approach and the research strategy, the case study methodology was utilized to inquiry the empirical research questions. In this inquiry, Jenin, a medium-sized city in the State of Palestine, was selected as an intrinsic and instrumental case. Within this case study, the researcher focused on two embedded units of analysis to answer the research specific questions, which are the city's urban context and its urban planning and urban development system.

In addition, the chapter illustrated the use of a number of data collection methods to gather the required evidence from primary and secondary sources. The major source of primary data was the in-depth interviews with a purposefully selected sample of 12 key informants. In addition, the direct observations made by the researcher during the field visits, concerning the case study urban settings, contributed also to the collected data. Finally, data derived from several forms of documents was also combined. Throughout the chapter, the researcher has explained how to use the thematic analysis method to analyse the collected data. Finally, the chapter listed the techniques that were adopted to construct the findings validity and produce an evidence of sufficient quality.

## **7. Jenin Case Study**

The previous chapter illustrated how the empirical investigation is undertaken in the selected case study area. This chapter provides a description of specific aspects of the case study area, as it was identified in the research methodology, see section 6.3.1. The chapter addresses the specific research question:

- What are the characteristics of the embedded units of analysis in the case of Jenin?

The chapter is divided into three main sections. Section one provides a general overview about Jenin. Section two describes Jenin's urban context, which is the first unit of analysis in this case study. Section three illustrates Jenin's urban planning and urban development system, which constitute the second unit of analysis.

### **7.1. About Jenin**

Jenin is a Palestinian city in the northern part of the West Bank, Map 7-1. The city is the largest in Jenin district and functions as an administrative centre for the surrounding towns and villages in the district. Geographically, Jenin is located at the intersection of latitude 32.28 °N and longitude 35.18°E (Jenin Municipality, 2012, p.26). Topographically, the city has diverse characteristics including both mountains and plain areas. Part of the city is laid over the internal mountain ranges of Palestine. The slope of these mountains varies between 10% - 15% in Jenin area (ibid). Likewise, a significant part of the city is situated along the southern edge of the internal semi-coastal plane known as Marj Bin Amer (ibid). Jenin's surface elevation ranges between 125m – 225m above the Sea-Level (ibid, p.28). In addition, the tests show that the city's soil is thick and of low salinity, which makes Jenin among the most fertile areas in the West Bank (MOLG, 2008, p.19). The city experiences 700 mm of rainfall, which mostly takes place between November and March (ibid, p.20).

Regarding the city's demography, the 2016 estimations show that Jenin has a population of 48,479 inhabitants as well as 12,890 refugees living in Jenin Camp, which is located within the city (PCBS, 2016a). Considering the stated area of the city, the population density in Jenin is around 2300 person/km<sup>2</sup>. Since 2007, the population has been growing at an annual rate of 1.1% (ibid). The population growth rate in Jenin is not high due to the emigration of the young people to other governorates in the West Bank (PCBS, 2011). The current average household size is nearly 4.9 members whereas it was 6.1 members in 1997 (PCBS, 2017, p.7). This means a remarkable decrease in the household size.



*Map 7-1: General location of Jenin. Based on the data set of the National Spatial Plan*

Jenin's residents practice several economic activities, the most important activities are the trade, the agriculture, and light industries related to the processing of agricultural products and stone manufacturing (PCBS, 2011, p.32). The city is considered as a promising economic region due to its location and its agricultural potentials and recommends strategic projects focusing on the agricultural products (Palestinian Press Agency, 2017). Since the early 1990s, the work in the agricultural activities has been decreasing (PCBS, 2011, p.32). This decrease is partially caused by urban sprawl on the city's agricultural lands (ibid). Simultaneously, the city has been experiencing prosperity in the trade and investment resulting from the active shopping activities of the Arab-Israelis in the city (Palestinian Press Agency, 2017). The statistics of Jenin Chamber of Commerce and Industry show that between 5000 to 6000 Arab-Israeli automobiles enter the city on Saturdays and Sundays while an average of 1500 automobiles enters the city during the other days (Jenin Chamber of Commerce and Industry, 2015). To the north of Jenin, a large industrial zone is being constructed by the support of the Federal German Government and the Turkish Government and is expected to provide 10000 job opportunities (Palestinian News and Info Agency, 2017). Currently, the unemployment rate in the city is about 13.8% (PCBS, 2016b). The unemployment figure is changing according to the political situation. For instance, the unemployment rate in 2000, 2004 and 2010 was 18.4%, 30.7% and 15.5% respectively (ibid). The escalation of the Israeli-Palestinian conflict usually decreases the number of Palestinian labour working in the Israeli cities and reduces the number of Arab-Israeli shoppers in Jenin.

## 7.2. Jenin's urban context

This section describes the aspects of the first unit of analysis in the case study area. The described aspects include the city's growth boundary and the available area for urban development, the characteristics of the built-up area, the land use pattern, the existing urban mobility modes and the status of the urban quality in the individual quarters.

### 7.2.1. Growth boundary and available area for development

Jenin's current growth boundary was delineated in 2000. The boundary encloses an area of 21.4 km<sup>2</sup>, which is three times the area enclosed by the previous boundary line. In 2015, the built-up surface within the growth boundary was 1.6 km<sup>2</sup>. The spatial datasets obtained from Jenin's municipality reveal that Jenin's urban growth boundary maintains a high capacity to absorb further internal development. Until 2015, the built-up area consumed land parcels with an area of only 3.93 Km<sup>2</sup>. This area stands to 18.36% of the available area within the boundary. Around 54.43% of the area within the growth boundary is available for future development<sup>21</sup>. The locational distribution of the vacant land parcels, which are areas available for development, is shown in Map 7-2 below. The map shows that the vacant parcels are distributed throughout the city unevenly. Table 7-1 presents the available areas of vacant land parcels at different distances from the city centre, as calculated from Map 7-2<sup>22</sup>. Nearly two-thirds of the available land area is located within districts that are more than 2km away from the centre, especially in the south. More than one-third of the available area is located within districts that are less than 2 km away from the centre.

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<sup>21</sup> The remaining area -27.21% - is designated for roads and preserved zones.

<sup>22</sup> The city centre is considered as the intersection of the city's two major roads rather than the centroid of the growth area.



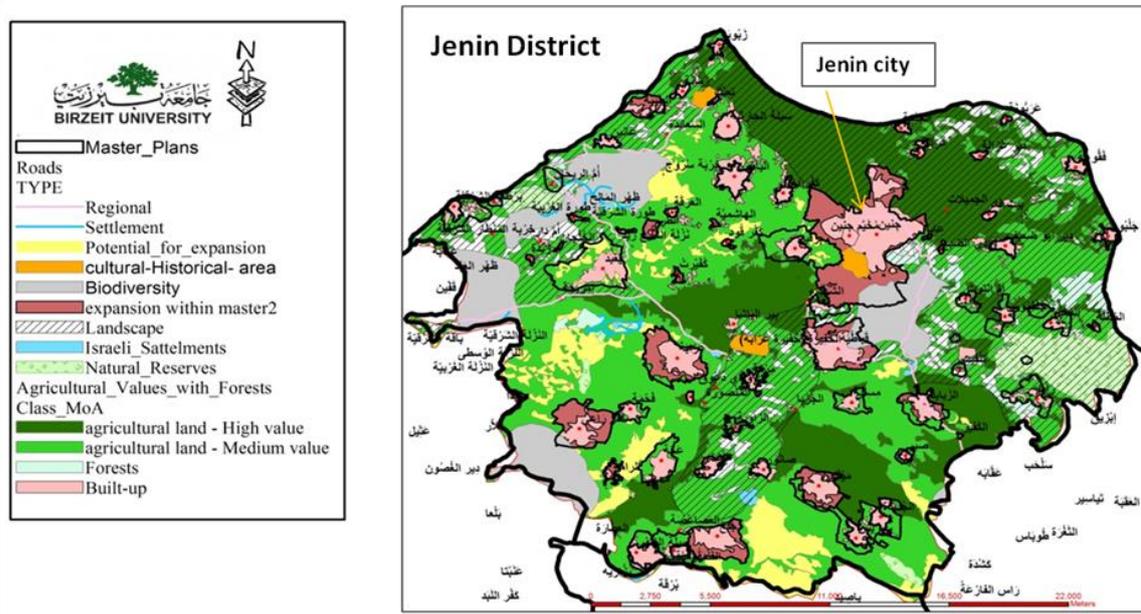
Map 7-2: Vacant land parcels within Jenin's growth boundary

Distance	Available Area Km <sup>2</sup>	Percentage
Less than 1 km	0.85	7.3%
Between 1 km and 2 Km	3.45	29.6%
Between 2 km and 3 Km	5.07	43.5%
More than 3 Km	2.28	19.6%

Table 7-1: Vacant lands distribution based on the distance from the city centre

Unlike the high capacity for internal development, Jenin faces serious limitations on expanding its growth boundary. The results of a study to prepare future development scenarios for Palestine identified very few possibilities to expand Jenin's growth boundary (CCE, 2014, p.55).

The limitations are caused by the city’s location, where several preserved zones for agriculture, biodiversity and cultural landscape are surrounding the city as shown in Map 7-3.



Map 7-3: Expansion potential of Jenin's growth boundary. Source: (CCE, 2014)

### 7.2.2. Jenin’s built-up area

As mentioned in the previous section, the area of the built-up surface within Jenin’s growth boundary is approximately 1.6 km<sup>2</sup>. During the last twenty years, the built-up area has been moderately increasing at an average growth rate of 3.9% per annum<sup>23</sup>. However, the growth rate varied significantly from one period to another, which can be seen in Table 7-2. The table lists the areas of Jenin’s built-up area and the corresponding annual growth rate at selected years between 1997<sup>24</sup> and 2015<sup>25</sup>. As can be seen from this table, the highest and most rapid increase took place between 1997 and 2003 whereas the lowest and least rapid increase took place between 2003 and 2009. The change in the political situation is likely to be among the main reasons behind such difference. For instance, during the late 1990s, the region experienced relative peace and economic prosperity after signing the Oslo Accords. During the early 2000s, this situation was interrupted resulting in a severe setback in the political stability and the economic situation. In the late 2000s, a slow recovery of the political and economic situation started. Accordingly, between 2009 and 2015, the increase of the built-up area and

<sup>23</sup> The annual growth rate is calculated as  $\frac{(Final\ built-up\ area) - (initial\ built-up\ area)}{Number\ of\ years} * 100$

<sup>24</sup> The 1997 is a turning point for the urban development in Palestine as the Palestinian National Authority took over the responsibility of planning the Palestinian communities.

<sup>25</sup> The spatial datasets obtained from Jenin Municipality is lastly updated in 2015.

the annual growth rate were higher than those between 2003 and 2009, but lower than the increase between 1997 and 2003.

Year	Built-up area (km <sup>2</sup> )	Annual growth rate (%)
1997	0.89	-
2003	1.25	6.0
2009	1.37	2.0
2015	1.60	3.8

*Table 7-2: The growth of Jenin's built-up area between 1997 and 2015*

Several studies describe the growth pattern of Jenin as a spontaneous outward expansion. For instance, the studies carried out for the preparation of the National Spatial Plan state that the growth of the built-up area is marked by random and sprawling pattern (CCE, 2014, p.42). In addition, local scholars describe this growth pattern as an uncoordinated spread of the built-up area from the city centre into the urban fringe (Abu Helu, 2012, p.128).

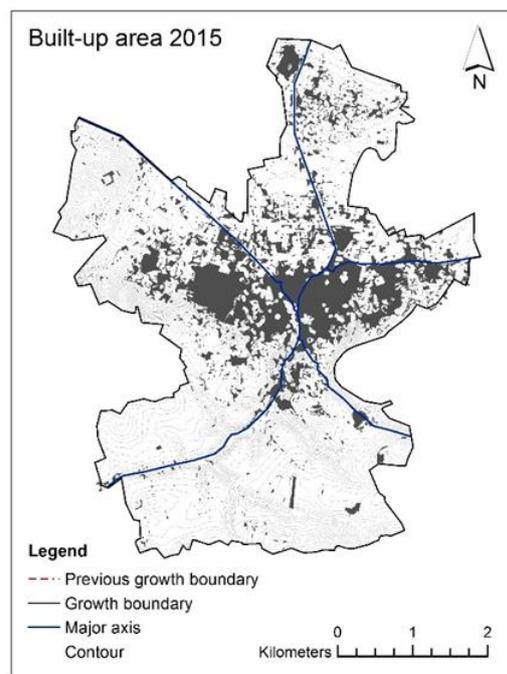
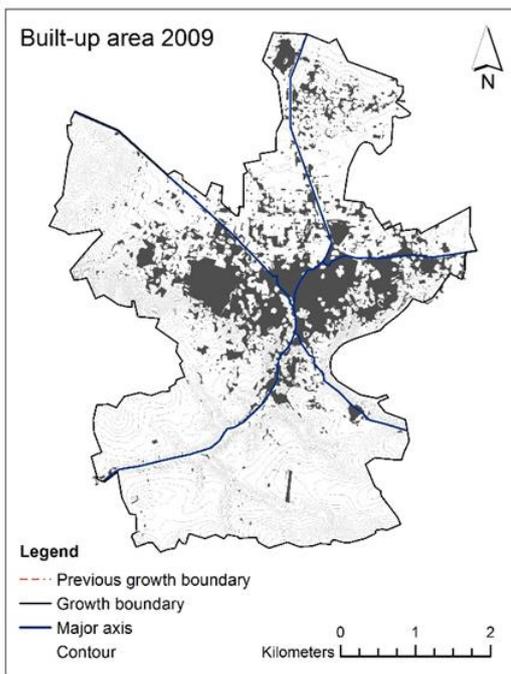
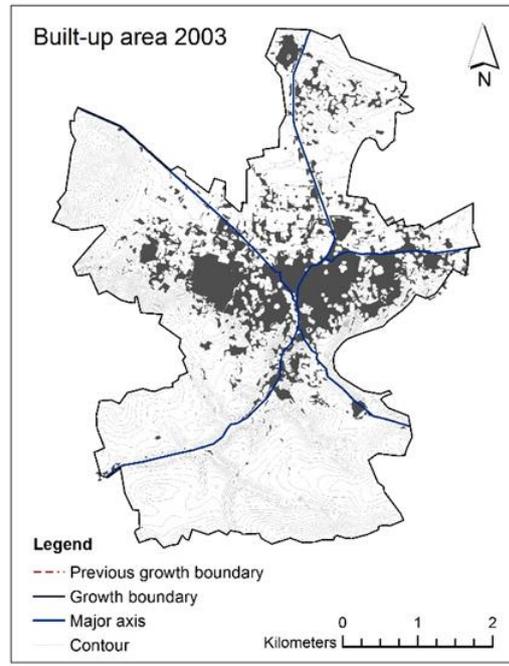
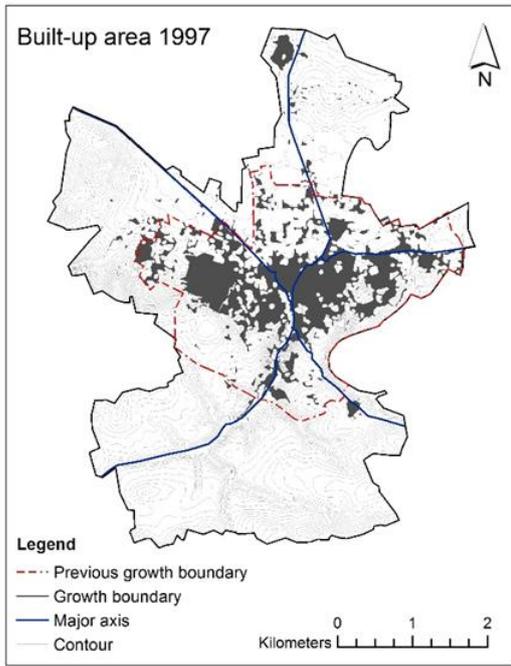
The maps of the city's built-up area are consistent with the above-mentioned description. For instance, the review of the change of Jenin's built-up area between 1997 and 2015 presented in Map 7-4 below and the review of the change of Jenin's built-up area density, presented in Map 7-5 below, confirm that urban sprawl is a prominent growth pattern in the city. The analysis of the Map 7-4 shows that around 56% of the built-up area is distributed within periphery zones whereas the remaining is located within the urban core or adjacent locations. It also shows that the northern periphery, which is a plain agricultural area, has been serving as a hotspot for the outward expansion receiving 39% of the total built-up area in this period. In addition, the western and the southern periphery have received respectively 14% and 3% of the built-up in the same period. Depending on the Map 7-4 and the Map 7-5, the description of Jenin's urban growth pattern in this period can be illustrated as follows:

- Between 1997 and 2003, a considerable share of the new development was constructed within the urban core, which can be categorized as an infill development pattern. Simultaneously, another significant share of the new development leapfrogged to new districts at the northern periphery adding to an earlier developed suburb, which can be categorized as a sprawling pattern of urban growth. The occurring development increased the density of the built-up area at the quarters within the urban core (quarters 9,10,14,17,18,19,24,27,28) and at the new quarters at the northern urban fringe (quarters 1,2,3). This means that in this phase, which witnessed the highest rate of urban growth,

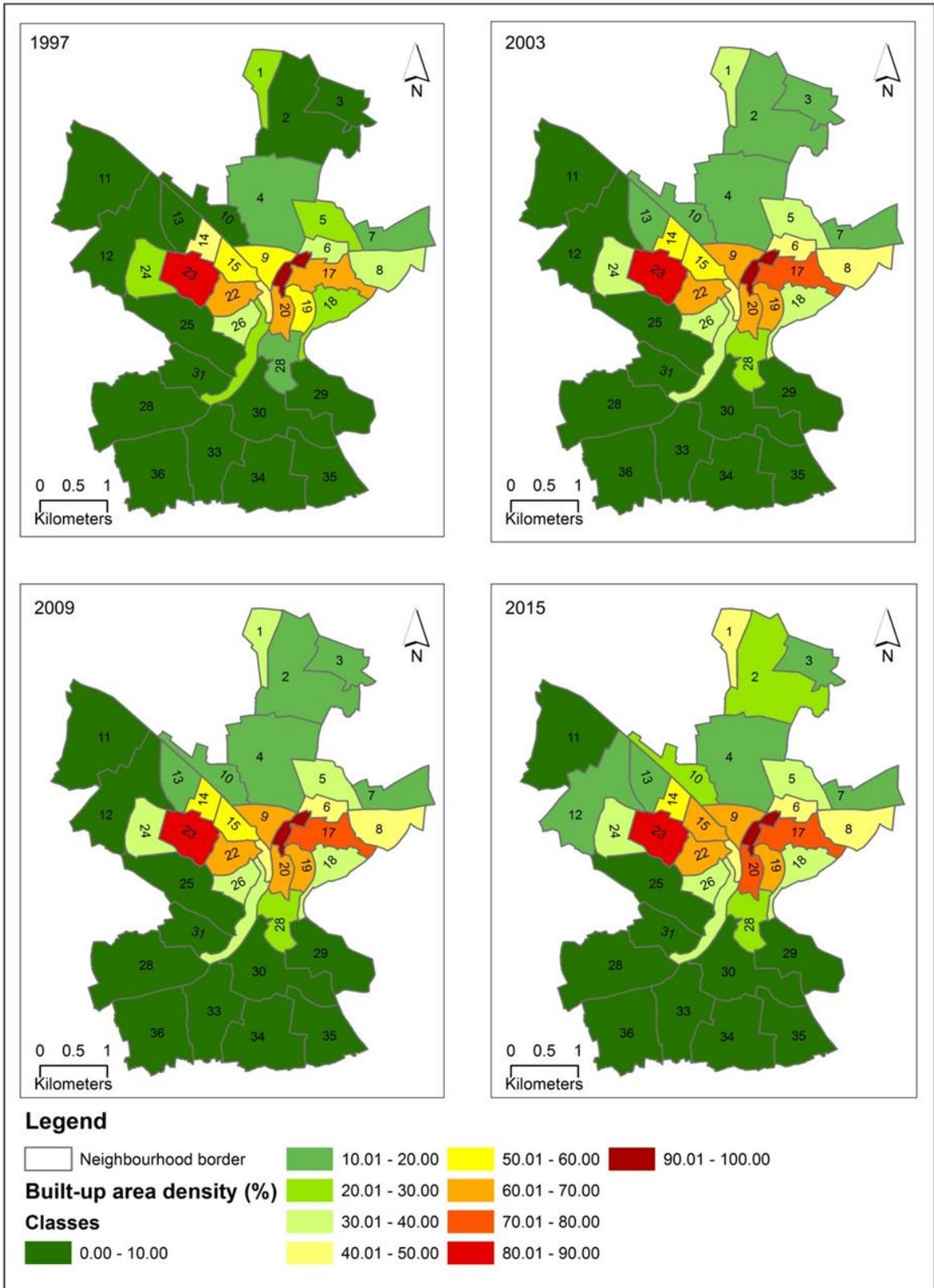
occurring urban growth involved infill development and urban sprawl. The city growth boundary was expanded in the middle of this phase, in 2000. The earlier border, which enclosed only one third the new area, could be one reason for the considerable occurrence of infill development in this phase.

- Between 2003 and 2009, which witnessed the least growth in the built-up area, the urban development was distributed randomly all over the city. In addition to the slight development within the urban core and the increase in the urban cluster at the northern periphery, new urban development diffused to the southern and western edges of the city creating urban patches on fragmented locations. This pattern of development added to the existing urban sprawl in Jenin. In terms of the built-up density, no notable change is detected in any quarter. The random distribution of the built-up area and the slight increase in its size could be reasons for this stability.
- Between 2009 and 2015, new development was added to areas within and adjacent to the urban core, quarters 10, 15, and 20. Likewise, the northern periphery received more development adding to the urban cluster developed earlier there. In addition, the fragmented urban development in the western and southern parts increased, but it was more notable in the west. In this phase, the built-up density increased in quarter located within the urban core, 10, 15, and 20, as well as at the northern periphery, quarters 1 and 2. In addition, a notable increase in the built-up density occurred at a large quarter at the western periphery, quarter 12.

To summarize, the new development at periphery zones has occurred at a higher rate than infill development. Accordingly, the relatively contiguous urban fabric that the city used to have before the mid-1990s is changing into a surface of fragmented built-up areas. The fragmented development is creating a new sub-centre in the northern part of the city. Nevertheless, the city continues to have a monocentric structure which creates high pressure on its only centre.



Map 7-4: Jenin's urban growth between 1997 and 2015



Map 7-5: Change of the density of Jenin's built-up area 1997-2015

### 7.2.3. Land use pattern

In terms of land use, the area within the urban growth boundary is divided into a set of mono-functional zones, which are illustrated in Map 7-6 below. The exact areas assigned to each zoning category are displayed in Figure 7-1. The study carried out by the private consultant for preparing Jenin's land use plan does not explain the concept or the standards adopted in preparing the city's zoning plan. However, the analysis of the zoning map and the resulting areas, the characteristics of Jenin's zoning can be summarized as follows:

- Dominancy of the residential zones, where they account for 85% of the zoning area. This area is distributed among residential use of categories A, B, and C as 32%, 41%, and 12% respectively. This distribution favours the medium and low-density residential development over the high density<sup>26</sup>.
- Approximately, 2% of the zoning area is allocated to the commercial zone. This zone is located mainly in the city centre and distributed linearly along the major transit axes. Another 2% of the zoning area is allocated to the industrial zone.
- Around 0.12% of the whole zoning area is assigned to public green spaces. This zone is barely noticed in the city and it is located in areas in which no residential development has been developed yet. However, a more tangible area, 8% of the zoning area, is assigned for forests. The forests are distributed among four sites which are relatively remote from existing quarters. Accordingly, most of the city quarters lack public green spaces.
- Less than 0.38% of the zoning area is assigned for institutional use. This means the scarcity of lands assigned to public services such as schools, health services, or community centres which to serve the neighbourhood. In addition, the available land is not distributed fairly among the city quarters, rather concentrated within the city centre. However, it is notable that there are trials to distribute such land more strategically at new areas like those at the southern periphery.

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<sup>26</sup> Minimum parcel area in categories A, B, and, C are 1000m<sup>2</sup>, 750m<sup>2</sup>, and 500m<sup>2</sup> and the corresponding percentage of the maximum allowed built-up area per parcel size is 36%, 42%, 48%.



Map 7-6: Jenin zoning plan. Source: Jenin Municipality, edited by the researcher

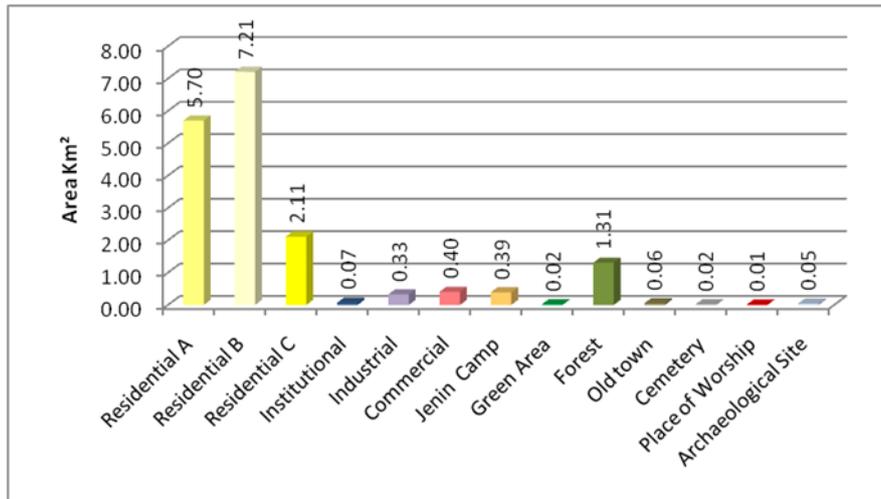


Figure 7-1: Zoning areas in Jenin's master plan

#### 7.2.4. Urban mobility modes

In Jenin, both non-motorized and motorized modes of urban mobility are used for daily trips. There is no available data describing the percentage of travellers using each mode. As an alternative, a description of each mode based on the field observations and some available related indicators is prepared to provide an overview of the existing mobility modes in Jenin.

##### 7.2.4.1. Non-motorized mobility modes

The non-motorized mobility modes account for a moderate share of the daily trips. The description of this mode of mobility can be detailed as follows:

- Walking constitutes a fundamental form of non-motorized modes in the city. Two basic groups of non-motorized travellers are observed. First, the larger group, composed of young people -pupils- commuting between places of residents and schools. Second, residents of urban quarters within the urban core, moving between places of residents and the city centre aiming to go to work, shopping, or services. Despite the relatively short travel distances within the city, residents seem unwilling to walk. The lack of a secure and convenient pedestrian environment can attribute to the low-willingness to walk. For instance, within the urban core, sidewalks are occupied for other purposes such as displaying goods, planting trees, or parking cars without leaving room for the pedestrians. Beyond the urban core, many streets are not provided with sidewalks. In addition, the steep slope of some streets which is left without interventions prevent pedestrians from travelling conveniently.
- Unlike walking, cycling is uncommon mobility mode in Jenin. The narrow, crowded streets and the steep slopes make the city unsuitable for cycling. The hot and humid weather

during the long summer and the culture are thought to be other factors reducing cycling popularity in the city.

#### 7.2.4.2. Motorized mobility modes

The motorized mobility modes account for a large share of the daily trips. In Jenin, the motorized mobility is facilitated by the following modes:

- Private automobiles constitute a major means of transport in Jenin. The field observations indicate traffic congestion and insufficient parking spaces in the city, especially in the centre. A recent statistical report shows that the number of registered vehicles per 1000 inhabitants in Jenin is only 90 (Wafa, 2017). This number is very near to its average value in the West Bank cities, which is 92 vehicles per 1000 inhabitants (ibid)<sup>27</sup>. The report draws attention to the fact that the congestion of the West Bank cities is not attributed to a high number of vehicles since Palestine is ranked as the 192<sup>th</sup> country in terms of the number of vehicles per capita (ibid). The report indirectly conveys the message that the design and infrastructure of the West Bank cities are not suitable for higher dependence on private vehicles. Observations on the ground show that the vehicles of the city residents are not the only contributor to the traffic congestion. Both the vehicles of the Arab-Israeli shoppers and the vehicles of the shops' owners and workers coming from surrounding villages add to this congestion.
- Collective transport modes including taxis and mini-buses take part in facilitating the movement of Jenin's citizens. The use of taxis in daily commuting is very common in Jenin as it is in other West Bank cities. A thematic study prepared for the UN-HABITAT on the sustainable urban mobility in the Middle East and North Africa points out: "In Palestine, the number of taxis is growing exponentially in comparison to bus service" (El-Geneidy et al., 2013, p.9). There are two sorts of taxis, these are the private taxis and the collective taxis. The private taxis are similar to those available in many cities around the world, which transport passengers from any selected starting point to any ordered destination. The collective taxis transport passengers only along a certain route, and they are shared by multiple passengers at the same time. It is notable that the size, the quality and the popularity of the transport services provided by the private taxis exceed those provided by the collective taxis. The records of Jenin's Directorate of Transportation show that 17 taxi offices are operating in the city, at which around 200

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<sup>27</sup> In 2014, the number of vehicles per 1000 inhabitants in Brazil and in Germany amounted for 249 and 572 respectively (Nation Master, 2014).

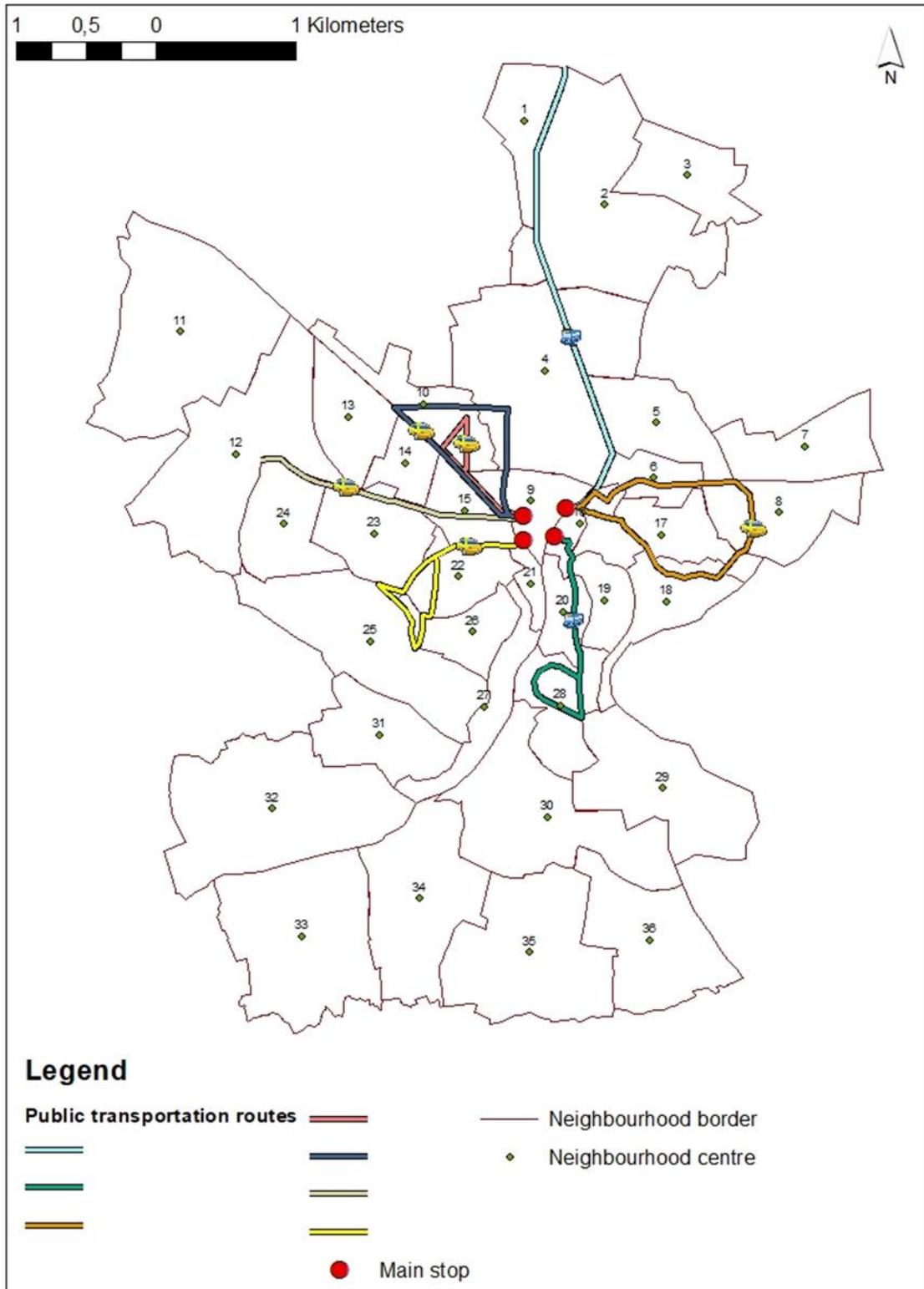
private taxis are providing services<sup>28</sup>. Observations show that most offices provide services between 6:00 am and 12:00 am, and one office provides 24-hour services. On the other hand, only 30 collective taxis are serving along five routes in the city (MOT, 2016, p.69). In addition, few mini-buses are operating along two routes in the city. No statistics are obtained about the number of the mini-buses. The existing transport routes including collective taxis and mini-buses are presented in Map 7-7 based on the field observations since the city authorities don't owe such map. The observations also show that these taxis and mini-buses operate only on workdays between 7:00 am and 5:00 pm without following a planned travel schedule. Both taxis and buses have only main stations in the city centre, see Picture 7-1, and they pick and drop passengers at any point along their routes. The previously mentioned thematic study on urban mobility found that in Palestine the services of the mini-buses is notably less popular than that of the private taxis (El-Geneidy et al., 2013, p.9). Likewise, the study points out that majority of the users belong to the low-income social group (ibid, p.10).



*Picture 7-1: Main station in the city centre*

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<sup>28</sup> Information obtained through email from Jenin's Directorate of Transportation



Map 7-7: Public transportation routes in Jenin

### 7.2.5. Urban quality

In Jenin, the residential neighbourhoods suffer several deficits concerning the urban quality. Existing municipal reports cite a number of these deficits. For instance, the report prepared

during setting the city latest master plan shows a shortage of sites allocated to public services and amenities, an extreme scarcity of lands preserved for public green spaces and parks, a lack of sites designated for public transportation facilities, and an improper streets design in terms of width and slope with a shortage of parking spaces (Urban and Regional Planning Unit, 2006, p.23). The report criticizes the expansion of the areas designated for residential use without enlarging the areas allocated for services and amenities (ibid, p.22). Nevertheless, a quick review of the latest master plan shows that the plan does not overcome the identified problems and that this statement remains valid. A more recent municipal report, prepared for setting the 2012-2015 strategic plan, also confirms a significant deficiency in the urban quality. The major cited deficits are the deterioration of the physical infrastructure including streets, water utilities, electricity, and sewerage network; the improper geographical distribution of schools, and the lack of social services provided to neighbourhoods including community centres to the different age groups, sport facilities, cultural centres or any recreational facilities (Jenin Municipality, 2012, p.17).

The obtained municipal reports address the status of the urban quality only generally and lack an assessment of the built environment. An assessment of the urban quality on the neighbourhood scale, though needed for this study, is not available. Instead, a basic assessment of the urban quality is conducted in this study. The assessment addresses three major aspects and several indicators concerning the quality of the built environment, the social services, and urban mobility facilities as detailed in Table 7-3. The aspects and the indicators are adapted from existing literature on the urban quality concept at the neighbourhood level<sup>29</sup>. The designed indicators have qualitative nature and they are subjectively measured based on notes collected through field visits, review of the city’s master plan, and a satellite image of 2016. The assessment aims at identifying the existing urban quality deficits and surpluses and their extent. It also aims at finding out which neighbourhoods experience most deficits. The assessment included only the residential neighbourhoods that are already developed excluding the refugee camp.

Aspect	Indicator
Comprising a built-environment of acceptable physical quality	The degree to which the physical conditions of the buildings structures are appropriate
	The degree to which buildings’ layout allow adequate sunlight and natural ventilation

<sup>29</sup> See (Damen, 2014; Ezell, 2004; Serag El Din, Shalaby, ElsayedFarouh, & Elariane, 2013)

	The degree to which individual buildings owe private green spaces
Providing adequate social services within a convenient walking distance	The degree of accessibility to schools
	The degree of accessibility to grocery shops and daily restaurants
	The degree of accessibility to public green spaces
Enabling diverse modes of mobility	The degree of availability of sidewalks allowing pedestrians to move easily and safely
	The degree of availability of appropriately designed streets
	The level of accessibility to public transportation facilities within a convenient walking distance

*Table 7-3: Urban quality - aspects and indicators*

#### 7.2.5.1. Quality of the built-environment

The results of the assessment of the quality of the built environment revealed that most of the city's neighbourhoods have acceptable quality<sup>30</sup>. In terms of the physical conditions of the buildings, 48% of the city's neighbourhoods have acceptable or very acceptable conditions, Picture 7-2 and Picture 7-3, and 32% of the neighbourhoods have buildings of moderate conditions, Picture 7-4. In these neighbourhoods, the prevailing building patterns are single houses or low-rise multi-storey buildings, which are usually constructed of natural stones. Only five neighbourhoods, 20% of the total neighbourhoods, have buildings of unacceptable physical conditions, Picture 7-5. These are the old town (16), Picture 7-6, three neighbourhoods appearing in the early 1970s to east and west of the old town (8,17,21), and a relatively new suburb to the east of the city (29). In the old town, only few buildings were properly preserved whereas many were replaced either partially or totally by low-quality structures. The buildings of the three neighbourhoods next to the old town are constructed from inadequate building materials such as blocks or concrete without proper treatments and are gradually ageing without maintenance. In the eastern suburb, the buildings are relatively new but constructed from inadequate building materials such as blocks or concrete. In the common construction system, such structures are considered incomplete as they lack additional required layers.

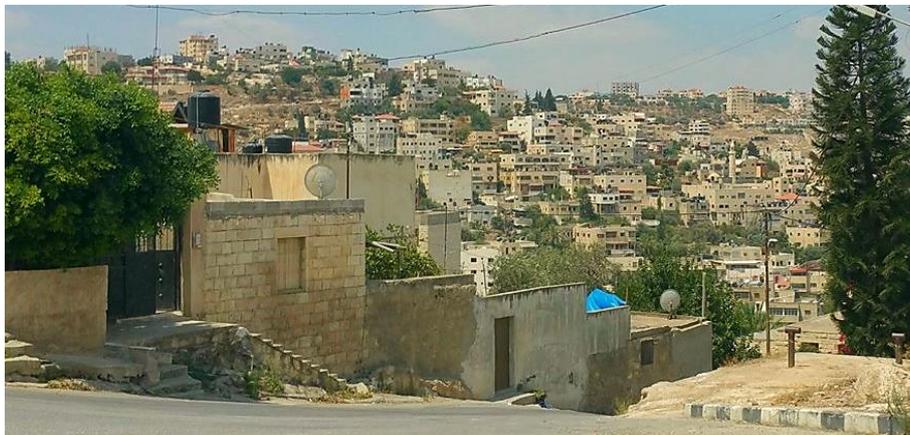
<sup>30</sup> The detailed assessment sheet of the quality of the built environment is presented in Appendix 2.A.



*Picture 7-2: Neighbourhood with very acceptable quality of the buildings' physical conditions - quarter 2*



*Picture 7-3: Neighbourhood with acceptable quality of the buildings' physical conditions - quarter 14*



*Picture 7-4: Neighbourhood with moderate quality of the buildings' physical conditions - quarter 26*



*Picture 7-5: Neighbourhood with unacceptable quality of the buildings physical conditions - quarter 17*



*Picture 7-6: Neighbourhood with unacceptable quality of the building physical conditions – The old town*

Regarding the buildings' layout, the quality is acceptable or very acceptable in 60% of the neighbourhoods. The houses in these neighbourhoods provide for sufficient setbacks from the neighbouring buildings creating proper conditions for natural lighting and ventilation, Picture 7-7. Around 24% of the neighbourhoods have buildings of moderate layouts. The moderate provided setbacks between the buildings create acceptable conditions for natural lighting and ventilation. Only 16% of the neighbourhoods turned to have building layout that is unacceptable. These are the old town of the compact structure and the three neighbourhoods adjacent to it, Picture 7-8. In these three neighbourhoods, the building regulations were strongly violated creating spaces that are much denser than planned. The natural lighting and ventilation of the buildings are restricted due to the unplanned compactness of the blocks.



