



**Arab American University
Faculty of Graduate Studies**

Community Participation as an Approach for Sustainable Development in the framework of Strategic Planning: The Case of Beitunia City – Palestine

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**This thesis was submitted in partial fulfillment of the requirements for the Master's degree in Strategic planning and fundraising
May/ 2022**

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Declaration

I hereby declare that this thesis represents my own work which was commenced during my study at the Arab American University of Palestine, and was never submitted to any other institution for any other qualification.

Signature:



Acknowledgment

I would like to express my deepest appreciation for everyone who contributed to making this research possible. Starting with my family and friends for supporting my ambitions and babysitting my child.

Also, I would like to thank the lovely academics and professionals that highly collaborated to provide access to the needed data, and I would also like to express my gratitude to the community members of Beitunia for opening their homes and answering my long questions with a smile on their faces.

Finally, special thanks to my dear supervisor Dr. Samar Nazer for her dedication, patience, and collaboration during the process of this study, and her precious insights and guidance. Finally, I would like to thank Dr. Ahmad Sadaqa and Dr. Abdelrahman Al-Amarah for evaluating and reading this thesis and sharing their distinguished insights.

Heba

Abstract

The Palestinian context is facing considerable challenges in the sustainability of urban development due to occupation and colonialism, as well as deficiencies in the national and local urban planning institutions. On the other hand, many strengths and opportunities are found in the context to be utilized for acquiring the development and implementation of urban sustainability strategies. This research investigates the potential of community participation as an approach for sustainable development within the framework of strategic planning of cities in the urban context of Palestine. At the end of this thesis, an urban sustainable development model is proposed to be implemented in the urban context of Palestine.

This qualitative study is based on interpretivism as the research theoretical perspective and adopts an inductive approach to the research process. In that framework, the objective of this study was attained by adopting Beitunia city as a case study to assess its urban sustainability through iterating phases of data collection and analysis. Secondary data from interviewing officials and accessing official documents and maps were used to highlight the strategic issues in the context. While primary data from interviewing community members and observations were used to validate the strategic issues, define the factors affecting the sustainability of the urban development of the city, and highlight the needs and aspirations of community members. For that purpose, the data went through phases of analysis through encoding interviews and SWOT analysis. Findings of this phase emerged in a holistic understanding of the factors affecting urban sustainability for Beitunia city and were categorized under 4 main themes namely: local governance, environmental sustainability, social equity, and economic development. Ur-

gent strategic issues were found related to the local governance, environmental quality, and community awareness, while urgent needs of community members were found to be: high-quality urban spaces and services, and a conserved natural environment.

Findings from the case were utilized to develop an adequate strategic plan for sustainable urban development of Beitunia through the TOWS matrix tool. Furthermore, an urban plan for the city was developed to provide urban spaces for the potential outcomes of the strategic plan, as well as urban places for community members' needs and desires. Finally, through reflecting on the process of developing the strategic plan for Beitunia city, a sustainable urban development model was proposed for discussion and implementation in similar contexts in Palestine.

Keywords: Strategic planning, urban development, participatory approach, sustainability, sustainable development model, Beitunia city.

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Chapter 1: Contextual Background

Palestine (historic Palestine) is an area located in the eastern Mediterranean region with an area of 27,000 km sq. (PCBS, 2020). It is bordered by Jordan from the east, the Mediterranean Sea and Egypt from the west, Lebanon and Syria from the north, and the red sea from the south (Nazer, 2008).

1.1 Geopolitical Background

During World War II, specifically between 1915 and 1922, political powers in the middle east were negotiating Arab independence, British–French influence, or Jewish national home. In the process, the Middle East was reconstructed (including Palestine) as a region of nations awaiting independence. While the McMahon-Hussein correspondence (14 July 1915 to 30 January 1916) promised an independent Arab state to be established in the area, the Sykes-Picot Agreement (16 May 1916) pledged to divide the influence over the same area with France. Subsequently, the Balfour Declaration (2 November 1917) promised to facilitate a Jewish home in Palestine (Loevy, 2016).

Nevertheless, the Jewish rural colonization of Palestine was heavily engineered by settlement agencies, specifically European colonial years before the 1917 Balfour Declaration. As early as 1897, the World Zionist Organization found an opportunity in the Jewish farmers as the basis for an autonomous Jewish economy. Following occurred an escalation in attaining more land in Palestine, constructing more colonies, and moving more Jewish communities into those colonies (Penslar, 1991).

In 1948 the British colonialism facilitated the declaration of Israel on 78% of the Historic land of Palestine. The rest of the area was separated into two segregated masses; the West Bank which was assigned to be under the Jordanian governance, and the Gaza

Strip under the Egyptian. In 1967, the Israeli occupation took over the whole historic area of Palestine, and following the Oslo Accord in 1995, the Palestinian Authority became responsible for some parts of the West Bank and Gaza Strip (Zeid & Thawaba, 2018). Since 2002, the construction of the illegal apartheid Wall took place, surrounding the Palestinian communities, and confiscating more land (Hithnawi, 2016). Figure (1) shows an overview of the history of confiscating land from Palestinian communities (BDS, 2016).

Nowadays, alongside the Palestinian communities that live within the occupied land of Palestine under full control of Israeli forces, Palestinian communities are scattered between the West Bank within a perforated area of 5,655 sq. km, and the Gaza Strip with a total area of 365 sq. km (Zeid & Thawaba, 2018). These areas form scattered cantons of communities and fall partially under the Palestinian Authority in terms of planning and management (Nazer, 2008). Subsequently, 78% of the Palestinian land is still occupied by the Israeli military, and separated from the rest of the land using military checkpoints and the apartheid Wall.

Following the Oslo Accords in 1995, the West Bank was divided into areas A, B, and C. Area A constitutes 18% of the area of the West Bank and falls under full Palestinian control, including internal functions such as planning. Area B constitutes 21% of the West Bank, where the Palestinian Authority has full control over civil administration issues, including planning-related functions. And finally area C with more than 61% of the West Bank area including most of the rural and agricultural lands, and is under full Israeli control (B'Tselem, 2014; B'Tselem, 2013, as cited in Zeid & Thawaba, 2018). In all the West Bank, Palestinians have no control over water, oil, or gas resources

(Hithnawi, 2016), neither does the Palestinian Authority have control over the security of the context (Nazer, 2008).