*Picture 7-7: Neighbourhood with very acceptable quality of the buildings' layout - quarter 28*



*Picture 7-8: Neighbourhood with very unacceptable quality of the buildings' layout - quarter 16*

Regarding the degree of availability of private green spaces, the obtained results are very close to those concerning the layout of the buildings. The neighbourhoods with buildings that have private green spaces of acceptable or very acceptable areas represent 56% of the city's neighbourhoods, and moderate areas of private green spaces represent 28% of the neighbourhoods, Picture 7-9. Only in 16% of the neighbourhoods the buildings have unacceptable or very unacceptable areas of private green spaces. These are the four neighbourhoods that also suffer problems concerning the building layouts, where the buildings consume the land parcels almost completely leaving no space for the green spaces. In summary, the major deficits of the built-environment are concentrated in the old town and in another three neighbourhoods within the city core.



*Picture 7-9: Neighbourhood with moderate quality of the private green spaces - quarter 22*

#### 7.2.5.2. Quality of the social infrastructure

The assessment's results respecting the social infrastructure are in line with the reported weakness and the improper geographic distribution of such services<sup>31</sup>. Regarding the access to schools, only 32% of the neighbourhoods have an acceptable or very acceptable access to schools. In these neighbourhoods, residents can reach both elementary and secondary schools for girls and boys within a convenient walking distance of maximum 800 metres. Around 24% of the neighbourhoods have a moderate level of accessibility to schools. The residents of such neighbourhoods have partial access to schools, either part of them can access all sorts of schools within the identified walking distance or all residents have access to few sorts of schools. Secondary schools, mainly those for boys are mostly inaccessible. Around 44% of the neighbourhoods experience an unacceptable or very unacceptable level of accessibility to schools. In these neighbourhoods, which are mostly located beyond the city inner core, the accessibility to schools ranges between accessing some sorts of schools within a convenient walking distance of 800 meters only by a few of residents to having absolutely no access to any sort of schools within the mentioned distance.

The results of the assessment of the ease of access to grocery retails and daily restaurants reveal the concentration of these services in the city centre, with limited linear distribution towards the north and the west. In the east and the south, the provided services are

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<sup>31</sup> The detailed assessment sheet of the quality of the social infrastructure is presented in Appendix 2.B.

insignificant. Less than the half of the neighbourhoods have an acceptable or very acceptable access to food retails and daily restaurants. The residents of these neighbourhoods, mainly within the city core and the northern axis, can reach several alternatives of these services within a walking distance of maximum 800 metres. 8% of the neighbourhoods have moderate access to appropriate food selling services within a walking distance of maximum 1200 meters. These neighbourhoods are located between the inner core and periphery areas. Around the half of the neighbourhoods – 48%- have an unacceptable or very unacceptable access to grocery retails and daily restaurants. The residents lack access to such services within 1200 meters walking distance or have very limited access to inadequate services. These neighbourhoods are located on the southern, eastern and partially on the western part of the city.

The assessment results also show unequal distribution of the public green spaces. The distribution appears to be in the favour of the periphery neighbourhoods, at which small forests are located often provided with few facilities and playing equipment. Within the city core, existing public green spaces have insignificant areas, 0.1 to 0.2 hectares, lacking all sorts of facilities. The neighbourhoods with acceptable and very acceptable access to public green space constitute 36% of the total neighbourhoods and those with moderate access comprise only 16%. Again, 48% of the neighbourhoods have either unacceptable or very unacceptable access to one sort of the social services, namely the public green space. However, the quarters are not necessarily the same suffering unacceptable access to other services. In summary, a high percentage of the city quarters have deficits in the accessibility to the social services. The distribution of the services seems to overlook the needs of the existing neighbourhoods. The deficits are not concentrated in certain neighbourhoods without the others, rather each area experience certain sorts of these deficits.

#### 7.2.5.3. Quality of the urban mobility facilities

Further results show deficits in the provided the infrastructure and services that facilitate the residents' movement through diverse mobility modes. The deficits appear clearly in the facilities provided for pedestrians' movement, which is a widespread problem in most parts of the city. Only 8% of the neighbourhoods offer acceptable sidewalks that facilitate an easy and safe environment for the pedestrians. Around 16% of the neighbourhoods provide sidewalks that can moderately facilitate an easy and safe movement of the pedestrians, Picture 7-10. In these neighbourhoods, the available narrow sidewalks are interrupted by trees, electricity- and telephone poles, or parts of the buildings violating exceeding the property line. In 76% of the neighbourhoods, the level of availability of the sidewalks is unacceptable or very unacceptable.

In these neighbourhoods, narrow sidewalks are provided in very limited locations or no sidewalks are provided at all.



*Picture 7-10: Neighbourhood with moderate availability of sidewalks - quarter 18*

In addition, the assessment reveals deficits in the degree of availability of appropriately designed and paved streets, but with less intensity than the deficits concerning the sidewalks. These results confirm the reported problem of improperly designed streets in the residential neighbourhoods. Only 20% of the neighbourhoods turn to provide an acceptable level of paved and well-designed streets with parking opportunities. Around 44% of the neighbourhoods provide streets of a moderate level, in which the streets are narrow, have limited parking opportunities, and lack pavement in some sections. About 36% of the neighbourhoods provide streets of an unacceptable or very unacceptable level. These streets are very narrow to facilitate the movement of two cars simultaneously, have many unpaved sections, and can hardly offer any parking opportunities.



*Picture 7-11: Neighbourhood with unacceptable degree of availability of well-designed streets- quarter 20*

Finally, the assessment indicates a weakness in the level of accessibility to public transportation services including the availability of the service, the working hours, and the quality of the provided service. None of the studied neighbourhoods offers an acceptable level of accessibility to the public transportation facilities. Most of the neighbourhoods – 76% – provide moderate accessibility to these facilities. In these neighbourhoods, most residents can reach the transportation facilities within a walking distance of maximum 800 meters; however, the few number of the operating vehicles, the short working hours, and the fact that the available routes are not connected are factors making the service of moderate quality. 24% of the neighbourhoods suffer unacceptable or very unacceptable accessibility to public transportation facilities. If the residents of these neighbourhoods chose to use the public transportation, they should walk distances longer than 800 meters, and in some cases going through steep roads that are inconvenient for walking. Overall, the urban mobility modes suffer problems in several neighbourhoods. The pedestrian environment needs significant improvement to encourage walking as a major mobility mode in this small city of short distances. The simple public transportation services require more creative planning and an upgrade of the provided services to make this pattern of movement more useful and acceptable.

#### 5.2.5.4. Overall assessment

Considering the entire assessment of the three urban quality aspects, one may conclude the availability of limited deficits in the quality of the built-environment and significant deficits in the quality of the provided social services and the existing mobility facilities. The deficits of the

built-up environment are notable in few neighbourhoods; whereas, the deficits in social services and mobility facilities are occurring randomly in several neighbourhoods. Figure 7-2 below presents a summary of all aspects considered in the evaluation of the urban quality in Jenin's neighbourhoods. A comparison of the entire results shows that six neighbourhoods, 8,17,21,26,27,29, seem to experience the highest number of urban quality deficits. Five of these neighbourhoods are among the older neighbourhoods which are located within or near the city core, and only one neighbourhood is a relatively new suburb. None of the remaining neighbourhoods shows extraordinary urban quality level.

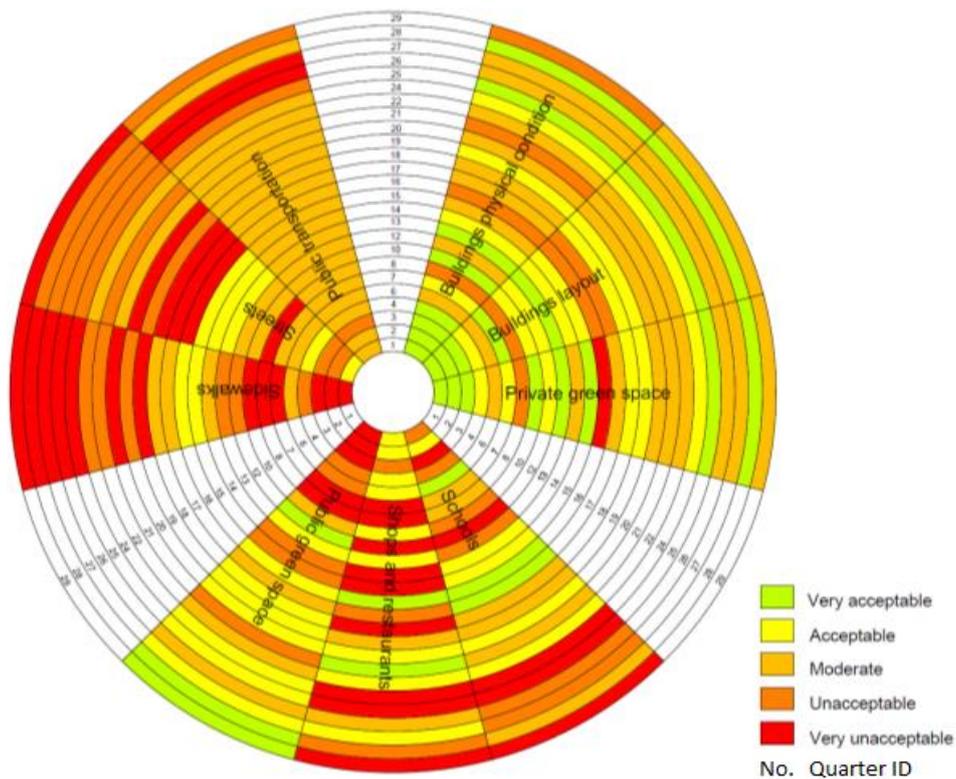


Figure 7-2: Summary of the urban quality assessment

### 7.3. Jenin's Urban planning and urban development system

This section describes the aspects of the second unit of analysis in the case study area. The description addresses the adopted planning laws at the several levels, the planning authorities, and the existing plans including their contents, preparation and implementation.

### **7.3.1. Adopted planning laws**

Like other West Bank cities, Jenin's urban planning and urban development system follows the Temporary Jordanian Planning Law No.79 of 1966 (Halabi, 1997, p.38). The sections of this law, which governs the planning of the cities and villages, identify the authorities involved in the planning process, their duties, and interrelations. Likewise, they describe the required plans and explain the process of plans' authorization. Additionally, the sections delineate the zoning ordinances and building regulations and stipulate the process of issuing building permits. Finally, they regulate issues related to land acquisition, land swap, compensations and other various aspects. The other key legislation governing the urban planning and urban development system is the Palestinian Local Authorities Law No.1 of 1997 (ibid). This law adds to the earlier mentioned law and focuses on the duties of the local authorities and the financial and administrative powers assigned to these authorities. Several Palestinian governmental bodies and development organizations point out the limitation of the existing planning legislation and emphasize the need for reforming the existing legislation (MoLG, 2010, p.8; NSP, 2015; UNDP, 2004, p.38). Since 1997, repeated attempts to draft and authorize a new planning law have been reported; however, no results have been yet achieved (UNDP, 2009, p.11).

### **7.3.2. Involved authorities, roles and interrelations**

The enacted planning laws delineate three authorities engaged in the preparation of local and regional plans within prescribed administrative hierarchy and procedures. At the national level, the Ministry of Local Government (MoLG) is entitled to draw the general policies that supervise the local planning committees, set orders to enable the realization of the policies, monitor the performance of the local committees, and prepare regional plans (Law No.1/1997 -Art.15). In addition, the minister of MoLG chairs the High Planning Council (HPC), which is the highest planning authority. HPC declares the areas for which a plan shall be prepared, and is entrusted to make the final decision in the process of authorizing the prepared plans (Law No.79/1966 – Art.6). At a regional level, Jenin Directorate of Local Government (JDoLG) is involved in the planning process as a branch of MoLG at the district level. The head of JDoLG chairs a District Planning Committee (DPC) that is responsible for reviewing appeals against the plans prepared at the local level before being directed to the HPC (Law No.79/1966 – Art.8). At the local level, Jenin Municipality (JM) is entitled to carry out the urban planning activities within its administrative boundaries (Law No.1/1997 -Art.15). Based on a recommendation of HPC, the Municipal Council of Jenin turns into a Local Planning Committee (LPC) that can carry the

planning tasks by its internal staff or by delegating them to an external entity (Law No.79/1966 – Art.9).

Concerning the national planning, the existing legislation fails to make a reference to the authorities responsible for preparing the national spatial plans. Nevertheless, the Ministry of Planning (MoP) used to carry out this role (Abdelhamid, 2009, p.7; WAFA, 2011). The unclarity of defining the roles of MoP and those of the MoLG respecting the national planning has created an overlap in responsibilities and has caused an interruption of the planning process at this level (Abdelhamid, 2009, p.10; UNDP, 2004, p.113). In September 2015, MoP was merged with the Ministry of Finance creating the Ministry of Finance and Planning<sup>32</sup>. Accordingly, MoLG is entrusted with the spatial planning for the national level.

### **7.3.3. Existing plans and their preparation, execution, and review**

At the local level, the key plan that governs Jenin’s urban development is known as Jenin Master Plan (JMP). Existing legislation requires this plan to define the land use pattern, often referred to as zoning, the location of roads and services as well as other additional details (Law No. (79)/1966, Art.19). This binding plan is the main reference for regulating the urban development in the city as it governs the process of issuing building permits. The zoning ordinances constitute the major utilized tool to implement this plan. In 2010, the current MP was approved after long procedures starting with the approval of the new growth boundary in 2000. In 2003, the Centre for Urban and Regional Planning at An-Najah University completed the plan development on behalf of JM, which has no capacity to develop the plan internally. Then the plan was published to the public before the several reviews by the LPC, DPC and the HPC were conducted. The development of the plan was based on a simple study conducted by the same commissioned centre. To enhance the process of preparing the master plans, MoLG has issued a “Physical Planning Manual” that illustrate the recommended steps for preparing these plans. In the case of Jenin, the use of this manual was not possible since it was published after preparing JMP. Concerning the review and the update of JMP, there is lack of legislation on the time limit of the plan validity or when it should be reviewed. However, the Physical Planning Manual recommends preparing plans for a period of 15 years, and dividing the plan into three phases of five years (MoLG, 2010, p.8). Likewise, the manual recommends reviewing the plan at the end of each phase (ibid). In addition to JMP, a few detailed plans are available

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<sup>32</sup> Decree Law No. (17) of 2015.

designing the detailed land use of specific blocks within the city. These plans have binding legal status.

Besides the above-mentioned plans, which often referred to as physical plans, the city adopts a non-binding plan called Strategic Development and Investment Plan for Jenin- 2012 – 2015 (SDIP). This plan is the first of its kind in the city, and it has been developed upon the recommendation of the MoLG as part of the project of enhancing the local governance. The MoLG has also prepared a planning manual to guide LPC in developing the strategic plans. The community has been involved in preparing this strategic plan. The role of SDIP is to set the comprehensive development objectives and priorities in Jenin city within the defined period, considering the available resources and the expected obstacles (MoLG, 2013, p.5). SDIP is intended to provide inputs to guide the development of JMP, assuming the preparation of SDIP precedes the preparation of JMP (MoLG, 2010, p.7). However, this is not the case in Jenin. Concerning the evaluation of SDIP, no assessments have been yet conducted although this action was planned. Likewise, no updated version of the plan has been prepared despite the expiration of the current version in 2015.

At the regional level, more specifically the district level, no spatial plans are available. The existing planning legislation requires MoLG to prepare these plans; nevertheless, the ministry has never carried out this function (Abdelhamid, 2006, p.8). Instead, MoLG advises each district to develop a strategic development plan as an instrument to harmonize and guide the local development (MoLG, 2010, p.8). Accordingly, JDoLG prepared Jenin District Strategic Development Plan 2008-2017, following a participatory approach with the citizens, civil society institutions, local councils, governmental institutions, and other stakeholders (PRDPP, 2008, p.10). The development of this plan was a product of the Participatory Rural Development and Planning Project, whose team assisted JDoLG to prepare the plan (ibid, p.12). Based on sectoral-analyses of the entire district, the plan sets a number of development goals in various sectors and draw strategies for their achievement (ibid, p.10). Unfortunately, this plan was not available during the development of JMP to establish a link between the local and regional levels.

At the national level, the Protection Plan for Natural Resources and Archaeological Sites, which was approved in 2014, is the key plan guiding the national spatial development. This plan constitutes the first phase of the National Spatial Plan (NSP) that aims at providing tools to guide planning at the local and regional levels both comprehensively and sustainably (NSP, 2014, p.2). MoP directed the development of this plan in cooperation with six related ministries, UNDP, and UN-HABITAT (ibid). The plan has a binding nature defining several

categories of lands that shall be preserved and setting the corresponding land use regulations. The late development of the protection plan means that the development of Jenin JMP was not guided by spatial policy to select the optimal locations for its urban expansion. In 2015, the second phase of NSP was completed with the participation of a wide range of stakeholders (NSP, 2015b, p.1). This phase resulted in the formulation of the planning document “Envisioning Palestine: Palestine 2025 & Palestine 2050”. This planning document identifies the objectives and visions of several development sectors in coordination with the spatial development. A third stage, which aims to translate the objectives into spatial plans, is on the agenda of MoLG without a concrete plan.

#### **7.4. Conclusion**

This chapter has described the two units of analysis embedded in Jenin’s case study area, which is a city that has an area of 21 km<sup>2</sup> and around 50.000 inhabitants. Concerning the first unit of analysis, Jenin’s urban context, the chapter reported that this context is characterized by having a high internal capacity for urban development while having limited opportunities for external expansion. It has also reported that this urban context has a monocentric structure and zones of separated functions as well as the prevailing of urban sprawl. Additionally, it has indicated the lack of this context to social services including schools, small shops and public green spaces. Likewise, it has reported the disadvantages of the primitive public transportation services available in the city. Regarding the second unit of analysis, Jenin’s urban planning and urban development, the chapter has introduced the three major authorities involved in the planning process including MoLG, JDoLG, and JM. The chapter has introduced the malfunctioning law that stipulates the planning tasks of these authorities and their interrelations. Additionally, it described the national, regional and local plans prepared and adopted by these authorities. The chapter helps a reader to understand the addressed context, which is necessary to understand the results in the next chapter as well as to draw lessons for other cases. In addition, the information described in this chapter is utilized in discussing the research findings in chapter nine.

## **8. The scope of the compact city policy in Jenin**

Whereas the previous chapter introduced descriptions of the two units of analysis of the case study area, this chapter presents the empirical results of the scope of a compact city policy in the case study area. The aim of the chapter is to construct accounts on the advisability of the compact city policy model to the case study area, develop insights into the capacity of the urban planning and urban development system to operate such a policy, and assess the policy suitability to this case study. The chapter address the following broad research question:

- How suitable is the compact city policy to guide Jenin’s urban development sustainably?

In addition, two specific questions are addressed under this research question:

- To what extent is the compact city policy advisable to guide Jenin’s urban development?
- To what extent does Jenin’s urban planning and urban development system have adequate capacity to operate a compact city policy successfully?

The chapter is divided into three main parts that are designed in line with the approach set in chapter six to investigate the above questions, see Fig 6-2. The first part demonstrates the results on the policy advisability, including the results on the advisability of the policy strategies and the approaches beneath these strategies. The second part demonstrates the results on the adequacy of the operational capacity of the planning system, including the results on the capacity of the system’s components and the results on the specific aspects affecting the capacity of each component. In both parts, the results are drawn from the data collected from the respondents through in-depth interviews and the subsequent analysis of these data conducted by the researcher. The third part provides the results on the suitability of the compact city policy to the case study area. The results in this part are derived inductively building on the results of the first two parts.

### **8.1. Policy advisability to Jenin’s context**

This section presents the results of the policy advisability to Jenin context. Figure 8-1 illustrates the structure of this section, which reflects the spiral analysis model that was adopted to generate these results. The section begins with presenting the results on the advisability of the approaches of the policy strategies, called basic themes, using text and tables. All the tables that present the interview results on the policy approaches consist of four columns, see Table 8-1 as an example. The first column, basic theme, represent a descriptive summary of pieces of data that was obtained from the respondents. The second column, category, is a word or short phrase that assigns a label to the pieces of data obtained from the respondents. The third column, code, represents segments of data that was stated by the respondents. The last column, reference, represents the respondents by whom the segment of data

was stated. Additionally, selected excerpts from the interview data are provided to support the generated codes. Each excerpt is given a symbol [No.] and can be found in Annex 3.

After defining the basic themes, the section presents the results on the advisability of the policy strategies, which are called broad themes. The broad themes are descriptive findings generated by bringing together the basic themes on the strategy’s approaches and by applying low-level inference. The broad themes are presented using text describing the constructed findings and are supported by tables that summarize the basic themes. Finally, global themes on the advisability of the entire policy are presented. These are interpretive findings generated by applying a higher level of inference. They are deduced after assembling the broad themes on the three strategies and breaking them into categories. The global themes are represented using text and figures. The figures are called thematic networks as they bring together related broad themes, see Figure 8-2 as an example.

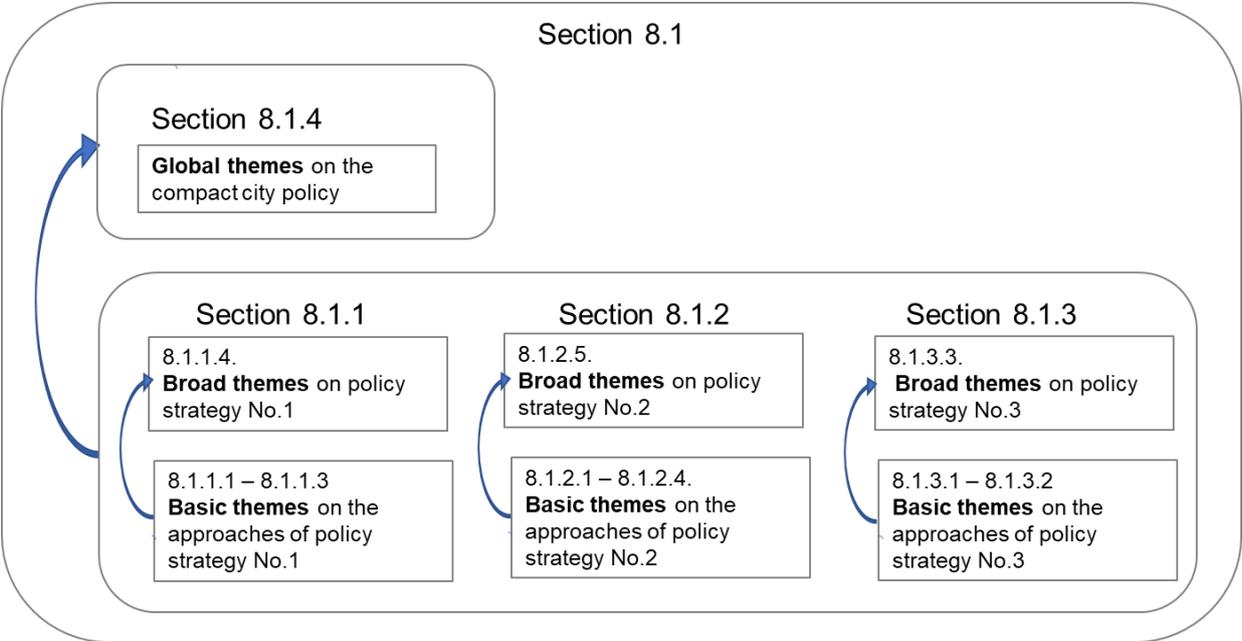


Figure 8-1: Structure of the results section on policy advisability

**8.1.1. The advisability of policy strategy No.1 - Urban containment**

This section represents the basic themes that emerged on the approaches of the urban containment strategy: restricting sprawl, guiding urban development, and promoting infill. It also represents the broad themes that are derived on the advisability of the urban containment strategy.

**8.1.1.1. Restricting urban sprawl**

The basic themes emerging from the interview data on restricting urban sprawl are presented in Table 8-1. The themes show agreement on the advisability of restricting urban sprawl. Only one respondent opposed restricting urban sprawl as long as no alternative solutions to provide acceptable and affordable housing are made available. The themes also show that the restriction of urban sprawl was

perceived necessary to rationalize the consumption of scarce land resources. In addition, the restriction of urban sprawl was perceived necessary for focusing urban development so that the provision of services and public transportation become feasible. One further theme points out some requisites for a successful implementation of the approach in the case study area. These include the improvement of the master plans, the change of the legislation that allow urban development beyond growth boundaries, the reform of the political view about urban sprawl and the formulation of an effective housing policy and solutions.

Basic theme	Category	Code	Reference
Strong advisability to restrict urban sprawl in medium-sized cities in the West Bank	Perceived level of advisability	Restricting the wide-spread phenomenon of urban sprawl is very recommended [1]	R1, R2, R3, R4, R5, R7, R8, R9, R10, R11, R12
		Restricting urban sprawl is conditionally advisable [2]	R6
Expectation to rationalise land consumption and facilitate the provision of infrastructure and public transportation	Potential benefits/ Rationale	Reduce existing excessive pressure on land in general and agricultural land in particular [3]	R1, R2, R3, R4, R5, R7, R9, R11, R12
		Reduce the existing challenges to provide adequate services and feasible public transportation mode [3]	R1, R3, R4, R8, R9
Need to improve master plans, change the legislation allowing urban development beyond growth boundaries, reforming the political view on sprawl as well as launching a supporting housing policy	Recommended modifications	Enhance the contents and role of master plans and setting criteria for defining the optimal location and required areas for expanding cities [4]	R1, R2, R4, R5, R7, R9
		Amend the planning law that allows development beyond a growth boundary [5]	R1, R3, R4, R7, R9, R10
		Incorporate a housing policy and development of affordable and livable housing solutions [6]	R3, R5, R6, R7, R8
		Redefine the areas in which the spread of urban sprawl is recommended to protect the land from Israeli confiscation [7]	R4, R5, R8, R9, R10

Table 8-1: Interviews results on the advisability of restricting urban sprawl

#### 8.1.1.2. Guiding urban development towards target locations

The basic themes emerging from the interview data on guiding urban development are presented in Table 8-2. The themes indicate a strong advisability of implementing the approach by most respondents. In addition, the themes show expectations that implementing this approach could create a rational spatial form and facilitate the provision of services and transportation facilities within reasonable costs. Furthermore, the themes suggest that the provision of infrastructure and basic services could be an effective instrument to guide urban development in medium cities. In addition, the themes show emphasis on the necessity to adjust the planning system to enable the success of guiding urban

development. This includes enhancing the municipal capacity in terms of planning and financing urban development, as well as improving the efficiency of the master plans.

Basic theme	Category	Code	Reference
Strong advisability to guide urban development towards selected districts at a certain phase	Perceived level of advisability	Adopting an approach to guide urban development is strongly recommended [1]	R1, R2, R3, R4, R5, R6, R7, R8, R10, R12
Expectation to create a rational spatial form and facilitate the provision of services and transportation facilities within reasonable costs	Potential benefits/ Rational	Creating a rational distribution of the built-up area that facilitates the provision of adequate services and the operation of a feasible public transportation system [2]	R2, R3, R5, R7, R8
		Use the limited municipal resources to serve more residents [3]	R2, R5, R8, R9, R12
The necessity for increasing the municipal capacity in terms of planning and financing urban development and increasing the efficiency of local plans as well as utilizing the provision of adequate services as an instrument to guide the development	Recommended interventions	Broadening the scope of local plans and providing additional instruments [4]	R1, R3, R4, R6, R7, R8, R10, R12
		Enhancing municipal planning capacity such as initiating municipal planning units and assigning planners [5]	R1, R3, R6, R7, R8, R9
		Enabling the municipalities to generate more income [6]	R1, R7, R12
		Using the provision of infrastructure and services as a tool to guide urban development [6]	R5, R7, R12

Table 8-2: Interviews results on the advisability of guiding urban development

### 8.1.1.3. Infill development

The basic themes emerging from the interview data on the advisability of promoting infill development are presented in Table 8-3. The themes show consensus on the advisability of the approach on undeveloped sites, whereas the advisability of the approach on previously developed sites remained undecided. The themes point out a need to investigate the scope of redevelopment in the Palestinian context assuming that redevelopment of underutilized commercial buildings could be useful. Additionally, the themes show recommended interventions to enable the implementation of infill development on undeveloped sites. The interventions include upgrading the quality of the existing urban areas, enhancing the local planning bodies and local plans, and adding supporting legislation.

Basic theme	Category	Code	Reference
The strong advisability of infill development on undeveloped sites	Perceived level of advisability	Activating development of undeveloped sites within existing urban areas is strongly recommended [1]	R1, R2, R3, R4, R5, R7, R8, R9, R10, R12
Potential to rationalise the consumption of land		Taking advantage of undeveloped sites within urban areas that are covered by services [2]	R2, R3, R4, R7, R8, R9, R10

and reduce fragmentation of the built-up area	Potential benefits/ Rationale	Reducing the fragmentation of the built-up area [2]	R2, R3, R4, R5, R8
Recommendation to upgrade the quality of existing urban areas, enhance the local planning bodies and local plans, and add supporting legislation	Recommended interventions	Enhance the quality of the urban environment in existing urban areas [3]	R1, R3, R4, R5, R7
		Enhance municipal planning capacity and local plans [4]	R1, R4, R5, R6, R8, R10
		Reflecting infill development into the planning legislation [5]	R3, R5, R10, R12
Undetermined level of the advisability of urban redevelopment	Perceived level of advisability	Urban redevelopment is currently irrelevant and inadvisable as buildings are relatively new buildings and still in use [6]	R1, R2, R4, R6, R8
		Urban redevelopment is neither advisable nor inadvisable as little is known about potentials and obstacles of the approach [7]	R3, R9, R10, R11, R12
		Urban redevelopment is advisable as cities seem to have the potential for reorganization [8]	R5, R7
Recommendation to investigate the potentials of urban redevelopment	Recommended action	Conducting research to investigate the future potentials to redevelop underutilized sites [9]	R2, R5, R6, R7, R9

Table 8-3: Interviews results on the advisability of promoting infill development

#### 8.1.1.4. Broad themes on the advisability of the urban containment strategy

After the development of the basic themes related to the approaches of the urban containment strategy, these themes are brought together in Table 8-4 below. Based on these basic themes, the researcher draws the following broad themes concerning the strategy advisability:

1. The urban containment strategy is considered mostly as advisable, except for the approach of infill development on previously developed sites
2. The urban containment strategy is necessary to reduce the consumption of periphery zones for urban development, reduce the fragmentation of the built-up areas, and make the provision of infrastructure and public transportation feasible
3. The urban containment strategy can be implemented through amending the legislation that allows urban development beyond growth boundaries, add legislation that prioritizes inner-city development over that in undeveloped areas, and through enhancing the quality of existing quarters
4. A successful implementation of the strategy requires enhancing the local planning bodies and their fiscal capacities, elaborating the local plans and increasing their efficiency, and reconsidering the political support of urban sprawl

Approach	Level of advisability			Potential benefit	Recommended actions
	Advisable	Undetermined	Inadvisable		
Restrict urban sprawl	✓			Rationalize land consumption Facilitate provision of infrastructure and public transportation	Enhance local plans Change legislation allowing development beyond growth boundary Revise the political view on sprawl Implement affordable housing programmes
Guide urban development	✓			Create rational spatial form Facilitate provision of infrastructure and public transportation	Enhance the municipal capacity in terms of planning and financing urban development Enhance local plans Utilize the provision of adequate services as an instrument to guide the development
Promote infill development on new sites	✓			Rationalize land consumption Reduce the fragmentation of the built-up area	Enhance the municipal planning capacity Enhance local plans Add legislations supporting infill development Utilize the provision of adequate services as an instrument to promote infill
Promote infill on previously developed sites		✓		-	Conduct research on redevelopment opportunities

Table 8-4: Summary of results of the advisability of the approaches of the urban containment strategy

### 8.1.2. The advisability of strategy No.2 - utilization variety and enhancing urban quality

This section represents the basic themes developed on the approaches of the utilization variety and enhancing urban quality strategy. The tackled approaches involve the increasing of mixed-use development, regenerating deteriorating urban quarters, constructing new quarters, and developing multiple city-centres. Thereafter, the section presents the broad themes derived concerning the advisability of the entire strategy.

### 8.1.2.1. Increasing the mixed-use development

The basic themes emerging from the interview data on the advisability of mixing the land use are presented in Table 8-5. The themes show advisability of mixed development of limited functional mix whereas they show strong inadvisability of that of the extensive functional mix. Further themes demonstrate the expressed importance of the approach to enhance the distribution of services. In addition, the themes show the indicated necessity to improve the measures used to prepare master plans to ensure the feasible location of mixed-use zones. Likewise, the themes demonstrate the proposals to concentrate the mixed functions on central nodes that are connected with residential areas using public transportation.

Basic theme	Category	Code	Reference
The advisability of mixed development of limited functional mix and strong opposition to that of the extensive functional mix	Level of advisability	A limited mix of the land use that provides services, grocery retails, daily recreational facilities in proximity to residential areas is recommended and relevant to medium cities of short distances [1]	R1, R2, R3, R4, R5, R8, R9, R10, R12
		An extensive mix of the land use that blends the workplaces with the residential areas  not feasible for medium cities of short distances [2]	R1, R2, R3, R4, R6, R9, R10, R12
Potential to achieve an efficient distribution of service and improve the access to services in all districts	Potential benefit/ rationale	Mitigating the maldistribution of services and enhancing the accessibility to services [2]	R2, R3, R4, R5, R8, R9
The necessity to adopt a rational criterion to select locations of mixed-use development and recommendation to concentrate the mixed functions on central nodes that are connected with residential areas using public transportation	Recommended action	Changing the arbitrary approach of planning urban areas and follow site selection criteria that increase the feasibility and reduce conflicts between different land uses [3]	R2, R3, R4, R7, R8
		Concentrating mixed-use development at central nodes in proximity to residential areas [4]	R3, R7, R8
		Integration of public transportation to facilitate accessibility to mixed-use zones [4]	R3, R7, R8

Table 8-5: Results of the advisability of increasing the mixed use of land

### 8.1.2.2. Revitalization/regeneration of existing urban quarters

The basic themes emerging from the interview data on the regeneration of existing urban areas are displayed in Table 8-6. The themes demonstrate inadvisability of the approach in the Palestinian context due to incompatibility between the capacity of the planning system and the complexity of the approach. Nevertheless, the themes demonstrate limited calls to investigate the scope of urban regeneration in

commercial districts. Likewise, the themes show few proposals to implement projects that aim at enhancing the public physical environment in the urban areas as a feasible alternative to urban regeneration.

Basic theme	Category	Code	Reference
Inadvisability of urban regeneration in the Palestinian context	Level of advisability	Urban regeneration of existing quarters is not advisable [1]	R1, R2, R3, R4, R6, R8, R9, R10, R12
Extreme incompatibility between the complexity of urban regeneration and the capacity of the planning system	Rationale	Handling the high complexity and requirements of urban regeneration is extremely beyond the technical, legal, and financial capacity of the planning system [2]	R2, R3, R4, R5, R6, R8, R9, R10, R12
		Prevalence of privately owned small properties increases the complexity of urban regeneration [3]	R1, R6, R9, R12
Deep investigation of the scope of urban regeneration in commercial districts and enable comprehensive projects to enhance the physical environment in existing quarters	Recommended action	Conduct studies and pilot projects on the potential of regeneration of commercial areas [4]	R2, R5, R6, R7
		Facilitate projects that upgrade the public space in existing quarters such as streets, services, green structure [5]	R1, R12

Table 8-6: Interview results on the advisability of urban regeneration of existing urban areas

### 8.1.2.3. Inadvisability of constructing new urban quarters

The basic themes emerging from the interview data on the construction of new urban quarters are presented in Table 8-7. The themes show consensus on the inadvisability of the approach to Palestinian medium-sized cities. As most respondents reported, the approach seems irrelevant to the size of the studied cities and the existing population dynamics. A minority of the respondents suggested local alternatives for the approach presented in the construction of carefully designed housing projects in partnership with the private sector and utilization of overlooked planning instruments like detailed land use plans.

Basic theme	Category	Code	Reference
Inadvisability of the construction of new urban quarters in medium-sized Palestinian cities	Level of advisability	The construction of new quarters is not recommended to medium-sized Palestinian cities [1]	R1, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
Likely infeasibility of constructing new urban quarters in Palestinian medium-sized cities	Rationale	Existing housing demand is incompatible with the construction of new quarters [2]	R1, R4, R5, R6, R7, R9, R10, R11, R12
		Massive implementation challenges [3]	R2, R3, R4, R5, R7, R10, R12

Recommendation to use the development of housing projects and detailed land use plans as practical alternatives to the construction of new urban quarters	Recommended action	Implementing carefully designed housing projects in cooperation between planning authorities and private sector [4]	R4, R11
		Exploit the underutilized potentials of detailed land use plans [5]	R6, R8

Table 8-7: Interview results on the advisability of constructing new quarters

#### 8.1.2.4. Developing a simple network of city centres

The basic themes emerging from the interview data on the advisability of the development of multiple city-centres are presented in Table 8-8 below. The themes show that almost all respondents considered the development of a network of simple centres strongly advisable in medium-sized cities in the West Bank. Many of them explained this attitude based on the observed need to reduce the pressure on the main centres and create an equitable distribution of services. Few others considered those sub-centres essential for operating feasible transportation system. Finally, some respondents considered the development of a simple network of few secondary centres and some small neighbourhood centres most suitable for the medium cities in Palestine.

Basic theme	Category	Code	Reference
The strong advisability of the development of multiple city centres in medium-sized Palestinian cities	Level of advisability	Development of a network of simple centres is strongly advisable [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11
Expected enhancement of the quality of the urban environment by distributing services, reducing pressure on downtowns and supporting the operation of feasible public transportation	Potential benefit/ Rationale	Reduce the pressure on existing overloaded mono-centres [2]	R1, R2, R3, R4, R6, R7, R10, R11, R12
		Limit the random development of unqualified centres as consequence to saturated centres [3]	R2, R4, R7, R10, R12
		Mitigate the maldistribution of services and facilities [4]	R4, R5, R6, R9
		Facilitate the development of feasible public transportation system [5]	R3, R5, R8
Emphasis on seeking centres that match the characteristics of medium cities such as a combination of few secondary centres and some small neighbourhood centres	Recommended action	The number, size and hierarchy of the centres ought to consider the size of the city and needs of the residents to ensure feasibility [6]	R3, R5, R8, R9, R11
		A combination of few secondary centres and some small neighbourhood centres can be optimal for medium cities [7]	R2, R3, R5, R8

Table 8-8: Interview results on the advisability of developing multiple city-centres

### 8.1.2.5. Broad themes on the advisability of the utilization variety and enhancing urban quality strategy

Based on the basic themes emerging on the addressed approaches under the utilization variety and enhancing urban quality, summarized in Table 8-9 below, the researcher derived the following broad on the strategy advisability:

1. The strategy is partly advisable, as some of its approaches were considered as inadvisable in their proposed form
2. The reasons of inadvisability lie in the incompatibility of the approaches with the area and population size of the medium Palestinian cities, and the low capacity of the urban planning and urban development system
3. Adapted approaches are proposed as advisable alternatives in the medium-sized Palestinian cities including the promotion of limited degree of functional mix around central nodes, execution of comprehensive projects to upgrade the public physical environment in existing quarters, implementation of sustainably designed housing projects in cooperation between the public bodies and the private sector, utilization of detailed land use plans, and development of a simple network few secondary centres and some small neighbourhood centres
4. Adapted approaches are viewed necessary to enhance the distribution of services, increase the accessibility, reduce pressure on existing mono-centres rationally, and facilitate the provision of a feasible public transportation system
5. The successful implementation of the strategy requires enhancing the measures used to prepare local plans

Approach	Level of advisability			Rationale	Recommended action
	Advisable	Undetermined	Inadvisable		
Promoting a mixed development of a limited degree of functional mix	✓			Advocate better distribution of service and increase the accessibility to services	Enhance the measures of preparing local plans  Concentrate mixed development on central nodes connected to public transportation

Promoting a mixed development of an extensive functional mix			✓	Exceed the needs of medium cities of short distances	-
Regenerating existing residential areas			✓	Exceed the capacity of the urban planning and urban development system	Explore the scope of regenerating commercial districts Replace urban regeneration with comprehensive development projects targeting the public physical environment
Constructing new urban quarters			✓	Exceed the development needs and the capacity of the urban planning and urban development system	Replace the approach with sustainably designed housing projects in partnership between public and private sectors Use the missed opportunity of preparing detailed land use plans
Developing a simple network of multiple city-centres	✓			Advocate better distribution of service and increase the accessibility to services Reduce pressure on downtowns in a sustainable manner Support the operation of a feasible public transportation system	Seek centres of size and hierarchy matching the characteristics of medium cities Consider a network of few secondary centres and some small neighbourhood centres as a potential example

Table 8-9: Summary of results of the advisability of the approaches of the utilization variety and enhancing urban quality

### 8.1.3. The advisability of strategy No.3 -multi-modal mobility

This section presents the basic themes emerging from the interviews' data on the approaches of the multi-modal mobility strategy. The tackled strategies include operating a public transportation system and facilitation accessibility through non-motorized mobility modes. Likewise, the section presents the broad themes derived in respect of the advisability of the entire strategy.

#### 8.1.3.1. Operating a simple public transportation system in coordination with the land use planning

The basic themes capturing the respondents' attitudes toward operating a planned public transportation are listed in Table 8-10 below. The themes show agreement on the advisability of the approach and expectations to bring several advantages such as reducing the congestion and pollution,

enhance accessibility at reasonable costs and play role in guiding development. Most respondents pointed out the challenge to operate a feasible system in the medium Palestinian cities and recommended extensive research to identify the most relevant system. Two respondents pointed out that minimal transportation systems of mini-buses and buses are most relevant to the addressed cities.

Basic theme	Category	Code	Reference
The advisability of launching public transportation system in coordination with the land use planning in all Palestinian cities	Level of advisability	Launching a planned public transportation system is absolutely recommended in all Palestinian cities [1]	R1, R2, R3, R4, R5, R7, R8, R9, R10, R12
Potential to reduce the negative impacts of existing mobility mode, make mobility easier and cheaper, and attract development to areas served by public transportation	Potential benefit/ rationale	Reduce congestion and pollution caused by large dependence on private cars and taxis [2]	R1, R3, R4, R6, R8
		Facilitate accessibility to activities and services physically and financially [2]	R1, R3, R5, R8
		Contribute to attracting urban growth toward intended locations [3]	R1, R3, R5, R7
Recommendation to investigate the suitable transportation systems to medium cities with a focus on minimal systems	Recommended action	Conduct research about the feasible public transportation system under the existing fragmented spatial form and moderate population density [4]	R1, R2, R3, R6, R8, R9, R12
		Operate minimal public transportation system based on mini-buses or a combination of mini-buses and buses [5]	R1, R9

Table 8-10: Interview results on the advisability of operating a planned public transportation system

### 8.1.3.2. The advisability of facilitating accessibility through walking

The basic themes coming out from the interviews' data on non-motorized mobility modes are listed in Table 8-11 below. The themes revealed consensus on the advisability of the approach only in terms of walking as biking seems inapplicable in the Palestinian context. Several respondents stressed the need to take the advantage of the short travel distances in the medium cities to make daily mobility easier, cheaper, less polluting and reducing traffic congestion. Actions to mix the use of land and enhance the road environment were widely recommended to make walking a major mobility mode in the addressed cities.

Basic theme	Category	Code	Reference
The advisability of non-motorized modes in terms of walking while inadvisability of biking in medium Palestinian cities	Level of advisability	The promotion of further dependence on walking as daily mobility mode is advisable and applicable [1]	R1, R2, R3, R4, R5, R8, R9, R10, R11, R12
		The promotion of biking as daily mobility mode in neither advisable nor applicable [2]	R1, R3, R6, R9, R10, R11, R12

Potential to use the short travel distances to make daily mobility easier, cheaper, and less polluting, and enhance the quality of the urban environment	Potential benefit/ rationale	The small size of the cities and the short travel distance are assets for facilitating daily mobility through walking [3]	R1, R2, R3, R5, R6, R7, R10
		Reduce traffic congestion and pollution, while helping residents reach daily destinations easily [3]	R2, R3, R4, R8, R10
Recommendation to pursue an effective mix of the land use and enhance the sidewalks	Recommended action	Design an acceptable level of mixed-use development and consider the principle of “walking distance” in determining services’ locations [4]	R2, R3, R4, R5, R7, R8, R9, R10, R12
		Enhance streets’ design and create a safe and convenient pedestrian environment [5]	R1, R2, R3, R4, R6, R7, R11, R12

Table 8-11: Interview results on the advisability of facilitation accessibility through non-motorized mobility modes

### 8.1.3.3. Broad themes on the advisability of the multi-modal mobility strategy

Table 8-12 below summarize the basic themes that emerged on the approaches of the multi-modal mobility strategies. The researcher built on these basic themes to derive the following broad themes about the strategy advisability:

1. The strategy is considered as an advisable one except for the promotion of biking, which was viewed irrelevant to the physical and natural environment in the studied area
2. The strategy is viewed necessary to reduce the prevailing reliance on private cars and taxis, make daily mobility easier, cheaper, and less polluting, as well as reducing traffic congestion in the medium cities of relatively narrow streets
3. The multi-modal mobility strategy can be implemented through operating a simple transportation system of minimal infrastructure and through enhancing the road environment to turn safe and convenient for pedestrians
4. The successful implementation of the strategy requires conducting research to identify feasible transportation systems in medium-sized cities characterized by scattered development and promoting mixed-used development with services distribution in proximity to existing quarters

Approach	Level of advisability			Rationale	Recommended action
	Advisable	Undetermined	Inadvisable		
Launching a public transportation	✓			Reduce the current significant dependence on private cars and taxis	Conduct research to identify most feasible

system in coordination with land use planning				Make accessibility easier and cheaper Attract urban development to serviced areas	systems to the addressed context Seek simple transportation system of minimal infrastructure and smaller vehicles
Promoting walking as a non-motorized mobility mode	✓			Make use of the asset of short distances in medium cities Make daily mobility easier, cheaper, and less polluting Reduce traffic congestion in the medium cities	Pursue an efficient mix of the land use and services Enhance the pedestrian environment
Promoting biking as a non-motorized mobility mode			✓	The physical and natural environment not compatible with biking	–

Table 8-12: Summary of results of the advisability of the approaches of the multi-modal mobility strategy

#### 8.1.4. The advisability of the compact city policy model -global themes

Finally, global themes were constructed on the compact city policy encapsulating the independent findings identified earlier regarding the policy strategies and approaches. These global themes were deduced through assembling the broad themes on the policy strategies and clustering them into three thematic networks: the policy advisability, the policy potential benefits, and the requirements of successful implementation of the policy. The global themes were as following:

1. The findings on the policy advisability, illustrated in Figure 8-2, indicate that the implementation of the compact city policy seems to be advisable to the case study area. The detailed findings on the policy advisability are summarized in Table 8-13 below.



Figure 8-2: Thematic network for policy advisability

2. The findings on the policy potential benefits, presented in Figure 8-3, demonstrate that the policy could be useful in addressing the challenges confronting the sustainable development in the case study area including scattered development, mal-distribution of services and difficult access to the services, and the current infeasibility of providing a public transportation system

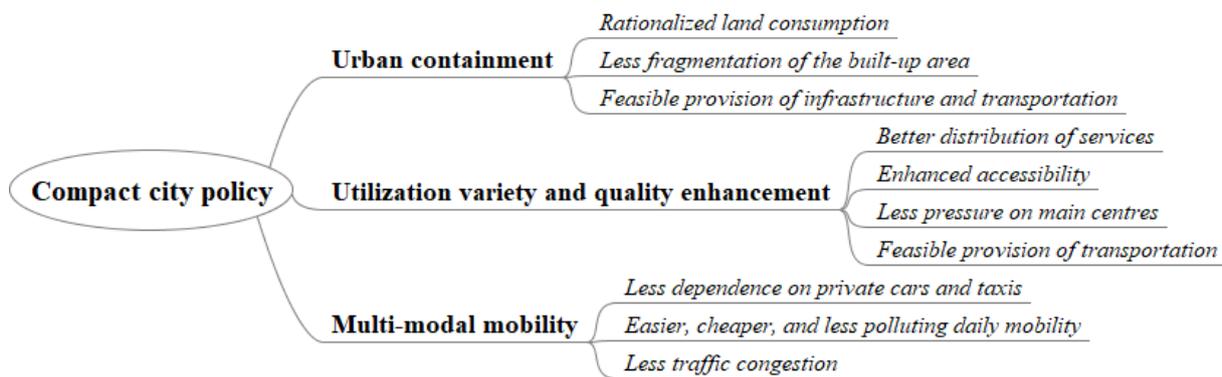


Figure 8-3: Thematic network for policy potential benefits

3. The findings on the requirements of successful implementation of the policy, represented in Figure 8-4, suggest that enhancements in the planning system, particularly at the local level, should be made to provide the system with the minimum requirements of operating the policy successfully.



Figure 8-4: Thematic network for policy successful implementation requirements

Strategy	Advisable approach	Undetermined approach	Inadvisable approach	Advisable adapted approach and actions
Urban containment	Restricting urban sprawl Guiding urban development towards selected locations Promoting infill development on new sites	Promoting redevelopment of commercial districts	Promoting redevelopment of residential quarters	Cancelling legislation that allow development beyond growth boundaries Adding legislation that prioritize inner-city development Enhancing the quality of existing quarters
Utilization variety and quality enhancement	Promoting a limited degree of functional mix	Regenerating commercial districts	Promoting an extensive functional mix	Concentrating mixed development on central nodes serviced with public transportation

	Developing a network of multiple city-centres		Regenerating residential areas Constructing new quarters	Implementing development projects targeting the physical and social infrastructure  Implementing sustainably designed housing projects in partnership between public and private sectors  Activating the use of detailed land use plans  Developing a network of few secondary centres and some small neighbourhood centres
Multi-modal mobility	Launching public transportation system in coordination with land use planning  Promoting walking as a non-motorized mobility mode		Promoting biking as a non-motorized mobility mode	Operating a simple public transportation system with minimal infrastructure  Enhancing the pedestrian environment

Table 8-13: Results of the advisability of the compact city policy

## 8.2. Adequacy of the operational capacity of Jenin’s urban planning and urban development system

This section represents the results on the capacity of Jenin’s urban planning and urban development system to operate a compact city policy successfully. Figure 8-4 illustrates the structure of this section, which is similar to the structure of the previous section. The section begins with presenting the results on the individual specific aspects that need to be available in each of the system components. These results are called basic themes and are presented using texts and tables. These tables are four-columned and have a structure similar to that used in the previous section. Based on these basic themes, broader themes of little inference are derived to construct the findings on the adequacy of the operational capacity of each of the systems component. Like in the previous section, the broad themes are represented using texts and tables that pull together the basic themes. Finally, these broad themes are combined and distributed into clusters to interfere the findings on the adequacy of the operational capacity of the entire system. Again, the global themes are presented using texts and thematic networks.

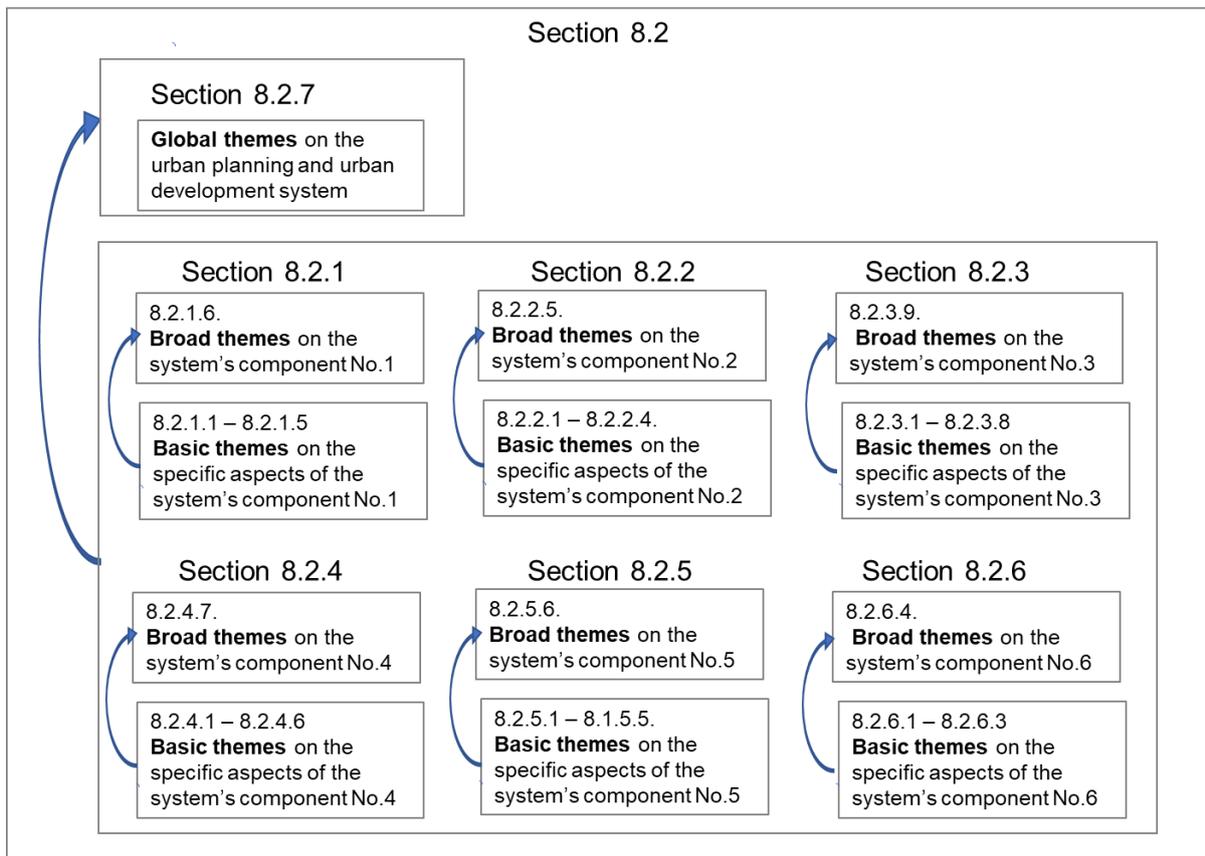


Figure 8-5: Structure of the results section on the operational capacity of the urban planning and urban development system

### 8.2.1. The capacity of system’s component No.1 - planning authorities

This section presents the findings related to the capacity of the planning authorities to operate a compact city policy. These authorities comprise MoLG, MoPAD, JDoLG, and JM. The section begins with the basic themes related to the five specific aspects that were investigated to assess the operational capacity of the planning authorities. Then, the section presents the derived broad themes related to the capacity of the planning authorities entirely.

#### 8.2.1.1. Role of national planning authorities in guiding local planning authorities

The basic themes emerging from the interview data on the role of national planning authorities in guiding local authorities are presented in Table 8-14. The themes show that the national authorities have prepared few planning directives that were perceived ineffective in guiding the local authorities. Additionally, the authorities experience a set of factors that hinder the enhancement of their role in guiding local planning authorities including inappropriate institutional changes, lack of legislation supporting national planning, ambiguous geopolitical circumstances, and an inadequate number of competent staff. However, the engagement in a programme to enhance the municipal capacity and the ability to enact by-laws are narrowly perceived as an opportunity to enhance the role of the MoLG in guiding local planning authorities.

Basic theme	Category	Code	Reference
National planning authorities owe very few means (plans, policies, directives) to guide local urban planning and urban development	Means of guidance	MoLG prepared physical and strategic planning manuals to guide municipal planning [1]	R2, R3, R5, R6, R8, R10, R11
		MoPAD prepared few national plans and policies [2]	R3, R5, R6, R9
		MoPAD developed the Protection Plan as the first stage of National Spatial Plan Project [2]	R2, R3, R5, R6, R7, R8, R9
Activities of national planning authorities have a weak impact on guiding local urban planning and urban development	Level of efficiency	Planning manuals are incompetent to guide urban planning and development at municipal level [3]	R2, R3, R5, R6, R8
		Planning manuals are not supported with mechanisms to enforce implementation [4]	R3, R5, R8, R11
		Most plans and policies prepared by MoPAD remained idle [5]	R2, R3, R5, R6, R8
		Protection Plan is the sole plan coming into action [5]	R2, R5, R6, R7, R8
National planning authorities are challenged by structural disorder caused by inadequate legislation on national planning, uncertainty about geopolitical conditions, and inadequate technical capacity	Existing barriers	Dissolving MoPAD and transferring its national planning tasks to the overwhelmed MoLG adding to the deficiency of national planning and causing a setback in the progress achieved by the NSP [6]	R1, R2, R4, R5, R7, R9
		Existing legislation does not stipulate national planning functions and responsible authorities [7]	R2, R4, R5, R9, R10
		Israeli occupation and interrupted peace process imposing high ambiguity in defining planning assumptions and visions [8]	R1, R3, R5, R6
		National planning authorities have an inadequate number of qualified planners [9]	R1, R4, R6, R7
The regulatory authorities assigned to MoLG and its steady engagement in a program to enhance local government units constitute an opportunity to enhance its role in guiding the local planning authorities	Potential facilitators	Existing legislation gives MoLG strong authority over municipalities and allow the ministry draft and authorize by-laws to guide and regulate municipal planning [10]	R2, R5, R6, R10
		The programme of reforming the local government in partnership between MoLG and international community [11]	R10

Table 8-14: Interview results on the role of national planning authorities in guiding local authorities

### 8.2.1.2. Role of the regional planning authority in coordinating urban planning and urban development within the district

The basic themes emerging from the interview data on the role of regional planning authorities in coordinating local development are displayed in Table 8-15. The themes demonstrate the failure of the regional authorities to play coordinating role in urban planning and urban development despite their

significant involvement in the process. The themes also show that the regional authorities are legally entitled to play a coordinating role; however, they lack the capacity to make efficient use of the powers delegated to them concerning the coordination of the urban planning and development within the district.

Basic theme	Category	Code	Reference
Although the directorates of local government are strongly engaged in the process of preparing and reviewing master plans, this engagement prove ineffective in coordinating urban development at the regional scale	Means of coordination	Regional planning authorities are involved in following up the preparation of master plans as well as the review and authorization of the plans [1]	R1, R2, R5, R6, R7, R8, R10, R11, R12
		Regional planning authorities prepare district strategic development plans as an alternative to required regional development plans [2]	R3, R8, R9, R10, R11
	Level of efficiency	Regional review of master plans is pointless activity lacking a regional plan to coordinate local development while focusing only on formalities [3]	R1, R2, R3, R4, R5, R6, R7, A8
		District strategic development plans are poorly prepared and have a negligible impact [4]	R3, R8, R9
Directorates of local government lack the capacity to make efficient use of the powers delegated to them concerning the coordination of the urban planning and urban development within the districts	Potential facilitator	Existing law delegates power to the regional planning committee to control the process of master plan preparation [5]	R1, R4, R6, R7, R10, R11, R12
	Existing barriers	Directorates of local government lack planning teams and financial resources to conduct regional planning activities [6]	R3, R5, R6, R7, R9, R10

Table 8-15: Interview results on the role of regional planning authorities in coordinating development within the district

### 8.2.1.3. Municipality possesses planning team of diverse disciplines

The basic themes coming from the interview data on the capacity of the planning teams at the municipal level are listed in Table 8-16. The themes show that municipalities have no planners but engineers who are occasionally involved in planning as secondary tasks. The themes also show that MoLG has been promoting the outsourcing of the municipal planning tasks to the unestablished private sector. Additionally, the themes indicate concerns about the impacts of the excessive dependence on the private sector on building the municipal planning capacity.

Basic theme	Category	Code	Reference
The municipalities of medium Palestinian cities lack qualified planning departments working regularly on planning	Planning department	Medium municipalities have neither planning departments nor individual planners [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
	Engineering department	Architects or civil engineers from the municipal engineering department are	R2, R4, R6, R8, R11, R12

issues, but occasionally they entrust their engineering departments with planning related activities		occasionally in charge of planning related activities [2]	
		The staff of engineering departments lack skills to carry out planning activities properly including the evaluation of master plans prepared by the private sector [3]	R2, R4, R5, R7
Due to the deficiency of the municipal planning capacity, the tasks of preparing master plans are outsourced to the private sector that is still under development	Private planning firms	Municipal planning activities regarding master plans preparation are outsourced to private planning firms [4]	R1, R2, R3, R5, R6, R7, R9, R10, R11, R12
		The private sector still not adequately qualified to prepare master plans [4]	R1, R2, R6, R7, R10, R11
		MoLG works on building the capacity of the private planning sector [4]	R10, R11
The limited understanding of urban planning and the outsourcing of the planning tasks keeps the development of municipal planning capacity neglected	Challenges	Understanding urban planning merely as preparation of master plans [5]	R3, R5, R6, R9
		Considering the outsourcing of master plans' preparation as a substitution to developing planning capacity of municipalities [5]	R5, R6, R9
Building the municipal planning capacity at a reasonable scale and the elaboration of municipal planning tasks are advocated	Recommendations	Building municipal capacity in planning so that they are capable to carry out regular planning activities and work in partnership with the private sector on developing master plans [6]	R5, R6, R7, R9
		Extending municipal planning functions in line with the principle that planning is continuous activity [6]	R5, R6, R9

Table 8-16: Interview results on the capacity of the local authority planning team

#### 8.2.1.4. Administrative and financial powers given to the municipality

The basic emerging themes on the administrative and financial powers given to the municipality are presented in Table 8-17. The themes show that the existing legal framework forms a high-centralized institutional organization concentrating authority at MoLG and granting a limited degree of local autonomy to municipalities, particularly at medium and small municipalities. The themes also show that the amount of power/autonomy granted to the municipalities is inadequate for supporting an effective and innovative urban planning and urban development process. The existing incompetence of the municipalities seems the main barrier to seek a higher degree of local autonomy. Accordingly, the national level has launched a strategy to develop the municipal capacity and establish for a reform in the system organization, which was perceived ineffective by some respondents.

Basic theme	Category	Code	Reference
Existing legal framework establishes a high-centralized institutional	Limited local autonomy	Existing legislation allows MoLG to take strong control over municipalities and	R1, R2, R3, R4, R5, R6, R7, R8, R10, R12

organization that concentrates authority at MoLG and grants limited degree of local autonomy to municipalities, which turn more severe at incompetent medium cities		interfere in municipal functions and decisions [1]	
		Existing legislations commit municipalities to seek the approval of the MoLG on master plans, budgetary schemes, local bylaws, special fees, significant projects [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R11, R12
		The incompetence of medium municipalities makes them more powerless [1]	R1, R2, R3, R5, R8, R12
Need to strengthen the local autonomy to increase the efficiency of the planning authorities at the local and national level	Negative impacts of limited local autonomy	Existing high centralization is an impediment to effective and innovative municipal performance [2]	R1, R2, R5, R7, R8, R9, R11, R12
		Existing high centralization imposes an unbearable burden on the MoLG [2]	R2, R8, R10, R11
Strengthening the local autonomy is not feasible without building municipal the capacity	Barriers to strengthening local autonomy	Deficit situation of municipalities and poor operational and financial capabilities make current increase of the degree of decentralization not beneficial [3]	R2, R5, R9, R10, R11, R12
Though ineffective, a governmental strategy has been established to make municipalities competent for more local autonomy	Facilitator for strengthening local autonomy	Ongoing work on developing the operational, planning, and financial capacity of municipalities [4]	R1, R2, R5, R10, R11
		MoLG's attempts to develop municipal competence are so far ineffective [5]	R1, R2, R5, R9

Table 8-17: Interview results on the administrative and financial powers given to the municipality

### 8.2.1.5. Role of the municipality in guiding urban development

The basic emerging themes on the municipal role in guiding the urban development process are presented in Table 8-18. The themes show that the role of municipalities in guiding the urban development process is negligible. The themes also showed that the prevailing mistaken norms on municipal planning hinder the municipality from playing an active role in guiding development. Similarly, the themes show that the poor practices in preparing master plans and the narrow scope of these plans have also contributed to the insignificance of the municipal role in guiding development.

Basic theme	Category	Code	Reference
Municipalities of medium cities have a negligible role in guiding urban development	Perceived level of municipal guiding	Municipalities play no role in guiding urban development [1]	R1, R3, R4, R5, R6, R7, R11
		Municipalities play a very limited role in guiding urban development [2]	R2, R8, R9, R10, R12
The misconceptions that municipal planning is limited to preparing master plans every 20 years and that the operation of a municipal planning unit is inessential hold municipalities from playing a role in guiding urban development	Barrier - a mistaken notion about planning	Urban planning is limited to land use planning [3]	R1, R2, R3, R5, R6, R7, R8, R.9, R11, R12
		Urban planning is an activity conducted every 10 or 20 years [3]	R1, R4, R5, R7, R9
		Overlooking the need for municipal planners and considering private planning firms an alternative [3]	R1, R4, R5, R6, R7

The poorly prepared master plans lacking concrete analysis and objectives as well lacking complementary sectoral plans and implementation scheme leave municipalities unequipped to play a role in guiding urban development	Barrier - Poor planning and plans	Poorly conducted studies prior to the planning process [4]	R3, R4, R5, R6, R7, R12
		Absent framework of development guidelines and goals to direct the plan preparation [4]	R2, R3, R5, R6, R9, R10, R12
		Overlooked basic required complementary plans for transportation, infrastructure, and public facilities [4]	R2, R7, R8, R11
		Overlooked implementation and investment plans in the coming phases [5]	R3, R5, R8
Enabling the municipalities to play role in guiding urban development requires initiating qualified municipal planning units, extending the mandate of municipal planning tasks, and increasing the scope and efficiency of urban development plans	Recommendation	Enhancing the scope and efficiency of urban plans [6]	R1, R2, R3, R7, R9
		Extend municipal tasks in terms of urban planning [6]	R1, R2, R3, R5, R7
		Building municipal planning capacity [7]	R1, R2, R4, R7

Table 8-18: Interview results on the municipal role in guiding the urban development process

#### 8.2.1.6. Broad themes on the operational capacity of planning authorities

Table 8-19 presents a summary of the basic themes that emerged concerning the specific aspects that determine the operational capacity of planning authorities. The researcher relied on these basic themes to draw the following broad themes on the operational capacity of planning authorities:

1. The capacity of the planning authorities at the national, regional, and local level is likely inadequate to operate a compact city policy.
2. Despite the invested efforts in national planning, the current operational capacity of the national planning authorities seems moderately inadequate for operating a compact city policy. The authorities performing the national planning tasks need a legal framework that stipulates their functions and supports the implementation of the plans and directives which they prepare. Likewise, the scope and the quality of the prepared directives and the capacity of the team preparing them need enhancement. Additionally, the interrupted work on the national spatial plan ought to be resumed in order to strengthen the resulted guidelines and transfer it to the local level.
3. The regional planning authorities, which are ineffectively involved in urban planning, seem to have significantly inadequate operational capacity to operate a compact city policy. The authorities need planning teams to make efficient use of the powers delegated to them concerning the preparation of statutory regional plans and coordinating urban development within their regions.
4. The local authorities seem to have inadequate capacity to operate a compact city policy, for they lack planning teams, outsource their major planning activity, strongly depend on national authorities, and have no means to guide urban development. Enhancing the operational capacity of local authorities requires initiating capable planning units of reasonable size, extending the mandate of urban planning activities, enhancing the scope and efficiency of the urban plans, and granting more administrative and fiscal powers to the local level

Aspect	Degree of adequacy 	Indication	Challenge to strengthen adequacy	Opportunity to strengthen adequacy	Recommendation to strengthen adequacy
National authorities play a directive role in urban planning		<p>Preparing few planning directives</p> <p>The prepared planning directives have a weak impact on the local planning</p>	<p>The national planning functions and the responsible authorities not stipulated by existing legislation</p> <p>The ambiguous geopolitical conditions and planning assumptions</p> <p>Inadequate number of qualified planners</p>	<p>Having authority to draft and enact by-laws supporting national planning activities</p> <p>Operating a programme to develop municipal capacity and enhance local government in partnership with international development organizations</p>	-
Regional authority plays a coordinating role in urban planning		<p>Statutory regional plans have never been prepared</p> <p>Strategic development plans of inadequate quality and negligible impact were lately initiated</p>	The absence of teams in charge of regional planning activities	Having legal power to coordinate regional development	-
The local authority has a planning team involving diverse disciplines and sufficient capacity		<p>Lacking planning departments and planners</p> <p>Occasionally entrusting engineering departments</p>	Understanding the urban planning process merely as a preparation of master plans	-	Initiating municipal planning units capable of carrying out regular planning tasks, and

		with conducting minor planning activities Outsourcing major planning activities	Considering the outsourcing of master plans' preparation as a substitution to developing planning capacity of municipalities		participating effectively in massive planning tasks Extending municipal planning functions in line with the principle that planning is a continuous activity
The local authority is autonomous	■	High-centralization urging municipalities to seek the approval of the MoLG on master plans, budgetary schemes, local bylaws, special fees, significant projects	Existing legislation grants local authorities low-level of autonomy Low administrative and fiscal capacity of municipalities Programmes to enhance municipal capacity have limited efficiency	Operating a programme to develop municipal capacity and enhance local government	Granting more administrative and fiscal powers to the local authorities
Local authorities play an active role in steering urban development	■	No actions or attempts to steer urban development	Planning tasks for preparing master plans Narrow scope and low efficiency of master plans Lack of municipal planning teams	-	Enhancing scope and efficiency of urban plans Extend municipal tasks in terms of urban planning Initiating qualified municipal planning units

Table 8-19: Summary of results on the operational capacity of planning authorities

## 8.2.2. The capacity of system's component No.2 - planning legislations

This section presents the findings related to the capacity of the existing planning legislations to support the operation of a compact city policy. The section begins with the basic themes related to the four specific aspects that were investigated to assess the operational capacity of the planning legislations. The section presents later the derived broad themes related to the capacity of the legislations in total.

### 8.2.2.1. Consistency between planning legislations and planning visions and objectives

The basic themes emerging from the interview data on the consistency between planning legislation and planning objectives are provided in Table 8-20 below. The themes show sharp criticism of the existing planning legislations seeing them a prime source of the weakness of the current plans and an obstacle to implementing improvements. They also demonstrate that the legislations experience serious shortcomings as they are inadequate and incompatible with the modern planning concepts, aims and approaches, which makes the planning system inefficient and hinders the support of any enhancement. Additionally, the themes show that the conducted partial amendments did not manage to fix the shortcomings and that activation of the earlier started work on drafting a new planning law is recommended. However, claimed challenges to enacting a new law in the Palestinian context makes a comprehensive amendment of the existing law a feasible action in the meantime.

Basic theme	Category	Code	Reference
Sharp criticism of the existing planning legislations considering them aimless, the source of weakness of the current plans, and the obstacle to implementing enhanced plans	Level of consistency	Existing legislations are moderately consistent with the primitive master plans prepared according to them [1]	R1, R7, R9
		Existing legislations fail to support the implementation of the proposed enhancements of master plans and newly introduced strategic development plans [2]	R1, R6, R9, R10
		Undetermined consistency between aimless legislation and arbitrary prepared plans [3]	R2, R3, R4, R5, R8
Existing planning legislations are inadequate and incompatible with the modern planning concepts, aims and approaches, which makes the planning system inefficient and hinders the support of any enhancement	Shortcomings of existing legislations	Lacking provisions concerning socio-economic development and the protection of the environment and natural resources, public transportation [4]	R1, R2, R4, R6, R7, R8, R9, R10
		Excessively narrowing the scope and contents of the plans [5]	R1, R4, R5, R7, R8, R9, R10
		Stipulating the use of individual parcels and overlook the broader context [6]	R2, R6, R7, R8
		Not being designed to achieve development concept or goals [7]	R2, R3, R5
		Overlooking the local characteristics and applying the same land use regulations to all cities and villages [8]	R4, R7, R12

		Imposing inefficient fines on violating the provisions of land use regulations that maintain the values stipulated in 1966 [9]	R11, R12
Undertaken partial amendments fail to address the shortcomings of the existing legislations	Conducted amendments	Bylaws concerning building regulations within- and beyond planning areas could not raise the efficiency of the legislation [10]	R3, R5, R7, R9
		The bylaws stipulate the use of individual parcels and building permissions without defined concept [11]	R3, R5
Strong need to resume the work on reforming the planning legislation with a recommendation to carry out a comprehensive amendment until the logistical arrangements to enact a new law are established	Recommended actions	Re-activate the work on the Draft of Planning Law and the approval process [12]	R1, R2, R3, R4, R5, R7, R9
		Prepare comprehensive amendments to the existing legislation until enacting a new law is possible [13]	R2, R6, R10
Inactive legislative council And debate about the legitimacy of the implemented alternatives to enact new laws	Inactive legislative authority	Since 2006, Palestinian’s legislative authority is crippled due to forced absence of the legislative council [14]	R1, R2, R3, R9, R10
	The debatable legitimacy of alternatives	Enacting a new planning law using a Presidential Decree is not legitimate [14]	R10
		Enacting a new planning law using a Presidential Decree is an approach to overcome the absence of the legislative council [15]	R1, R2, R3, R9

Table 8-20: Interview results on the consistency between planning legislations and planning visions and objectives

#### 8.2.2.2. Considering social, economic, and environmental aspects in planning law

The basic themes emerging from the interview data on the principles of sustainable urban development in the existing planning legislations are presented in Table 8-21 below. The themes show an absolute absence of the sustainability principles in existing legislation and point out a recommendation to formulate the new law in conformity with these principles. Additionally, the themes show the need to distribute the thinking that sustainable development is applicable and desired in the local context.

Basic theme	Category	Code	Reference
The absolute absence of the principles of sustainable urban development in existing planning legislation	Scope of consideration	Sustainability principles are absolutely absent in the planning legislation [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11
	Causes	Planning legislation was stipulated before the sustainable urban development emerged [2]	R3, R7, R9, R10, R12
		Later amendments did not attempt to give room for principles of sustainable urban development in the legislation [2]	R3, R6, R7, R9

Recommendation to formulate the new planning legislation in conformity with the principles of sustainable development and disproving the statement that these principles are irrelevant to developing countries	Recommendation	Considering the social equity, environmental quality, and economic prosperity among the guiding concepts to reframe the planning legislation [3]	R1, R2, R4, R5, R7, R9, R10, R12
		Disproving the persisting assumption that the principles of sustainable development are inapplicable to developing countries and exploring relevant applications to the local context [3]	R1, R2, R5

Table 8-21: Interview results on the sustainability principles in the planning legislations

### 8.2.2.3. Role of legislations in using the land management tools to achieve planning objectives

The basic themes emerging from the interview data on the role of planning law in facilitating the use of land management tools are presented in Table 8-22. The themes show that the law regulates the use of basic tools such as parcellation schemes and voluntary purchase of land but fail to stipulate the use of other mentioned tools. The themes also show that only rarely, few of the stipulated tools are utilized by the municipalities. Additionally, they indicate that existing technical, financial, and geopolitical conditions hinder extending the implementation of the basic instruments, which led to areas for public use that are below standards.

Basic theme	Category	Code	Reference
The legislations offer provisions on the use of a moderate number of land management tools, however, the use of many of those tools is not stipulated adequately including land readjustment of parcels, redevelopment of deteriorated urban areas and acquisition of land for constructing social housing	Level of availability	The law provides provisions on the use of few land management tools [1]	R2, R3, R6, R7
		The law provides provisions on the use of some land management tools [2]	R1, R4, R5, R9, R10, R11, R12
	Adequacy of regulations	The law adequately regulates the basic tools to acquire land for roads and public needs but fail to provide rules on how to implement the tools to readjust land parcels, redevelop deteriorated areas or provide social housing [1] [2]	R2, R3, R7, R8, R9, R10
Only rarely, few of the stipulated land management tools are utilized by the municipalities including parcellation schemes and the right to take up to 30% of the land, voluntary purchase, and compulsory acquisition, which leads to inadequate areas for public uses	Utilization rate [3]	Most of the offered land management tools are not common in practice	R2, R3, R5, R6, R7, R8
		Municipalities employ offered land management tools very rarely	R1, R2, R6, R11, R12
	Commonly utilized instruments	Parcellation schemes and the right to take up to 30% of the land to provide roads and public services [4]	R1, R5, R7, R12
		Voluntary purchase of land to provide areas to meet high-priority public needs [4]	R1, R7, R12
		Compulsory acquisition of land with fair compensation as a least favourable option [4]	R1, R7
Impacts of low	The little use of land management tools is creating land use plans that assign	R1, R10, R12	

	utilization rate	inadequate areas for the public use and services [5]	
Several factors hinder the municipalities from making more use of land management tools including their weak financial and technical capacity, the incompleteness of the land registry and other land administration problems, and by the sensitivity of land issues under the present geopolitical circumstances	Non-legal challenges	Municipalities have inadequate financial resources to cover compensations entailed in some land management tools [6]	R2, R5, R8, R9, R11, R12
		Municipalities have an inadequate technical capacity to conduct the processes included in land management tools [6] [7]	R2, R3, R8, R9, R11
		Incomplete land registration process and incompetent land administration system [6]	R2, R4, R8, R10, R12
		Municipal councils avoid land management tools due to extreme sensitivity of land-related interventions in the Palestinian context [6]	R3, R4, R12
Developing legislations on the use of land management tools that are mentioned in the law without details	Recommendation	Adding provisions to regulate the use of the land management tools mentioned in the law without details such as compulsory readjustment of land parcels that do not comply with existing zoning, for the development of social housing, or for the redevelopment of deteriorated urban areas [8]	R2, R3, R7, R8

Table 8-22: Interview results on the role of planning legislations in facilitating the utilization of land management tools

#### 8.2.2.4. The role of legislations in helping municipalities generate income to finance development costs

The basic emerging themes from the interview data on the role of the in helping municipalities finance development costs are presented in Table 8-23 below. The themes demonstrate adequate legal coverage of the traditional revenue sources whereas it showed the inadequacy of the stipulation of special sources mentioned in the law. They also demonstrate that the municipalities are only making use of the traditional sources, which make them financially incompetent to finance urban development costs. Moreover, the themes show actions that could help reduce the financial incompetence of the municipalities. The actions include amending the existing legislations on special sources, enacting legislations regulating the municipal partnership with the private sector and strengthening the property tax system.