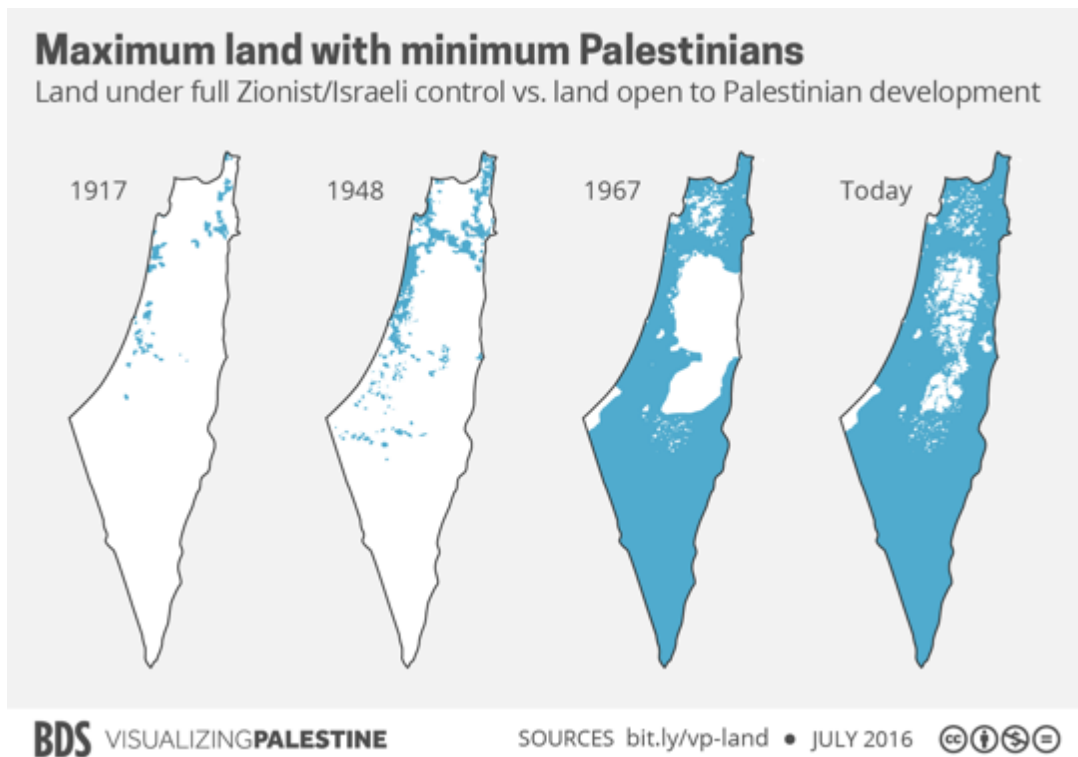


FIGURE 1 EFFECT OF ZIONISM ON PALESTINIAN LAND AND PALESTINIAN COMMUNITIES.

Source: BDS & Visualizing Palestine, 2016.

1.2 Background of Planning in Palestine

In the past century, planning the future of the geographic area of Palestine went through rapid variations of the different regimes namely: the Ottoman regime, the British colonialism, the Jordanian and Egyptian administration, The Israeli occupation and the Palestinian Authority. These regimes had direct and indirect impact on urban planning and development.

The Focus of the **Ottoman regime (1850–1917)** was to set rules for land expropriation and taxes. For that purpose, land was divided into five categories - Mawat, Miri, Matraka, Waqf, and Mulk - where land ownership and registration took place, and taxes were set for land ownership.

These administrative acts resulted in the loss of land for vulnerable communities, due to their inability to pay taxes, which played a great role in facilitating the colonial activities which followed the regime (Bimkom, 2008).

Following the First World War, Palestine left under the **British colonial authority (1917–1948)**, placing all urban planning activities within the colonial and Zionist context (Barakat, 2016). The British colonial period was a period of high facilitation for purchasing the land and establishing colonies for Jewish immigrants (Zeid & Thawaba, 2018). During this period, the “Survey of Palestine” (Figure 2) took place between



FIGURE 2 THE SURVEY OF PALESTINE (1920 - 1939).

Source: DutchTreat, n.d.

1920 and 1939 for military purposes, land taxation, agricultural development, and urban administration (Mitchell, 1942). This particular survey played a major role in legalizing Jewish land ownership in Palestine (Gavish and Kark, 1993, as cited in Zeid & Thawaba, 2018). It was followed by a regional outline plan which divided Palestine into districts, classifying most of the West Bank as an agricultural area (Zeid & Thawaba, 2018).



FIGURE 3 MCLEAN'S PLAN FOR JERUSALEM IN 1918.

Source: Roberts, 2013.



FIGURE 4 GEDDES'S PLAN FOR JERUSALEM IN 1919.

Source: Jubeh, 2019.

Moreover, the British period witnessed urban planning for cities in Palestine - such as Jerusalem. Figures (3 and 4) show the development plans for Jerusalem city by British planners, specifically Mclean in 1918, and Geddes in 1919. Urban planning in the British colonialism period was unwilling and unable to incorporate the lived reality of Palestinians at that time (Barakat, 2016).

Following the occupation of Palestine in 1948, the **Jordanian authorities (1948–1967)** gained custody over the West Bank, while the Egyptian government administered Gaza Strip. The Jordanian administration maintained the existing British urban planning and management systems in the West Bank during that period (Bimkom, 2008).

While managing and planning the refugee camps in the West Bank was steered by the United Relief and Work Agency (UNRWA) (Nazer & Hammad, 2009).

During the **Israeli occupation of the West Bank land (1967-1994)**, the occupations utilized the different laws and land classification made during the Ottoman period, the British mandate, and the Jordanian rule, to confiscate lands in the West Bank under the claim that they are state property. Highlights of the Israeli occupation of the West Bank was the construction of hilltop settlements to serve the purpose of controlling the Palestinian movement (Weizman, 2012). This was achieved through declaring “Mawat” and “Miri” lands as state lands. This led to classifying 70% of the land in the West Bank as military and natural zones, and later establishing Israeli colonies on those locations (Bimkom, 2008; Waltz et al., 2010, as cited in Zeid & Thawaba, 2018). Colonizing the land was one aspect of the occupation, where colonizing the urban planning and management took place as well. During this period, major elimination of the local planning committees took place, as well as the transferring of the planning functions and processes to the Israeli Civil Administration Higher Planning Council (Al-tanzeem) (Nazer & Hammad, 2009).

Following the Oslo accord in 1994, the partial planning and management functions in the West Bank and Gaza Strip were handed over to the Palestinian Authority. For that reason, the Palestinian Ministry of Planning and Development was established and became responsible to conduct planning and management for the urban and rural context of the West Bank and Gaza Strip (Nazer, & Hammad, 2009). The ministry developed assessment studies and a national spatial plan for the context (Nazer, 2008). In 2015, the ministry was closed, and planning for the urban context was scattered between the other ministries and governance bodies (Amendment on Law (17), 19\09\2015).

Meanwhile, the National Spatial Plan Unit was established, and the development of a future planning vision for Palestine took place (National Spatial Plan Unit, 2015). Until this day, the plans remain on paper and did not proceed into implementation.

Scholars argue that comprehensive planning and governance for the urban and rural context of Palestine, specifically in the West Bank and Gaza Strip, is nearly impossible. Since the Oslo Accord, the main development in the Palestinian authorized area occurred within areas A and B, which are mainly urban with small agricultural areas (Shaheen, 2006). Rural planning on the other hand doesn't exist due to the extreme fragmentation of land between different functions that lack coherence as shown in table (1).

TABLE 1 LAND USE CLASSIFICATIONS IN THE WEST BANK.

Land use	Area (km²)	% of total area
Palestinian built-up areas	367.6	6.3
Natural reserves	292.2	5.0
Military base	38.7	0.7
Israeli colonies	108.4	1.9
Forests	38.5	0.7
Closed military areas	1,214.7	20.8
Dead Sea	195.2	3.3
Others*	3,583.0	61.3
Total	5,845.9	100.0
* Others represent cultivated areas, grazing areas, and unused land		

Source: Shaheen, 2006.

1.3 Planning and Governance in the West Bank

Today, in the West Bank, the ministry of Local Governance (MoLG) monitor and support the processes for communities in areas A and B, while planning processes for communities located in area C remain under the control of the Israeli occupation forces, and are restricted to permissions from the ICA. Meanwhile, the Israeli occupation proceeds planning and construction of Israeli settlements and associated colonial roads in the West Bank. The rate of confiscation on land remains high and is highly affecting adequate planning processes for Palestinian communities. These dispersed planning processes, alongside the apartheid Wall and Israeli checkpoints, play a major role in the de-development of urban planning and management in Palestine (Weizman, 2012).

Additionally, under the Palestinian Authority (PA), spatial planning follows a hierarchical approach and constitutes three levels of planning namely: the national, regional, and local levels. For national planning functions, the Palestinian National Authority created the Palestinian Legislative Council, which has not been functional since 2007, and all Legislations occur through presidential decrees (Hithnawi, 2016). On the regional level, the ministry of local governance undertakes the planning for the West Bank and Gaza Strip separately. The ministry has the authority to implement plans in areas A and B, while plans in areas C of the West Bank need authorization from the ICA (Zeid & Thawaba, 2018).

On the local level, municipalities and local councils function through coordination with the ministry of local governance (Hithnawi, 2016), while the responsibility for the planning and management of refugee camps in the context remains under the control of the UNRWA (Nazer & Hammad, 2009). Table (2) illustrates the levels of planning and associated authorities in the urban context of Palestine, as well as the outcomes from

these processes, that are hindered by external forces specifically settler colonialism (Shaheen, 2006), as well as internal weaknesses in the insufficient local authorities and planning bodies (Nazer, 2008).

TABLE 2 LEVELS OF PLANNING AND GOVERNANCE IN PALESTINE.

Level of planning	Zones	Planning Authority	Outcomes
National	The Palestinian Territories (West Bank and Gaza Strip)	Previously the ministry of planning. Council of Ministers.	The Palestinian National strategic development plan (NDP). The national spatial plan.
Regional	The West Bank and Gaza Strip separately	Ministry of Local governance	Regional development plans. Regional spatial plans.
Sub-Regional	Metropolitan	Ministry of Local governance	Rural development plans. Strategic development and investment plans
Local	Municipal	Municipalities	(SDIP).

Source: Hithnawi, (2016).

On the other hand, recent attempts towards counter-planning by the Palestinian local planning bodies and communities in area C are taking place. These plans are aiming towards fulfilling the needs of local communities in the area and decolonizing the planning process (Zeid & Thawaba, 2018). In 2011, a development-oriented counter-planning initiative took place by some communities in villages in the West Bank. The process proceeded towards developing feasible development plans within a project

adopted and managed by the PNA's MoLG at the initiative of the local village councils (Khamaisi, 2019).

1.4 Challenges of Planning in Palestine

Within the aforementioned contextual overview, major challenges are discussed to affect the planning and development processes in Palestine. Scholars in the sector highlight many of these challenges, namely:

1.4.1 Fragmentation

Physical fragmentation and social disintegration are the highlights of issues related to the geopolitical context of Palestine (Hithnawi, 2016). The division of land after Oslo into A, B, and C areas is causing a disconnection between cities and towns, and the loss of control over surroundings and natural resources, which are needed to sustain spatial development and ensure inclusiveness and equity (Hithnawi, 2016).

Alongside the aforementioned, the Israeli colonies surrounding the cities and towns in Area C are contributing to “the emergence of a political discourse that evicts Palestinians from history and geography and the atomization of Palestinian society” (Hilal, 2015). These colonies, alongside the associated apartheid wall and colonial constructions, are extracting land from communities, and threatening the agricultural sector (Moghayer et al., 2017).

Additionally, fragmentation of land and settler colonialism is reducing biodiversity in Palestine through extracting the natural resources of the land from community members and transferring the right to access them to the colonizers (Qumsiyeh, 2016).

1.4.2 Informality

The built-up areas of Palestine are perceived as chaotic and randomly executed. One component of the context is the refugee camps, which serve as “temporary” homes for thousands of Palestinians who were displaced and expelled from their hometowns and cities during the 1948 and 1967 wars (Petti, 2017). Refugee camps fall under the administration of UNRWA and are located within the urban boundaries of cities. Nevertheless, they are not integrated into the municipal and regional development and planning schemes (Hithnawi, 2016). Additionally, informality in the urban context is a reflection of the institutional deficiency within the PA. Research highlights major issues related to lack of coordination between governmental institutions, absence of an active executive system, and the division of roles and responsibilities (Shaheen, 2006).

1.4.3 Expansion

Rapid urbanization and development are a result of the population growth alongside the limited available land (El-Atrash, 2014; Sadaqa, 2017; Shaheen, 2006). The A, B, and C division of land alongside the apartheid Wall and Israeli colonies in the west bank are causing limitations of urban expansion for Palestinian communities (Moghayer et al., 2017). On the regional planning level, there are major challenges that hinder the organic expansion of Palestinian communities on land. This is highly related to the Israeli occupation policies and restrictions and could be observed daily through the rejected building permits for Palestinians, prohibition of construction in specific areas, limited permissions for public buildings, and the demolishing of dwellings and residential buildings (Nazer, & Hammad, 2009). In parallel to these restrictions, increasing population growth is facing limited natural resources, which in return are constantly

being neglected to be considered in favor of economic outcomes (Hithnawi, 2016). This behavior in the Palestinian context is causing rapid urbanization and urban sprawl.

1.4.4 Environmental Issues

Research shows that major environmental issues are affecting the Palestinian communities in the West Bank and Gaza Strip. The highlights of these issues revolve around air and water pollution, water scarcity, solid waste management, noise pollution, and an overall weakened urban livability and quality of life (Hithnawi, 2016). In addition to challenges related to irresponsible environmental behavior caused by the lack of collective learning and awareness (Shaheen, 2009), colonial forces play a major role in compromising the quality of the environment in the Palestinian context. Israeli occupation is affecting the availability of natural water resources and reducing the communities' access to natural water within their context (Selby, 2013). It is also compromising the landscape to serve colonial goals, causing major deficiencies in the ecosystem and highly affecting the biodiversity of the context (El-Atrash, 2014). The environment of Palestine suffers from habitat fragmentation and destruction due to the colonial forces and associated structures (Qumsiyeh et al., 2016).

1.5 Structure of this Thesis

This chapter introduced the general context of Palestine and exhibited some of the factors associated with its' urban context. The following chapter will exhibit and discuss the literature associated with achieving urban sustainability within the framework of strategic planning tools and methods. Next, chapter 3 will discuss the case study adopted and exhibit the factors associated with its urban sustainability. Chapter 4 will ex-

plain the methodology of this research and justify its process, and chapter 5 will overview and discuss the finding. In chapter 6, the findings were utilized to develop a holistic urban strategic plan for the case study and to develop seed for a sustainable development model to be further investigated in the Palestinian context.