Basic theme	Category	Code	Reference
The widely used traditional revenue sources are covered adequately by existing legislations	Traditional sources	Legislations stipulate adequately how municipalities can generate revenue through traditional means such as property tax, education tax, and several fees [1]	R1, R3, R8, R10
		Revenues collected through from traditional resources constitute actual municipal revenue sources [1]	R1, R3, R8, R10
The underutilized special revenue sources are inadequately stipulated by existing legislations	Special sources	Legislations authorize municipalities to impose special fees to share the costs of development with landowners [2]	R1, R2, R3, R4, R5, R7, R9, R10, R11, R12
		Legislations on the special development fees are not stipulated adequately [2]	R1, R2, R5, R7, R9, R10
		Special development fees have been rarely imposed since the establishment of the Palestinian Authority [2]	R1, R2, R3, R5, R7, R10, R11, R12
		Special development fees are expected to slightly increase the municipal fiscal competence to finance development [2]	R1, R3, R4, R8, R9, R12
Dependence on the traditional sources alone keeps municipalities fiscally incompetent	Fiscal incompetence	Income generated through traditional sources is insufficient [3]	R1, R3, R8
		Municipalities are fiscally incapable of enhancing the unacceptable condition of the physical infrastructure [3]	R1, R3, R6, R7, R8, R10
		Municipalities depend significantly on international donors to finance infrastructure projects [3]	R1, R6, R8, R10
Reducing the fiscal incompetence requires amending the legislations of the special fees, enacting legislations on the municipal partnership with the private sector and enhancing the property tax system	Recommended actions	Further stipulation the use of the special fees to ensure that it is fair and feasible [4]	R1, R5, R7, R12
		Creating legislations regulating the partnership between municipalities and private sector and the municipal investment [5]	R2, R4, R7
		Enhancing the property tax system particularly concerning property valuation [6]	R8, R10

Table 8-23: Interview results on the role of law in helping municipalities to finance development costs

#### 8.2.2.5. Broad themes on the operational capacity of the planning legislations

Table 8-24 presents a summary of the basic themes that emerged concerning the specific themes that determine the operational capacity of the planning legislations. The researcher has built on these basic themes to draw the following broad themes on the operational capacity of planning legislations:

1. Existing planning legislation appear significantly inadequate to operate a compact city policy and need to go through a radical reform. Attempts to enact a new planning law were carried out; however, the attempts have never been completed.
2. The existing legislations are not formulated in conformity with any development goals and fail to support enhancement in the planning system. Increasing the operational capacity of the legislations requires resuming the work on the draft of planning law and preparing comprehensive amendments to the existing legislation until enacting a new law is possible.
3. The existing legislations pay no attention to the social, economic, and environmental development in urban planning. Increasing the operational capacity of the planning legislations require drafting the new law in conformity with the principles of sustainable development and exploring relevant applications of these principles to the local context like those on affordable housing, and efficient public transportation.
4. The existing legislations provide provisions on some land management tools, but many of them are not stipulated adequately. Increasing the operational capacity of planning legislations requires additional legislations on the use of land management tools that are mentioned in the law without details. Notably, the inadequate legal coverage of the tools is not the main factor hindering their use. The low technical and financial capacity of municipalities, the incomplete land registration and the incompetence of the land administration system are major factors hindering the use of land management tools.
5. The existing legislations provide inadequate local coverage of the special development fees mentioned in the law. Increasing the operational capacity of the legislations require further stipulation of the use of the special fees to ensure fairness and feasibility. It also requires creating legislations to regulate the partnership between municipalities and private sector and the municipal investme

Aspect	Degree of adequacy 	Indication	Challenge to strengthen adequacy	Opportunity to strengthen adequacy	Recommendation to strengthen adequacy
Consistency between planning laws and intended planning objectives		<p>The existing legislations do not support any development concept or goals</p> <p>The existing legislations are unable to support the recommended enhancements in plans</p> <p>The existing legislations are inadequate and incompatible with modern planning concepts and approaches</p>	<p>The inactive legislative council</p> <p>Uncertainty about the legitimacy of using the alternative approaches to enact new laws</p>	Initial draft planning law is available	<p>Resuming the work on the draft of planning law and the approval process</p> <p>Preparing comprehensive amendments of the existing legislation until enacting a new law is possible</p>
Legislations provide scope to consider the social, economic, and environmental development in urban planning		Paying no attention to the social, economic, and environmental development in urban planning	The persisting assumption that the sustainable urban development that considers social, economic, and environmental aspects is inapplicable to developing countries	-	<p>Formulating the new legislation in conformity with the principles of sustainable development</p> <p>Exploring relevant applications of the sustainability principles to the local context</p>
Stipulating the use of land management tools to achieve planning objectives		Providing provisions on some land management tools, but many of them are not stipulated adequately	The inadequate technical and financial capacity of the municipalities	-	Developing additional legislations on the use of land management tools that are mentioned in the law without details

			Incomplete land registration and incompetent land administration system		
Stipulating how to generate fund to finance urban development costs		The inadequate legal coverage of the special development fees mentioned in the law	-	-	Further stipulating the use of the special fees to ensure fairness and feasibility  Creating legislations regulating the partnership between municipalities and private sector and the municipal investment

Table 8-24: Summary of the results on the operational capacity of planning legislations

### 8.2.3. The capacity of system's component No.3 - plans preparation process

This section presents the findings related to the capacity of the undertaken plans' preparation process to support the operation of a compact city policy. The section begins with the basic themes related to the eight specific aspects that were investigated to assess the operational capacity of the plans' preparation process. Later, the section presents the derived broad themes related to the capacity of this process entirely.

#### 8.2.3.1. The frequency of preparing plans and carrying out planning-related tasks

The basic emerging themes from the interview data on the frequency of carrying out municipal planning tasks are presented in Table 8-25. The themes show that these tasks are performed rarely and irregularly. The themes also show that inadequate legal provisions on municipal planning tasks and municipal incompetence in planning field have deepened this improper practice. The strategic development and investment plans seemed an opportunity to reduce this improper practice, though it is not yet implemented properly. Finally, the themes demonstrate a need to extend the legal framework on the municipal planning tasks and initiating capable municipal planning units to enable the performance of planning tasks more frequently.

Basic theme	Category	Code	Reference
Medium municipalities perform planning activities rarely and irregularly	Frequency level	Medium municipalities are concerned with planning activities only during the preparation of master plans [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R11, R12
		Medium municipalities rarely perform planning tasks when their master plans are ready [1]	R1, R4, R5, R6, R7, R8, R9, R10, R11, R12
Deficiencies in planning legislations and incompetence of the municipal planning capacity hinder the performance of planning tasks more frequently	Challenges to increase the frequency	The absence of planning units or planners at the municipalities to take the responsibility of planning [2]	R1, R3, R4, R6, R10, R11, R12
		Planning legislations and practices limit planning tasks in the preparation of master plans of undefined validity period [2] [3]	R1, R2, R4, R5, R6, R7, R9, R10, R12
Strategic development and investment plans are one approach to make local planning more active; however, this planning instruments still needs more elaboration	Opportunity to increase the frequency	The lately introduced four-years strategic development plans and the fiscal incentives to keep them updated [3]	R1, R10, R12
		Preparing strategic development plans is a planning task that needs significant elaboration [4]	R1, R7, R9
Building the municipal planning capacity and extending the mandate of municipal planning tasks are	Recommendation to increase the frequency	Extend legal and institutional framework concerning municipal planning tasks to exceed preparing master plans [6]	R1, R2, R5, R9

recommended to carry out planning tasks more frequently		Initiate municipal planning units capable to work on planning tasks [5]	R1, R2, R4
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Table 8-25: Interview results on the frequency of preparing plans and carrying out planning-related tasks

### 8.2.3.2. Addressing spatial planning in integration with the social, economic and environmental dimensions

The basic emerging theme on the integration of spatial planning with the social, environmental, and economic aspects are presented in Table 8-26. The themes show that objectives related to social, economic, and environmental development are neither integrated into the master plans nor are likely to be integrated without reforming the planning legislations.

Basic theme	Category	Code	Reference
Objectives related to social, economic, and environmental development are disregarded in preparing existing master plans	Current situation	Existing master plans address spatial aspects solely [1]	R1, R2, R3, R4, R6, R7, R8, R9, R10, R11, R12
Under the existing planning legislation and ideology objectives related to social, economic, and environmental development are unlikely to be integrated into the master plans	Challenges to change	Comprehensive development seems odd/irrational to the local level [2]	R1, R5, R6, R9
		Existing planning law does not require preparing comprehensive sustainable plans [3]	R1, R4, R8, R9, R10
Ineffective voluntary promotion of preparing comprehensive master plans is employed	Weak opportunity	Planning manuals promote preparing comprehensive development plans [4]	R10
Reformation of planning legislation that stipulates the development of comprehensive master plans is essential	Recommendation	Significant amendment in planning legislation to enforce the integration of spatial development with the social, economic, and environmental dimensions [5]	R1, R4, R8, R9,

Table 8-26: Interview results on the integration of spatial planning with the social, environmental, and economic aspects

### 8.2.3.3. Setting up specific objectives, vision, or defined time-frame

The basic themes emerging from the interview data on planning objectives, visions, and time plans are presented in Table 8-27. The themes show that existing master plans are not designed based on specific objectives, visions, time plan or budget. The themes also show that the existing non-binding planning directives call for preparing master plans based on a framework of development objectives related to several sectors, vision, time plan and budget. However, the fact that the planning legislations do not require the recommended practices, these practices remain neglected. The themes also demonstrate that an amendment of the planning legislations is necessary to enable the implementation of the recommended practices.

Basic themes	Category	Code	Reference
Master plans are not designed based on specific objectives, visions, time plan or budget	Practice	Master plans do not seek any objectives, visions, or time plan [1]	R1, R2, R3, R4, R6, R7, R8, R9, R12
Non-binding planning directives promote formulating a framework of development objectives related to several sectors, vision, time plan, specific projects and budget to guide the preparation of the master plan	Physical Planning Manual	Manual promote preparing Spatial Development Framework Plan, which identifies spatial development strategies and directs all forms of planning [2]	R1, R5, R10, R11
	Strategic Development and Investment Planning	Voluntary planning instrument which includes comprehensive development objectives, development projects, time plan, budget [3]	R2, R7, R10, R11
		Intended to be a base for master plans [3]	R2, R8, R10, R11
Lack of legislations requiring designing master plans based on a framework of development objectives, vision, or time plan	Challenge	Setting visions and objectives for plans not required by the planning law [4]	R1, R2, R3, R4, R5, R8, R12
Need for significant amendment of the planning legislations to support the preparation of master plans based on a framework of development objectives, vision, and implementation time plan	Recommendation	Changing the planning law to ensure preparing master plans appropriately [5]	R1, R3, R5, R7

Table 8-27: Interview results on defining planning objectives, visions, and time plans

#### 8.2.3.4. Sort of studies carried out before preparing the plans

The basic themes emerging from the interview data on the studies carried out before the plan preparation process are listed in Table 8-28. The themes show that contrary to that provided by the law, local authorities prepare studies that are characterized by insufficient content and inadequate quality. More beneficial studies are likely to be carried out due to new initiatives including the manual of good planning practices and the integrated spatial information system. However, further efforts are recommended to ensure benefiting from the new initiatives in enhancing the prepared studies and sustaining their role in informing the planning process. This includes amending the existing legislations about the characteristics and the role of the studies required for the planning process.

Basic theme	Category	Code	Reference
Comprehensive descriptive surveys are prerequisite for plans' preparation	Legal scope	Preparing a study describing the context characteristics is obligatory prior the plans' preparation [1]	R1, R2, R3, R4, R6, R7, R10, R11, R12
		The study ought to address natural environment, demography, the built environment and the public services [1]	R7, R10, R11, R12
Existing studies are not useful for informing the planning process as they are insufficient and poorly prepared	Actual practice	Prepared studies fail to cover the required topics [2]	R1, R2, R4, R7, R8, R10, R11
		Studies are poorly prepared, focusing on description and overlooking analysis [3]	R3, R5, R7, R8, R9, R10, R12
The lack of data on required topics and the disengagement of the studies in the planning process reduce the quality of these surveys	challenges	Insufficient available data [4]	R1, R2, R3, R4, R6, R7, JR11, R12
		Disregarding the prepared studies in the planning process [4]	R2, R3, R4, R6, R9, R10
The promotion of non-binding planning directives and the continuous development of the spatial information system can increase the quality of the prepared studies and make them more useful	Opportunities for improvement	The Physical Planning Manual advocates conducting comprehensive review and analysis of the urban context and illustrates the process [5]	R4, R5, R8, R10
		The development of GeoMoLG as an integrated spatial information system increases data availability gradually [6]	R1, R2, R4, R10
The need to strengthen the existing opportunities to improve prepared studies and sustain their role in guiding the plans' preparation process	Recommendation	Enhancement of the guidelines of the planning manual and stronger promotion of the guidelines implementation [5]	R5, R8
		Extensive and targeted efforts to build the capacity of the spatial information system [6]	R1, R4
		Elaboration of the legislations about the required studies in terms of content, preparation method, and their role in the planning process [7]	R4, R5

Table 8-28: Interview results on the studies carried out before preparing the plans

### 8.2.3.5. Assessing the impact of the proposed plans

The basic emerging themes on the impact assessment of the proposed plans are presented in Table 8-29. The themes show that the plans preparation process does not comprise practices to investigate how proposed plans will affect the society, the environment, or the economy. The themes demonstrate that the physical planning manual promotes carrying out such practice, but that this promotion has been ineffective. Both, the limited capacity of municipalities and lack of legal coverage are seen impediments to conduct impact assessments. Accordingly, the themes demonstrate a recommendation to integrate the impact assessment formally in the planning process.

Basic theme	Category	Code	Reference
The absence of the impact-assessment practice in the planning system	Non-availability	Impact assessment of proposed plans has not yet emerged [1]	R1, R2, R3, R4, R6, R7, R8, R9, R10, R11, R12
Neither the law requires conducting an impact assessment, nor the municipalities are capable of conducting them	Challenges	Existing legislation does not require conducting impact assessment [1]	R1, R8, R9, R10, R12
		Municipalities are not capable of conducting impact assessment [2]	R6, R8
The physical planning manual promote carrying out plans' impact assessment	Weak opportunity	Physical planning manual requires assessing the impact of the alternative planning scenarios, but this recommendation is disregarded [3]	R9, R10
Need to legally enforce conducting the plans' impact assessment	Recommendation	Adding legislation integrating the plans impact assessment in the plan preparation process [3] [4]	R1, R9, R10

Table 8-29: Interview results on the impact assessment of the proposed plans

### 8.2.3.6. Integrating the community

The basic themes emerging from the interview data on the community participation are presented in Table 8-30. The themes show that the community is excluded in the preparation of the master plans but has been recently included in the preparation of the strategic plans without being efficient at a restricted level. The themes also demonstrate lack of indicators that the community could be soon involved in the preparation of master plans, for the planning law and the physical planning manual do not support this action. Finally, the themes demonstrate recommendations reconsider how to involve the community more efficiently in preparing the strategic plans.

Basic theme	Category	Code	Reference
Lack of community involvement in preparing formal plans and no signs of involvement in the near future	Master Plans	The community has never been involved in the preparation of Master Plans [1]	R1, R2, R3, R6, R7, R9, R12
		Existing law does not enable community participation but only grant the citizens the right to appeal against prepared plans [2]	R1, R3, R6, R8, R10, R12
		The physical planning manual does not call for involving the community in preparing the Master Plans [3]	R2, R7, R8
Superficial involvement of the community in preparing informal plans and the enhancement of	Strategic Development and	The principle of community participation is integrated into strategic planning [4]	R1, R2, R4, R8, R9, R10, R11, R12
		The contribution of community participation is insignificant [4]	R1, R2, R4, R5, R8, R9, R10

the efficiency of the community involvement is recommended	Investment Plans	The way of involving the community is not satisfying [4]	R2, R3, R4, R5, R8, R10
		Need to redesign the approach used to involve the community and including a larger sample [4]	R2, R4, R5

Table 8-30: Interview results on the community participation in the plan preparation process

### 8.2.3.7. Cooperation with the scientific community

The basic themes emerging from the interview data on the cooperation with the scientific community are presented in Table 8-31. The themes show occasional direct cooperation with the scientific community through engaging universities or related centres in the preparation of plans, planning directives, or conducting urban studies. This sort of cooperation is expected to be strengthened as the universities have launched graduate and undergraduate urban planning programmes. The themes also show that a stronger cooperation is taking place with scientific community indirectly, which comprises hiring academics as private consultants in preparing master plans.

Basic theme	Category	Code	Reference
Occasional direct cooperation with the scientific community that is likely to increase	Preparing plans	Academics participate on behalf of a university or a related centre in preparing master plans [1]	R1, R4, R10, R12
		Is turning rare after the emergence of planning firms in the last ten years [1]	R1, R4, R10
	Conducting urban studies and planning directives	Academics participate on behalf of a university or a related centre in conducting urban studies or providing guidance and technical assistance to public authorities on planning directives or policies [2]	R1, R2, R4, R5, R7, R9, R10
		Preparing master and bachelor theses on local urban development policy and practices in cooperation with public authorities [3]	R1, R2, R6, R9, R10
		Is likely to increase particularly due to initiating the urban planning as a major bachelor besides the master programme [4]	R1, R2, R6, R9
Continuous indirect cooperation with the scientific community in preparing master plans	Preparing plans	Academics are usually hired as private consultants to prepare master plans [5]	R1, R2, R3, R4, R5, R6, R7, R8, R10, R11
		Academics are often obliged to develop planning proposals contradicting their values and knowledge [6]	R3, R4, R7, R8

Table 8-31: Interview results on the cooperation with the scientific community in the plans' preparation process

### 8.2.3.8. Cooperation with private planning firms

The basic theme emerging from the interview data on the cooperation with the private planning firms in the plans' preparation is illustrated in Table 8-32. The theme shows a significant dependence on the

private planning firms in preparing master plans. Many respondents consider this enormous cooperation excessive and irrational.

Basic theme	Category	Code	Reference
Enormous dependence on private planning firms in preparing master plans	Excessive dependence	Private planning firms are taking over the role of local authorities in planning activities [1]	R1, R2, R3, R4, R5, R6, R7, R9
	Rational alternative	Private planning firms are helping incapable municipalities to prepare master plans without overwhelming the planners at higher levels [2]	R8, R10, R11

*Table 8-32: Interview results on the cooperation with private planning firms in the plans' preparation process*

### 8.2.3.9. Broad themes on the operational capacity of plans' preparation process

Table 8-33 presents a summary of the basic themes that emerged concerning the specific aspects that determine the operational capacity of plans' preparation process. The researcher has built on these basic themes to draw the following broad themes on the operational capacity of the plans' preparation process:

1. The undertaken plan's preparation process seems inadequate to operate a compact city policy. A key challenge to increase the operational capacity of the plans' preparation process is apparently the existing planning legislations. Regarding opportunities, the directives of the physical planning manual appear to offer a chance to enhance the preparation of the plans; however, this chance is relatively weak and requires extensive support to become able to strengthen the operational capacity of the plans' preparation.
2. The planning process is conducted rarely and irregularly due to the deficiencies in planning legislation and municipal planning capacity. Optimizing the use of the new strategic development and investment plans appears likely to increase the operational capacity of the planning process. Additionally, extending the legal and institutional framework concerning municipal planning tasks and initiate qualified municipal planning units are essential to raising the adequacy of the operational capacity of the planning process.
3. The planning preparation process seems unable to integrate spatial planning with social, economic, and environmental development aspects. The voluntary promotion of developing comprehensive development plans appears ineffective. A legal reform that creates legislation supporting the preparation of comprehensive development plans could be a solution to increase the operational capacity of the plans' preparation process.
4. The planning preparation process does not conduct master plans that offer future visions and that aim at achieving specific objectives, whereas the planning directives promote this action. An amendment of the planning legislations to enforce the preparation of master plans in line with the recommendation of the planning directives could be a solution to increase the operational capacity of the planning preparation process.
5. The planning process is not informed by comprehensive studies of adequate quality. The context appears to have few opportunities to enhance the quality of the prepared studies and thus improve the operational capacity of the plans preparation process. The opportunities are the result of the existing legislation, physical planning manual, and integrated spatial information system. The three opportunities need further development to increase their efficiency in improving the prepared studies.

6. The planning process does not assess the impacts of the proposed plans, although the planning manual attempts promoting this action. The inadequate capacity of the municipalities to do this action and the fact that it is not obligatory are potential impediments to implement this action. The legal enforcement of conducting an impact assessment of the plans could be one of the solutions to increase the operational capacity of the plans' preparation process.
7. The community is not involved in the preparation process of formal plans whereas it has been lately involved in the preparation process of informal plans on a restricted level. Neither the planning law nor the physical planning manual support involving the community in preparing the master/formal plans. The refinement of the community participation in preparing strategic/informal plans seems one of the solutions to increase the efficiency of the participation process which, in turn, enhance the operational capacity of the plans' preparation process.
8. The scientific community seems to be a strong partner in the planning preparation process. The cooperation with the scientific community is likely to become more productive. A possible reason for this improvement is the process of building the capacity of the Palestinian education system in planning fields.
9. Private planning firms are involved in the plans' preparation process. The weight given to the private firms in the planning process seems to be excessive and is being at the expense of developing the capacity of the municipalities in urban planning

Aspect	Degree of adequacy 	Indication	Challenge to strengthen adequacy	Opportunity to strengthen adequacy	Recommendation to strengthen adequacy
The planning process is continuous		The municipalities perform planning activities rarely and irregularly	Inadequate legal provisions on municipal planning tasks Municipalities without planning personnel	The four-years strategic development plans and the fiscal incentives to keep them updated	Extending the legal and institutional framework concerning municipal planning tasks Initiate qualified municipal planning units
The planning process is comprehensive		Objectives related to social, economic, and environmental development are disregarded in plans' preparation	Inadequate legislations to enforce comprehensive development Local culture considers comprehensive development irrational	Promotion of preparing comprehensive master plans through planning manuals of restricted effect	Amending the planning legislations to stipulate the preparation of comprehensive master plans
The planning process is implementation-oriented		Plans are not designed based on specific objectives, visions, time plan or budget	Planning legislation does not require	Non-binding planning directives promote formulating a development framework to prepare implementation-oriented plans	Amending the planning legislations to support the preparation of master plans based on a framework of development objectives, vision, and implementation time plan
The planning process understands the context involving spatial and non-spatial data		The prepared plans have insufficient content and inadequate quality The preparatory studies are not useful for informing the planning process	Insufficient available data Disregard of the prepared studies in the planning process	Supporting legislation Physical planning manual directives Integrated spatial information system	Detailing the legislations on the contents, quality and role of the studies Enhancing and empowering the planning directives

					Increasing the capacity of integrated spatial information system
The planning process assesses the impacts of planned interventions		The plans' preparation process does not include assessment of the impacts of the proposed plans on the community, economy or environment	Lack of legal coverage Inadequate capacity of the municipality	The physical planning manual promote carrying out plans' impact assessment	Adding legislation to integrate the plans impact assessment in the plan preparation process
The civil society is moderately involved in the planning process		The community is not involved in preparing formal plans but has the right to appeal  The community is superficially involved in preparing informal plans	The existing law does not facilitate community participation  The physical planning manual does not promote community participation	-	Redesigning the adopted approach to involve the community in preparing informal plans
The cooperation with the scientific community in the planning process		The direct cooperation with the scientific community takes place occasionally in the preparation of urban studies and planning directives  Continuous indirect cooperation with the scientific community in preparing master plans	-	Palestinian universities have launched graduate and undergraduate urban planning programmes	-
The cooperation with the private planning firms in the planning process		The enormous dependence on the private planning firms in preparing master plans	-	-	-

Table 8-33: The summary of results on the operational capacity of the plans' preparation process

## 8.2.4. The capacity of system's components No.4 - plans

This section presents the findings related to the capacity of the existing plans to support the operation of a compact city policy. The section begins with the basic themes related to the six specific aspects that were investigated to assess the operational capacity of the plans. Then, the section presents the derived broad themes related to the capacity of the existing plans entirely.

### 8.2.4.1. Role of national plans in guiding local development

The basic emerging themes on the role of existing national plans in orienting local development are illustrated in Table 8-34. The themes show that the completed first phase of the National Spatial Plan has a minor influence on orienting local development, which is limited to defining preservation areas. The themes also show that the outcomes of the second phase have not been completed to influence the local level. Nevertheless, further processing of these outcomes, which is strongly recommended, is likely to have a significant influence on orienting local development.

Basic theme	Category	Code	Reference
The completed initial phase of the National Spatial Plan has a minor influence on guiding local urban planning and development	Part 1 - Protection Plan	Regulatory plan defining sites that should be protected from urban development because of its high natural or cultural value [1]	R1, R2, R3, R4, R5, R7, R9, R10
		Partially regulates the expansion of urban growth boundaries of cities and villages and protect cultural and natural resources [2]	R1, R2, R3, R5, R6, R8, R9, R10, R12
		Unlikely to influence the urban planning and development within urban growth boundaries [3]	R2, R3, R4, R11, R12
If converted into a useful and effective format, the outcomes of the second phase of the National Spatial Plan are likely to have a significant influence on guiding local urban planning and development	Part 2- Envisioning Palestine	Comprises visions and medium-term objectives in seven development sectors that are published in a document called "Envisioning Palestine" [4]	R1, R2, R8, R9
		The formulated visions and objectives are neither binding nor ready to use at the local level [5]	R1, R2, R5, R7, R9
		The planned translation of the visions and objectives into guiding spatial plans and policies is interrupted [6]	R1, R2, R5, R7, R8, R9
		Converting the visions and objectives into guiding spatial plans and policies matching all planning levels is strongly recommended [7]	R1, R2, R4, R8

Table 8-34: Interview results on the role of national plans in orienting local development

### 8.2.4.2. Role of the regional plan(s) in harmonizing the local development within the region

The basic emerging themes from the interview data on the role of existing regional plans in harmonizing local development are presented in Table 8-35. The themes show considerable weakness in the role of existing regional plans in harmonizing development. The themes demonstrate the reasons behind this weakness. On the one hand, the statutory regional plans have been never prepared and there is no capacity to prepare them soon. On the other hand, informal regional plans have been introduced as an

attainable alternative, but these are unable to fulfil the fundamental objectives of regional plans and not provided with implementation mechanisms.

Basic theme	Category	Code	Reference
Statutory regional development plans are not available and not likely to be prepared soon	Regional physical plans	Physical regional plans have never been prepared [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11
		Physical regional plans are requested by the existing law [1]	R1, R4, R7, R8, R10, R11
		Lack of technical and financial resources to prepare statutory regional plans [2]	R7, R10
Recently initiated Regional Strategic Development Plans are unsuitable to coordinate regional development and are unconnected with the planning system	Regional Strategic Development Plans	Recently launched planning initiative which has not been exercised in all districts [3]	R1, R3, R5, R9, R10, R11, R12
		Address regional development objectives and challenges superficially [4]	R3, R5, R9
		Not designed to address fundamental regional planning issues such as mobility, rural-urban migration, urban sprawl [5]	R3, R4, R5, R8, R10
		Have insignificant impact and not linked to other plans [6]	R1, R3, R4, R8, R9, R12
		Strategic plans lack legal and institutional framework integrating them into the planning system [7]	R1, R3, R8, R12

Table 8-35: Interview results on the role of regional plans in harmonizing local development within the region

### 8.2.4.3. The role of Strategic Development and Investment Plan in guiding the development

The basic emerging themes from the interview data on the Strategic Development and Investment Plan are presented in Table 8-36. The themes show that the plans are inferior and have a marginal role in guiding urban development. Two main aspects are mentioned as reasons contributing to this weakness. First, the poor preparation of the plans which fail to draw a framework to direct comprehensive development and concentrates on infrastructure projects. Second, the plans are not empowered and integrated with the existing planning system.

Basic theme	Category	Code	Reference
SDIPs play no role in guiding urban development	Influence	SDIPs have almost no influence on guiding urban development [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
SDIPs fail to draw a framework to direct	Design and practice	SDIP and underlying analyses are dull and underdeveloped [2]	R1, R3, R4, R7, R9

comprehensive development and concentrates on infrastructure projects		SDIPs focus on defining necessary projects, mainly infrastructure and services, seeking external funding [2]	R1, R3, R4, R5, R9, R11, R12
		SDIPs overlook development visions and objectives in their proper sense [2]	R1, R3, R4, R9
Lack of linkages with the planning system and lack implementation mechanism	Integration	SDIP is weakly annexed to existing planning system [3]	R1, R2, R5, R6, R8
		SDIP is not equipped with means to implement the prepared plans [3]	R2, R4, R5, R6, R11, R12

Table 8-36: Interview results on the role of the Strategic Development and Investment Plan in guiding urban development

#### 8.2.4.4. Role of the master plan in guiding the development

The basic themes emerging from the interview data on the municipal master plans are presented in Table 8-37. The themes demonstrate that existing master plans are ineffective in guiding urban development. The themes also demonstrate that the weakness of the master plans, particularly being incomprehensive and lacking development framework, makes them unqualified for guiding urban development. The themes show that the physical planning manual promotes practices to reduce the deficiencies of master plans. Additionally, the themes demonstrate that amending the planning legislations that define this planning instrument is seen essential for enhancing the role of the master plans in guiding urban development.

Basic theme	Category	Code	Reference
Master plans are ineffective in guiding urban development	Influence	Master plans play no role in guiding urban development [1]	R1, R3, R4, R5, R7, R8, R9, R12
		Master plans play a moderate role in guiding urban development [2]	R2, R6, R10, R11
Produced master plans are incomprehensive and lack development frameworks	Deficiencies	Master plans are mainly zoning plans [3]	R2, R3, R5, R7, R9, R10, R11
		Master plans focus on spatial aspects while overlooking social, economic, and environmental aspects [4]	R3, R4, R5, R9
		Master plans are not set to tackle defined problems or achieve development objectives [5]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R12
		Master plans focus on the current situations and neglect the future [6]	R1, R4, R6, R8, R9, R12
Non-binding planning directives promote practices to reduce the deficiencies of master plans	Opportunity	The physical planning manual recommend preparing master plans based on a development framework of comprehensive objectives [7]	R10
Need to amend planning legislations to enhance the scope	Recommendation	Changing the legislations that provide an inadequate definition of master plans [8]	R3, R4, R5, R9

and characteristics of master plans			
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Table 8-37: Interview results on the role of master plans in guiding urban development

#### 8.2.4.5. Use of sectoral development plans and programmes

The basic emerging theme on sectoral development plans shows that municipalities do not prepare any sort of sectoral development plans<sup>33</sup>.

*“We do not have any sectoral plans. And both housing and transportation planning are not our responsibility, although we are involved in the process of approving transportation routes and stops” (R.12, Interview, 02.06.2016)*

*“We are aware of the limited technical and financial resources of the municipalities. They are unable to preliminary master plans on their own. Therefore, the ministry does not request the municipalities to prepare any thematic plans. Also, we suffer the lack of data on many themes, which make it more challenging to prepare such plans” (R.10, Interview, 16.06.2016)*

#### 8.2.4.6. Use of detailed development schemes for specific districts or quarters

The basic emerging theme about the detailed plans for specific quarters shows that the municipalities do not draw detailed development plans. Nevertheless, a municipality may prepare small parcellation schemes for certain areas<sup>34</sup>.

*“No, we do not have the capacity to prepare such advanced schemes. However, we do prepare detailed land use plans for new urban areas of relatively small sizes. These plans focus mainly on land parcellation and road design” (R.12, Interview, 02.06.2016)*

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<sup>33</sup> The question about sectoral development plans was not addressed to all interviewees, for the representatives of JM and MoLG confirmed the fact that no sectoral plans are prepared at the municipal level

<sup>34</sup> The question about detailed development scheme for specific districts was not addressed to all interviewees, for the representatives of JM and MoLG confirmed the fact that no detailed development schemes are being prepared

#### 8.2.4.7. Broad themes on the operational capacity of the plans

Table 8-38 presents a summary of the basic themes that emerged concerning the specific aspects that determine the operational capacity of the plans. The researcher has built on these basic themes to draw the following broad themes on the operational capacity of existing plans:

1. The existing plans at all spatial levels seem to have inadequate capacity to operate a compact city.
2. The National Spatial Plan appears to play a minor role in orienting local development. A continuation of the work on the advanced phases of the plan seems recommended and expected to increase the plan's impact on the local level and increase the operational capacity of the existing plans.
3. Only informal regional plans have been prepared as pilot projects. These informal plans appear to be unqualified for coordinating urban development within the region.
4. Informal Strategic Development and Investment Plans appear to have a marginal role in guiding urban development. The poor preparation of the plans contributes one likely reason for this role. Another reason is apparently the inadequacy of the legal and institutional framework to integrate these plans with the planning system and empower them.
5. Statutory master plans seem unqualified to guide the urban development. An enhancement of the operational capacity of these plans may require amending the planning legislations to provide an enhanced definition of the master plan, its role, and its characteristics. The physical planning manual offers modest opportunity proposals to enhance the master plans, which could not be used optimally without supporting legislations.
6. Sectoral development plans and programmes, as well as detailed development plans, are missing planning instruments in the Palestinian context. This shortcoming adds to the apparent inadequacy of the operational capacity of the plans in general

Aspect	Degree of adequacy 	Indication	Challenge to strengthen adequacy	Opportunity to strengthen adequacy	Recommendation to strengthen adequacy
A national plan orienting local urban development		<p>The completed first phase of the National Spatial Plan has a minor influence on guiding local development</p> <p>The outcomes of the second phase are not designed to influence the local development</p>	The interruption of the National Spatial Plan Project after transferring the project leadership to MoLG	-	Resuming the processing of the outcomes of the second part of the plan
A regional plan harmonizing local urban development within the region		<p>The statutory regional plans are not available</p> <p>The informal regional plans are unsound and ineffective</p>	<p>The lack of resources to prepare statutory plans</p> <p>The lack of legal and institutional framework to bring informal plans into action</p>	-	-
A comprehensive local development plan for the entire municipal territory		<p>SDIPs play no role in guiding urban development</p> <p>SDIPs fail to draw a framework to direct comprehensive development and concentrates on infrastructure projects</p>	The lack of linkages with the planning system and lack implementation mechanism	-	-

Binding land use plan medium/long term spatial orientation		The master plans are ineffective in guiding urban development	The deficiencies of the master plans are making them incomprehensive and lacking development frameworks	The physical planning manual promotes practices to reduce the deficiencies of master plans	Amending the planning legislations to enhance the scope and characteristics of master plans
Sectoral plans and programmes such as those on the landscape, green structure, housing, public transportation, etc.		Sectoral development plans and programmes are not introduced	-	-	-
Detailed plans for individual districts of special potentials or threats		Detailed plans for quarters of special conditions are not introduced	-	-	-

Table 8-38: The summary of results of the operational capacity of existing plans

**8.2.5. The capacity of system’s component No.5 - plans’ implementation process**

This section presents the findings related to the capacity of the undertaken plans’ implementation process to support the operation of a compact city policy. The section begins with the basic themes related to the five specific aspects that were investigated to assess the operational capacity of the plans’ implementation process. Later, the section presents the derived broad themes related to the capacity of this process entirely.

**8.2.5.1. Role of the municipality in stimulating the implementation of existing plans**

The basic emerging themes from the interview data on the municipal role in stimulating the implementation of existing plans are presented in Table 8-39. The themes show that municipalities make no efforts to stimulate the execution of the master plans because the regulatory nature of these plans does not call for stimulation. The municipalities are only supposed to make sure that the occurring development is compatible with the master plan. Regarding the strategic development plans, the themes show modest municipal efforts that are insufficient to stimulate the implementation. The strengthening of the actions taken by the municipality to stimulate the implementation of plans is hindered by the inadequate municipal capacity and the fact that this task is not available in the mandate of municipal planning tasks.

Basic theme	Category	Code	Reference
Municipalities have a passive role in stimulating the implementation of the poorly utilized master plans	Master plan	Municipal actions to stimulate the implementation of master plans are uncommon [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
		Municipalities utilize master plans as regulatory plans rather than development plans [1]	R1, R5, R6, R7, R8, R9, R10, R11, R12
Municipalities make insufficient efforts to stimulate the implementation of SDIPs and this task is seen beyond the municipal capacity and obligations	Strategic Development and Investment Plan	Municipal actions to stimulate the implementation of SDIPs are insufficient [2]	R1, R2, R3, R4, R5, R8, R10, R11
		Municipal actions to stimulate the implementation of SDIPs are limited to searching for donor organizations to fund involved projects [3]	R1, R2, R5, R12
		Municipalities are unable to invest sufficient efforts to stimulate the implementation of the plan [4]	R1, R6, R12
		Municipalities have not been mandated to stimulate the plans’ implementation [4]	R1, R2, R5

*Table 8-39: Interview results on the municipal role in stimulating the implementation of existing plans*

**8.2.5.2. Incorporating development projects in the execution of existing plans**

The basic themes emerging from the interview data on the projects incorporated in the execution of the existing plans are presented in Table 8-40. The themes show that the most common projects are

small to medium projects aiming at providing basic infrastructure. Additionally, the themes show that SDIPs offers an opportunity to launch projects addressing social and economic development beside those focusing on infrastructure. Nevertheless, this opportunity seems not ready and requires further development to optimize its benefits.

Basic theme	Category	Code	Reference
Master plans involve spontaneous, small-scale projects to provide basic infrastructure	Master plan	Some small projects to construct roads, and provide water and electricity services [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
SDIP involve planned small to medium projects to enhance basic infrastructure, provide primary social infrastructure, and enhance the local economy	SDIP	Some small to medium projects to rehabilitate existing roads and maintain deteriorated infrastructure [2]	R1, R2, R4, R10, R12
		Very few small projects to provide social amenities including a school, small public park, cultural centre, or sports facility [2]	R1, R2, R3, R5, R10, R11, R12
		Rare small investment projects in cooperation with private investors such as constructing a commercial and services centres [2]	R1, R5, R10, R12
		SDIP is an opportunity to gradually shift the municipal focus on infrastructure projects to those projects targeting social and economic development [3]	R1, R2, R5
		SDIPs require further development to establish mechanisms through which municipalities can realize the comprehensive development projects [4]	R1, R5, R10

Table 8-40: Interview results on the projects incorporated in the execution of existing plans

8.2.5.3. Available fiscal sources to fund the implementation of existing plans

The basic theme emerging from the interview data on the fiscal sources to finance the development projects are presented in Table 8-41. The themes show that the municipalities generate insufficient income to finance development through municipal tax-based resources and municipal investments. The themes also show that the municipalities refer often to grants, mostly from foreign entities, to provide the costs of some vital projects. The interview data on this specific aspect did not bring out any opportunity or recommendation to enable the municipalities to generate sufficient and sustainable income to finance the costs of development. However, the data on the role of law in helping municipalities generate sufficient income, Sec. 8.2.2.4, brought out recommendations to reduce the fiscal incompetence of the municipalities. These recommendations include amending the existing legislations about the use of special development fees and enacting legislations on the municipal partnership with the private sector and enhancing the property tax system.

Basic theme	Category	Code	Reference
Municipalities generate insufficient income to finance development through tax-based resources and real estate investments, yet the contribution of the taxes is the most significant	Taxes and fees [1]	Municipalities depend on centrally collected taxes and locally collected fees as a main municipal revenue source	R1, R2, R3, R5, R7, R8, R10, R11, R12
		Municipal tax-based revenue can barely provide partial contribution to finance significant development projects	R1, R2, R3, R5, R7, R8, R10, R11, R12
	Municipal investments [1]	Municipalities depend slightly on small investments and real estates to generate municipal income	R1, R2, R10, R12
		Municipal investment revenue provides insignificant contribution to financing development projects	R1, R2, R10, R12
Municipalities rely on foreign and local grants as supplementary sources to overcome part of the fiscal incompetence to provide vital development projects, yet the contribution of local grants is almost negligible	Foreign grants [1]	Municipalities depend on foreign grants to finance significant development projects	R1, R3, R4, R6, R8, R9, R10, R11, R12
		A municipality may receive a very few number of external grants	R1, R3, R4, R6, R8, R10, R11, R12
	Local grants [1]	Municipalities seek financial assistance from the Palestinian business community to support small development projects	R2, R3, R5, R12
		Municipalities may rarely receive grants from the Palestinian business community	R2, R3, R5, R12

Table 8-41: Interview results on the available fiscal sources to fund the plans' implementation

#### 8.2.5.4. Integrating the private sector in implementing plans

The basic themes emerging from the interview data on the role of the private sector in executing urban development are presented in Table 8-42. The themes show that the private sector has not been integrated into the implementation of development plans; however, the public bodies advocate the collaboration between the municipalities and the private sector in the fields of urban development and municipal services. Additionally, the themes demonstrate a recommendation to establish a legal and institutional base to overcome existing impediments for the collaboration between the municipalities and the private sector.