The outcomes of this thesis are planned to:

1. Provide practical strategies and recommendations for the municipality of Beitunia city to enhance the quality of life of community members, and deliver their needs.
2. Contribute to the field of urban studies by presenting factors that should be considered while strategically planning for a sustainable urban context in Palestine.

Chapter 2: Literature Review

The previous chapter exhibited the history of planning in Palestine, introduced a background for the urban planning and management context, and overviewed some of the main challenges hindering sustainable development in the urban context in Palestine. This chapter will overview the literature associated with planning for sustainability in the urban context, and highlight the gap that this research aims to fill.

Although the urban context in Palestine is a unique one, scholars argue that it has many common features with other contexts (Shaheen, 2017). Internationally, the sustainability of urban development was highlighted to lead to a better quality of life for citizens (Steinberg, 2005; Khalil, 2012; Muminović et al., 2020). Therefore, achieving sustainability in the urban context could be perceived as a process that enhances the quality of life of communities and inhabitants, and the need for adopting sustainable development models was stressed by scholars in the context (Nazer, 2008, Sadaqa, 2017; Shaheen, 2012).

Within that framework, strategic planning was widely discussed by scholars in the Palestinian context, highlighting multiple factors that could be embedded within the processes of planning and managing urban development. Before exhibiting the discourse and discussing the potentials for a new model in the context, a review of basic terminologies and processes within the fields of urban planning and strategic planning are presented in the following sections.

2.1 Strategic Planning

Overviewing the history of strategic planning shows that the term “strategy” was initiated during the greek era (490 BC) for military purposes, where it refers to the Greek word “strategos”, which means “general of the army”. the “strategos” started as a person developing tactics for the army, his role expanded through history to include advising for civil-related strategies (Candy, & Gordan, 2011). In modern history, early development for a “strategic planning” methodology for private business dates back to the 1920s by the Harvard Business School, and early utilization of the Harvard model dates back to the 1960s (Candy, & Gordan, 2011).

Today, strategic planning is widely used in the private, public, and non-profit sectors (Kriemadis & Theakou, 2007). Its wide-spreading correlates with its associated benefits, where research shows that it enhances communication, deepens the understanding of situations, increases commitment to projects, and unites the mission of stakeholders (Mohammadian, 2017). Organizations are utilizing the methodology to “set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization’s direction in response to a changing environment” (Maleka, 2014). The following sections will overview and discuss the different definitions and processes of strategic planning and management.

2.1.1 Definitions

Defining strategic planning varies through the history and development of the field of study. Early literature developed by Steiner in the 70s shows that strategy is a way of referring to an act to counter a competitor’s predicted move. In the 80s, Kenneth de-

defines strategy in the corporate context as the pattern of decisions that determine the company's objectives and purposes, and that produces the plans to achieve those goals and defines the range of business to pursue. During the 90s, Mintzberg perceives strategy as an intention to collide and accommodate a change in the environment (Nickols, 2016).

Recent studies tackling strategic planning refer to the term in different ways as well. For example, Mohammadian (2017) defines strategic planning as an organizational management activity aiming towards thinking for the future, while Mezhouda (2019) argues that it is the process of defining appropriate ways to achieve the agreed objectives whilst taking into consideration the available resources and environmental changes. Maleka (2014) defines strategic planning as a "disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, whom it serves, what it does, and why it does it, with a focus on the future", while arguing that strategic management is the process in which an organization develops and implements plans that achieve the goals and objectives of that organization. Poister (2010) on the other hand, perceives strategic management as the process of managing an organization's strategic agenda and ensuring that strategies are implemented effectively.

Within this thesis, and building on the previous literature, strategic planning is perceived as the method used to utilize strategic thinking tools and methods towards developing and implementing a sustainable future in an institution.

2.1.2 Processes

Strategic planning generally revolves around answering three questions: Where are we now? Answering this question entails understanding the current status of an institution.

Where do we want to get it? Answering this question directs the vision for a future status. And finally, how do we get there? Which entails designing the plan (Poister, 2010). The process of strategic management iterates between scanning and analyzing the environment (internal and external), formulating the appropriate strategy, implementing the identified strategy, and evaluating and controlling the plan (Trainer, 2004). Figure (5) explains the sequence of the main stages of the strategic management process.

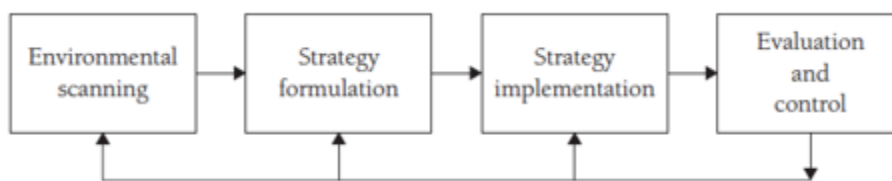


FIGURE 5 BASIC ELEMENT OF THE STRATEGIC MANAGEMENT PROCESS.

Source: Trainer, 2004.

The process of strategic planning, as a function of the strategic management, is commonly divided into the following stages: setting goals, gathering data, analyzing data, creating the plan, implementing the plan, monitoring the plan, and iterates back to setting new emerged goals (Mohammadian, 2017). Figure (6) explains the sequential relationship between the different stages of the strategic planning process.

2.1.2.1 Setting Goals

The core of strategic planning and management is setting goals, which is argued to be essential for organizations to pursue strategic opportunities for success (Maleka, 2014). Accomplishing the mission of an organization, which is the purpose of the organization and the reason for its existence, the organization should work towards achieving goals (Kriemadis & Theakou, 2007).

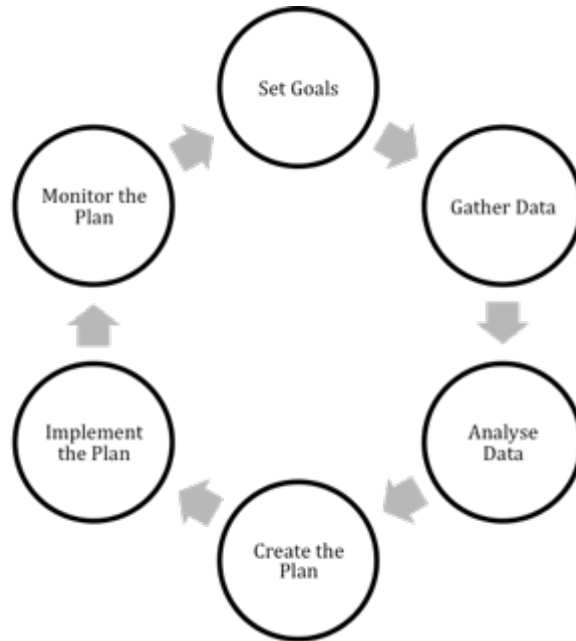


FIGURE 6 THE PROCESS OF STRATEGIC PLANNING.

Resource: The author based on Mohammadian (2017).

2.1.2.2 Gathering and Analyzing Data

Scholars perceive the stage of analysis as a core stage in the strategic planning and management process (Maleka, 2014); (Mezhouda, 2019). It is based on gathering data related to the internal and external environment and is utilized to create goals and objectives that will turn weaknesses into strengths (Maleka, 2014). To achieve that, many tools to define internal capacities and external opportunities were developed. The most famous analysis tool that combines analysis for both internal and external environments, is the SWOT analysis (Mezhouda, 2019).

2.1.2.3 Creating the Plan (Strategy Formulation)

During this stage, an organization uses the data collected and the findings developed from the analysis stage, to develop strategies that will enable it to meet its goals (Kriemadis & Theakou, 2007; Maleka, 2014). Each of the identified strategies should

be implemented through a set of activities that form the action plan. In return, achieving the activities should sustain the objectives defined by the organization, and subsequently, indicators for achieving the goals of these activities should be defined for future assessment (Kriemadis & Theakou, 2007). Defining these Key Performance Indicators (KPI) is essential for effective strategic planning, as a part of the whole process of defining where an organization is going, the actions needed to make progress, and how it will know if it is successful (Maleka, 2014).

2.1.2.4 Implementing the Plan

Strategy implementation is utilizing all the available resources to bring the planned strategy into practice to meet organizational goals through creating budgets, programs, and policies (Maleka, 2014). Research shows that the successful implementation of a strategic plan can only occur under cooperation stakeholders (Maleka, 2014).

2.1.2.5 Monitoring the Plan

The process of monitoring is essential to ensure that the goals of an organization are being met and the action plans are being implemented (Kriemadis & Theakou, 2007). It enables an organization to understand when and how to adjust the plan to adapt to the occurred developments (Maleka, 2014). Efficient strategic planning and management are based on the internal and external environmental scanning (gathering data and analyzing them), and since the environment is in continuous change, the research emphasizes that the strategic processes should be as well (Maleka, 2014; León-Soriano et al., 2010).

2.1.3 Strategic Urban Planning

“Definitions of urban often are specific to the political, social, and economic context in which they are utilized” (Nilon et al., 2003, as cited in MacGregor-Fors, 2011). Respectively, urban areas are defined differently in each context based on different measures namely: population density, population, built-up area, and services. Moreover, defining urban planning - as the planning for the future of these urban areas - is based on different perspectives of scholars in the field.

A classical definition of planning is “a technical tool used by planners to guide decision making” (Zaid, & Thawaba, 2018). Researchers such as Badarulzaman (2011) support this definition and elaborate towards a tool to translate vision to priorities to lure investment, upgrade urban areas, encourage infrastructure investments, and regulate land use. A modern definition of urban planning, such as Levy’s (2006), defines it as a process focusing on developing and designing the urban fabric in a city or country. Moreover, the Canadian Institute of Planners (CIP) defines urban planning as the “scientific, aesthetic, and orderly disposition of land, resources, facilities, and services” (Daoud, 2009).

As city development projects consume time and resources, it could be discussed that adopting strategic planning - as a long-term planning approach - brings new aspects to the urban development process itself (Muminović, Radosavljević, & Beganović, 2020; Steinberg, 2005). For example, Steinberg (2005) argues that strategic planning could give the process a democratic form and promotes progressive forms of governance, in addition to facilitating the management of a city. Additionally, researchers discussed that adopting strategic planning tools benefits the outcomes of the urban development

process, and leads to progress in the economic and social systems (Khalil, 2012; Steinberg, 2005).

Within that framework, **strategic urban planning** is the process of employing strategic planning tools into the urban development process, to integrate the initiatives of public and private stakeholders for the development of a city (Steinberg, 2005).

2.1.4 Sustainable Development in the Urban Context

Global efforts towards sustainability took place through history, attempting to achieve a better quality of life for humans all over the world, resulting in escalated attempts to reach a global definition for sustainable development. In 1987, the Brundtland Commission (The World Commission on Environment and Development) defined sustainable urban development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Blair, 2004; Kono, 2014; Levy, 2006). The term was based on matching economic and environmental interests while guaranteeing social justice and was later updated to add the political-institutional dimension which requested development towards democracy and properly functioning institutions (Čiegis, 2004, as cited in Blair, 2004). By 2015, the United Nations adopted 17 integrated global goals for achieving sustainability (Sustainable Development Goals SDGs), as a universal call towards achieving sustainable development. The goals aspire to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity (What are the Sustainable Development Goals, 2021). The next section will exhibit the different definitions developed by researchers within that work-frame.

Achieving sustainability varies depending on the discipline and the field's perspective. While natural scientists focus on the sustainability of the earth's ecosystem from an environmental perspective, social scientists perceived sustainability from social, cultural, economic, and political aspects (Lappe, 1971, as cited in Shrivastava & Berger, 2010). In the urban context, Levy (2006) defines sustainable development as the planning that addresses environmental quality, social equity, and economic development goals in a coordinated matter. In that context, environmental requirements focus on preserving and upgrading the quality of the environment, social equity means greater equality of wealth and more opportunity for the less advantaged and poor (Levy, 2006), and economic development focuses on achieving full and productive employment and decent work for all women and men.

Moreover, as urban Planning is a complex and multidiscipline field (Pinson, 2004), and is associated with many multi-disciplinary factors (El-Atrash, 2014), planning for sustainable development in the urban context is challenging, and requires adopting a multidisciplinary approach in the management of the process. It is argued that adopting strategic planning – as a holistic planning and management methodology – could have a positive effect on both the process and the resulting outcomes (Steinberg, 2005; Muminović et al., 2020; Khalili, 2012). Čiegis and Gineitienė (2008) advocate that implementing a sustainable city policy requires a strategy that matches the social and economic interests with the environmental as well as the cultural, alongside foreseeing changes. While Wu and Yan (2015) discuss that achieving urban sustainability could occur through cities adopting the goals that could achieve: minimizing the consumption patterns, improving and maintaining environmental quality, rationalizing and efficiently managing urban flows, protecting and improving the health and well-being of the

urban population, ensuring equal access to resources and services, and maintaining cultural and social diversity. Towards a proactive approach, Blair (2004) proposes that sustainable development of communities iterates between creating a vision, planning a strategy, and implementing it.

In contrast to the wide endorsements of the approach, some other scholars discuss the drawbacks. For example, Hatry (2002) affirms that public agencies engaged in the strategic planning process usually fail to identify the desired outcomes and develop the appropriate strategies. Others such as Long and Franklin (2004), and Roberts (2000), accuse the “top-down, one-size-fits-all” approach itself, of limiting the abilities of the planning agencies and hindering shaping a model that suits their needs and circumstances (Poister, 2010). Some other literature discusses the over-reliance of the process on analytical and rational approaches in contrast to iterative thinking (Mezhouda, 2019).

In challenging the aforementioned pitfalls, scholars emphasize that implementing strategic urban planning must be with mindfulness to adapt to the specific cultural context of the city (de Graff and Dewulf, 2010). Literature emphasizes that strategy needs to be developed, formulated, and implemented through participating stakeholders of the city (Poister, 2010), specifically community members. Further discussion of community participation and associated literature is exhibited in the following section.