Basic theme	Category	Code	Reference
The private sector has not been yet integrated into the execution of urban development plans	Existing situation	Existing municipal public-private partnership practices are insignificant [1][2]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
More integration of the private sector has been recently sought by the public bodies	Opportunity	Frequent recommendation to integrate the private sector in providing public services and infrastructure [2] [3]	R2, R5, R6, R8, R9, R10, R12

The lack of legal and institutional frameworks regulating the local model of public-private partnership hinders the progress of this partnership	Challenges	Undefined fields of partnership and cooperation mechanisms [3] [4]	R1, R5, R6, R8, R9, R10, R12
		Lack of framework to regulate public-private partnership [3] [4]	R1, R5, R10, R12
Enabling the public-private partnership requires establishing legal and institutional foundations for the partnership	Recommendation	Formulating planning directives to set the scope and mechanisms of public-private partnership	R1, R8, R9
		Enacting legislations to regulate the public-private partnership	R1, R8

Table 8-42: Interview results on the integration of the private sector in implementing plans

#### 8.2.5.5. Support from cadastre and land administration system for implementing plans

The basic themes emerging from the interview data on the role of the cadastre and land administration system in supporting the implementation of plans are presented in Table 8-43. The themes demonstrate the incompetence of the system since the land registration is neither complete nor maintained up-to-date. Additionally, the themes demonstrate the implications imposed on the plans' implementation and the plans' preparation due to the system incompetence. The major implications are the inadequacy of land information and difficulty to acquire land for public uses through parcellation schemes and other land management tools. The interview data did not bring out themes concerning the opportunities or recommendations to enhance the deficiencies of the cadastre and land administration system.

Basic theme	Category	Code	Reference
Land registration is neither complete nor maintained up-to-date	Shortcomings [1]	The low percentage of registered lands	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
		Land registry is not maintained up-to-date	R3, R5, R8, R9, R11, R12
Land registration fails to provide sufficient land information and makes plans' execution significantly harder	Implications [2]	Additional difficulties to implement plans	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
		Further complications to acquire land for roads and public services and parcellation schemes	R3, R5, R6, R11, R12
		Insufficient information on land in terms of borders and ownership	R5, R8, R9, R10, R11, R12

Table 8-43: Interview results on the role of cadastre and land administration system in facilitating the implementation of plans

#### 8.2.5.6. Broad themes on the adequacy of the operational capacity of plans' implementation

Table 8-44 presents a summary of the basic themes that emerged concerning the specific aspects that determine the operational capacity of the plans' implementation process. The researcher has built on these basic themes to draw the following broad themes on the operational capacity of this system's component:

1. The operational capacity of the plans' implementation process seems inadequate to operate a compact city policy successfully.
2. Municipalities invest inadequate efforts to encourage the realization of the existing plans. The lack of legislations demanding municipalities to play this role and the lack of planning units and planners at the municipality cause challenges to enhance the municipal role in encouraging the implementation of the plan and increasing the operational capacity of this process.
3. Municipalities mostly carry out small to medium projects to provide basic physical infrastructure. The SDIPs present a modest opportunity to carry out projects to provide social and economic infrastructure, which in turn can contribute to enhancing the operational capacity of the plans' implementation. Nevertheless, benefiting from this opportunity seems to need a deeper establishment of SDIPs and development of methods that municipalities may use to realize the planned projects.
4. Municipalities rely on a combination of municipal revenue sources and grants which are inadequate to cover the development costs. Legislative interventions concerning the use of the special development fees and the public-private partnership as well as enhancing the operational capacity of property tax system seem recommended to enhance the municipal fiscal competence. This, in turn, can increase the operational capacity of the plans' implementation.
5. The collaboration between the municipalities and the private sector in urban development fields is promoted but still not enabled. Enacting legislations and formulating planning directives to define the collaboration mechanisms and rules seem recommended for enabling the local model of public-private partnership and enhancing the operational capacity of the plans' implementation.
6. The deficiencies of the Palestinian cadastre and land administration cause significant problems to the plans' preparation and implementation. This includes a shortage of land information and an increase of the difficulties to acquire land for public use through land management tools.

7.

Aspect	Degree of adequacy 	Indication	Challenge to strengthen adequacy	Opportunity to strengthen adequacy	Recommendation to strengthen adequacy
Actions taken by the municipality to stimulate plans' implementation		The municipalities take no actions to stimulate the master plans of regulatory nature  Municipalities	The insufficient municipal capacity both technically and financially  The lack of legislations requiring municipalities to take actions to stimulate the implementation of plans	-	-
Development projects incorporated in the plans' implementation		Mostly small to medium projects are implemented to provide basic physical infrastructure	-	SDIPs comprise very few small projects to provide social amenities  SDIPs comprise rare economic development projects in cooperation with private investors	Increasing the efforts to make municipalities know how could SDIPs projects be realized
Available fiscal sources to fund plans' implementation		The Insufficient income to finance development through tax-based resources and real estate investments  The foregin and local grants to provide vital development projects	-	-	Amending existing legislations on the special development fees  Adding legislations regulating partnership between municipalities and private sector

					Enhancing the property tax system
Integrating the private sector in plans' implementation	■	The private sector plays a marginal role in urban development and municipal services	The unidentified fields of partnership and cooperation mechanisms  The lack of legislations regulating public-private partnership	Collaboration between the municipalities and private sector is a promoted motto	Formulating planning directives to set the scope of collaboration with the private sector  Enacting legislations regulate collaboration with the private sector
Support provided by cadastre and land administration system to plans' implementation	■	The cadastre and land administration system fail to provide sufficient land information and makes plans' execution significantly harder	The cadastre is neither complete nor maintained up-to-date	-	-

Table 8-44: The summary of results of the operational capacity of the plans' implementation process

**8.2.6. The capacity of system’s component No.6 - plans evaluation and revision process**

This section presents the findings related to the capacity of the undertaken plans’ evaluation and revision process to support the operation of a compact city policy. The section begins with the basic themes related to the three specific aspects that were investigated to assess the operational capacity of the plans’ evaluation and revision process. Later, the section presents the derived broad themes related to the capacity of this process entirely.

**8.2.6.1. Monitoring and evaluation of the achievements of the plans’ objectives**

The basic themes emerging from the interview data on the evaluation of existing plans are presented in Table 8-45. The themes show that the evaluation of plans is not practices and not institutionalized in the Palestinian context. Additionally, the themes demonstrate that the absence of legislations requiring the evaluation of plans is one of thr main reasons behind overlooking this process. However, the interview data fail to bring themes regarding the opportunities and recommendations to enable the evaluation process.

Basic theme	Category	Code	Reference
Municipalities do not evaluate the plans achievement and do not have an established criterion for evaluation	Practice	Evaluation of master plans is not practised [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
		No empirical evaluation framework or criteria is available [1]	R1, R2, R5, R6, R12
Municipalities are not legally obliged to evaluate the plans achievement	Legal base	The law does not require plans’ evaluation [2]	R1, R5, R7, R9, R10, R12

*Table 8-45: Interview results on the monitoring and evaluation of existing plans*

**8.2.6.2. The frequency of revising and updating the plans**

The basic themes emerging from the interview data on the process of revising and updating the existing plans are presented in Table 8-46. The themes demonstrate improbability of carrying out the recommended update of master plans, which is not imposed by law. Also, the lack of planning teams at the municipal level and the centralization of planning tasks at the national level adds to the difficulty of updating master plans. However, the themes demonstrate a higher probability of carrying out the recommended update of SDIPs, which is encouraged by fiscal incentives.

Basic theme	Category	Code	Reference
Updating master plans as recommended is unlikely to happen due to several deficiencies in the planning system	Master plans	No proposals to update existing master plans [1]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
		Planning directives suggest updating master plans every 16 years [1]	R1, R2, R3, R4, R7, R8, R10, R11, R12

		Planning law does not specify the maximum validity of the master plans [1]	R2, R7, R8, R9, R10, R11, R12
		Municipalities hire no staff in charge of planning related activities including updating master plans [2]	R5, R6, R8, R11
		Concentrating the planning activities at the national level hinders updating master plans [3]	R8, R11
Despite foreseen delays, municipalities are encouraged to prepare new SDIPs because of fiscal incentives	SDIPs	Expired SDIPs may be updated soon [4]	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12
		Planning directives suggest updating SDIPs every four years [4]	R1, R2, R3, R7, R8, R9, R10, R11, R12
		Municipalities with valid SDIPs have priority in getting grants [5]	R2, R3, R10, R11

Table 8-46: Interview results on revising and updating existing plans

### 8.2.6.3. Publications on plans, projects, and budgets

The basic themes emerging from the interview data on the municipal publications about urban development plans, projects or budgets are presented in Table 8-47. The themes demonstrate that the concept of issuing newsletters or other sorts of municipal publications on urban planning and development issue is not available. Nevertheless, the municipalities attempt to make use of available technology to inform citizens randomly.

Basic theme	Category	Code	Reference
Regular municipal publications are uncommon	Documentations	Municipalities have no regular publications [1]	R2, R3, R4, R5, R6, R7, R8, R9
		Municipalities rarely issue newsletter or reports to the public [2]	R1, R10, R11, R12
Posting random news on the municipal plans and activities on the internet is a newly emerging trend	Posting news on the internet	Some municipalities have initiated websites and Facebook pages as a platform to keep their residents informed [3]	R1, R2, R5, R8, R10, R12
		Municipalities irregularly post about some municipal resolutions, projects, or budgets [4]	R1, R2, R5, R8, R10, R12

Table 8-47: Interview results on municipal publications on development plans, projects, and budgets

#### 8.2.6.4. Broad themes on the operational capacity of the process of reviewing and updating plans

Table 8-48 presents a summary of the basic themes that emerged concerning the specific aspects that determine the operational capacity of the plans' review and update process. The researcher has built on these basic themes to draw the following broad themes on the operational capacity of this system's component:

1. The capacity of the process of reviewing and updating existing plans seems inadequate to support the operation of a compact city policy.
2. Evaluation of plans is a missing practice in the Palestinian planning system. The lack of legislations that require this practice gives rise to the continued ignorance of this practice.
3. Undertake an update of the expired informal plans seems very likely to take place in short, whereas undertaking an update of the relatively outdated statutory plans is not likely within the few coming years. The lack of legal coverage of updating statutory plans, the lack of planning units at the municipal level and the centralization of planning tasks at the national level are all factors that contribute to hindering the update of these plans. On the other hand, the fiscal incentives associated with the update informal plans seems an encouraging factor for updating these plans frequently and enhancing the operational capacity of the process of reviewing and updating plans in general.
4. Periodical municipal publications are apparently unavailable; however, the recent moderate attempts to use the municipal websites or Facebook pages to publish the news of the municipalities could lead to enhancement in informing residents about the municipal plans and activities

Aspect	Degree of adequacy 	Indication	Challenge to strengthen adequacy	Opportunity to strengthen adequacy	Recommendation to strengthen adequacy
Monitoring and evaluating the plans		No evaluation of plans and no established criteria for evaluation	The municipalities are not legally obliged to evaluate the plans achievement	-	-
Revising and updating plans based on evaluation results		No proposals to revise and update master plans  Delayed actions of preparing new SDIPs	The municipalities are not legally obliged to update master plans  The municipalities do not have planning units  MoLG is in charge of municipal planning activities that municipalities fail to do	The physical planning manual recommends updating master plans every 16 years  The strategic planning manual recommends updating SDIPs every four years  The update of SDIPs enables municipalities to receive more fund	-
Publications on plans, projects, and budgets		No regular reports or newsletters	Spontaneous publication of municipal news using the internet	-	-

Table 8-48: Summary of results of the operational capacity of the process of reviewing and updating plan

### **8.2.7. The operational capacity of the planning system – global themes**

Finally, global themes are constructed determining the adequacy of the operational capacity of the urban planning and urban development system. As explained at the beginning of this chapter, these global themes are inferred from the broad themes on the operational capacity of the system components, which are tackled through the several parts of section 8.2. To demonstrate the inference process, the broad themes on the system's components are assembled and clustered into four thematic networks, which are focused on the adequacy of the operational capacity of the system, the challenges, the potentials, and the recommendations to increase the systems' operational capacity. The details of the global themes include:

1. The capacity of the urban planning and urban development system seems inadequate to operate a compact city policy. The thematic network for the adequacy of the operational capacity of the planning system, Figure 8-6, shows that all the system's components have an inadequate operational capacity. Therefore, it is reasonable to conclude that the entire system has an inadequate operational capacity.

2. An increase of the operational capacity of the planning system appears to be highly challenged. The thematic network for the challenges to increasing the operational capacity of the planning system, Figure 8-7, shows that all the system's components are facing several challenges that hinder increasing their operational capacity. From this thematic network, one may note the major challenges that are likely to hinder increasing the operational capacity of the planning system. Among these challenges are the existing planning legislations, the absence of planning personnel at the regional and local levels, and the insufficient number of planning personnel at the national level, the failure to bring the informal enhancements of the planning system into action, and the inadequate financial resources. Additionally, the centralization of the planning system, which grants little power to the local level and concentrates activities at the national level, and the incomplete land registration process seem to add to the challenges hindering the increase of the operational capacity of the planning system. Furthermore, the specific political circumstances of the case study area, being a city in a country under occupation, imposes special challenges. For instance, the absence of legislative entity that authorizes new laws and the ambiguity of national planning visions and assumptions.

3. An increase of the operational capacity of the planning system appears to have moderate opportunities. The thematic network for the opportunities to increase the operational capacity of the planning system, Figure 8-8, shows the available opportunities to improve each of the system's components. From this thematic network, one can conclude that the major opportunities to increase the system's operational capacity comprise the ongoing programme to enhance the municipal capacity and the local governance, and the planning directives and informal plans that are developed under this programme. Additionally, there appear to be few opportunities to benefit from the existing planning

legislations to increase the adequacy of the operational capacity of the planning system. Finally, a planning draft law is available and can be utilized once the Legislative Council is again active.

4. Several recommendations are proposed by the internals to enable the increase of the operational capacity of the planning system. The thematic network for the recommendations to increase the operational capacity of the planning system, Figure 8-9, shows the specific recommendations for each of the system components. The recommendations reflect a significant focus on the planning legislations, be it through the recommendations to enhance the legislation as an individual component or through the recommendations to enhance the other components of the system. These recommendations point out the need to amend the legislations so that they extend the tasks of local planning, enhance and broaden the scope of existing plans, facilitate the implementation of the plans through further stipulation of land management tools, development fees, and public-private partnership. It is notable that the recommendations suggested a temporary solution to the challenges to reform the planning legislation, which is the development of a comprehensive package of legislative amendments. Additionally, the recommendations seem to stress the necessity of initiating qualified planning units at the local level, and enhancing the planning directives and informal planning instruments, as well as bringing them into action.

5.



Figure 8-6: Thematic network for the adequacy of the operational capacity of the planning system



Figure 8-7: Thematic network for the challenges to increasing the adequacy of the operational capacity of the planning system



Figure 8-8: Thematic network for the opportunities to increase the adequacy of the operational capacity of the planning system



Figure 8-9: Thematic network for the recommendations to increase the adequacy of the operational capacity of the planning system

### **8.3. Policy suitability**

A major aim of this research is to find out how suitable is the compact city policy to guide Jenin's urban development successfully. In chapter six, it was stated that assessing the policy suitability to a given context is a function of the advisability of implementing a comprehensive compact city policy in that context and the adequacy of the capacity of its urban planning and urban development system to operate this policy. It was also stated that there is no exact formula to estimate the degree of suitability. Instead, the inductive logic is utilized to infer the degree of the policy suitability by drawing on the results of the advisability and the operational capacity.

Based on the results provided in the previous sections concerning the advisability of implementing a compact city policy in Jenin and the adequacy of the operational capacity of Jenin's urban planning system, the researcher concludes that a compact city policy is currently unsuitable to Jenin. However, the results do not imply wholly unsuitability of the policy. Because the policy suitability is influenced by the policy advisability and the operational capacity of the planning system. In terms of advisability, the internals supported the implementation of a comprehensive compact city policy in the case study area, and they have seen the policy essential and useful to tackle the urban problems in that area. For instance, the policy is seen useful for reducing the fragmentation of the urban area, which affects the environment and natural resources, makes provision of infrastructure and public transportation difficult, and creates districts that are below the standards in term of urban quality. In contrast, regarding operational capacity, the obtained results showed the inability of the planning system to adopt and handle the policy appropriately.

Consequently, it is concluded that unless Jenin's urban planning and urban development system is enhanced, the compact city policy is unsuitable to guide Jenin's urban development. Because the deficiencies of the planning system make it incapable to bring the policy into action and manage it properly. The implications of this findings are discussed in the next chapter.

### **8.4. Conclusion**

This chapter has addressed two research questions. The first question was focused on exploring the degree of the advisability of implementing a compact city policy in the case study area, whereas the second focused on exploring the capacity of the urban planning and urban development system in this case to operate a compact city policy. The obtained sets of results concerning these two questions were presented systematically through the two parts of the chapter. The data obtained from the key informants through the in-depth interviews constituted the foundation for all the communicated results.

Concerning the policy advisability, this study has found that the operation of a compact city policy in Jenin is seen advisable. The internals/respondents have seen the policy a likely solution to the prevailing urban problems in the case study area such as the fragmentation of the built-up area, the infeasibility of providing infrastructure and transportation, unsustainable mobility modes and low-level of accessibility to services and activities, as well as the traffic congestion and overcrowded city centre. Additionally, the study has found that the urban containment strategy and the multi-modal mobility strategy are seen advisable without undergoing substantial adaptations. Nevertheless, the advisability of implementing a strategy to promote utilization variety and quality enhancements demands the adaptation of the strategy's approaches to match the domestic urban context and the capacity of the urban planning and urban developing system. Lastly, the study has also found some requisites to enable a successful implementation in the case study area. For instance, improving the municipal budgets and their capacity in carrying out planning activities, enhancing the scope and efficiency of the adopted plans and the way these plans are prepared. Also, one requisite was not addressed to the planning system, but to the political leaders to reinvestigate the truth of the assumption that urban sprawl is a way to protect the Palestinian land. In investigating the policy advisability, the study was not aimed at finding the requisites for successful policy implementation, as this is the aim of the part that investigates the capacity of the planning system. However, these results have emerged from the collected data.

In terms of the urban planning and urban development system in the case study area, the study has found that the capacity of the system is inadequate to operate a compact city policy. The study has also found that enhancement of the system capacity is likely to face considerable challenges. The diagnosed challenges include the existing planning legislations, which themselves are subject to challenges that hinder their amendment, particularly due to the absence of the legislative council. The study has diagnosed other challenges, for example, the absence of staff and departments in charge of planning at the local and regional levels, the inadequate financial sources, as well as challenges related to the political situations including the interrupted land registration process after the Israeli occupation of the West Bank, and the difficulty to set national planning assumptions under this occupation. On the other hand, the study has identified modest opportunities to enhance the operational capacity of the planning system. The major identified opportunity is a programme that has been established since more than ten years in cooperation between the Palestinian government and international development organizations and donors. However, doubts about the programme's efficiency were detected. Lastly, the study has also identified suggestions to enhance the operational capacity of the system. The suggestions were particularly focused on amending the planning legislations. Further suggestions demonstrated the need to establish qualified planning units of moderate size at the municipalities and elaborating the available planning directives and informal planning instruments and giving them power.

Regarding the suitability of the policy, the study has found that the policy is currently unsuitable to guide Jenin's urban development. This finding does not negate the overall suitability of the policy to Jenin; however, it indicates that enhancing the operational capacity of Jenin's urban planning and urban development system is required to make the policy suitable for the area.

In the next chapter, the researcher builds on the results communicated in this current chapter to identify the recommended adaptations in the suggested policy model and the urban planning and urban development system. These adaptations are likely to raise the suitability of implementing the compact city policy in the case study area.

## **9. Towards a customized policy and an effective planning system**

The previous chapter presented the empirical findings in relation to the advisability of implementing a compact city policy in the case study area, the capacity of the urban planning and urban development system to operate this policy, and the overall suitability of operating a compact city policy in that context. In this chapter, the findings are interpreted and discussed in the light of the reviewed literature in chapter two and the descriptive review of the case study area in chapter seven. The chapter addresses the following broad research question:

- How would it be possible to raise the suitability of the compact city policy to guide Jenin's urban development more sustainably?

Besides, the chapter tackles the following specific research questions:

- Which adaptations in the compact city policy model and in the urban planning system could boost the policy suitability to guide Jenin's urban development?
- How could other medium-sized developing country cities benefit from this research?

The chapter begins with interpreting the major finding, which focuses on the suitability of the compact city policy to the case study area. Then it provides interpretation of the findings related to the policy advisability and the capacity of the urban planning and urban development system. Finally, the chapter suggests lessons that appear to be useful for medium-sized developing country cities in general.

### **9.1. Policy suitability**

In this study, the compact city policy is found temporarily unsuitable for the case study area. The reason why it is temporarily unsuitable is that within the current capacity of the planning system, the implementation of the compact city policy is likely to fail. The system appears to have inadequate capacity to bring the policy in action, cover the costs of necessary urban investments, and reduce any side effects that could result from implementing the policy strategies.

In chapter two, the researcher has built on the reviewed literature that the suitability of the compact city policy is context-based. This research has investigated the suitability of the policy to a context where little knowledge is available about the scope of this policy. Therefore, it seems hardly possible to compare this part of the findings with those obtained from previous studies. However, the examined literature on the suitability of the compact city policy to the cities of developing countries in general reports similar findings. OECD (2012, p.160) points out that the planning systems of cities in developing countries are likely to be poor and ineffective for implementing the compact city policy and that they may have small urban budgets. However, the same literature does not refer to the shortcomings of planning systems as a reason to consider the compact city policy wholly unsuitable for these cities.

Instead, it considers these shortcomings as a challenge that ought to be overcome in order to enable a successful implementation of the policy (ibid). In his comprehensive study of the compact city, Jenks (2003, p.350) argues that overcoming this challenge is possible. Additionally, Jenks suggests drawing on the good practices of the countries that have proven successful in implementing the policy to learn how to overcome this challenge (ibid). The advantage of Jenks' (2003) perspective is that it recognizes the ineffectiveness of these urban planning systems but it highlights the probability for tackling this challenge and creating a suitable atmosphere for implementing the policy.

Considering the mentioned literature, this research was not solely designed to investigate if the compact city policy is suitable for the case study. But, it was also designed to investigate in detail the aspects that determine the policy suitability. In this way, it is possible to diagnose the specific aspects that challenge the suitability of implementing the policy and thus enable gaining from the available successful practices. The following two sections move on to interpret the findings regarding the two investigated aspects that determine the policy suitability, which are the choices of the compact city policy strategies and approaches for the case study area, and the operational capacity of its urban planning and urban development system. The sections also describe in greater detail the necessary adaptations of the policy model and the planning system that are likely to make the implementation of the policy suitable for this case.

## **9.2. Advisable policy model**

In Investigating the advisability of the compact city policy to guide Jenin's urban context, this study found a local endorsement of implementing a compact city policy that includes all three policy strategies: an urban containment strategy, a utilization variety and quality enhancement strategy, as well as a multi-modal mobility strategy. The endorsement was justified by several merits that the implementation of the policy strategies would bring to the case study area. The most significant merits are reducing the fragmentation of the built-up area, enhancing the distribution of services, making the provision of public transportation feasible, and reducing traffic congestion and excessive concentration of activities in the city centre. The description of Jenin's urban context, presented in the first unit of analysis of the case study area in chapter seven, supports the plausibility of achieving these merits through executing a compact city policy. The supporting descriptions can be summarized as follows:

- **The growth boundary** is characterized by high capacity for internal development. More than 54% of the area within the growth boundary is available for development. On the other hand, there are limited opportunities to expand the growth boundary.
- **The built-up area** is growing in outward direction creating a surface of fragmented built-up areas. More than half of the cities' built-up area is randomly distributed within periphery zones. The city

has a monocentric structure with high pressure on the city centre, while a new sub-centre is randomly developing as consequence of overcrowding in the city centre.

- **The land use** is characterized by mono-functional zones. Zones of residential functions comprise 85% of the zoning area, whereas 2% of the zoning area is designated for commercial activities mainly in the city centre and along the major transit axes.
- **Daily mobility** is facilitated slightly by non-motorized modes -walking- and primarily by private automobiles. In addition, collective transport modes including taxis and mini-buses are contributing to the facilitation of daily mobility but with higher dependence on taxis compared to mini-buses.
- **Urban quality** suffers significant deficit and improper distribution of the provided social services in relation to residential quarters. It also suffers shortcomings in the infrastructure that facilitates pedestrians' movement and weakness in the level of accessibility to public transportation services including the availability of the service, the working hours, and the quality of the provided service. Nevertheless, the quality of the built-up environment, including the physical structure of the buildings', their layout, and their private green spaces, is relatively acceptable in most quarters.

However, it was found that not all proposed approaches that comprise the policy strategies are advisable for implementation in the context of the case study area. Some approaches were found conditionally advisable, depending on adaptation, few were found unadvisable or of undetermined advisability.

Concerning the urban containment strategy, restricting urban sprawl, guiding urban development towards selected locations, and promoting infill development on new sites were found advisable approaches. The redevelopment of residential quarters was found an unadvisable approach whereas the redevelopment of commercial districts was an undetermined approach that ought to be further investigated. The random, fragmented built-up area and the high capacity for development within the growth boundary are all characteristics found in Jenin, which support the rationality of categorizing the approaches in this way.

In terms of the utilization variety and quality enhancement strategy, promoting mixed-use development and developing a network of multiple city-centres were found advisable but with specific designs. The mixed-use development ought to be of a limited degree of the functional mix, such as concentrating mixed development on central nodes. And the new centres would only include few secondary centres and small neighbourhood centres. Considering that the area of Jenin is only 21 km<sup>2</sup>, and the longest distance between the city centre and other locations does not exceed 4 km, the claimed advisable approaches and the related specifications sounds reasonable. Otherwise, the resulting new centres and mixed-use areas would be unfeasible in such a medium city with around 50,000 inhabitants. The

redevelopment of residential quarters and the development of large-scale projects to construct new quarters were found inadvisable approaches. Implementing small or medium projects to improve the physical and social infrastructure was suggested as an advisable alternative for the redevelopment of residential areas. Additionally, investigating the scope to redevelop commercial districts was also suggested. Likewise, implementing sustainably designed housing projects through collaboration between the public and private sectors was suggested as an advisable alternative for constructing new quarters. It seems possible that these findings are also due to the context's characteristics including the relatively small size of the city and its population, and the moderate housing demand being generated as well as the small urban budgets. Also, the fact that it is not the buildings that suffer deficiencies, rather the provided social and physical infrastructure.

With respect to the multi-modal mobility strategy, launching a public transportation system in coordination with the land use planning and further promotion of walking as a mobility mode were found advisable approaches. Emphasis was put on designing a simple public transportation system of minimal infrastructure. The relatively small size of the city and its population can partially justify these findings, for an advanced public transportation system would not match the population's travel demand, the small budgets, and the capacity of the existing roads. In addition, the earlier mentioned deficiency in providing a safe and convenient environment for pedestrians and the limited access to collective transportation in the city are also factors that can partially justify these findings. However, promoting biking as a mobility mode was found inadvisable. In the description of the mobility modes in the city, it was stated that the city has narrow crowded streets and some of them have even steep slopes that make the city unsuitable for biking. This fact can support the claim that biking is an inadvisable approach.

The above-discussed findings of the advisable policy model seem consistent with the earlier reviewed body of literature in this research. Although this literature fail to provide information about the substance of the compact city policy that would be advisable for the studied context, they justify or even demand the customization of the policy model to match the context's characteristics. In the discipline of urban policy mobilities, Baker & Temenos (2015, p.825) and McCann & Ward (2013, p.9) demonstrate that reshaping a policy model considering the features of the addressed context is a fundamental part of the process of transferring policy knowledge to a new context. Similarly, compact city literature including Jenks et al. (2005, p.299), OECD (2014, p.109), and Westerink et al. (2013, p.493) indicate that the compact city is not a blanket solution that can be used directly in an addressed context. They also emphasize that the common policy approaches are only raw materials which shall be tailored to fit the needs and features of the addressed context. Additionally, Jenks (2003, p.350) and OECD (2012, p.162) suggest that local planners and policymakers take the responsibility of establishing the missing link between the common approaches and local context to provide authentic policy model that fits the local

context. The work in this research was in line with this literature. First, the raw material was assembled, that is the compact city policy model formulated based on general compact city literature and refined drawing on the two analysed compact city cases. Second, the model was examined and reshaped in relation to the local characteristics. As a result, a tentative compact city policy model that fits the needs and characteristics of the studied context was generated.

### **9.3. Planning system modifications**

In investigating the operational capacity of Jenin's urban planning and urban development system, it was found that the system has inadequate capacity to operate the compact city policy. This general finding is consistent with previous studies investigating the compact city. As mentioned earlier in this chapter, OECD (2012, p.160) and Williams (2004, p.5) expect the planning systems in the cities of the developing countries to be ineffective for implementing the compact city policy. However, the previous studies neither explain what makes these planning systems ineffective nor do they offer indicators to measure the efficiency of a given planning system to implement the compact city policy. But, such information is fundamental for this research, which adopts the assumptions of the policy mobilities scholars, such as Baker & Temenos (2015, p.825) and McCann & Ward (2013, p.9). Again, these scholars assume that the planning system in an addressed context is unlikely to be suitable for implementing the transferred policy; however, they suggest adapting the planning system to fit the requirements for implementing the policy and consider this step part of re-contextualizing the policy. Hence, it is necessary to diagnose the specific problems of the planning system to facilitate the adaptation process.

For handling the above-mentioned limitation, the researcher has drawn on the observed trends and qualities of the urban planning and urban development systems in Munich and Curitiba. Accordingly, the researcher has developed a framework of the trends and characteristics of an effective planning system that is likely to operate the compact city policy successfully, Fig 5-1. This framework comprised a reference to investigate the planning system in the case study area and diagnose its problems in comparison to this framework. The use of the framework is not restricted to the case study area, rather it could be utilized by other scholars to investigate the effectiveness of urban planning systems in other contexts. The composition of the framework facilitates detecting the problem and provide a hint to finding the solution, for it comprises the trends and the characteristics that should be available. For instance, tackling the planning legislations, the framework state the need to include legislations regulating the use of land management tools in implementing the plans. In case these legislations are not available, one could recommend enacting such legislations. But, the framework does not provide further details. It is the task of scholars or policymakers to identify which tools they need and how these tools should be regulated.

### 9.3.1. Major shortcomings

Turning to the investigating of the planning system in the case study area, it was found that all the system components have significant shortcomings. The system is too far from the qualities and characteristics of an effective system. It even lacks the simplest requirements such as having planning units and planners at the local and the regional level. The following lines highlight the major identified shortcomings:

- Concerning the **planning authorities**, the national authority has insufficient planners, whereas the regional and the local authorities do not have planners or other officers in charge of planning tasks. In case of preparing a master plan, the planners of the local authorities are substituted by planners from private firms. In addition, the national authority is strongly governing the local authorities in planning decisions and budgets.
- Regarding the **planning legislations**, the law is outdated thus unable to match the contemporary planning principles and practices such as comprehensive planning and sustainable development. The law also provides insufficient coverage concerning several issues, for instance, the use of land management tools and the sharing of development costs with the landowners.
- In terms of the **plans' preparation**, this process is seldom carried out and without clear agenda. The process is also carried out poorly, as it addresses land use planning in isolation from social, economic, or environmental issues. Additionally, the process is not based on preparatory studies or assessments of the planned scenarios.
- With respect to the **plans**, existing statutory plans comprise a national protection plan and municipal master plan. Besides, informal development plans are available for the city and the district, but both are ineffective. There is lack of detailed land use plans, sectoral development plans or special plans for other scales, such as neighbourhood scale.
- Turning to the capacity of the **plans' execution**, inadequate efforts are made by the local authorities to implement the developed plans. The plans involve small projects that focus mainly on the physical infrastructure. The municipal budget is inadequate for implementing the planned projects. Additionally, no cooperation with the private sector is taking place to implement the planned projects as well as the land management tools are not utilized to share the costs of planned development with the landowners.
- About the **plans' evaluation and revision**, this process is not introduced in the addressed context. Only the expired informal plans are expected to be updated, but without evaluation.
- Through the investigation, it was possible to identify some challenges that would hinder the modification of the urban planning and urban development system. The existing planning

legislation is the main obstacle, as it provides incompetent stipulation of the tasks assigned to the planning authorities, restrict the sort of plans that could be used, fail to set adequate standards for preparing these plans, A review of the sections of the planning legislation support this claim. The political challenges

### **9.3.2. Significant challenges to adapt the system**

Beside the sever shortcomings in the urban planning and urban development system, it seems that it would be very difficult to tackle these shortcomings and make the system qualified for operating the compact city policy. This view stems from the several challenges identified while investigating the capacity of the planning system. The most prominent challenge is the existing planning law, which assigns insufficient tasks for the planning authorities, grants inadequate power to the local level, stipulates the use of very few plans and planning instruments, and imposes inadequate standards concerning the planning-related process and activities. Under this planning law, it would be difficult to realize any intended enhancements in the system. However, it is unlikely to replace this law easily partly because of the special conditions in the Palestinian State. The Palestinian Legislative Council is inactive since 2006, where many of its members are imprisoned by the Israeli Occupation for political reasons. Thus, enacting new laws in the normal way is not possible. This probability of high difficulty to enact a new planning law was also apparent through the description of Jenin's urban planning system in chapter seven. It was mentioned that some Palestinian governmental bodies and some development organisations active in the area recommend a reform of the law and that several unsuccessful attempts to draft a new law have been reported (UNDP, 2009, p.11). However, through this investigation, some key-informants offered alternatives to overcome this challenge temporarily. The first, suggests enacting the new law through a Presidential Decree, as this practice is notable in the Palestinian context in the last few years. Whereas many key-informants were in favour of this suggestion the representative of one of the planning authorities considered this alternative illegitimate. Based on this inconsistency between the key-informants' opinions, this suggestion is presented without judgments. The second alternative is to make use of one of the sections in the existing law that allows drafting by-laws to regulate aspects that are not covered adequately by the law or regulate additional aspects. This alternative could be the most feasible to introduce a comprehensive amendment to the law.

Enhancing the system faces also another challenge, which is the result of the special conditions of the Palestinian state. This challenge is the incomplete land registration process. A comprehensive land registration process was going on before Israel has occupied the West Bank in 1967. The registration process was interrupted after the occupation and never completed. Several obstacles hinder completing this process, for instance, the Palestinian refugees who had to flee the country leaving their properties. Without solving the land registration and the related land administration and information

system, the planning system is unlikely to operate the compact city policy. Information about lands, secure property rights and settled conflicts are fundamental to plan and implement the compact city policy or any other urban development policy. In addition, the inadequacy or the absence of planning personnel, who are in charge of urban planning. Because is difficult to achieve an enhancement in the system without having human resources working on this task. Finally, the small budgets for urban planning and urban development is also a challenging factor for the system's enhancement.

### **9.3.3. Recommendations for modifying the system**

The researcher formulates possible recommendations to enhance the capacity of the urban planning and urban development system and make the system qualified for operating the compact city policy. The researcher draws on the recommendations emerging from the investigation of the capacity of the urban planning and urban development system and the knowledge generated from analysing the cases of Munich and Curitiba. These recommendations are distributed among the system's components as follows:

#### **1. Recommendations for modifying the planning authorities including:**

- Strengthening the capacity of the planning team at MoLG. In addition, the focus of the team's efforts on preparing planning directives and planning visions while reducing the ministry involvement in creating the master plans of the urban areas.
- Establishing a qualified planning unit at JDoLG and involving this unit in preparing the regional plans and coordinating the development between neighbouring urban areas.
- Establishing a qualified planning unit of moderate size at the municipality and granting the municipality an adequate level of autonomy to make decisions on its development choices, its budget, and its specific by-laws independently. Additionally, extending the mandate of the municipal planning units so that it is not limited to prepare master plans. The additional task may include planning development projects and setting implementation schemes. This recommendation is the highest priority in terms of planning authorities, as the municipality is the authority with direct relation to policy implementation.

#### **2. Recommendations for modifying the planning legislations including:**

- Adding regulations that support the compact city policy such as preventing development beyond the city's growth boundary; changing the rule that entitle any land parcel within the growth boundary to obtain building permission and setting criteria for granting building permissions that consider the location of the land parcel in relation to existing development; setting a minimum percentage for mixed-use zones in the master plans; and setting minimum percentage for areas for public green areas.

- Customizing the regulations to tackle spatial development in integration with the rules of social, environmental, and economic sustainable development that are applicable to the domestic context. For example, enacting zoning regulations that designate special zones with smaller plot sizes in order to develop cheaper and more affordable housing units while reducing land consumption. Consequently, such regulations could support social justice and reduce pressure on land resources. Likewise, enacting zoning regulations to preserve specific areas, such as highly valuable agricultural lands while stipulating the use of these areas for urban agriculture. Thus, the regulations serve natural protection and economic feasibility.
- Detailing the regulations that address the use of land management tools to facilitate intervention in private land for achieving planned development and providing adequate areas for public services. An example of legislations in the existing law is the compulsory acquisition of land for readjustment of land parcels that do not comply with the existing zoning, for the development of social housing, or for the redevelopment of deteriorated urban areas.
- Adding new legislations that regulate the partnership between the municipalities and the private sector in the field of urban development projects. The regulations ought to clarify the sort of projects that might be subject to partnership with the private sector, and the possible funding and management agreements.
- Elaborating the legislations related to the special development fees. This is a special land management tool stated in the existing law, which requires landowners or beneficiaries to pay a share of the increase in their land value due to the enhancement of the urban area for the municipality. This legislation supports municipalities to cover the costs of urban development.
- Modifying the legislation that describes the tasks of municipalities in planning and imposing new tasks such as preparing strategic plans, planning strategic development projects and steering the development of the plans and projects, and monitoring the implementation process and revising the plans.
- Adding legislations to illustrate the entity responsible for national planning and its duties.
- Amending the legislations that define the scope of the master plan to make a comprehensive plan instead of being a plan that deals with spatial issues in isolation from other development aspects. Imposing regulations that require conducting preparatory studies before preparing the plans and a framework to guide the plan preparation, conducting impact assessment studies of the prepared plans, as well as setting the basic contents of these studies. Lastly, requesting municipalities to revise and update the master plans periodically.

### **3. Recommendations for modifying the plans' preparation process including:**

- Preparing plans based on the results of the analysis of the urban context and population and in light of an established development vision and objectives.
- Assessing the impacts of the proposed planning scenarios on the society, economy and environment.
- Increasing the capacity of the lately-launched system of integrated spatial information to provide the required data sets for preparing the plans and the related analyses.
- Enhancing the practised approach to community participation in preparing strategic plans.
- Formulating interventions and measures to achieve the planned scenarios.

#### **4. Recommendations for modifying the adopted plans including:**

- Completing the national spatial planning project and translate the formulated development visions into spatial planning and development visions. This could lead to creating a national development policy to guide local development.
- Developing efficient regional plans be it statutory or informal plans. The main point is to offer a plan that is able to coordinate the development of urban and rural settlements within the district.
- Changing the scope of the master plan from a land use plan to a comprehensive development plan with planning guidelines and objectives.
- Preparing sectoral plans and programmes for urban development related aspects such as green structure, public transportation, housing.
- Preparing development plans for the individual quarters, including strategic development projects that are consistent with the objectives of the master plan and the sectoral development plans.

#### **5. Recommendations for modifying the plans' implementation process including:**

- Preparing planning directives to illustrate the local model of partnership between municipalities and the private sector and enable the municipalities to implement this model.
- Utilizing land management instruments to enable the plans' implementation to provide land and financing for the planned development.
- Finding temporary remedies for the problems of land registration and land administration system.
- Increasing the efficiency of the property tax, which is one of the traditional sources of financing urban development. A comprehensive process of evaluating land values could be an initial step for increasing the efficiency. Also, maintaining the land values up-to-date in the integrated land information system could also be useful for sustaining the increase in the efficiency.

- Establishing conditions that could secure the integration and implementation of the strategic plans.

**6. Recommendations for modifying the plans' evaluation and revision process including:**

- Setting specific targets for the plans and defining scales for measuring the amount of achievement
- Measuring the achievements of the planned targets and publishing the results
- Updating the plans considering the measured achievements and the changing of the context circumstances

#### **9.4. Lessons for other medium-sized developing country cities**

This research has attempted to investigate the suitability of the compact city policy to guide the urban development in medium-sized developing countries. The research used the case study of Jenin to enable the investigation and has utilized this case as an intrinsic and instrumental case. The previous sections in this chapter offered the discussion of the research findings within the case study, which is the major interest of this research. In this section, the research findings are discussed beyond the case study area.