2.1.4.1 Participatory Approach

As planning for sustainable development could be achieved through a bottom-up approach (Blair, 2004), others argue that stakeholders’ participation, alongside strategic planning, are the main principles of sustainability (Ruhanen, 2004). The review of lit-

erature and cases show that strategic planning processes and community participation, are two faces for the same coin. Moreover, strategic planning itself was argued to foster community participation in the urban development context (Steinberg, 2005). In that framework, participatory strategic planning is a process that provides the opportunity for various public stakeholders to participate in the planning and implementation processes (Blair, 2004), where it aims to utilize the knowledge of community members to focus on the main problems and ways of their solution (Blair, 2004).

Involving stakeholders in planning may present different levels of knowledge and assumptions leading to diverse planning outcomes (Simão, Densham, & Haklay, 2009). This was confirmed by Muminovic et.al. 2020, where they showed that a sustainable approach in developing urban projects has to be in line with the acknowledgment of specific local community values, contemporary needs, and community involvement. Moreover, the process provides a comprehensive framework for analysis and evaluation, which leads to reducing the cost of the planning process in the long run (Hassan, El Hefnawi, & El Refaie, 2011). It also improves equity and efficiency in decision making and provides the opportunities to test ideas before implementation (Conde et al., 2004, as cited in Filho & Brandli, 2016).

Community participation, in particular, is considered a tool for citizen's empowerment, where it contributes to increasing the community acceptance of the interventions, raising responsibility among members, and increasing the integration of power with authority, leading to a democratic society (Hassan, El Hefnawi, & El Refaie, 2011). Additionally, El-Atrash (2020) argues that following a community-centered approach in urban development projects assures opportunities that comply with the community needs, as well as contribute to the empowerment of local communities and self-determination.

Therefore, co-development in the urban context is considered essential for sustainable urban development especially in developing countries (de Graaf & Dewulf, 2010; El-Atrash, 2020; Filho & Brandli, 2016) – such as Palestine.

By reviewing the opposed narration to community participation, literature discusses difficulties in the practical implication of the process (Simpson, 2001). Filho and Brandli (2016) associate challenges with the lack of unified plans for all, conflict of interests, barriers in the dialogue with some stakeholders, loss of interest of some stakeholders in some long-term projects, and the lack of capacity to manage the involvement (Filho & Brandli, 2016). Nevertheless, different methods of citizen involvement appear to affect the resulting level of public participation (Brody et al., 2003). Lane (2005) has argued that determining the extent of public participation in planning should be defined by the planning problem, the kinds of knowledge used in planning practice, and the decision-making context. Additionally, enhancing access to information (Simao et al., 2009) and embedding the right collaborative practices (Innes & Booher, 2004) could support the process of participatory in spatial planning and sustainable urban projects.

Other challenges are correlated to the need for full organizational responsibility through the process while handing the main role in the planning process to the community. Blair (2004) suggests that responsibilities should be divided between all participants and stakeholders of the urban project namely; the inhabitants - humans and other creatures who live permanently or temporarily in a place - of the local community, community leaders, representatives of the municipality, and external consultants. Within that framework, inhabitants should represent the core of the participatory planning process by being the largest group during the planning process, while representatives of the

municipality and external consultants should make the smallest group. And finally, the responsibilities of each of these participants differ in each stage throughout the process. The role of community leaders is to assure a wider involvement of the community for the comprehensive holistic reflection of community members' needs and desires. Representatives of the municipality on the other hand should provide information and facilitate the process. And the external consultants should provide consultations for the methodology, tools, and the general process (Alijošiūtė & Gineitienė, 2001, as cited in Blair, 2004).

In general, engaging stakeholders could take many forms and stand on many levels. It could be perceived as a spectrum where each individual could have a different specific role of being informed, consulted, involved, collaborated with, and empowered (Pellucano et al. 2014, as cited in Filho & Brandli, 2016).

2.2 Sustainable Development in Palestine

In the Palestinian context, as a region under military occupation and settler colonialism, sustainability in urban context is highly questioned by researchers in the field (Abdel Razeq, 2017; El-Atrash, 2014; El-Atrash, 2020; Moghayer et al., 2017; Nazer, 2008; Sadaqa, 2017; Shaheen and Salim, 2012). Both external obstacles, related to settler colonialism, and internal ones related to the institutional framework in place, play an integrated role in hindering sustainability in the urban context (The Palestinian Authority, 2013). As some achievements in social development are showing progress, literature and official documents show great challenges are associated with economic development and environmental quality (The Palestinian Authority, 2013). Moreover, measur-

ing Palestine's SDG performance is facing major challenges (The Arab Region SDG Index and dashboards report, 2019).

2.2.1 Assessment of the Current Status

In chapter 1, challenges facing planning in the Palestinian context were exhibited, where most of them naturally affect the sustainability of the context as well. Shaheen and Salim (2012) elaborated on the effect of land scarcity, high population growth rates, rapid urbanization, uneven development, and territorial fragmentation as factors that hindered sustainability. EL-Atrash (2014) on the other hand elaborated on the weaknesses affecting the sustainable urban development in Palestine such as limited planning capacity, as well as the influence of occupation on the Palestinian cities' instability in the geopolitical boundaries. Sadaqa (2017) and Moghayer et al. (2017) highlighted the sprawl and fragmentation of the urban context in Palestine, associated those characteristics with the limited available land, population growth, the lack of proper urban development, and the political situation.

In contrast, many internal factors play a major role in hindering urban sustainability. For example, Nazer (2008) correlates the instability in the internal political situation and the rapid changing in governing authorities, to the absence of proper planning practices. The Palestinian Authority (2013) reported that insufficiency of legislations, overlap in institutional roles and responsibilities, the paralysis of the legislative branch since mid-2007, conditional funding by donors, and the ad-hoc funding play a major role in hindering sustainable development in the context as well. This was confirmed and discussed vividly by Abdel Razek (2017), explaining that the under-capacitated urban planning practices, as well as the lack of coordination between local authorities

in Palestine, resulted in inefficient city management, competition for funding resources, and duplication of investments.

Locally, the State of Palestine (2018) published a report exhibiting the Implementation of the Sustainable Development Plan 2030 and highlighted the risk of occupation on the sustainability of Palestinian cities and local communities.

From an international lens of assessment, achieving sustainability in Palestine was found to need greater efforts towards achieving the sustainable development goals SDGs. The latest released assessment for the Arab world show support for the allegation, and show status for 10 out of 17 SDGs due to the lack of sufficient data (The Arab Region SDG Index and dashboards report, 2019).

Available assessment of the SDGs shows that health and well-being (SDG 3), gender equality (SDG 5), decent work and economic growth (SDG 8), and life on land (SDG 15) have major challenges that hinder sustainability. This should be a top priority in any intervention towards sustainability. In the urban context, the index shows significant challenges in clean water and sanitation (SDG 6) and affordable and clean energy (SDG 7). Additionally, the index shows a lack of data related to sustainable cities and communities related to SDG 11. See figure (7) for visualization of the general status of the index for Palestine.

Moreover, the available dashboard and trend in the report reflect low achievements towards achieving the goals in Palestine. Figure (8) show moderately increasing trends for well-being (SDG 3), education quality (SDG 4), and clean energy (SDG 7), while in-active efforts are traced in fighting poverty (SDG 1), gender equity (SDG 5), cleaners of water and energy resources (SDGs 6 and 7), and economic growth (SDG 8).



FIGURE 7 SDGS INDEX FOR PALESTINES.

Source: Arab Region SDG index and dashboard report, 2019.



FIGURE 8 SDG DASHBOARD AND TREND FOR PALESTINE.

Source: Arab Region SDG index and dashboard report, 2019.

2.2.2 Practical Steps Towards Sustainability

As mentioned before, after 1995, the Ministry of Planning and International Cooperation (MOPIC) alongside other ministries conducted an Emergency Natural Resources Protection Plan (ENRPP). The plan focused on surveying, analyzing, and identifying, sensitive and valuable landscapes, which established a foundation towards planning for sustainable development (Nazer, 2008). Through utilizing the assessment, a regional plan for the West Bank governorates was developed by the ministry (MOPIC, 1998). Nevertheless, the study was a desktop study, and participating community members in the process was absent (Nazer, 2008).

On the national level, practical implications for the 1998 Regional Plan for the West Bank were not achieved. Moreover, after 10 years of publishing the regional plan, the

ministry developed an extension for the previous study, and published “The Reformation and Development Local Plan” for the period between 2008-2010. One of the main four goals of development in which the study focused on was “Enhance Quality of Life for Citizens”. This was important to start tackling sustainability as an aspect in the development and reformation, and practical implications were starting to form through developing the National Spatial Plan¹ (2015) in collaboration with the Ministry of Local Governance and local municipalities in the West Bank. Nevertheless, the study was not commenced into action, and the ministry was closed in 2015 by a presidential decree directing to merge the ministry of planning with the ministry of finance.

On the regional level, the reformation and development local plan (2008-2010) contributed to forming bases for developing “The Strategic Development Urban Planning Guide” (2009). The guide was developed and published by the Ministry of Local Government in Palestine, in collaboration with the MOPIC and some local municipalities. The guide was a step-by-step guide directed to municipalities to assist the sustainable urban planning process, including some tools to support community participation.

On the metropolitan level - subregional and local - the “Integrated Cities and Urban Development (ICUD) project was initiated to form and develop five leading metropolitan areas in Palestine namely: Hebron, Nablus, Ramallah & Al-Bireh, Bethlehem, and Gaza. The project focuses on sewage systems, GIS systems, and traffic management plans (Abdel Razek, 2017). It also provides professional development for local governance bodies and municipalities planners. According to literature, providing communities and planners with the required skills to do the planning job themselves, is a core

¹ The plan is available on: https://procurement-notices.undp.org/view_file.cfm?doc_id=139095

ethical consideration in planning in the face of power (Zeid & Thawaba, 2018). Nevertheless, the outcomes of this project are limited to developing local plans and providing professional development programs for planners in the municipalities, and there was no trace of practical outcomes for the project.

The sustainability of urban development in Palestine is highly questioned due to external and internal forces. In theory, efforts from the Palestinian Authority are accelerating towards sustainable development, nevertheless, these efforts are not reflected in the practical implications of the developed studies, documents, and plans. On the other hand, this trend could be utilized to develop a new sustainable urban model within this thesis.

2.3 Researcher Gap and Contribution

In the global context, research has shown that many of the threats facing the sustainability of urban and rural fabrics are caused by the high density and activity of cities as well as the consumption patterns (Rosales, 2011). Review of the literature shows that achieving sustainable urban development calls for attaining good environmental quality, achieving social equity, and sustaining the development of the economy (Levy, 2006). Additionally, research discusses the importance of having a process that iterates between creating a vision, planning a strategy, and implementing it (Blair, 2004).

In the Palestinian context, many challenges were found hindering sustainability of the urban development (Nazer, 2008; Shaheen and Salim, 2012; El-Atrash, 2014; Sadaqa, 2017; Moghayer et al., 2017; El-Atrash, 2020); external challenges related to military occupation and settler colonialism, and internal challenges related to limited planning capacity and top-down planning and development processes. For that purpose,

many proposed solutions were discussed such as: utilizing strategic planning, emphasizing community participation, and many proposed aspects and models towards a solution. For example, Shaheen and Salim (2012) proposed practical guidelines for an effective sustainable development strategy focusing on legislation, mechanism, integration, enforcement, and commitment. El-Atrash (2014) on the other side developed scenarios for sustainable spatial development and planning in Palestine by analyzing existing sustainable planning models. From another approach, a new model of sustainable development called “The Leaf”, was proposed by Sadaqa (2017) taking into consideration a long-term vision of absorption capacity, accessibility, and rural development.

Regardless of the efforts of scholars in the field, the previous exhibition of the history of urban projects in the Palestinian context show lack of proactive approaches in the implementation of developed plans and strategies. Moreover, development in the context is still adopting a top-down approach. The context calls for a development model that could assure the participation of community members in the development and implementation of their vision for the city, as well as a model to ensure that developed plans make it to the implementation phase.

Following the footsteps of previous scholars, **this thesis aims to contribute to understanding the factors that hinder and promote sustainability in urban development in Palestine.** The thesis focuses on Beitunia city as the case study in which an assessment of its urban sustainability was conducted. The assessment resulted in a strategic urban plan (strategic plan and urban zoning plan) for implementation. Through reflecting on the process of this study, the thesis concludes by presenting a new urban sustainable development model for further investigation in the Palestinian context.

Beitunia city was chosen as a case study for this thesis for several reasons namely:

1. The municipality was one of the local initiatives to use strategic planning as an approach for developing the urban context of the city for the years 2018-2021.
2. The context shifted rapidly from an agriculture-based town to an economically-driven city in the last decade.
3. Within the metropolitan (Ramallah, Al-Bireh, Beitunia) it is considered the least developed; therefore plenty of development opportunities could be available.
4. The urban expansion of the city is facing complex challenges related to colonial forces and the apartheid wall.
5. It is easily accessible from Ramallah, which facilitates conducting the research during the COVID-19 pandemic and the associated restrictions on movement.

This chapter explained the theoretical framework for this study and discussed the literature associated with the research objective. The next chapter will exhibit the case study and discuss the foresees associated with its' urban sustainability.