In explaining the research methodology, chapter five, it was stated the findings of the research cannot be generalized to other cases in a traditional way. This is because of addressing a single case study and because of the differences in the specific characteristics of the medium-sized developing country cities. Instead, methodology scholars recommend using a specific form of generalizability known as transferability, in which the reader makes a comparison between the findings of the case study and her/his own context. Thus, she/he can make interpretation and judgment concerning how similar are the two contexts and how applicable are the findings for the new context. To enable the transferability, the researcher has provided a thick description of the case study in chapter seven and presented the obtained data and its analysis in details in chapter eight.

In addition, this research has assembled a model of the favourable compact city policy and formulated a framework of the properties that make an urban planning and urban development system likely effective in implementing the compact city policy successfully. Scholars in other contexts could utilize these two research outcomes to investigate the chances and barriers to implement the compact city policy in their context and select the policy components matching that context.

Lastly, despite the differences in the specific characteristics of the medium-sized cities in developing countries they still have some similar general characteristics. Accordingly, it is possible to derive some conclusions for these cities drawing on the investigated case as follows:

- The three strategies of the compact city are likely to be recommended for implementation in the medium cities in the developing countries. However, the recommended approaches would vary from context to another according to the prevailing circumstances.

- Scaling down the proposed approaches in the policy model is likely to make the policy more compatible with the medium cities in the developing countries and their urban planning and urban development systems. This means making the approaches smaller, less complicated, and less expensive would make them more likely to be achieved. For example, operating a simple public transportation system of mini-buses and efficiently designed routes and capacity is likely to match the available budgets and the travel demand in a city of medium size. Another example could be dividing strategic development projects into phases, and implementing these phases incrementally considering available budgets and priorities.
- Using the opportunities to cooperate with the private sector and the opportunities to share the costs with the landowners and beneficiaries to finance the costs of urban development. For this seems an effective way that cities use to realize its projects.

## **9.5. Conclusion**

This chapter has presented the researcher interpretation of the empirical findings on the suitability of the compact city policy to the case study area. It has also presented an interpretation of the compact city policy model that fits the case study area and the shortcomings of the urban planning system that are likely to hinder the implementation of the recommended policy. The chapter has also presented the researcher's recommendations for addressing these shortcomings and making the system capable of implementing the recommended policy effectively. Finally, the chapter presented the researcher interpretation of the empirical findings for other medium-sized developing country cities and explained how these cities might benefit from this research. Having completed this chapter, this research reaches the end after fulfilling its objectives and answering its questions. The answers to these questions will be summarized in the next chapter

## **10. Conclusions and recommendation**

This chapter synthesizes the findings resulting from the previous chapters. The first section of this chapter provides a summary of the theoretical and empirical findings of all parts of the research. The second section sheds the light on the contributions of the research findings to available theories in respect of the compact city policy, and urban planning and urban development practices in the case study area. Finally, section three discusses the limitations of this research and suggests directions for future research.

### **10.1. Revisiting the research findings**

Motivated by the wide promotion of the compact city to counteract urban sprawl in large cities, mostly in the developed countries, this research was intended to study the mobilization of this urban policy to a medium-sized developing country city that faces the challenge of urban sprawl. Particularly, the research had the aim of exploring the opportunities to utilize the compact city policy to guide urban development in a single case study area, Jenin city in the State of Palestine. Likewise, it had the aim to find out what could be done to make it possible to utilize the compact city policy in Jenin. The research managed to fulfil its aims by tackling a series of specific questions, which are restated with their summarized answers in the following lines.

1. What is the theoretical definition and structure of the favourable compact city policy?

Before exploring the opportunities to mobilize the compact city policy, it was imperative to define clearly what this policy is and which strategies comprise this policy. In chapter two, the researcher has reviewed several available definitions of the compact city. Taking into account the merits of each of these definitions and avoiding the shortcomings, the researcher has combined these definitions to end up defining the compact city policy that scholars and practitioners would consider favourable. Accordingly, the compact city policy was defined as a comprehensive urban development policy, which aims at achieving more efficient use of land through the intensification of urban development in existing urban spaces at reasonable rates and reducing urban sprawl while endorsing mixing the land use and improving the quality of the living environment and holding a strong connection to transport and mobility planning to sustain the achievement of its objectives. Building on the same literature, it was concluded that the favourable compact city policy model ought to comprise three strategies: urban containment, land use integration and enhancement of the living environment, and delivery of multi-modal accessibility and mobility strategies.

In addition, through the review of relevant literature, it was possible to find out examples of general approaches that are often used to implement the strategies of the compact city policy and the challenges that could confront the implementation of these approaches. Similarly, a number of policy

instruments that are used to put the approaches into practice were defined, for example, regulations and planning controls, urban management programmes, policy documents in the form of directives, plans, or planning guidelines, fiscal instruments, as well as strategic development projects. This step was necessary to collect the raw material to construct the primary compact city policy model.

## **2. Which general conditions are theoretically required for implementing the compact city policy successfully?**

To explore the opportunities to mobilize the compact city policy to the case study area, not only it is necessary to know the structure of the policy, but also understand the factors that would support the successful implementation of the policy. In chapter two, the reviewed literature did not indicate directly which conditions are necessary for the success of the policy. However, the interpretation of the same body of literature made it possible to conclude that the success of the compact city policy to contribute positively to the objectives of the sustainable development is a function of three general factors. First, seeking a moderate compact city policy that integrates an urban containment strategy, a utilization variety and quality enhancement strategy, as well as a multi-modal mobility strategy. Second, adapting the policy's strategies and approaches to match the context characteristics. Third, having an effective urban planning system that can implement the compact city policy successfully.

## **3. Which alternative approaches and actions can be used to operationalize the compact city policy in practice?**

Capitalizing on the knowledge offered in the reviewed body of the literature, it was possible to construct a primary model of the compact city policy, which was addressed in the first research question. The model demonstrates the favourable policy strategies and some approaches to realize these strategies. However, the approaches were limited and focusing mostly on the urban containment strategy. In chapters three and four, two empirical examples of successful compact city policies from two different contexts, were reviewed analytically. The examples were Munich and Curitiba, which represent developed and developing-country cities. Part of this review has focused on tracing the approaches and actions used in each example to bring the policy strategies into action. In chapter five, the approaches and actions were abstracted and attached to those previously identified in chapter two to comprise a portable compact city policy model, which was presented in Table 5-5. Accordingly, the alternative approaches that could be mobilized have increased.

It is important to emphasize that this policy model is not a ready policy for local implementation, but it is a collection of general strategies and alternative approaches from which planners and policymakers could choose selectively and adapt their selections to match their local context. Thus, they could formulate authentic compact city policies. Also, it is important to mention that expanding the compact city policy model drawing on the experiences of successful examples is justified by the compact city

scholars and urban policy mobility scholars. Both have encouraged learning from the experiences of successful examples and abstracting these learned lessons.

#### **4. Which trends and practices are likely to enable an urban planning and urban development system to operate the compact city policy successfully?**

In chapter two, the reviewed literature facilitated deriving the general conditions that determine the success of the compact city policy, which were addressed in the second research question. One of these conditions, which required having an effective urban planning and urban development system, was too broad. The literature failed to explain which exact characteristics and trends could make the planning system effective. However, it offered hints to identify these characteristics, since it considered an effective system to be able to carry out two tasks: reducing the barriers that might hinder the implementation of the policy strategies and mitigate or avoiding the negative impacts that could result from implementing some of the policy's approaches. Likewise, the reviewed literature revealed the common barriers and the probable negative impacts. The tackled barriers included social resistance to increasing urban density, financial limitations and inability to generate sufficient revenues for urban investment, inadequate area of public open space, and the difficulty to make infill development financially attractive and limit the impacts of land speculation on land prices; whereas the addressed negative impacts included deterioration of the living environment, increased traffic congestion, and escalation of housing affordability problems.

Considering these hints, in chapter three and four, the researcher investigated how Munich and Curitiba managed to carry out these tasks and derived the practices and characteristics that enabled the planning system in each example to carry out these tasks. In chapter five, the findings concerning both examples were compared and evaluated. Accordingly, the researcher constructed an account of the empirical practices and trends that could comprise an effective urban planning and urban development system, which can implement a compact city successfully. Figure 5-1 demonstrated these characteristics and practices in association with the relevant system's components.

#### **5. How to assess the suitability of a compact city policy to guide urban development in a given urban settlement?**

In chapter six, the suitability of mobilizing a compact city policy to the case study area was linked with the policy's potential to succeed in that area. Accordingly, the conceptual framework of the policy success potential, which was constructed in chapter five, is integrated into the assessment of the policy suitability. Since the assessment of the policy suitability focuses on a proposed policy, not a policy that is already in action, the degree of compatibility between the policy structure and the context's characteristics is not considered as a determinant aspect of the policy suitability. Therefore, the suitability of mobilizing a compact city policy to a specific city is a function of the advisability of

implementing an inclusive compact city policy in that city and the capacity of the city's urban planning and urban development system to implement the policy successfully.

For the assessment of the policy advisability and the operational capacity of the urban planning and urban development system in Jenin, the research has drawn on the social constructivist paradigm and adopted a qualitative case study research approach. In this paradigm, subjective knowledge is constructed by the researcher and participants through their interpretation of the world in which they are engaged. In line with this paradigm, the required data was primarily collected from local key informants, who are engaged in the planning field and understand the studied context and its characteristics, using in-depth interviews of semi-structured nature. The interviews transcripts were analysed using the content analysis method to draw conclusions on the advisability of the compact city policy to guide Jenin's urban development and the capacity of Jenin's urban planning and urban development system to implement this policy. Finally, the inductive logic was used to draw conclusions about the policy suitability, building on the obtained findings concerning the policy advisability and the capacity of the urban planning and urban development system.

## **6. What are the characteristics of the embedded units of analysis in the case of Jenin?**

Chapter seven provided a description of the two units of analysis that are embedded in the case study of Jenin, which were identified in the research methodology in chapter six. The first unit of analysis is Jenin's urban context. This is the medium in which the advisability of implementing an inclusive compact city policy is investigated. The second is the urban planning and urban development system of Jenin. That is the planning authorities, planning legislations, plans, and planning-related activities whose capacity to operate an inclusive compact city policy is measured.

Jenin's urban context has an urban growth boundary line that encloses an area of 21km<sup>2</sup>, in which approximately 50,000 inhabitants live. The area within the growth boundary has a high capacity to absorb further development, where more than half of it is still available for urban development; however, the opportunities for expanding the growth boundary are significantly limited, since the surrounding areas are nationally preserved zones for agriculture, biodiversity and cultural landscape. The area within the growth boundary is divided into functional zones, where most of these zones are designated for single functions. Additionally, Jenin's built-up area, which has originally a monocentric structure, is growing randomly creating a fragmented surface of built-up areas and creating undersigned sub-centres. More than half of the built-up area is located at periphery zones. Many of Jenin's quarters suffer an unacceptable level of accessibility to social services such as schools, public green spaces, and daily shops. Likewise, many of the quarters have inadequate mobility facilities including safe and convenient sidewalks, appropriately designed streets, and public transportation facilities. Despite the

small area of Jenin and the short travel distances, motorized mobility including private cars and taxis are the most common mobility modes.

Jenin's urban planning and urban development system, the second unit of analysis, represents a centralized system. The Ministry of Local Government, Jenin Directorate of Local Government and Jenin Municipality are the main authorities comprising the system currently, where power is concentrated at the national level, i.e. Ministry of Local Government. Jenin Municipality, the local authority, would only start preparing a plan upon receiving a command from the national level and should seek the national level's approval of the prepared plan, as well as its budget and special legislations. The roles of these authorities and their interrelations are primarily regulated by the Temporary Jordanian Planning Law No.79 of 1966. This law also defines the required plans, particularly a master plan and detailed land use plans at the local level in addition to regional development plan at the governorate level. On the ground, the master plan is the key utilized plan, it defines the land use pattern and the location of roads and services. Jenin's master plan, which was prepared in 2003 and finally approved in 2010, has never been reviewed. The regional development plan is unavailable and the detailed land use plans are seldom prepared. A National Protection Plan is lately available, though not described in the existing law. Likewise, non-binding plans known as strategic development plans, have been voluntarily prepared at the local and regional level. These plans have an insignificant impact on the urban planning and urban development process. The whole system suffers shortcomings, and the existing law has been officially blamed for part of these shortcomings. A reform of the planning law was recommended by the governmental bodies and partner development agencies. Incomplete attempts to draft a new planning law were also conducted.

#### **7. To what extent is an inclusive compact city policy advisable to guide Jenin's urban development?**

In chapter eight, the mobilization of an inclusive compact city policy to the case study area appeared to be a desirable aim. The investigated policy strategies, urban containment, land use integration and enhancement of the living environment, and delivery of multi-modal accessibility and mobility are perceived advisable. Many of the approaches that have been investigated within each of these strategies are recommended for implementation in Jenin. For instance, restricting urban sprawl, guiding urban development towards selected locations, and promoting infill development are recommended urban containment approaches. Similarly, promoting mixed-use development and developing a network of multiple city-centres are recommended approaches to achieve land use integration and enhancement of the living environment. Likewise, launching a simple public transportation system in coordination with the land use planning and further promotion of walking as a mobility mode are recommended approaches to deliver multi-modal mobility. From an internal perspective, the recommended approaches are believed to solve some of the prevailing urban problems and bring

several benefits for the case study area such as reducing the fragmentation of the built-up areas, enhance the distribution of services, and make the provision of social services and public transportation more feasible and attainable.

However, few of the investigated approaches are not recommended for implementation in Jenin. For example, redeveloping existing residential quarters, constructing new quarters, or promoting biking as a mode of mobility are rejected. The reason is that they are incompatible with the population's needs, and with the characteristics of the city. Alternative approaches, which are more relevant to Jenin's context, are suggested to replace some of the rejected approaches.

#### **8. To what extent does Jenin's urban planning and urban development system have adequate capacity to operate a compact city policy successfully?**

Although chapter eight showed that the mobilization of an inclusive compact city policy to the case study area is a desirable aim, it revealed that this aim is currently unachievable. Jenin's urban planning and urban development system has inadequate capacity to operate an inclusive compact city policy. The system even lacks the simplest requirement that can make it able to operate the policy. For instance, Jenin has absolutely no local planning authority and only every twenty years or more, Jenin Municipality may hire a private planning firm to prepare a master plan for the city. This means that some of the main bodies that are supposed to take over the tasks of preparing the policy and steering its implementation do not exist. In addition, the adopted planning law fails to provide legal coverage to support the principles and practices of the compact city policy. The law addresses spatial aspects in isolation from social, economic, and environmental aspects. Similarly, the law fails to provide adequately explained measures that help planning authorities intervene in the private lands to execute plans. In addition, the characteristics of the used plans and the way these plans are prepared and executed make these plans inappropriate tools to design and implement a compact city policy. The plans are simply zoning plans, focusing on land parcels and zones without considering the higher spatial levels. Likewise, the plans are not formulated to achieve specific objectives or include specific schemes guiding the achievement of these objects.

#### **9. Which adaptations in the compact city policy model and in the urban planning system could boost the policy suitability to guide Jenin's urban development?**

Chapter nine has shed the light on some recommended adjustments that would help re-contextualize the compact city policy model in the case study area, thus raise the policy suitability to guide Jenin's urban planning and urban development. The adjustments comprised excluding few approaches that are believed to be irrelevant to Jenin's needs and capacities such as the construction of complete new quarters or the regeneration of existing residential quarters, for the city quarters are relatively new and there is no high housing demand that could make the supply of new quarters feasible. In addition, the

adjustments included reducing the size and complexity of some investigated approaches to fit the local settings in terms of needs and capabilities. For example, the development of a network of multiple city centres, the number of the centres should be small as well as the weight given to these centres in relation to the main centre. Similarly, the size of the zones assigned for the mixed use should be small and preferably concentrated in the new centres. Likewise, the capacity of the public transportation system and the required technology should be compatible with the small budgets and small population number, but the planning of this system must be coordinated with the land use plan. Furthermore, local alternatives were suggested to be added to the policy strategies such as carrying out redevelopment projects of deteriorated quarters focusing on the streets, public spaces and infrastructure without tackling private properties.

In addition, chapter nine has revealed a need to carry out extensive adaptation and significant improvement of Jenin's urban planning and urban development system so that it could implement the compact city policy. The improvement should include all the system's components. The most fundamental improvements would include establishing local planning authority, reforming the planning law and make it consistent with contemporary urban planning and urban development principles, as well as expanding the scope and function of development plans and their implementation tools.

#### **10. How could other medium-sized developing country cities benefit from this research?**

Chapter nine has illustrated the ways, through which the medium-sized developing countries could benefit from this research. First, scholars, professionals, or policymakers who are concerned with other cases could draw on the description and results of this case study research to draw lessons relevant to their cases. Second, they could use the framework developed in this research to test the suitability of the policy to their context and diagnose the aspects that reduce the policy suitability to that context. Third, they could benefit from the assembled model of the compact city policy model as a raw policy that they can mutate and produce authentic policies relevant to their context. Finally, they could benefit from the brief general recommendations offered to these cities, depending on the results of this research and the relative similarities between the medium-sized developing country cities. These recommendations include maintaining the three policy strategies in balance, reducing the size and complexity of the policy approaches to fit their local settings, investigating the scope to extend the use of development projects as a key instrument to realize planned development, and develop the opportunities to cooperate with the private sector to finance and implement these projects.

In addition to the specific research questions, which were summarized above, the research has tackled the following broad question:

How suitable is the compact city policy to guide Jenin's urban development sustainably?

The findings of this research have shown that the compact city policy is temporarily unsuitable to guide Jenin's urban development sustainably, and that this situation would change once the capacity of Jenin's urban planning and urban development system is enhanced. This means that the compact city policy does not present a utopian vision for medium-sized cities in developing countries but a potential practical solution. Because the policy appears to be subject to adaptation, which would make its approaches less complicated and smaller than the approaches found in large-scale cities of high urban budgets. Also, the policy does not imply a radical change on the ground; however, it requires continuous coordination to make sure that all plans and actions are serving the set objectives. This incremental approach in implementing the compact city policy appeared clearly in the case of Curitiba. The city worked gradually on changing its urban policy and practices while starting with settings that were not in favour of the policy suitability in that urban context. The incremental approach has also appeared in the urban development projects that the Curitiba implemented gradually such as the establishment of the public transportation facilities, and the enhancement of the urban quality in existing quarters.

Yet, the implementation of a simplified compact city policy still requires an effective urban planning and urban development system and necessitates enhancing the capacity of the existing system. Nevertheless, this does not imply having a system of a capacity equal to that in the large cities. Because managing a medium city like Jenin, whose area stands for 7% of Munich's area or 5% of Curitiba's area, and whose population does not exceed 4% of Munich's population or 3% of Curitiba's population is likely to be less demanding than managing Munich or Curitiba. This means the required capacity of a planning system to operate a compact city policy is also context-based as it is proportional to the area and population size of that context. Also, calling for an enhancement in the capacity of Jenin's urban planning and urban development system is not a sort of luxury but an essential action. The capacity of the system is unlikely to support any sort of urban development policy successfully and is unlikely to ensure an acceptable level of urban quality for its citizens and protect its environment.

In sum, the fact the policy complexity and the required capacity of the urban planning system are relative issues makes it easier to assume that the compact city policy is not a utopian vision to medium-sized cities in developing countries. This fact helps free the minds of policymakers and politicians from the image that the compact city policy is an extremely complicated policy that is absolutely beyond the capacity of the addressed cities. It also helps to reduce the doubts that the urban planning and urban development systems could never have adequate capacity to operate a compact city policy or any sustainable development policy successfully since the required capacity should not be equal to that observed in the large cities of rich urban budgets. The freedom of these doubts is necessary to encourage actual changes in respect of the utilized urban policy. In the case study area, changing the utilized policy and enhancing the capacity of the urban planning system are likely to face special

challenges resulting from being a city in a state that is under occupation. These challenges are specific to the case study area and do not apply to cases in other countries.

## **10.2. Research implications**

This research contributed to the existing research concerning the compact city policy in a number of ways. First, it provided a synthesised definition of the favourable compact city policy, which combines the aspects that scholars consider recommended for the policy definition. Second, it assembled a compact city policy model, which combines the policy's favourable strategies and alternative approaches and actions. The model is based initially on the reviewed literature and elaborated drawing on empirical examples of compact city policies. Third, it formulated theoretical propositions concerning the policy success determinants based on the reviewed body of literature and elaborated the success determinants drawing on the two reviewed empirical examples. Fourth, research provided moderate information about the suitability of the compact city policy to medium-sized developing country cities, which is rarely addressed in existing compact city research.

Besides, the research contributed to the urban planning and urban development practices in the case study area and in other contexts. In the case study area, the researcher created a customised compact city policy model that fits Jenin's context and that can be further developed by local practitioners and policymakers if they opt for a compact city policy. Similarly, the research has diagnosed a number of the shortcomings of the existing urban planning and urban development system in Jenin and suggested a number of empirical recommendations for these shortcomings. The diagnosis and the recommendations could be helpful for the Palestinian planning authorities in enhancing the urban planning and urban development system in Jenin and other cities in the West Bank. For cities beyond the case study area, the research offered the compact city policy model that can be used to formulate local compact city policies. In addition, it provided a framework that planners in other cities can use to test the suitability of the compact city policy to their context and identify the aspects that may hinder the policy suitability. The use of the policy model and the suitability framework is not limited to medium-sized cities in developing countries, rather applicable to all types of cities.

## **10.3. Limitations and areas for future research**

A number of limitations to this research are important to note. First, drawing on two examples of compact city policies to extend the compact city policy model and the policy suitability framework that were derived from the existing body of literature. Expanding the study to address a larger number of cases could help create a richer policy model and a policy suitability framework of more specific aspects. However, addressing more cases was beyond the capacity of this research. Second, the relatively small sample of key-informants interviewed in this research, which consisted of 12 respondents.

Nevertheless, it was not possible to extend the interviewed sample since the community involved in planning the Palestinian urban areas is still limited. Third, as the research was designed to study the whole perspective about the policy suitability and investigate all the components of the planning system, the details concerning some of the recommended system improvements or the adaptation of policy approaches are not significantly deep. Accordingly, the researcher suggests carrying out further research into two areas. The good municipal practices in using land management tools and urban development projects as instruments to achieve planning objectives. The research has to focus on cities smaller than Munich and Curitiba, to increase the chances of benefiting from these practices in the Palestinian context.

## Appendices

### Appendix 1.A. List of key informants

Key informant ID	Position	Organization	Interview date
R1	Associate professor	An-Najah University	06.06,2016
R2	Associate professor	Birzeit University	09.06.2016
R3	Associate professor	Birzeit University	31.05,2016
R4	Assistant professor	Birzeit University	08.06.2016
R5	Assistant professor	Birzeit University	14.06.2016
R6	Assistant professor	Birzeit University	08.06.2016
R7	Assistant professor	Birzeit University	09.06,2016
R8	Assistant professor	An-Najah University	06.06. 2016
R9	Project leader	National Spatial Plan Project	30.05.2016
R10	Head of the urban planning unit	Ministry of Local Government	16.06.2016
R11	Head of the urban planning unit	Jenin Directorate of Local Government	13.06.2016
R12	Head of the engineering department	Jenin Municipality	02.06.2016

### Appendix 1.B. Interview guide on the policy advisability

The advisability of urban containment strategies

1. Based on your experience, what do you think of the advisability of urban sprawl containment approaches to the medium-sized cities of the West Bank? Could you explain your attitude?
2. How advisable do you consider the guiding of urban growth towards selected locations within the medium-sized cities in the West Bank cities? How so?
3. How advisable do you find the promotion of infill development in the medium-sized cities in the West Bank cities? What leads you to this judgement?

The advisability of utilization variety and urban quality enhancement strategies

4. How advisable do you consider the increase of the mixed use of land in the medium-sized cities in the West Bank cities? How would you explain this point of view?
5. To what extent do you consider the revitalization/regeneration of existing urban quarters advisable in the medium-sized cities in the West Bank cities? What sort of evidence leads you to this judgement?

6. Do you have any idea, how advisable would be the construction of new quarters of optimal designs in the medium-sized cities in the West Bank? Could you explain your idea?

7. In your opinion, how advisable would be the development of multiple city centres in the medium-sized cities in the West Bank? What leads you to this opinion?

The advisability of multi-modal mobility strategies

8. How advisable, in your view, would be the operating of a public transportation system in coordination with the land use plans in the medium-sized cities in the West Bank? Could you explain this point of view?

9. How advisable do you consider the facilitation of accessibility through non-motorized modes of mobility in the medium-sized cities in the West Bank would? Could you explain the reason behind this consideration?

### **Appendix 1.C. Interview guide on the operational capacity of the urban planning and urban development system**

Adequacy of the operational capacity of the planning authorities

1. Based on your experience, how do you describe the interrelation between the national planning authorities and municipalities in the urban planning process? How will you evaluate this interrelation?

2. How do you describe the interrelation between the regional planning authority(s) and the municipalities in the urban planning process? How will you evaluate this role?

3. What do you think of the capacity of the planning teams at the municipalities of the medium-sized cities in the West Bank?

4. In the medium-sized cities, how do you evaluate the amount of administrative and financial powers granted to the municipalities? What leads you to such evaluation?

5. To what extent do you think the municipalities play role in guiding the urban development? Could you explain the reason behind your opinion?

Adequacy of the operational capacity of the planning laws and building regulations

6. To what extent, do you think, the existing urban planning laws and regulations facilitate the execution of the plans? Could you explain your attitude?

7. In your opinion, how much attention is assigned to the social, environmental, and economic sustainability in these laws and regulations? How do you explain this judgment?

8. Based on your experience, does the existing laws facilitate the utilization of the land management tools to achieve planning objectives? How so?

9. Do you have any idea, if existing laws help municipalities to generate income to finance the development costs? If yes, could please extend your response further?

Adequacy of the operational capacity of the plans' preparation process

10. How often do municipalities carry out planning-related tasks?

11. In your opinion, to which degree do the plans preparation process address the spatial dimension in integration with the social, economic and environmental dimensions?

12. To which extent does the plans' preparation process include specific objectives and defined time-frame?

13. What kind of studies, if any, are carried out before starting the preparation of the strategic development plan, or master plan?

14. What approach, if any, is adopted to assess the impact of the proposed plans on the community, economy, or environment?

15. How do you describe the community participation in the preparation of the urban development plans to the medium-sized cities in the West Bank?

16. Based on your experience, what sorts of cooperation take place with the scientific or business community during the preparation of the urban development plans to the medium-sized cities in the West Bank?

17. What role, if any, *do private planning firms* play in the preparation of the urban development plans to the medium-sized cities in the West Bank?

Adequacy of the operational capacity of the plans

18. How will you evaluate the impact of the existing national development plan on guiding the urban development in the medium-sized cities in the West Bank?

19. How will you evaluate the impact of the regional development plan on guiding the urban development in the medium-sized cities in the West Bank?

20. How will you evaluate the impact of the municipal strategic development plan on guiding the urban development in the medium-sized cities in the West Bank?

21. How do you evaluate the impact of the municipal master plan on guiding the urban development in the medium-sized cities in the West Bank?

Adequacy of the operational capacity of the plans' execution process

22. Based on your experience, could you describe the actions taken by the municipalities to execute the urban development plans? How will you evaluate these actions?

23. Which role, if any, do private investors play in executing the urban development plans in the medium-sized cities?

24. To what extent, in your opinion, do the Palestinian cadaster and the land information system facilitate the execution of the urban development plans? What leads you to this opinion?

Adequacy of the operational capacity of the plans' evaluation and review process

25. Based on your experience, how will you evaluate the process of evaluating and reviewing the Master Plan and the Strategic Development Plan?

## Appendix 2.A. Evaluation sheet of the quality of the built environment

This sheet was completed based on the observations collected from the field visits and an areal photo of the city. Concerning the building physical conditions, this aspect was measured considering the used building materials and the condition of the building structure as perceived visually during the field visits. In the Palestinian context, buildings are often constructed from several layers including blocks, concrete, and natural stone as the external layer. The buildings that are constructed using these materials and are in a good situation were evaluated as buildings of very acceptable or acceptable building conditions. The buildings that are constructed with these materials but are slightly deteriorated or those constructed without using natural stone but are in a good situation were evaluated as buildings of moderate building conditions. Finally, the buildings that are constructed from these building materials but are significantly deteriorated or those constructed from block or concrete without sufficient treatment were evaluated as buildings of unacceptable building conditions.

In terms of the quality of the building's layout, this aspect was also subjectively evaluated based on the field visits and an areal photo of the city that was taken in 2015. The buildings that provide sufficient setbacks from neighbouring buildings and creating proper conditions for natural lighting and ventilation were evaluated as buildings of very acceptable or acceptable buildings' layout quality. The buildings providing fair setbacks were evaluated as buildings of moderate buildings' layout quality and those providing insufficient or no setbacks were evaluated as buildings of unacceptable buildings' layout quality.

Likewise, the quality of the private green spaces was subjectively evaluated based on the field visits and the areal photo of the city. The buildings that possess adequate green space were evaluated as buildings of very acceptable or acceptable buildings' green space quality. The buildings that possess a fair area of green spaces were evaluated as buildings of moderate buildings' green space quality. Finally, the buildings that possess inadequate or no green spaces were evaluated as buildings of unacceptable buildings' green space quality.

Quarter ID	Quarter name	Buildings' physical conditions	Buildings' layout	Private green spaces	Average
1	Sabah Al-Khair	Very acceptable	Very acceptable	Very acceptable	Very acceptable
2	Kharoubeh	Very acceptable	Very acceptable	Very acceptable	Very acceptable
3	Wa'ret Araneh	Very acceptable	Very acceptable	Very acceptable	Very acceptable
4	Al-basateen Al-shamaliah	Very acceptable	Acceptable	Acceptable	Acceptable

6	Al-madares	Moderate	Moderate	Moderate	Moderate
7	Al-badadieh	Acceptable	Very acceptable	Acceptable	Acceptable
8	Al-almanieh	<i>Unacceptable</i>	<i>Unacceptable</i>	<i>Unacceptable</i>	<i>Unacceptable</i>
10	Iben Amer	Very acceptable	Acceptable	Very acceptable	Very acceptable
12	Wad Berqin	Moderate	Acceptable	Acceptable	Acceptable
13	Iben Sina	Very acceptable	Very acceptable	Very acceptable	Very acceptable
14	Al-zahra	Acceptable	Acceptable	Moderate	Acceptable
15	Al-mahata	Moderate	Acceptable	Very acceptable	Acceptable
16	Old town	<i>Unacceptable</i>	<i>Unacceptable</i>	<i>Very unacceptable</i>	<i>Unacceptable</i>
17	Al-sharqieh	<i>Unacceptable</i>	<i>Unacceptable</i>	<i>Unacceptable</i>	<i>Unacceptable</i>
18	Wad Izz Al-deen	Moderate	Acceptable	Acceptable	Acceptable
19	Al-marah	Acceptable	Acceptable	Acceptable	Acceptable
20	Al-kroum	Moderate	Moderate	Moderate	Moderate
21	Al-nabatat	<i>Unacceptable</i>	<i>Unacceptable</i>	<i>Unacceptable</i>	<i>Unacceptable</i>
22	Khalt Al-souha	Moderate	Moderate	Moderate	Moderate
24	Al-hadaf	Acceptable	Acceptable	Acceptable	Acceptable
25	Al -jabriat	Very acceptable	Very acceptable	Very acceptable	Very acceptable
26	Abu-dhair	Moderate	Moderate	Moderate	Moderate
27	Al-sekeh	Moderate	Moderate	Moderate	Moderate
28	Marah Sa'ed	Very acceptable	Very acceptable	Very acceptable	Very acceptable
29	Al-swaitat	<i>Unacceptable</i>	Moderate	Moderate	Moderate

*Evaluation sheet 1: Quality of the built environment*

## **Appendix 2.B. Evaluation sheet of the access to social services**

This sheet was completed based on the analysis of the distribution of the three sorts of addressed social services in relation to the city's quarters. The first indicator, the ease of access to schools, was evaluated by analysing the city's land use plan map using ArcGIS. Buffer zones of 800 m were initiated around the available schools to determine how acceptable is the access of each neighbourhood to schools. The availability of convenient roads connecting the neighbourhood with the adjacent schools was also considered in the evaluation. The second indicator, the ease of access to grocery retails and daily restaurants, was also evaluated by analysing the land use plan using ArcGIS. Buffer zones of 800m and 1200 m were initiated about the commercial services and restaurants that are identified by the land use plan and by the field visits. Then the degree of the ease of access to such services in each neighbourhood was evaluated. Likewise, the degree of access to public green spaces was evaluated by analysing the

city's land use plan in ArcGIS. Buffer zones of 800m and 1200m were initiated about the existing public green spaces to assess the degree of the adequacy of access to the green spaces in each neighbourhood. In the assessment, the size of the public green space and the quality of the provided services were taken into consideration.

Quarter ID	Quarter name	Access to schools	Access to grocery shops and local restaurants	Access to public green spaces	Average
1	Sabah Al-Khair	Unacceptable	Acceptable	Very unacceptable	Unacceptable
2	Kharoubeh	Acceptable	Acceptable	Very unacceptable	Moderate
3	Wa'ret Araneh	Very unacceptable	Unacceptable	Very unacceptable	Very unacceptable
4	Al-basateen Al-shamaliah	Unacceptable	Acceptable	Unacceptable	Unacceptable
6	Al-madares	Very acceptable	Acceptable	Unacceptable	Acceptable
7	Al-badadieh	Moderate	Very unacceptable	Very unacceptable	Unacceptable
8	Al-almanieh	Moderate	Very unacceptable	Very unacceptable	Unacceptable
10	Iben Amer	Unacceptable	Acceptable	Moderate	Moderate
12	Wad Berqin	Very unacceptable	Very unacceptable	Very acceptable	Unacceptable
13	Iben Sina	Unacceptable	Acceptable	Acceptable	Acceptable
14	Al-zahra	Acceptable	Very unacceptable	Unacceptable	Unacceptable
15	Al-mahata	Acceptable	Very unacceptable	Unacceptable	Unacceptable
16	Old town	Very acceptable	Very acceptable	Moderate	Acceptable
17	Al-sharqieh	Very acceptable	Unacceptable	Moderate	Moderate
18	Wad Izz Al-deen	Moderate	Very unacceptable	Acceptable	Moderate
19	Al-marah	Moderate	Moderate	Acceptable	Moderate
20	Al-kroum	Acceptable	Acceptable	Unacceptable	Moderate
21	Al-nabatat	Moderate	Very acceptable	Unacceptable	Moderate
22	Khalt Al-souha	Acceptable	Acceptable	Unacceptable	Moderate
24	Al-hadaf	Very unacceptable	Very unacceptable	Acceptable	Unacceptable
25	Al-jabriat	Very unacceptable	Very unacceptable	Acceptable	Unacceptable
26	Abu-dhair	Unacceptable	Moderate	Moderate	Moderate
27	Al-sekeh	Unacceptable	Acceptable	Acceptable	Moderate
28	Marah Sa'ed	Moderate	Unacceptable	Very acceptable	Moderate

29	Al-swaitat	Very unacceptable	Very unacceptable	Very acceptable	Unacceptable
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*Evaluation sheet 2: Ease of access to social services*

## **Appendix 2.C. Evaluation sheet of the ease of access to mobility facilities**

This evaluation sheet was completed based on the observations collected from the field visits and the resulting maps, specifically Map 7-7 presenting the public transportation routes. The evaluation of the availability of sidewalks has taken into consideration the extent to which the neighbourhood has sidewalks and whether the sidewalks are convenient for the pedestrians as observed in the field visits. Likewise, the evaluation of the degree of the availability of well-designed streets has taken into consideration the width of the streets, the pavement of the streets, and the availability of parking opportunities as observed in the field visits and as the city's master plan indicates. Finally, the access to public transportation facilities was evaluated by analysing Map 7-7 in ArcGIS. Buffer zones of 800m were initiated around the public transportation routes to identify the neighbourhoods with access to these facilities. Additionally, the availability of convenient roads connecting the neighbourhoods with the public transportation facilities was also considered in the evaluation.

<b>Quarter - modified</b>	<b>Availability of sidewalks</b>	<b>Availability of well-designed streets</b>	<b>Access to public transportation</b>	<b>Average</b>
1-Sabah Al-Khair	Very unacceptable	Acceptable	Moderate	Moderate
2- Kharoubeh	Very unacceptable	Moderate	Moderate	Unacceptable
3- Wa'ret Araneh	Very unacceptable	Moderate	Unacceptable	Unacceptable
4- Al-basateen Al-shamaliah	Unacceptable	Acceptable	Moderate	Moderate
6 - Al-madares	Moderate	Moderate	Moderate	Moderate
7 - Al-badadieh	Very unacceptable	Moderate	Moderate	Unacceptable
8 - Al-almanieh	Very unacceptable	Very unacceptable	Moderate	Unacceptable
10 - Iben Amer	Very unacceptable	Moderate	Moderate	Unacceptable
12 - Wad Berqin	Unacceptable	Moderate	Moderate	Moderate
13 - Iben Sina	Unacceptable	Acceptable	Moderate	Moderate
14 - Al-zahra	Moderate	Acceptable	Moderate	Moderate
15 - Al-mahata	Acceptable	Acceptable	Moderate	Acceptable
16 - Old town	Acceptable	Very unacceptable	Moderate	Moderate
17 - Al-sharqieh	Moderate	Very unacceptable	Moderate	Unacceptable
18 - Wad Izz Al-deen	Moderate	Very unacceptable	Moderate	Unacceptable

19 - Al-marah	Very unacceptable	Moderate	Moderate	Unacceptable
20 - Al-kroum	Unacceptable	Very unacceptable	Unacceptable	Unacceptable
21 - Al-nabatat	Very unacceptable	Moderate	Moderate	Unacceptable
22- Khalt Al-souha	Unacceptable	Moderate	Moderate	Moderate
24 - Al-hadaf	Unacceptable	Moderate	Moderate	Moderate
25 - Al -jabriat	Very unacceptable	Unacceptable	Unacceptable	Unacceptable
26 - Abu-dhair	Very unacceptable	Unacceptable	Very unacceptable	Very unacceptable
27 - Al-sekeh	Very unacceptable	Unacceptable	Very unacceptable	Very unacceptable
28 - Marah Sa'ed	Very unacceptable	Moderate	Moderate	Unacceptable
29 - Al-swaitat	Very unacceptable	Unacceptable	Unacceptable	unacceptable

*Evaluation Sheet 3: Ease of access to diverse mobility modes*

### **Appendix 3. Selected excerpts from the interview data**

#### Table 8-1:

Table 8-1: [1] *"In the local context, urban sprawl is widely spread. Compared with other cases, it may not seem that harsh, but we have to consider the small area of land that we have and the size of our cities. Therefore, I consider launching an effective sprawl containment policy an imperative task for the Palestinian planning institutions"* (R.5, interview, 14.06.2016)

Table 8-1: [1] *"In the West Bank, urban sprawl is a very serious issue that calls for intervention. The studies conducted during the preparation of the National Spatial Plan showed the spread of random development and urban sprawl"* (R.9, Interview, 30.05.2016)

Table 8 -1: [2] *"So, I think, it is unfair to limit sprawl if municipalities do not offer alternatives for residential areas with acceptable or preferable living conditions. People simply will keep trying to find an acceptable alternative on their own. It is very expensive to find a good living alternative within the city and suburbs are the emerging solutions"* (R.6, interview, 08.06.2016)

Table 8 -1: [3] *"This is essential to regulate the consumption of land resources and preserve the agricultural land. Our land resources are limited, and the geo-political situation increases the scarcity of available land. Also, this is essential to concentrate development to enable the municipalities to provide efficient and feasible infrastructure and public transportation"* (R.1, Interview, 06.06,2016)

Table 8 -1: [4] *"But, unfortunately, it is not within the capacity of the existing master plans, which are the main planning instrument to handle urban sprawl. The content and role of the master plans must be reconsidered to enable the containment of urban sprawl as well as other urban development solutions"* (R.2, Interview, 09.06.2016)

Table 8 -1: [4] *"Also, there is lack of broad urban planning visions and neglected standards. If such visions and standards existed, the excessive extensions of the master plans of the small urban agglomerations would have been disapproved and this chaotic environment for urban development would have been avoided. The proposed area per capita in the Palestinian context was 190m<sup>2</sup>, based on the studies of the Regional Plan which the Ministry of Planning prepared with the Norwegian team in 1998. Recently, this standard is now reduced to 150 m<sup>2</sup>. With simple calculations, you find that Jenin growth area has the capacity to accommodate three times its current population"* (R.9, Interview, 30.05.2016)

Table 8 -1: [5] *"Unfortunately, there are several factors that accelerate the spread of urban sprawl in our context. First of all, the planning law that allows development beyond a growth boundary. This law must be changed"* (R.3, Interview, 31.05,2016)

Table 8 -1: [6] *"In Jenin, as well as in other small cities in the West Bank, urban sprawl has a unique pattern. One hardly finds large housing projects, but single-family houses, or multi-storey building belonging to family members. A significant governmental intervention to develop affordable and acceptable housing alternative seems to be effective to reduce this pattern of sprawl"* (R.8, interview, 06.06. 2016)

Table 8 -1: [7] *"Also, it would be difficult, if not impossible, to introduce a policy to limit urban sprawl without convincing the politicians and the public that urban sprawl is not the only way to protect the Palestinian land from the Israeli confiscation. The research could be a useful tool in this regard. We must search for strategic development scenarios for areas under threat, and before that we have to identify the areas that are subject to threat and those which are not"* (R.4, Interview, 08.06.2016)

#### Table 8-2:

Table 8-2: [1] *"I think it is about time to accept that planning is broader than zoning and land use regulations. The growth management is one scheme that should be involved in the practiced urban planning. The sustainability or even rationality must to certain degree be considered in planning the Palestinian urban areas"* (R.3, Interview, 31.05,2016)

Table 8-2: [1] *"We are surely aware that some locations within the growth boundary are more suitable for urban development than others, mainly if we consider the factor of time"* (R.10, 16.06.2016)

Table 8-2: [2] *"Urban development in most of the West Bank cities is left without guidance. This has been leading to irrational patterns of urban development taking place at unsuitable locations. It is unfeasible to provide services for these scattered quarters or groups of building. The municipal budget does not even enable the provision of*

services to this scattered development. The result is quarters that are not covered with adequate basic services. The operation of public transportation is a big challenge. The low-density and the scattered development discourage investors from serving these areas” (R.2, Interview, 09.06.2016)

Table 8-2: [3] “The random, scattered development is very exhausting for the budgets of the Palestinian municipalities, which suffer from financial deficits. This pattern of development reduces the number of people who can benefit from the services within this situation of financial deficits” (R.9, Interview, 30.05.2016)

Table 8-2: [4] “Unfortunately, the planning here is limited to stipulating what kind of land use and development percentages. We have to upgrade this notion of planning to guide the urban development process” (R.1, Interview, 06.06.2016)

Table 8-2: [4] “A minimum requirement for guiding urban growth is preparing a development scenario. I don’t mean a land use plan or a rigid master plan” (R.4, Interview, 08.06.2016)

Table 8-2: [5] “The weak capacity of the municipalities in terms of planning is a major obstacle that confront setting urban growth approaches. Most municipalities do not even have a planning unit or a planner” (R.6, interview, 08.06.2016)

Table 8-2: [6] “By the way, the fact that infrastructure and services are not available adequately everywhere makes it possible to use the infrastructure as a tool to guide urban development given that the municipalities would be able to mobilise adequate income for that”

Table 8-2: [6] “Under the current conditions, even the infrastructure cannot be used as a tool to direct growth by the municipality. And the reason is very simple. It is the scarce financial resources that is available to the municipality. Unlike expected, the municipality often provide services to areas that already developed. Very rarely, the municipality provide infrastructure to undeveloped areas. In providing infrastructure, mainly talking about roads and sewage, we assign priority the areas where more housing units are existing. If we had means to generate adequate income for infrastructure investment, then infrastructure would be a useful tool” (R.12, Interview, 02.06.2016)

### Table 8-3:

Table 8-3: [1] “As planners in MoLG, we wish to see development taking place first in areas within the continuous urban fabric before those at the urban margin and our observations show that we still have gaps within the cities’ inner cores” (R.10, Interview, 16.06.2016)

Table 8-3: [2] “Recently, we have been witnessing an unsustainable phenomenon in many cities of the West Bank. The undeveloped lands within cities are bypassed and scattered development on the peripheries is taking place instead. It is very necessary to consider these areas and think of options to promote development there before the development of suburbs” (R.8, Interview, 06.06.2016)

Table 8-3: [3] “The provision of better infrastructure, both physical and social, in selected existing districts can encourage infill development in the medium cities. In these cities many districts do not receive adequate services. However, this requires municipalities of active planning departments that can continuously plan strategic projects and other local mechanisms to encourage infill development” (R.1, Interview, 06.06.2016)

Table 8-3: [4] “There is no way to implement this within the current planning system. The planning laws, the nature of the master plans and the municipal planning capacity do not keep any room for innovative solutions like those required to promote infill development” (R.10, 16.06.2016)

Table 8-3: [5] “The municipality does not owe any instruments to encourage or enforce the development of any land parcel. The master plan is unlikely to play role in in this regard, and the strategic plan is still very weak. There are also no legislations that help us to bring the infill development into effect” (R.12, Interview, 02.06.2016)

Table 8-3: [6] “We are not an industrial country and we don’t owe large industrial sites that are relocated. Even if we might have some abandoned buildings, which I don’t think are many, redevelopment still not advisable for our small cities for the time being. In my opinion, the complications and requirements of their development would much exceed the benefits. Remember, these are relatively small buildings owned by individuals who probably don’t have interest or even financial ability to redevelop such buildings on their own” (R.4, Interview, 08.06.2016)

Table 8-3: [7] “All the discussions were about new development, and the redevelopment was not touched at all. We need many field studies before being able to say if redevelopment is advisable for the Palestinian cities. Here, I exclude the heritage buildings which need renovation and preservation” (R.9, Interview, 30.05.2016)

Table 8-3: [8] *"It would be very useful to integrate the architectural thinking in the planning visions. Our cities have the potential for reorganization and intensification ... We need to search how to redesign the buildings to make better use of it. For example, I think of the commercial buildings where the upper floors are not used. There is no demand on such locations for commercial purposes. I always try to imagine how the city centre would be if we transformed these parts into residential use... Unfortunately, in our context we look to innovative solutions as utopia and we rather prefer to continue with classical inefficient solutions"* (R.5, Interview, 14.06.2016)

Table 8-3: [9] *"It would be great if we start looking for redevelopment scenarios now before the situation becomes very critical. We just need to start with research on redevelopment potentials in our cities"* (R.7, Interview, 09.06.2016)

#### Table 8-5:

Table 8-5: [1] *"In the outcomes of the NSP, we reached the conclusion that mixed use development is recommended for the Palestinian cities, in the sense of providing schools, health care services, daily shopping facilities and where possible working places at short distance from neighbourhoods. We noticed maldistribution of the services in the Palestinian cities. I assume, in cities like Jenin, it is not reasonable to talk about the mixing of residential functions with offices and other work environments. Such cities are small, and it would be sufficient if only services are provided in near proximity to the residents"* (R.9, Interview, 31.05.2016)

Table 8-5: [2] *"I find it difficult to imagine mixed use development functioning properly in our cities. And I think our cities are very tiny. Take for example your case study area, what is the longest distance from one point to another? As far as I know, it is maximum 8 kilometres. This makes me not in favour of mixing the working and residential environment. But I touch a crucial need for daily services such as food retails, a small coffee shop, or local recreational activities. I find the current situation unfair or even unsustainable. Many residential quarters are disconnected from such services. One finds himself forced to have a car. This is not sustainable"* (R.3, Interview, 31.05.2016)

Table 8-5: [3] *"Are we going to continue developing our cities in the same arbitrary manner that is taking place currently? I think you are aware that cities master plans lack the basic criteria that a plan must consider. If yes, then I'm against increasing the mix use of land. Because we are simply creating conflicts between incompatible uses. If the mixed use will be carefully designed, then I would say I strongly advice the mixed use"* (R.2, Interview, 09.06.2016)

Table 8-5: [4] *"It would be optimal, when these mixed-used areas are concentrated at major nodes that are connected through public transportation services. Unfortunately, public transportation in proper sense is still missing in the medium-sized cities"* (R.7, Interview, 09.06.2016)

#### Table 8-6:

Table 8-6: [1] *"Currently, urban regeneration is not advisable. I will not say that all neighbourhoods in our cities are in good condition. No, I'm not pretending that. But, I have other concerns"* (R.10, Interview, 16.06.2016)

Table 8-6: [2] *"In my opinion, within the current conditions urban regeneration, like redevelopment, is extremely impossible. The prevailing planning culture, considering institutions and people, and the capacity of the municipalities do not facilitate the implementation of urban regeneration projects. Urban regeneration is very challenging even for communities that use participatory planning and bottom-up planning approaches. We cannot expect urban regeneration to be implemented using our primitive planning system"* (R.8, interview, 06.06. 2016)

Table 8-6: [3] *"In my opinion, the regeneration of such quarters is imperative, but it will be extremely challenging for several reasons... Plus, the buildings are relatively small and are privately owned"* (R.1, Interview, 06.06.2016)

Table 8-6: [4] *"In addition to the pilot projects on residential quarters, I strongly recommend studying the scope of urban regeneration of commercial buildings in the centres of cities. This may be financially easier, but the city planners need to be actively involved in planning such projects to achieve more sustainable outcomes"* (R.5, interview, 14.06.2016)

Table 8-6: [5] *"The only thing the municipality could or even should do, is to upgrade the infrastructure and the roads quality and the provision of public green areas. This is very advisable in many existing parts of the city. But we have very limited budget for this kind of projects. Many projects proposals are just waiting funding"* (R.12, Interview, 02.06.2016)

#### Table 8-7:

Table 8-7: [1] *"But I don't see the construction of complete quarters recommended. Our cities are small, they are at the lower edge of the medium-sized city classification. New quarters are beyond their needs and capacities. It may be that housing projects which are sustainably designed will be advisable"* (R.4, Interview, 08.06.2016)

Table 8-7: [2] *"I don't think that in Jenin there is enough demand to make the construction of a new quarter feasible. And I cannot think of a possible way to buy the land needed for such huge project"* (R.12, Interview, 02.06.2016)

Table 8-7: [3] *"Also, I don't think the government, or the municipalities have human resources, financial resources, or public land for such huge projects"* (R.7, Interview, 09.06.2016)

Table 8-7: [4] *"In my opinion, considering the size of Jenin, I find it more reasonable to propose the development of sustainably designed housing projects. The construction of whole quarters, in my point of view, is not advisable"* (R.11, Interview, 13.06.2016)

Table 8-7: [5] *"I don't see this approach applicable in the context of your case study area. Instead more focus on the detailed land use plans could be more advisable and more doable. In case this instrument is deeply and correctly used, we can control the quality of urban development more effectively considering the local resources"* (R.8, interview, 06.06. 2016)

#### Table 8-8:

Table 8-8: [1] *"Definitely, designing new central areas is advisable for the Palestinian cities even those of medium size. In my opinion, not all non-residential activities should be concentrated in the main centre. The existing city centres are overloaded. Traffic congestion and insufficient parking places are chronic problems in our existing centres"* (R.1, Interview, 06.06.2016)

Table 8-8: [2] *"We can see that at the western part of the city [Jenin] one centre has emerged. This reflect the need of the city to additional few centres. But, these centres should not be as important as the main centre. We want to reduce the pressure on the city centre but not to cancel its role"* (R.12, Interview, 02.06.2016)

Table 8-8: [3] *"There is a need to replace the random approach created by the cities' users as consequence to saturation of the main centres. Many retails and office buildings started developing along certain linear axes or concentrating at certain locations Designing supporting centres can create more sustainable solutions than the randomly created centres"* (R.7, Interview, 09.06.2016)

Table 8-8: [4] *"I would say, every medium Palestinian city needs few sub-centres for an efficient distribution of the activities and to reduce the pressure on the central part of the city"* (R.6, interview, 08.06.2016)

Table 8-8: [5] *"We have to be careful in designing these centres and make sure not to exaggerate their size and the role. Remember, a medium city of area between 20 km<sup>2</sup> to 30 km<sup>2</sup> and population between 50,000 to 75,000 inhabitants needs simple centres. Otherwise, the centres would not be feasible. Plus, if employed properly, the centres can be a key part in introducing a feasible collective transportation system"* (R.8, interview, 06.06. 2016)

Table 8-8: [6] *"the size and function of these centres should respect the city size and needs. In Jenin, I think these sub-centres should not be many and the gradual development of the sub-centres is also recommended. We don't face high demand like in Ramallah. I mean we have to be reasonable and consider the economic feasibility"* (R.9, Interview, 30.05.2016)

Table 8-8: [7] *"The new central places should be proportionally designed considering the character of medium cities. I would say, a city like Jenin may need two centres of secondary order to hold commercial activities and offices and central services. It may also need four to five centres of third order to provide daily services for individual neighbourhoods. These centres have to be considered as major nodes to operate a simple public transportation system"* (R.5, interview, 14.06.2016)

#### Table 8-10:

Table 8-10: [1] *"I strongly recommend more responsible attempts to operate a transportation system with properties that match the size, density and infrastructure of the West Bank cities"* (R.2, Interview, 09.06.2016)

Table 8-10: [1] *"Through the instructions of the Physical Planning Manual, we recommend that municipalities prepare a sector plan for transportation and that this plan should be coordinated with the land use plan"* (R10, Interview, 16.06.2016)

Table 8-10: [2] *“Public transportation is an important asset that is not used in our context. It has the potential to organize the cities, reduce traffic congestion and before all, enhance the connection between the cities and the suburbs, reduce the existing chaos and increase the quality of the urban space”* (R.1, Interview, 06.06,2016)

Table 8-10: [2] *“The existing commuting patterns which depends mostly on private cars or private taxis are unsustainable. They contribute largely to environmental pollution. They add to the congestion in our narrow roads. And they exhaust the citizens in terms of financial costs. In some cases, people will have limited access to a number of services because they cannot afford the costs of private taxis. This is unacceptable”* (R.8, interview, 06.06. 2016)

Table 8-10: [3] *“Public transportation is unused component in urban planning in the Palestinian context. Nevertheless, transportation has the potential to play an active role in planning the Palestinian urban areas and guiding urban growth more reasonably”* (R.7, Interview, 09.06,2016)

Table 8-10: [4] *“In addition, the scattered urban development and the resulting low density in some quarters, is a challenge to the efficiency of a public transportation system. We recommend further concrete studies to identify the needs of the different quarters and suggest the most suitable pattern of transportation mode and capacity”* (R.6, interview, 08.06.2016)

Table 8-10: [5] *“It is true the existing density might not be feasible to have buses, but some studies done by our students show that a hybrid system of buses and mini-buses can function feasibly and efficiently* (R.1, Interview, 06.06,2016)

#### Table 8-11:

Table 8-11: [1] *“It is evident that walking, but not cycling, is advisable to our cities. The relatively small size of the cities that automatically creates shorter travel distances is an asset. We try to draw the attention of the municipalities to the importance of providing services in proximity to residential areas to make it accessible through walking. This would reduce the traffic problems in the Palestinian cities”* (R.10, Interview, 16.06.2016)

Table 8-11: [2] *“I don’t see bicycles as a mobility option in the Palestinian cities. The streets have no room for them, the hot and humid summer and the rainy winter do not make cycling attractive, and the culture does not accept this mode as well”* (R.3, Interview, 31.05,2016)

Table 8-11: [3] *“I strongly recommend that, particularly walking. This a strong potential to reduce traffic congestion in the small/medium cities with narrow streets and reduce the chaos. We must make use of fact that distances are not long in these cities. The urban design of the walking environment and the distribution of the land uses could have strong impact on whether or not to choose to walk”* (R.4, Interview, 08.06.2016)

Table 8-11: [4] *“We advise municipalities to design mixed-use development so that walking becomes or returns an option to reach services and daily activities. This of course, starts with the design of the cities”* (R.9, Interview, 30.05.2016)

Table 8-11: [5] *“But to make walking an acceptable or practical option you need to provide suitable infrastructure for pedestrians”* (R.11, Interview, 13.06.2016)

#### Table 8-14:

Table 8-14: [1] *“To be honest, I don’t see real interaction between the national and local levels during the preparation of master plans. In some cases, the MoLG assists municipalities to prepare the master plans by contracting planning firms to prepare the plans. This assistance is mainly financial. The ministry allocates financial aid for the municipalities so that they can contract a private firm to prepare their master plans. Nevertheless, the MoLG intervenes after preparing the master plan, mainly to authorize the plan. You know, in our system, the ministry has great authority over the municipalities. There is one more thing that the ministry provides, the planning manuals. But these are very shallow and useless”* (R.6, interview, 08.06.2016)

Table 8-14: [2] *“We developed a number of planning attempts. For instance, the Regional Development Plan in cooperation with Norwegian planning experts in 1998, Urban Development Policies,2002, and the uncompleted National Spatial Plan in 2014 and 2015”* (R.9, Interview, 30.05.2016)

Table 8-14: [3] *“Around 2010, the ministry launched planning manuals to guide planning process at the municipal level. But these are mainly about teaching simple techniques of the planning process not about visions”* (R.8, interview, 06.06. 2016)

Table 8-14: [4] “We try to advice the municipalities follow the planning manuals in the planning process” (R.11, Interview, 13.06.2016)

Table 8-14: [5] “Concerning the dissolved ministry of planning, the level of interaction is much worse. If one excludes the Protection Plan, then it is possible to say that none of the ministry plans and policies had impact on the local level” (R.6, interview, 08.06.2016)

Table 8-14: [6] “The decision to merge the MOPAD will increase the weakness and worsen the problem the national planning is already suffering” (R.1, Interview, 06.06,2016)

Table 8-14: [6] “Unfortunately, MoPAD is now dissolved and MoLG, which hardly able to carry out its tasks, cannot do this task. In my opinion, with this action the limited national planning capacity is destroyed completely” (R.4, Interview, 08.06.2016)

Table 8-14: [6] “Currently, and as an exception, which is not stated by the law, the task of national planning and the further development of NSP have been assigned to the department of urban planning in the MoLG. Nevertheless, there is lack of clarity how the process will go” (R.10, Interview, 16.06.2016)

Table 8-14: [7] “The national planning authorities, which are not clearly identified in the Palestinian context, are unable to direct the local urban planning. Which ministry is responsible for setting national planning policies the former MoPAD or the MoLG? No legal answer! Which tasks are they supposed to carry out concerning national planning? This is also not clear. The only notable practiced task is the authorization of the master plans by the MoLG” (R.4, Interview, 08.06.2016)

Table 8-14: [7] “Unfortunately, there was no legislative base to approve the prepared plans and policies and to enforce them as reference to local planning. This challenge is the product of sticking to an outdated planning law, in which national planning was not stipulated” (R.9, Interview, 30.05.2016)

Table 8-14: [8] “The occupation imposes direct obstacles as the Palestinian territories are divided into isolated regions. Also, it causes confusion whether to plan considering the current conditions or based on the assumption that a final solution will be reached soon. Also, there is uncertainty about the features of the final solution. This all restricts the effect of national planning in our context” (R.1, Interview, 06.06,2016)

Table 8-14: [8] “Theoretically, the MoP had a number of attempts to prepare national development plans and polices. After Oslo Agreement, the plans were generously funded by international donors, but this resulted in ideal plans assuming an end to the Israeli occupation. An example is the regional plan prepared in 1998 in cooperation between the Palestinian Ministry of Planning and International Cooperation with a team of Norwegian planners. However, after the start of the second Intifada, planning institutions became frustrated, as they realized that what they plan does not match the existing state and will be just a document retained in archive” (R.3, Interview, 31.05,2016)

Table 8-14: [9] “After 20 to 25 years of initiating the MOLG and MOP, the two ministries own now a few number of competent staff, most of them gained their competence through practice” (R.7, Interview, 09.06,2016)

Table 8-14: [10] “The MoLG also plays a legislative role including drafting by-laws and regulations supporting the planning law. This role gives the ministry the chance to introduce moderate enhancements in the urban planning and urban development process” (R.10, Interview, 16.06.2016)

Table 8-14: [11] “Likewise, the MoLG has developed a detailed manual, demonstrating the steps of the physical planning process, to enable the private sector to carry out the planning process properly. This manual is one of the outcomes of the programme of enhancing the capacity of the local government, which the ministry has been implementing with the international community since 2002. This is a long-term program of several phases, that work gradually and systematically on solving the problems of local government units, including planning” (R.10, Interview, 16.06.2016)

#### Table 8-15:

Table 8-15: [1] “In terms of physical planning, JDoLG plays significant role in supervising the authorizing the master plans. First, we supervise the work of private consultants during the preparation of the local communities’ master plans. Second, we take part in authorizing the master plans. To be specific, the regional committee of planning at JDoLG is one of the three committees that revise a master plan and approve it” (R.11, Interview, 13.06.2016)

Table 8-15: [1] “The planning law identifies the coordination mechanism. The local committee of JM, the mayor and the members of the municipal council, approves the plan and send it to the regional planning and regulation

committee in JDOLG. The regional committee examines the plan and place it for objection and return that to the local committee which study the plan and the objections once again and send them back to the regional committee seeking its recommendations. One more thing that I forgot to mention. JDoLG organized several meetings during the preparation of Jenin master plan and stayed involved in the preparation process" (R.12, Interview, 02.06.2016)

Table 8-15: [2] "The planning law requires preparing development plans at the district level, where it is needed. And it also stipulates the authorization process of these plans. Unfortunately, regional planning has never been enabled. The ministry understands the danger of this situation; nevertheless, such planning process is beyond the existing capacity. Instead, the ministry attempts to create measures to reduce the impacts of having the regional planning inactive. Therefore, it prepares strategic development plans at district level. This has been practiced as pilot projects, were seven districts out of the eleven in the WB already have such plan" (R.10, 16.06.2016)

Table 8-15: [3] "I believe that there is strong relation between the municipality and the directorate of local government during the preparation of master plans. But, I also think it is fruitless. This relation is the result of bureaucratic procedures prescribed by the enacted law. However, the directorates of local government fail to go deep in the contents and concepts of the plans. The relation is limited to formalities related to master plans approval" (R.1, Interview, 06.06,2016)

Table 8-15: [3] "The existing regional planning authorities are not competent actors in the urban planning process. Their teams are not qualified for this task. But, the process of plans approval goes through the regional level. I see this action very pointless. It even has no reference regional plan to coordinate the process" (R.5, interview, 14.06.2016)

Table 8-15: [4] "One main cause of the illness of urban planning and development is the lack of development plans at the district level. I don't mean the strategic development plans that has become a trend in the last few years. These do not exceed a list of projects that the district wishes for. As I mentioned before, such plans are kept on the shelves. They are prepared upon request of international donors" (R.3, Interview, 31.05,2016)

Table 8-15: [4] "Actually, we don't carry out planning on the regional level or to be more accurate, on the district level. Nowadays, there is a trend to prepare strategic development plans for the districts. However, this action is a matter of formality and has hardly any effect" (R.9, Interview, 30.05.2016)

Table 8-15: [5] "And at the end, the plan is approved following the procedure stipulated in the law, which imposes seeking the approval of the regional planning committee" (R.6, interview, 08.06.2016)

Table 8-15: [6] "However, the experience proved the absence of planning at the district or regional level and the lack of planning teams that are responsible for this task" (R.7, Interview, 09.06,2016)

Table 8-15: [6] "The capacity of the directorates of local government was not built in a way that supports conducting proper regional planning activities" (R.9, 30.05.2016)

#### Table 8-16:

Table 8-16: [1] "Most municipalities in the medium cities do not have a planning unit or even a single planner. In addition, their small engineering departments have to deal with lots of responsibilities apart from preparing master plans" (R.10, Interview, 16.06.2016)

Table 8-16: [2] "Local authorities severely lack competence and professionalism in planning fields. In best cases, municipalities have one or two engineers engaged in the planning process. The planning process is an additional task assigned to the engineers who are overwhelmed with other major tasks. And that is only within the period of preparing a master plan. Once the master plan is completed, no one would be responsible for planning in the municipality" (R.4, Interview, 08.06.2016)

Table 8-16: [3] "During the preparation of the master plan, Jenin municipality used to have a local planning committee with the head of engineering department a member of this committee. The committee was the sole entity responsible to coordinate with the private consultant that prepared the master plan. However, it has been dissolved after the final approval of the master plan. In few cases, the engineering department prepare detailed land use plans for certain areas. But this is very exhausting to us, the competent staff for this task are very few and they have so many other tasks to do" (R.12, 02.06.2016)

Table 8-16: [3] "And those responsible for planning at local level even lack creativity and the ability to criticize, which are basic required skills for the planning task. This means that the municipalities have even no capacity to professionally and reasonably review the plans prepared on their behalf by the private consultants" (R.2, Interview, 09.06.2016)

Table 8-16: [4] *“As I mentioned before, according to Law No.77 of the year 1966, MoLG is not directly responsible for preparing the master plans; however, the law states that in case the municipality or local authority is technically incapable of preparing the plan, it has the right to ask for the support of the ministry. Most municipalities are incapable. This made the planning department at MoLG overwhelmed by the large number of the master plans that need to be prepared and distracted the department from working on its primary tasks. Therefore, we opted to outsourcing the preparation of master plans to private planning firms and universities as this is the most attainable solution for the time being. As I mentioned before, the private sector helped completing master plans for large number of local authorities, but the quality is still unacceptable. I also mentioned that we try to enhance the quality through the planning manuals and the training of specialized planners at the Palestinian universities.”* (R.10, Interview, 16.06.2016)

Table 8-16: [5] *“Unfortunately, there is too much involvement of planning firms in the urban planning process and without the ability to control the quality of work. This trend, which is supported by the ministry, gives the municipalities an excuse to avoid development of their planning teams and taking significant responsibility in planning their cities properly and continuously”* (R.6, interview, 08.06.2016)

Table 8-16: [5] *“There has been no pursuit to enhance municipal planning teams in terms of the number of staff and their qualifications. On the contrary, the orientation to depend on the private sector to carry out the urban planning process have been strengthened. Unfortunately, in the Palestinian municipalities, it is hold that a planner is not someone whom the municipality needs always, rather only every 15 or 20 years when developing a new master plan”* (R.9, 30.05.2016)

Table 8-16: [6] *“Unfortunately, instead of encouraging the municipalities to initiate department capable of conducting local planning actives the ministry promotes the approach to delegate planning activities to the private sector. In my opinion, this approach is not reasonable. Municipalities may refer to private sector in massive planning activities, but they must have small and qualified planning units. Such units should be a partner to the private consultants in the large projects. They bring their concepts and ideas and the private firms add to these concepts and convert them into plans. In addition, the municipal planning units should carry out the smaller planning activities on their own. If the MoLG really wants to enhance the municipal system, it ought to end the misconception of planning as one-time activity. Unfortunately, in our context, planning is limited to preparing a master plan which no one knows when this will be updated”* (R.5, interview, 14.06.2016)

Table 8-16: [6] *“In my opinion, it is a must to build the municipal capacity in planning field. Otherwise, urban development would never witness any improvement”* (R.7, Interview, 09.06,2016)

#### Table 8-17:

Table 8-17: [1] *“In terms of urban planning and development, I consider the municipalities administrative arms of the MoLG at the local level. They prepare their plans with strong involvement of the ministry relevant committees and following the ministry planning manuals. They are obliged to obtain the approval of the ministry on the plans and they get the funding through the ministry as well. Few well-established municipalities of bigger cities, like Ramallah or Nablus are relatively more independent than Jenin or similar small municipalities”* (R.8, interview, 06.06. 2016)

Table 8-17: [1] *“The inherited law established high level of centralization at the national level. This level has strong involvement and control over the municipal functions. Even the regional level is not truly empowered. The directorates of local government in the West Bank districts are administrative representatives of the ministry and do not resemble another vertical level as the ministry does not follow the principle of de-administration not decentralization. This made us [MoLG] key stakeholder and decision maker on many issues concerning local urban development”* (R.11, Interview, 16.06.2016)

Table 8-17: [1] *“The administrative and financial powers are very centralized at the top level. The municipality is not the decision maker and not the real manager of its financial resources. The municipality can only start preparing a plan after obtaining the permission of the ministry, which finances the planning process due to financial deficits of the municipality. The prepared plans come into effect only after the lengthy process of getting the approval of the Higher Planning Council. In addition, enacting any bylaws concerning zoning ordinances and building regulations requires the ministry approval. Unfortunately, our attempts to obtain the approval on customized bylaws have failed. However, other municipalities, like Nablus, got the approval. Concerning financial aspects, the ministry has strong control. In a way or another, it defines the share of financial resources the municipality is getting from the revenues collected by the government on behalf of the municipality. Plus, we should obtain the ministry*

approval on our annual budget, which we failed to achieve in some previous years. This had negative consequences on the municipality ranking, and the amount of grants we can get” (R.12, Interview, 02.06.2016)

Table 8-17: [2] “This system has been causing incredible loss of time and efforts and hindering the urban planning and development process. Try to imagine the massive tasks assigned to the staff of MoLG and the required time to accomplish the tasks. Of course, the quality of accomplished tasks under such work pressure remains questionable” (R.2, Interview, 09.06.2016)

Table 8-17: [2] “This system created unnecessary complex bureaucracy that hinders the efficiency of the urban planning and urban development and discourages authentic local planning attempts, which are still scarce” (R.5, interview, 14.06.2016)

Table 8-17: [2] “This means that the MoLG and its directorates have responsibilities that exceed the capacity of their staff, and delayed the progress in the urban planning sector” (R.11, Interview, 13.06.2016)

Table 8-17: [3] “A current transformation toward more decentralization would create big mess. The small or medium municipalities are most vulnerable as they lack skills and have less sources of revenues” (A.2, Interview, 09.06.2016)

Table 8-17: [3] “We see a necessity to give municipalities higher degree of local autonomy to speed up the work and enhance the urban planning and urban development process. But, I believe it is neither possible nor beneficial to increase the degree of local autonomy before treating the deficits of the municipalities” (R.9, 30.05.2016)

Table 8-17: [4] “We intend to re-identify the responsibilities and authorities of the planning related institutions, to assign more authorities to the municipalities. In the medium-term we are targeting the empowerment of municipalities. With the support of development organizations, we implemented Local Governance and Civil Society Development Programme. Currently, we are implementing the Local Governance Reform Programme. Through these programmes, we attempt to improve the planning and administrative capacities of the municipalities, promote transparent financial management, and strengthen the participation of the citizens. We managed to prepare strategic planning manuals and helped municipalities prepare own strategic development and investment plans. The Palestinian Authority has also established the Municipal Development and Lending Fund, which works under the umbrella of the MoLG, which aims at improving the performance of the municipalities by building operational, planning and financial capacity. I think we made achievements and we are establishing a good foundation for future achievements. But, this process needs time and continuous substantial fund” (R.10, Interview, 16.06.2016)

Table 8-17: [5] “There is no doubt that a reform of the system is required including the transfer of more power to municipalities. Since several years, the MoLG has been promoting the idea of local autonomy. The incompetence of the Palestinian municipalities has been always the argument for postponing the reform. The ministry has initiated programs that aim to enhance the competence of the municipalities but did not achieve real progress. In my opinion, the programs have good concepts but lack details and effective implementation instruments” (A.5, interview, 14.06.2016)

Table 8-17: [5] “The MoLG is cooperating with international development agencies to develop the planning, administrative, and fiscal capacity of the municipalities. I’m not sure how serious are the intentions to reduce the centralization of the system, and what degree of decentralization they intend to establish. My personal assessment of the implemented programs is very negative. They programs are addressing indicators which are shallow and uncomprehensive” (R9, Interview, 30.05.2016)

#### Table 8-18:

Table 8-18: [1] “In my opinion, the municipalities of medium-sized cities have very passive role in guiding the urban development process. It happens sometimes, that they affect the direction of development through paving roads or implementing small scale infrastructure projects. However, this is unintentional!” (R.3, Interview, 31.05,2016)

Table 8-18: [2] “Both the municipalities and the plans they use have limited role in guiding the urban development. They impose certain restrictions and define the allowed land use and that is all” (R.9, 30.05.2016)

Table 8-18: [2] “So, I would say the municipality has a limited role in guiding Jenin’s urban development” (R.12, Interview, 02.06.2016)

Table 8-18: [3] “As I just told you, in our context, urban planning is understood improperly. Local planning is limited to the land use plans and zoning ordinances. Once plans are developed, there is no mentioning when the plans will be reviewed or modified. And the worst of all, the municipalities hire no permeant planners, but depend on

temporary services of private planning consultants. This perception of planning would never enable municipalities to guide the urban development process, because, as everyone knows, guiding urban development is a very demanding task that requires continuous work” (R.1, Interview, 06.06,2016)

Table 8-18: [3] “How could the municipalities play such difficult role if they don’t have planners? It is unreasonable to replace municipal planners with private consultants. The consultants may carry out the massive work but would not be available later for planning continuous initiatives and projects. Municipalities ought to have their planning team to respond to the continuous dynamics of the urban development process. In addition, the analytical studies to understand the urban dynamics have not been prepared in a proper way” (R.4, Interview, 08.06.2016)

Table 8-18: [3] “The planning system and practices fail to provide the essential constituents for guiding urban development. The common understanding of planning is to determine the new areas to be annexed to the master plan and determining their land use and building regulations ... In addition, they fail to understand that planning is not a one-time task which can be assigned to planning firms and completed” (R.5, interview, 14.06.2016)

Table 8-18: [4] “Urban planning is reduced to the ill-prepared land use plans, which neither based on concrete analysis of the city’s needs and problems nor seek certain visions or objectives. There are also no proposals on when and how the plans will be implemented. This planning approach is helpless to guiding urban development” (R.3, Interview, 31.05,2016)

Table 8-18: [4] “They fail to realize that proper planning should understand the context, set development goals and scenarios, and propose arrangements to implement the plan” (R.5, interview, 14.06.2016)

Table 8-18: [5] “Concerning the implementation of the existing plans, the municipalities develop no scenarios for that as well as they don’t break the plan into phases or set any priorities” (R.8, interview, 06.06. 2016)

Table 8-18: [6] “It is very necessary to redefine the role of municipalities in planning as well as it is very necessary to redefine the scope of master plans and find auxiliary flexible plans, which are empowered not kept useless. This means supporting these tools by legislations” (R.3, Interview, 31.05,2016)

Table 8-18: [7] “Municipalities are absolutely unable to guide the urban development process. First of all, they need planners instead of the overloaded engineers and the shortly contracted private firms. The MoLG should also intensify its efforts to enhance the quality and contents of the prepared plans. The prepared master plans are very poor and narrow, mainly made of land use planning that is not based on concrete studies. Plans for the public transportation or public services, which are essential in guiding urban development are not covered in the existing plans should also be added, and must be somehow binding” (R.7, Interview, 09.06,2016)

#### Table 8-20:

Table 8-20: [1] “To a certain extent, the master plans and legislations are in harmony, but in a negative way. I mean, the weakness of the adopted law is reflected in the plans prepared under this law” (R.7, Interview, 09.06,2016)

Table 8-20: [2] “However, the deficit of the legislation appeared more clearly when it fails to support the enhancements that MoLG seeks in the physical planning, and the implementation of the strategic plans that MoLG introduced lately. Then, MoLG decided to promote the implementation of these enhancements in the planning system on voluntary basis” (R.1, Interview, 06.06,2016)

Table 8-20: [3] “I cannot judge how consistent is the planning legislation with the plans’ objectives. However, it became clear that that the adopted planning legislation has serious drawbacks” (R.4, Interview, 08.06.2016)

Table 8-20: [4] “And it is insufficient, in the sense that it focuses only on the land use and fail to address social, economic, and environmental development” (R.6, interview, 08.06.2016)

Table 8-20: [5] “This problem is basically the result of the continuous adoption of an outdated law, which defines urban planning and planning instruments very primitively, according to the concepts that prevailed 50 years ago. However, in this period, urban planning has gone through an evolution in terms of concepts, approaches, and goals. Today, it is unacceptable to have a planning system that use a land use plan as sole planning instrument. It is meaningless to adopt a land use plan that does not support policies of housing, transportation, environmental protection” (R.5, interview, 14.06.2016)

Table 8-20: [6] “They stipulate the smallest details about the use of individual land parcels but fail to provide basic requirements, or standards regarding the design of the neighbourhood or the city as whole. For instance, it mentions the provision of infrastructure, services, open spaces, public transportation stations without providing

any standards. This weakness in the planning legislation, which is the skeleton of an urban planning system, has been leading to inefficient urban planning process and plans” (R.2, Interview, 09.06.2016)

Table 8-20: [6] “In my opinion, the real problem of the law is not about its consistency or inconsistency with the objectives of the plans. The problem is much deeper, presented in the undeveloped scope and functions that the law assigns to the master plans. This fundamental problem has negative consequences on the total planning system. The existing law restricts planning to land use planning with focusing merely on the microscale, including the land parcels and single zones in isolation from the broader scene and from the economic, social, or environmental aspects” (R.8, interview, 06.06.2016)

Table 8-20: [7] “Existing planning legislation is a patchwork that is unlikely to serve any particular goal. It is primarily build on the 1966 Jordanian Interim Law for village and City Planning, which derived from the legislation implemented under the British Mandate. A few amendments were applied to the outdated law, namely bylaws updating the land use regulations” (R.3, Interview, 31.05,2016)

Table 8-20: [8] “The most disadvantage about the existing regulations is that they don’t consider the specification of each city. The same regulations that are applied in the big cities such as Ramallah or Hebron are applied in the small cities. The regulations don’t take into consideration the differences in density, topography or even culture. A few cities with powerful councils and high qualified staff have managed to adapt the regulations to fit their own context. Still this practice is not possible to other municipalities, and its legal validity is not guaranteed” (R.12, Interview, 02.06.2016)

Table 8-20: [9] “For examples, the value of the imposed sanctions on some sorts of violation the building regulations are little and thus have limited impact” (R.12, Interview, 02.06.2016)

[10] “Minor modifications on the law were made and few bylaws were enacted, but such amendments did not manage to overcome the weakness of the core of the law” (R.5, interview, 14.06.2016)

Table 8-20: [11] “A few amendments were applied to the outdated law, namely bylaws updating the land use regulations. The new regulations addressed land uses that was not available before, such as high buildings. It also changed the regulations concerning previous uses without clear concept” (R.3, Interview, 31.05,2016)

Table 8-20: [12] “The legislation need radical reform instead of useless modifications. This statement is not a personal view, rather there is common agreement on that. Both the MoLG and the MoP have drafted a planning law, however none of the drafts was passed” (R.3, Interview, 31.05,2016)

Table 8-20: [12] “We are convinced that a reformation of the planning law is essential. Since 1995, there has been several attempts to accomplish this mission. A draft law was prepared, and it has been revised in 1998 and 2005. Nevertheless, certain entities have the interest in maintaining the current law, which is highly centralized” (R.9, 30.05.2016)

Table 8-20: [13] “If this is very challenging, then I would recommend serious work on an integrated package of bylaws that match the local needs and universal principles of sustainable development” (R.2, Interview, 09.06.2016)

Table 8-20: [13] “I understand the tremendous challenges to enact a complete new law. But, I believe it is essential and attainable to enact comprehensive amendments to upgrade the law” (R.6, interview, 08.06.2016)

Table 8-20: [14] “The MoLG is aware of the weakness of the law and has managed to prepare Planning Draft Law. However, from a legal perspective, the MOLG is unable to change the law. The main obstacle is political, since the existence of the Palestinian government is based on the Oslo Accords, which identified several determinants and limitations for the Palestinians, such as the amendment of laws. This requires a mutual Israeli-Palestinian committee, which has been actually disabled since around twenty years. The other part of the obstacle is the forced absence of the Palestinian Legislative Council, due to occupation related issues. Therefore, any amendment in the law is illegal. It is true that many laws have been set through Presidential Decrees, but such laws are illegal and cannot withstand before the court. It is possible to overcome a share of the problem by setting by-laws, taking the advantage of the generality of the law regarding certain aspects. MoLG has made use of this opportunity, which gave the ministry a margin of freedom to set some details” (R.10, 16.06.2016)

Table 8-20: [15] “And the absence of the legislative council is used as an excuse to hinder the enactment of a new law. The context witnesses the enactment of a large number of resolutions and laws by the council of ministers based on presidential decree as an alternative of the legislative council” (R.9, 30.05.2016)

Table 8-21:

Table 8-21: [1] *“Unfortunately, there has been no room for these issues in existing legislation” (R.6, interview, 08.06.2016)*

Table 8-21: [2] *“These issues are absent in the planning law. The law was stipulated before the sustainability concept has evolved. And the amendments to the law are similar to the law itself. They did not adopt any guiding principles including the principles of sustainable development” (R.3, Interview, 31.05,2016)*

Table 8-21: [3] *“And I repeat, the principles of sustainable development need to be covered in the new legislation. Some of these principles are applicable even in a developing country like Palestine. What hinders enacting land use regulations that allow developing residential units that are cheaper and more affordable? Isn't this one way how regulations can contribute to social justice?” (R.2, Interview, 09.06.2016)*

Table 8-21: [3] *“We need to establish a basis for some sustainability practices in the new law. But we must first get rid of the misconception that all practices of urban sustainability are kind of luxury and that are only suitable to rich countries. This is not true; a simple public transportation system of mini-buses may give more people the chance to travel within affordable prices and can reduce the use of fuel. Smaller land parcels can reduce the costs of housing and reduce land consumption” (R.5, interview, 14.06.2016)*

#### Table 8-22:

Table 8-22: [1] *“In my opinion, the law provides low legal coverage to the use of land management tools that help in implement the master plans. It mentions some practices but only few are clearly regulated. Among the clearly regulated and commonly used practices are the claiming of 30% of land parcels to provide roads, and the purchase or sometimes the expropriation of land parcels for schools or other public services of high priority.” (R.7, Interview, 09.06,2016)*

Table 8-22: [2] *“To be fair, the law stipulate how local authorities can acquire land to provide public services... On the other hand, the existing law mentions but does not explain how to use the land management tools to enhance the urban development. For example, it mentions compulsory acquisition of land for readjustment of land parcels that do not comply with the existing zoning, for the development of social housing, or for the redevelopment of deteriorated urban areas without further details” (R.10, Interview, 16.06.2016)*

Table 8-22: [3] *“However, the utilization of these tools is not common and is restricted to few basic tools like parcellation and taking up to 30% of land for roads and public services” (R.2, Interview, 09.06.2016)*

Table 8-22: [4] *“They only use the right to take up to 30% of lands being subdivided to provide roads and areas for public use. And in some cases, they may buy land for schools because the 30% are mostly used for roads. They try to avoid compulsory expropriation, to prevent the initiation of conflicts with the citizens” (R.1, Interview, 06.06,2016)*

Table 8-22: [4] *“after preparing the master plan, we were urged to carry out a large number of parcellation schemes and develop detail land use plans in the new quarters. Through parcellation, the municipality acquired land for streets and very few cases for schools. But, in some quarters, the acquired land was hardly enough for streets, and the municipality had to buy land for schools using governmental fund, originated from the education tax” (R.12, Interview, 02.06.2016)*

Table 8-22: [5] *“But, the fact that local authorities are unable to provide compensation for the land acquisition urges them to develop plans that does not provide adequate areas for public needs” (R.10, Interview, 16.06.2016)*

Table 8-22: [6] *“There are some instruments, but for many reasons we rarely use them. First, the land registration is not kept up to date, and the land ownership is often fragmented due to inheritance. Second, in case of land acquisition, we don't have enough budget for compensation. Third, there is no interest in implementing such complicated actions and initiating conflicts with the citizens. No one expect such instruments to be accepted by the citizens due to the conditions that the Palestinian people have been experiencing” (R.12, Interview, 02.06.2016)*

Table 8-22: [7] *“It is very ridiculous to expect the municipalities, which have no planners, and which are unable to prepare plans to employ such complex tools” (R.9, Interview, 30.05.2016)*

Table 8-22: [8] *“The elaboration of the legislations on the other mentioned land management tools would be very useful for implementing development plans” (R.7, Interview, 09.06,2016)*

Table 8-22: [8] *“But most of them are not in practice. It could be that there is a need to provide more details on the use of these tools to help the municipalities use them” (R.8, interview, 06.06. 2016)*

#### Table 8-23:

Table 8-23: [1] *“Right now, a primary mean of municipal revenue is the governmental transactions of a share of the centrally collected property tax, fuel tax, and other transportation fees in accordance with the Local Authority Law of 1997” (R.10, Interview, 16.06.2016)*

Table 8-23: [2] *“In the law, there are few sections that allow municipalities to set up and collect fees to share the costs of road construction and other public services with land owners. These sections are meant to moderately assist municipalities finance development. But, these sections are not clear, and their use is uncommon in our municipalities” (R.10, 16.06.2016)*

Table 8-23: [3] *“The 1997 Law of Local Authorities, illustrates the basic revenue sources of the municipalities, which are mainly based on property tax. The municipalities also generate income from building permission fees, and other fees they impose on the cities’ markets, and professions licences. It is evident, these sources are not sufficient to provide infrastructure, pave streets, or purchase land for public amenities. Unfortunately, the situation of infrastructure in most cities is bad. The municipalities rely to a high degree on sporadic international fund to improve their infrastructure” (R.1, Interview, 06.06,2016)*

Table 8-23: [4] *“Also, the Planning Law of the Cities and Villages included a section that entitled municipalities, in coordination with responsible authorities, to impose fees to cover the expenditures incurred or to be incurred upon the development of a certain area. However, these sections of the law are not utilized. In my opinion, MoLG should reconsider the use of this lost opportunity. It could be necessary to amend the section to ensure that citizens’ involvement in financing development is conducted in a fair way” (R.1, Interview, 06.06,2016)*

Table 8-23: [5] *“In my opinion, it could be more helpful to regulate the relationship between the municipalities and the private sector. Implementing projects in partnership between the municipalities and investors could generate more significant and sustainable revenue, particularly for the small cities” (R.2, Interview, 09.06.2016)*

Table 8-23: [6] *“It is very obvious that the currently applied legislations concerning municipal income are insufficient. We rely mainly on the property tax and other less significant taxes and fees. The property tax is still collected based on the property value that was estimated decades ago” (R.8, interview, 06.06. 2016)*

Table 8-23: [6] *“If the property tax system had been strengthened, the revenue could be much higher” (R.10, 16.06.2016)*

#### Table 8-25:

Table 8-25: [1] *“Surely very seldom. As I just mentioned, how can we expect municipalities without planners and planning units to work on planning. The law and the customs require them to have master plans, and they hire private consultants for that. Then, planning tasks are almost terminated, except some basic and small tasks” (R.4, Interview, 08.06.2016)*

Table 8-25: [1] *“Excluding few municipalities, I would say that our municipalities are rarely engaged in planning tasks beyond the development of the master plan” (R.10, Interview, 16.06.2016)*

Table 8-25: [2] *“The municipality prepared the master plan which is required by the law. And after that, we prepared internally a number of parcellation schemes and detailed land use plans for areas not adequately planned in the master plan. Also, within its capacity, the municipality prepared the non-binding Strategic Development and Investment Plan. However, we could not work on updating the plan yet. The engineering department is overloaded with several tasks that have higher priority.” (R.12, Interview, 02.06.2016)*

Table 8-25: [3] *“The main reason is the law, which neither obliges municipalities to prepare complementary sectoral plans nor determines the validity of the master plan or call for dividing the plan into phases. To alleviate this problem, we advise municipalities to prepare the Strategic Development and Investment Plans for periods of four years. We also established financial-incentives system to encourage the municipalities develop strategic plans, implement them, and keep them updated. However, the problem remains that most municipalities do not have adequate staff for prepare effective strategic plans and keep them updated” (R.10, Interview, 16.06.2016)*

Table 8-25: [4] *“The municipalities hardly prepare the master plans, which is mostly outsourced. And the development of the Strategic Development and Investment Plans, is still not real planning process. In our context, we still did not manage to use this kind of plans correctly and get its benefits” (R.9, Interview, 30.05.2016)*

Table 8-25: [5] *“In my point of view, the most important step that MoLG ought to do, is to force all municipalities to establish a planning unit and appoint planning professionals. This would promote the concept that planning is a continuous process that exceeds preparing a rigid master plan. And this would also provide a team dedicated for planning tasks” (R.1, Interview, 06.06,2016)*

Table 8-25: [6] *"I just mentioned, according to the existing planning law and custom, preparing the land use plan comprises the main or even the sole municipal planning activity. Very few municipalities, with relatively outstanding capacity, have managed to overcome this restrictive model. Without a reformation of the planning legislation and redefining of the tasks assigned to municipalities in term of planning, the planning process will remain limited to preparing master plans once every couple of decades"* (R.2, Interview, 09.06.2016)

#### Table 8-26:

Table 8-26: [1] *"This question does not apply to our context. The talk about integrated development and sustainability is missing when planning at the municipal level"* (R.4, Interview, 08.06.2016)

Table 8-26: [2] *"Unfortunately, talking about the sustainable urban development in the context of city planning is not taken seriously. Mayors and municipal councils perceive it as irrational and idealistic concept"* (R.5, interview, 14.06.2016)

Table 8-26: [3] *"And the out-dated planning law does not provide regulations supporting integrated development"* (R.4, Interview, 08.06.2016)

Table 8-26: [3] *"This is partially the result of the existing regulations, which do not require preparing comprehensive development plans"* (R.10, 16.06.2016)

Table 8-26: [4] *"We recommend considering the development aspects in the master plans, and not being limited to the physical dimension...Through the planning manuals, we try to establish the way for the comprehensive sustainable planning, but we are still very far away from accomplishing this mission"* (R.10, 16.06.2016)

Table 8-26: [5] *"Concept like sustainable development or integrated development are very odd in the municipal planning practices. In order to localize these concepts, we need substantial reform in the planning system and planning law"* (R.1, Interview, 06.06,2016)

#### Table 8-27:

Table 8-27: [1] *"I said, the municipalities do not follow any specific agenda or vision to guide the formulation of the master plans and they are not obliged to do that"* (R.4, Interview, 08.06.2016)

Table 8-27: [2] *"Currently, the ministry relies upon the good practices that are distributed through the planning manual as a partial solution. For example, the manual advises to prepare a "Spatial Development Framework Plan" after analysing the planning area. This framework shall include spatial objectives related to several development sectors"* (R.1, Interview, 06.06,2016)

Table 8-27: [2] *"The manual guides municipalities to prepare a framework of objectives, potentials, challenges, and problems that the master plan should consider. So far, the manual has no influence on the plans and most of them were prepared before the manual was made available"* (R.5, interview, 14.06.2016)

Table 8-27: [3] *"Lately, MoLG has introduced the Strategic Development and Investment Plans on a voluntary basis. These plans, which should be updated every four years, have theoretically comprehensive objectives, time plan and designed-budget. Plus, the ministry assumes that the objectives of the strategic plans should be integrated in the master plan"* (R.2, Interview, 09.06.2016)

Table 8-27: [3] *"In the Strategic Development and Investment Plans, which are meant to be linked with the master plans, there are objectives, projects and time plan. But, in my point of view, neither the strategic plans are prepared properly, nor they have tangible impact on the master plans. In our context, the planning process is very rigid, and changes cannot be easily achieved"* (R.7, Interview, 09.06,2016)

Table 8-27: [4] *"I already mentioned, our plans lack general visions and goals that guides the plan development. The roots of this problem are in the existing law, which fails to upgrade the local planning to meet the temporary planning norms. And the development of master plans in line with defined vision and objectives is one of the upgrades that the existing law cannot sustain"* (R.1, Interview, 06.06,2016)

Table 8-27: [4] *"The law does not require municipalities to prepare goals and visions to shape the master plan. And the municipalities do not make such initiatives"* (R.8, interview, 06.06. 2016)

Table 8-27: [5] *"Unfortunately, the prepared plans do not seek any objectives or purpose. The design of most plans is not justified. And this one-sheet report, which the municipality provide for the ministry to ask for extension in the urban development area, is mainly made of few claims without basis. Without reforming the planning law, it is difficult to change this unreasonable approach in preparing master plans"* (R.3, Interview, 31.05,2016)

**Table 8-28:**

*Table 8-28: [1] "Prior to preparing master plans, municipalities are required to do surveys of their administrative area, which should address the natural environment, demography, the built-environment and the public services" (R.10, Interview, 16.06.2016)*

*Table 8-28: [2] "At an early stage of the plan preparation, a simple report is produced to describe the characteristics of the area and its population. This is mandatory. But, I would say, prepared reports have very narrow scope, even narrower than that stipulated in the law" (R.1, Interview, 06.06,2016)*

*Table 8-28: [3] "While preparing master plans, lengthy reports are being prepared to describe the planned area. A report could comprise a lot of irrelevant information and very few useful pieces of information. Another disadvantage, is that most reports present raw data without interpretation and formulation of messages that must be considered during the plan preparation. The reports are only prepared to fulfil the legal requirements and are later put on the shelf." (R.3, Interview, 31.05,2016)*

*Table 8-28: [4] "But in reality, these studies are of low quality as they address few aspects without sufficient details, due to the lack of data availability. In addition, these studies are neglected in the planning process" (R.2, Interview, 09.06.2016)*

*Table 8-28: [4] "Local authorities are unaware of the importance of the preparatory studies in preparing good plans. So, the studies are conducted just because they must be prepared. Also, from my experience, I consider the lack of data as one of the reasons behind the weakness of these reports. Because, this leads to reports that are poor in information and details." (R.4, Interview, 08.06.2016)*

*Table 8-28: [5] "I mean, in most cases, they provide a narrative about some aspects without interpreting the narrative in a way that link it to the planning process. The guidelines of the Physical Planning Manual could be an introduction to prepare more developed studies. Nevertheless, the manual needs stronger support from the ministry and perhaps further development" (R.8, interview, 06.06. 2016)*

*Table 8-28: [6] "The initiation of an integrated information system for MoLG and municipalities could reduce the problem of data shortage. But, there should be guided efforts to collect required data and save it in this system" (R.1, Interview, 06.06,2016)*

*Table 8-28: [7] "I think the legal provisions need more details about the required data and the intended outputs of the study, for the law only mentions very broad topic and only calls for descriptions rather than analysis and assessment" (R.5, interview, 14.06.2016)*

**Table 8-29:**

*Table 8-29: [1] "The municipality does not perform any sort of evaluation of the proposed plan. This is not required" (R.12, Interview, 02.06.2016)*

*Table 8-29: [2] "It is very clear that evaluation practices are not introduced in our context. The municipalities do not have capacity to implement more simple practices. So, how could we expect such advanced steps to be conducted" (R.6, interview, 08.06.2016)*

*Table 8-29: [3] "We recommend developing alternative planning scenarios and comparing their impacts before the final selection. But in practice, this is not considered. There is a need to enforce such practices to ensure more reasonable planning decisions" (R.10, Interview, 16.06.2016)*

*Table 8-29: [3] "Impact assessment has not emerged yet in the local planning practices. But, it is very recommended to introduce these practices and consider them in the decision-making processes that are related to plans preparation. It is useless to count on the planning manuals to implement such practice. The importance of the impact assessment is worth enacting special legislations to enforce its implementation" (R.9, Interview, 30.05.2016)*

*Table 8-29: [4] "Until now this practice is not common in our context. However, we have to seriously encourage MoLG to enforce this practice by legislations. Because understanding the impact of the planning proposal helps improve the plans" (R.1, Interview, 06.06,2016)*

**Table 8-30:**

Table 8-30: [1] *"But, in the preparation of the master plan, the community was not involved. In the physical planning, the community is only involved through the objections, this is what the law requires"* (R.12, Interview, 02.06.2016)

Table 8-30: [2] *"In the physical planning, community participation is absolutely missing. Community participation is not required by the law"* (R.1, Interview, 06.06,2016)

Table 8-30: [3] *"Even in the physical planning manual, there are no attempts to advocate this process among the promoted good practices"* (R.7, Interview, 09.06,2016)

Table 8-30: [4] *"There are initial attempts to include the community in preparing the strategic development plans. I would say, the attempts were not so successful, and the community participation was more like a role play. If the experience would be repeated, more thoughtful design of the integrated sample and the participation process is needed"* (R.2, Interview, 09.06.2016)

Table 8-30: [4] *"Community participation needs to be considered more deeply and seriously. What has been recently introduced in strategic planning as community participation does not exceed a limited consultation. At the end, the consultation has very little impact on the formulated plan and on the reality"* (R.4, Interview, 08.06.2016)

#### Table 8-31:

Table 8-31: [1] *"There is strong cooperation with the scientific community. The academics are partners for the planning authorities since the establishment of our ministry and directorates. For instance, the Centre for Urban and Regional Planning at An- Najah University, was the entity to which we outsourced tasks to prepare master plans before planning firms started to appear"* (R.12, Interview, 16.06.2016)

Table 8-31: [2] *"In addition, through the university, we provide consultation services and studies to governmental agencies including MoLG and MoP. Also, we are always invited to participate in workshops or committees preparing planning manuals and other planning initiatives"* (R.2, Interview, 09.06.2016)

Table 8-31: [2] *"The academics at Birzeit University and at An Najah University are our partners. For instance, during the preparation of the NSP, academics from Birzeit University were given the task to carry out a large-scale study about the possible scenarios of urban development in Palestine"* (R.9, Interview, 30.05.2016)

Table 8-31: [3] *"In addition, through the courses offered by the university, we supervise the students in preparing studies on local urban planning and development. We are keen on coordinating with the municipalities or MoLG concerning the researched themes as well as we try to share the results with them"* (R.1, Interview, 06.06,2016)

Table 8-31: [3] *"We also signed an agreement with the master programme of urban planning at Birzeit University to involve willing students in research activities on topics related to our planning project"* (R.9, 30.05.2016)

Table 8-31: [4] *"I expect that the establishment of the bachelor programme of urban planning is going to sustain the cooperation we started earlier through our master programme of urban planning"* (R.6, interview, 08.06.2016)

Table 8-31: [4] *"I would also mention that the scientific community has been also developed in line with the needs of the Palestinian planning institutions. The universities have established planning programmes, which will have positive impacts on the planning process. They will provide trained planners and also offer a platform to discuss and develop the planning practices in a scientific context"* (R.10, 16.06.2016)

Table 8-31: [5] *"The academics are involved in preparing the master plans. The main reason is the lack of alternatives. The public authorities decided to depend on the private sector in preparing the plans. But the private sector was not active in planning, as there was no demand for planning services in the Palestinian context. Thus, the academics in the planning field were the only available option. Nowadays, a number of planning firms are established, and the academics are part of the planning teams of many of these firms"* (R.5, interview, 14.06.2016)

Table 8-31: [6] *"The academics play a major role in the planning at the level of ministries and municipalities. However, their scientific opinions are in many cases overlooked when dealing with the local level"* (R.7, Interview, 09.06,2016)

#### Table 8-32:

Table 8-32: [1] *"I have talked comprehensively about the key role played by private planning consultants. And I also talked about the unpleasant fact that most municipalities are turning into customers receiving planning services from the consultants"* (R.1, Interview, 06.06,2016)

Table 8-32: [1] *"It is evident that the private planning firms are replacing the municipal planning units in the master plans' preparation"* (R.9, Interview, 30.05.2016)

Table 8-32: [2] *"I believe I talked thoroughly about outsourcing the preparation of master plans to private firms due to the weakness of the municipalities. And I talked about our efforts to guide the work of the private firms and enhance the quality of the developed plans. As we started, the capacity of the private sector was very weak. But, it is gradually improving"* (R.10, Interview, 16.06.2016)

Table 8-32: [2] *"As I said before, we use the technical services of the private planning firms to prepare the master plans for the municipalities that are unable to do that. And these municipalities are so many. This is our policy in order to keep our staff available for coordination and supervision"* (R.11, Interview, 13.06.2016)

#### Table 8-34:

Table 8-34: [1] *"It could only complete the Protection Plan, which is a regulatory plan to protect sensitive areas from being consumed through urban development"* (R.7, Interview, 09.06,2016)

Table 8-34: [2] *"It only defines the areas in which urban construction is forbidden or significantly restricted. That is to say, it sets some binding criteria for external expansion but does not impose any criteria for the development within the city"* (R.3, Interview, 31.05,2016)

Table 8-34: [3] *"The Protection Plan, which has been lately developed. This plan was not available at the time of developing Jenin's master plan. If it was available, it could only affect the selection of areas to be integrated in the new growth boundary. But it could have no impact on what we plan inside the urban growth boundary"* (R.12, Interview, 02.06.2016)

Table 8-34: [4] *"The work was going on to prepare the second part. A number of huge workshops with diverse stakeholders and a number of studies were conducted. Visions for the medium-term and the long-term were formulated. The project issued a booklet introducing the development visions on various development sectors"* (R.1, Interview, 06.06,2016)

Table 8-34: [5] *"The advanced stages of the NSP, the comprehensive project within which the Protection Plan is prepared, were designed to preparing a guiding spatial policy. However, the team working on the project was not given a chance to formulate a binding or even advisory spatial policy to guide the local development. The team could only set general visions and goals that are kept as slogans without being able to influence the local development"* (R.5, interview, 14.06.2016)

Table 8-34: [6] *"We were aiming at translating these visions in the spatial context and bring them to the local level, but massive structural changes were imposed, and the ministry is merged with the Ministry of Finance. The project is left uncompleted"* (R.9, Interview, 30.05.2016)

Table 8-34: [7] *"I think that it is a huge loss to suspend the work on the final steps of the second part. The suspension means repeating our previous mistake of preparing national policies without establishing linkages with the local level in terms of contents and implementation mechanisms. It is not obvious when and how the work will be resumed, although this part is very essential for the local urban planning"* (R.2, Interview, 09.06.2016)

#### Table 8-35:

Table 8-35: [1] *"None of our directorates has prepared a regional plan...But, under the current circumstances, it is unlikely to prepare the proper regional plans that are indicated in the law"* (R.10, Interview, 16.06.2016)

Table 8-35: [2] *"I mentioned before, the directorates of local government do not have teams responsible for conducting the regional plans and do not have financial resources to outsource the regional planning tasks, as they do with the local planning"* (R.7, Interview, 09.06,2016)

Table 8-35: [2] *"But, under the current circumstances, it is unlikely to prepare proper regional plans that are indicated in the law. The geopolitical circumstances, the limited technical and financial resources are all factors make the preparation of physical regional plans not possible"* (R.10, Interview, 16.06.2016)

Table 8-35: [3] *"Just the latest initiative of preparing Regional Strategic Development Plans, which hardly have any effect. This is a rough planning exercise to define the projects to which districts may get external fund"* (R.9, Interview, 30.05.2016)

Table 8-35: [4] *"But, these are not regional plans that deal with spatial development arrangements such as mobility, urban settlement locations, economic activity areas. They only define the development objectives and priority"*

projects in the region, which are supposed to be identified based on diagnostic studies. However, I have concerns about the deepness of the conducted studies and the soundness of the formulated objectives based on them” (R.5, interview, 14.06.2016)

Table 8-35: [5] “In my opinion, the strategic plans cannot substitute the physical regional plans because it is not within their capacity to organize the fundamental development aspects within the region including transportation, distribution of activities, defining the hierarchy of the different localities” (R.4, Interview, 08.06.2016)

Table 8-35: [5] “We are aware of the importance of the regional plans, and that the strategic plans cannot do the fundamental jobs of the physical regional plans” (R.10, Interview, 16.06.2016)

Table 8-35: [5] “The regional plan has no impact on preparing Jenin’s master plan. The master plan was developed before the preparation of the Strategic Development Plan of Jenin District. Also, if this plan was available, it would have very little impact on our plan. And we have to keep in mind, there is no legislation forcing the municipality to consider the Strategic Development Plan in its master plan” (R.12, Interview, 02.06.2016)

Table 8-35: [7] “I regard these plans as one of those random planning proposals made by international development partners without sufficient efforts to ensure the efficiency of the proposal in the local context. A simple evidence is the lack of mechanism to enable the regional strategic plans to influence the local plans. Thus, the strategic plans end up with other random plans that are kept on the shelves” (R.3, Interview, 31.05,2016)

#### Table 8-36:

Table 8-36: [1] “The strategic development plans are superficial plans. Actually, they are used to regulate the process of receiving funds from donors to implement municipal projects. But they don’t have any impact on guiding the development on the ground. They even have no place in the existing planning system” (R.5, interview, 14.06.2016)

Table 8-36: [1] “We initiated the Strategic Development and Investment Plans to reduce the deficiencies of the master plans in guiding the urban development. Unfortunately, these development plans still unable to meet this aimed objective” R.10, Interview, 16.06.2016)

Table 8-36: [1] “The municipality started having an SDIP in 2012. The plan was prepared in cooperation with several administrations at the local level and representatives of the community were involved. Jenin’s plan is unrealistic and most of the proposed projects are not realized yet. There is no funding to sponsor these projects. The current plan ends this year, as it is a four-year plan, but the work on the new plan has not started yet” (R.12, Interview, 02.06.2016)

Table 8-36: [2] “The strategic development plans at the local level are reduced to a list of projects that the communities need, and the municipality cannot afford, including schools, water tank, or roads pavement. The plans focused on provision of services rather than the development aspect in its true sense. The development visions and development objectives are prepared very badly. In addition, the analytical parts of these plans are poorly conducted, which make them unable to generate critical and profound knowledge on the existing challenges and opportunities of the local development.” (R.3, Interview, 31.05,2016)

Table 8-36: [3] “The problem is that they are not designed as an integral part of the planning system. They are simply introduced in the system without creating interconnections. Such partial, fragmented planning solutions are not likely to work. And another problem is that there is no way to implement the plans. Most municipalities believe that the implementation of the plan is limited to searching for a development agency that is eager to finance one of the many projects listed in the plan” R.2, Interview, 09.06.2016)

Table 8-36: [3] “I consider them an accessory that is attached to our poor master plans just to claim that we have modern planning tools which also involve the community in the planning process. But it is not fitting with the rigid system. Municipalities have no clue how the plans could be realized. They simply keep transferring the planned projects to the next years, hoping that a grant will be available” (R.6, interview, 08.06.2016)

#### Table 8-37:

Table 8-37: [1] “Jenin’s master plan is weak and have many problems. It is absolutely incapable of guiding urban development” (R.12, Interview, 02.06.2016)

Table 8-37: [2] “The master plans have very moderate role in guiding development” (R.11, 13.06.2016)

Table 8-37: [3] *“The master plans have the disadvantage of being limited to the land use plans although they are supposed to be development plans” (R.10, Interview, 16.06.2016)*

Table 8-37: [4] *“These are only land use plans that are made of fragmented details. The plans have no overall vision that the city want to realize. Also, the plans do not include any attempts to define the land use considering any simple social, environmental, or economic goals, such as planning smaller land parcels with higher building density to reduce the costs of housing or to make the public transportation feasible” (R.3, Interview, 31.05,2016)*

Table 8-37: [5] *“We are still missing master plans that pursue specific objectives, and have strategic visions, and take into consideration the opportunities and challenges of the planning area” (R.4, Interview, 08.06.2016)*

Table 8-37: [6] *“The reason behind that is that the master plans are not proactive. The plans focus only on current situation and hardly project the circumstance of a year forward. The plans are done in a way that they translate the existing” (R.6, interview, 08.06.2016)*

Table 8-37: [6] *“Unfortunately, the only aim of the team who developed the master plan was to simulate the reality without trying to draw a vision of the future development” (R.12, 02.06.2016)*

Table 8-37: [7] *“Through the Physical Planning Manual, we direct municipalities to prepare a development framework of comprehensive objectives and priorities to guide the formulation of the master plans. The existing plans really lack and need such a framework to have better role in guiding urban development” (R.10, 16.06.2016)*

Table 8-37: [8] *“Actually, the planning law does not require the municipalities to prepare much better plans. So, I would say that the key solution to the problems of the master plans starts with changing the law, and defining master plans broadly” (R.3, Interview, 31.05,2016)*

Table 8-37: [8] *“It is not possible to improve these master plans and their functions without changing the definition and the characteristics of the master plan in the planning law” (R.4, Interview, 08.06.2016)*

#### Table 8-39:

Table 8-39: [1] *“Unfortunately, stimulating the implementation of prepared plans sounds an odd task to most municipalities. The municipalities do not consider themselves mandated to perform this task. I would even say, that the way the master plans are being prepared and utilized makes the talk about the stimulation of plans implementation irrelevant. I mean, the master plans are mainly regulatory land use plans, which do not comprise development objectives or projects. Thus, the municipalities are only required to control development according to the master plans and provide services” (R.5, interview, 14.06.2016)*

Table 8-39: [1] *“There is nothing that the municipality has to do to stimulate the implementation of the master plan. In reality, the implementation of the master plans involves two issues. First, controlling urban development and making sure it is compatible with the identified land use and regulations through the building permissions and site visits. Second, constructing roads and the providing infrastructure, depending on the available financial resources” (R.12, Interview, 02.06.2016)*

Table 8-39: [2] *“Concerning SDIP, the municipalities are supposed to take actions to encourage the realization of the planned projects, mainly in terms of financing the projects. Nevertheless, most municipalities do not take adequate actions to realize the projects” (R.10, Interview, 16.06.2016)*

Table 8-39: [3] *“For the implementation of the projects prescribed in Jenin’s Strategic Development Plan, we try to follow the guidelines of the Municipal Development and Lending Fund in order to reach the donor organizations which may fund few of these projects. But we do not have other means to realize these projects and most of them are just transferred for the next phases” (R.12, Interview, 02.06.2016)*

Table 8-39: [4] *“However, the municipalities are both unable and not obliged to invest significant efforts in implementing the strategic plans. They do not attempt to develop local approaches to implement the strategic projects and objectives but depend only on the rarely available grants” (R.1, Interview, 06.06,2016)*

Table 8-39: [4] *“Regarding the SDIPs, most of the municipalities are not taking any action to implement the plans except waiting for a grant. As long as there are no legislations obliging the municipalities to work on encouraging the implementation of the plans they would not work on that task” (R.2, Interview, 09.06.2016)*

#### Table 8-40:

Table 8-40: [1] *“Up until now, municipal projects are focused on the physical infrastructure. The ministry is working on changing this trend while considering the limited financial resources and technical capacities of the*

municipalities. SDIPs is the main instrument, through which we work on achieving the desired change” (R.10, Interview, 16.06.2016)

Table 8-40: [2] “Through the strategic plan, the municipality attempt to deal with the problems of infrastructure more broadly. For instance, we are planning a project to maintain the entire water network, which is extremely deteriorated, and the water loss exceeds 40%. We also plan a project to expand the sewage system, which serves only 62% of the households. We have also managed to accomplish few projects to provide social amenities like a football playground and a cultural centre. Many other projects have been also proposed, but there is no way to fund them soon. We also proposed a limited number of investment projects in partnership with the private sector, but these have not been initiated yet. This include a large-scale warehouse to refrigerate the locally produced fruits and vegetables. Such a project would support the farmers and vendors, considering the agricultural characteristics of our area” (R.12, Interview, 02.06.2016)

Table 8-40: [3] “But, MoLG has been making efforts to introduce the concept of sectoral development and strategic development projects through the strategic plans. This concept is not well established, but few projects have been implemented in some municipalities under its umbrella. The degree of success varies from one municipality to another. The good point is that the municipalities are gradually addressing other projects than infrastructure, even if these projects are very simple such as a neighbourhood public park, or a cultural centre. Even in terms of infrastructure, the municipalities start thinking about infrastructure in a more holistic approach” (R.1, Interview, 06.06,2016)

Table 8-40: [3] “In addition, the municipalities carry out projects to provide recreational and cultural facilities, within the limits of the available budgets. Such projects are few, and they are not adequate to serve all the population. But, I would say, the projects present a good sign as most municipalities have never cared about this sort of projects” (R.2, Interview, 09.06.2016)

Table 8-40: [4] “These projects are extremely few in the West Bank. And none of the municipalities has developed an outstanding project. We still have to make intensive efforts to establish an approach to help the municipality succeed in carrying out development projects” (R.5, interview, 14.06.2016)

#### Table 8-41:

Table 8-41: [1] “A mixture of taxes, fees, and grants both foreign and local. None of these sources is sufficient but some contribute more significantly than the others. For instance, the foreign grants have the most significant impact, but these are rarely available. The taxes and fees are not much, but they are available at a regular basis. Regarding the local grants, these are still very scarce and are unlikely to be considered as a primary source” (R.3, Interview, 31.05,2016)

Table 8-41: [1] “The basic source is the money transferred from the government to the municipality, based on the property tax, fuel tax and other fees collected within the municipal boundary. As I mentioned before, these are not sufficient to implement significant projects. Besides, few municipalities have few investments that add to their income. But, the resulting income is insignificant. We also try to connect the municipalities with donor organizations to help them obtain grants to implement essential projects. The problem is that all municipalities need financial aid and the donors can only help few municipalities” (R.10, Interview, 16.06.2016)

Table 8-41: [1] “First, external funding from donor organizations. This is usually allocated for pre-identified projects. Second, funding from the ministry of finance, which comes from the taxes and fees collected on behalf Jenin Municipality. Part of this fund is allocated to projects’ implementation, but it is not adequate. Third, JM generates a small share of revenue through certain projects, but this almost a tiny share in the budget. Fourth, few Palestinian companies, such as Jawwal or Paltel have supported the municipality to implement small projects like Al-swaitat public park. Further coordination is currently going on in order to implement other projects” (R.12, 02.06.2016)

#### Table 8-42:

Table 8-42: [1] “The municipality is looking forward to collaborating with the private sector to provide better services for the citizens. Unfortunately, it has not yet been possible to set significant partnerships with the private sector” (R.12, Interview, 02.06.2016)

Table 8-42: [2] “I would say, the public private partnership in urban development is a noticeable feature in the manuals produced by MoLG. Nevertheless, the practice of this partnership is not equally noticeable on the ground” (R.9, Interview, 30.05.2016)

Table 8-42: [3] *“There are recommendations to localize the initiative of public private partnership in the field of urban development and municipal services, but no framework have been yet developed to regulate the contractual agreements between the municipalities and the private sector and clarify the scope of the partnership. This is a serious impediment to operationalize the initiative” (R.10, Interview, 16.06.2016)*

Table 8-42: [3] *“We remain sceptical about the chances of success. For us, it is still hard to manage such kind of collaboration and the existing law does not contain provisions that regulate this collaboration. This makes the collaboration with the private sector risky for a municipality like Jenin. Then it is not clear in which fields shall the municipality collaborate with the private sector and in which fields not. MoLG has not yet guided the municipalities in this aspect” (R.12, Interview, 02.06.2016)*

Table 8-42: [5] *“Our municipalities have not managed and some of them have not attempted to practice the trend of public private partnership. Our municipalities are incapable to develop the use of this trend on their own. The trend is not established in the existing law and in the municipal practices. Therefore, MoLG must work on establishing this trend legally and institutionally to facilitate its implementation at the municipal level. Otherwise, the trend is unlikely to prevail in the Palestinian context” (R.1, Interview, 06.06.2016)*

#### Table 8-43:

Table 8-43: [1] *“It is a fact that only 30% of the land parcels in the West Bank are registered. Also, the information on registered lands are not maintained up-to-date. However, Jenin is one of the least affected from these problems” (R.9, Interview, 30.05.2016)*

Table 8-43: [1] *“Even in Jenin, which is relatively known for high level of registered land, we suffer from land registration problems. Not all lands are registered or not all transactions are registered formally. Many people opt for notaries to register land transactions to save money and efforts. Unfortunately, the municipality accept this sort of land registration and issues building permits for such registered parcels. This encourages the attitude of avoiding official land registration” (R.12, Interview, 02.06.2016)*

Table 8-43: [2] *“The fact that vast land areas in the WB are not registered stands as an obstacle for implementing the plans, even for the simplest aspects. For instance, the provision of roads and public services. It is difficult to identify real land owners and difficult to deal with unsettled ownership problems to acquire part of the private land to provide the roads and services” (R.5, interview, 14.06.2016)*

Table 8-43: [2] *“In the field of planning, this means limited information on the borders of land parcels and the owners and higher difficulty in implementing the plans” (R.9, Interview, 30.05.2016)*

Table 8-43: [2] *“This makes it difficult to have accurate information, and proper plans for implementation. Therefore, we try to avoid as much as possible planning scenarios that requires dealing with the private property and sometimes prepare plans that do not match planning standards. This applies primarily to roads and public areas” (R.11, Interview, 13.06.2016)*

#### Table 8-45:

Table 8-45: [1] *“Plans have never been evaluated. There is no reference for the evaluation, no goals or indicators to evaluate the achievement of the plans” (R.5, interview, 14.06.2016)*

Table 8-45: [1] *“The municipality has never evaluated any plan. It is not possible to evaluate the plans. The master plan has no objectives and no time plan. This means it is difficult to talk about indicators to evaluate the performance of the plan. Regarding the SDIP, I already said that it is not a realistic plan. I mean, it is not formulated considering the existing resources and most planned projects are not carried out” (R.12, 02.06.2016)*

Table 8-45: [2] *“There is no law forcing the municipalities to evaluate the performance of their master plans or review them” (R.10, 16.06.2016)*

#### Table 8-46:

Table 8-46: [1] *“The law does not force municipalities to update their master plans, but, in the Physical Planning Manual, municipalities are advised to update their plans at least once every 16 years. Many municipalities have exceeded this period and there are no moves towards reviewing these master plans, and this applies to Jenin” (R.10, 16.06.2016)*

Table 8-46: [1] *“There is no clear plan when Jenin Municipality will revise its master plan and develop a modified version. The current plan was approved in 2011; eleven years after preparing the plan. The Physical Planning*

*Manual recommends the update of the master plans every 16 years, which has been already exceeded in the case of Jenin, considering the date of preparing the plan not the date of approval. There are no signs that the update will take place in the short run, although the substantial number of problems of the plan call for a rapid update” (R.12, Interview, 02.06.2016)*

*Table 8-46: [2] “The main dilemma here is who will carry out the review or update. The municipalities do not have trained planning staff in charge of planning activities” (R.5, interview, 14.06.2016)*

*Table 8-46: [3] “Plus, the municipalities do not have capacity to do the update. Therefore, updating the plans will turn a burden on MoLG, either technically or financially, which has not yet prepared preparing the initial master plans for all local communities” (R.8, interview, 06.06. 2016)*

*Table 8-46: [4] “The municipality has prepared the first SDIP in 2012. This mean, the plan expires this year, as it is a four-year plan. The work on the new plan has not started yet. But, it should start as soon as we handle the logistical needs” (R.12, Interview, 02.06.2016)*

*Table 8-46: [5] “But the SDIPs are different. These are designed for specific time period of four years and the maintenance of an updated SDIP is considered a major requirement to obtain fund through the ministry and through the Municipal Development and Lending Fund. In my opinion, this requirement is an effective incentive to encourage the municipalities to keep the voluntary prepared SDIPs up-to-date” (R.11, Interview, 13.06.2016)*

#### **Table 8-47:**

*Table 8-47: [1] “But speaking about periodical newsletters and regular reports, this is not valid to our municipalities” (R.2, Interview, 09.06.2016)*

*Table 8-47: [2] “The municipality rarely issue publications to the public. The available examples are extremely limited, including Jenin Strategic Development Plan, a diagnostic report prepared before that” (R.12, Interview, 02.06.2016)*

*Table 8-47: [3] “Since some years, Jenin Municipality has built an official website and a Facebook page presenting the municipality activities and communicating with the residents” (R.12, Interview, 02.06.2016)*

*Table 8-47: [4] “But to be fair, I would say that many municipalities have started posting about their activities, completed projects or budget sheets on their Facebook pages” (R.5, interview, 14.06.2016)*

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