Chapter 3: The Case Study - Beitunia City

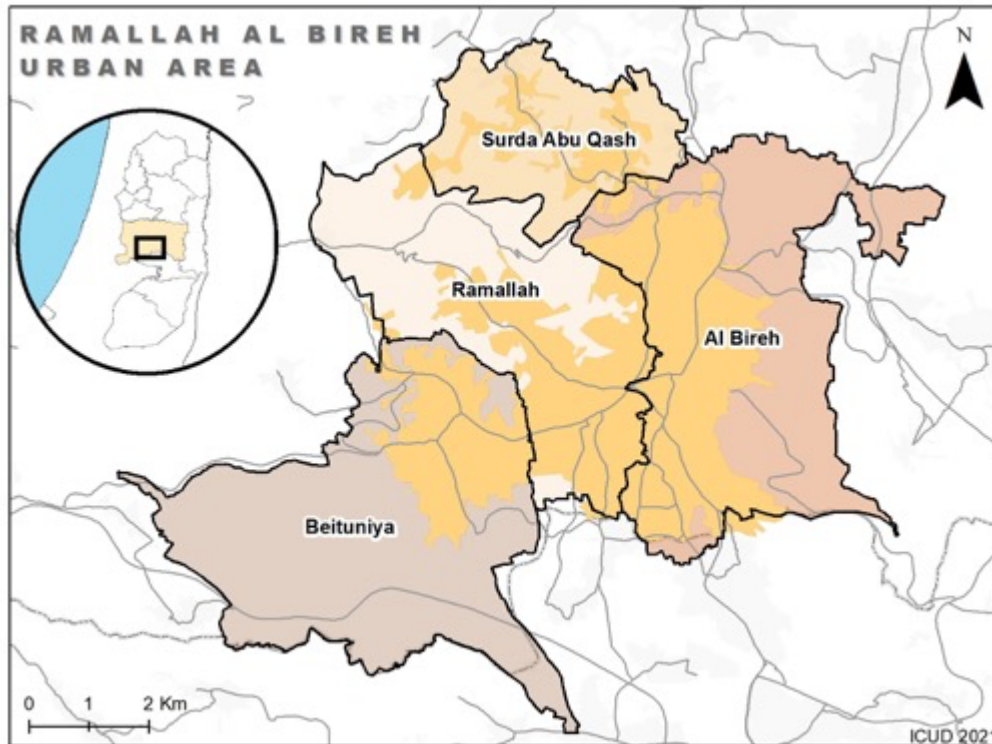


FIGURE 9 RAMALLAH, AL-BIREH, & BEITUNIA METROPOLITAN LOCATION MAP.

Source: ICUD (2021).

The metropolitan of Ramallah, Al-Bireh, and Beitunia is located in the central West Bank at an elevation that ranges from 800 to 880 meters above sea level. The metropolitan is bordered by Surda and Abu Qash villages from the north and is surrounded by villages and towns under Area C from the east and west. In addition to that, the Apartheid wall borders that metropolitan from the south towards Jerusalem, and the west towards the occupied land of Ludd and AlRamlah.

The metropolitan is home to approximately 355,202 residents (PCBS, 2021a), and serves as a strategic economic, cultural, and service hub. Since the establishment of the Palestinian National Authority in 1995, the district has evolved as the administrative, cultural, and political center. During that period, it has gone through very rapid transformations (Hithnawi, 2016).

As part of one of the major three urban centers in the West Bank, **Beitunia city** lays to the west of Ramallah and Al-Bireh governorate, and bordered by the Apartheid wall from the south, separating it from Jerusalem and border villages. Connecting Ramallah and Al-Bireh governorate to 17 different villages and towns, the city represents 36% of the total area of the metropolitan. Today, the city expands on 23,366 donums, in which only 5000 donums are within Areas A and B, and according to PCBS (2021a) is inhabited by 28,735 Residents.

3.1 History of Beitunia City

The city originated as a small village sitting on a hilltop of 820 m above sea level, focusing on agriculture as a main activity. The community were located on a hill-top, and surrounded by natural water resources and agricultural terraces. Figure (10) shows one of the maps from the survey of Palestine conducted by the British colonial forces between 1871 - 1877 showing the context of Beitunia. The map highlight the old town in red, in addition to the two main water resources of Al-Balou' and Ein Jaryout. Additionally, the map shows the water streams and agricultural land, specifically olive terraces.

Following the 1998 ENRPP, the ministry of local governance developed landscape survey maps for Ramallah metropolitan - among other cities - showing the value and characteristics of landscape in the city (see figure 11). According to the map, Beitunia area was defined to have agricultural lands, fertile soil, contains springs and valleys, and consists some cultural heritage elements.



FIGURE 10 BRITISH SURVEY OF PALESTINE SHOWING BEI-TUNIA.
 Source: Abu-Sitta, 2020.

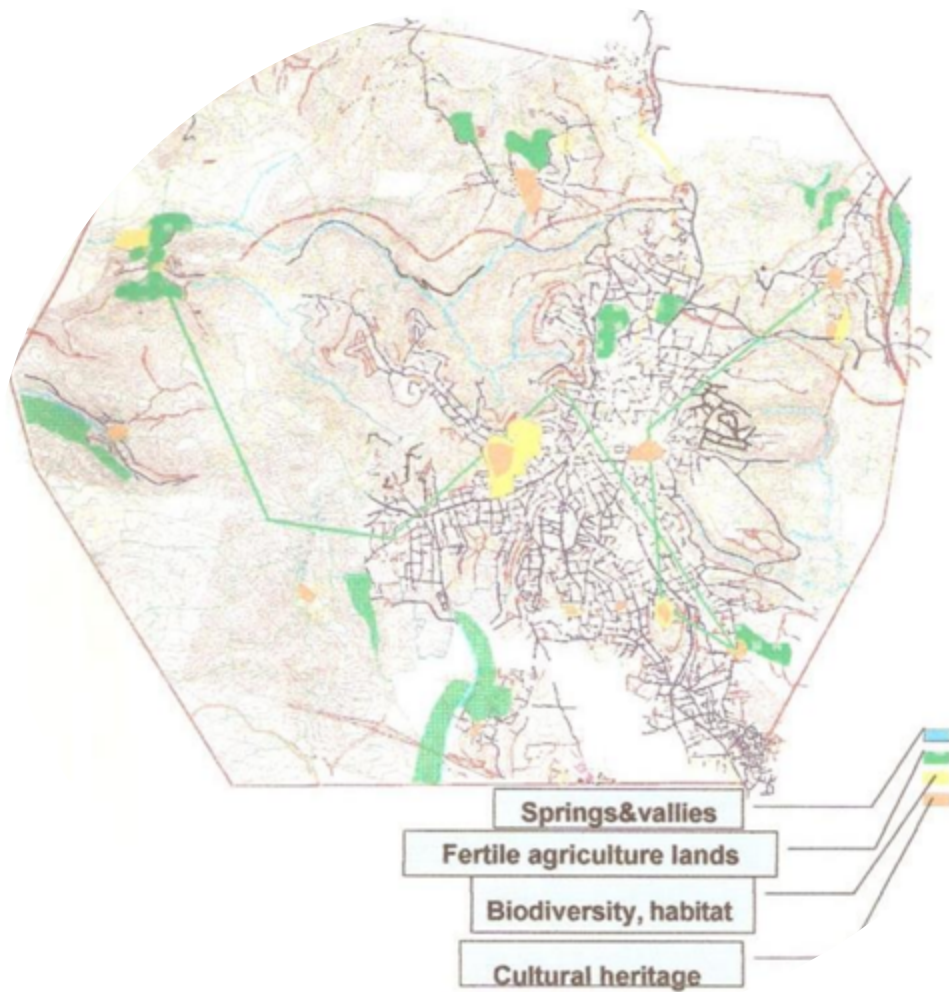


FIGURE 11 SURVEY FOR LANDSCAPES IN RAMAL-LAH, AL-BIREH, AND BEITUNIA MUNICIPAL AREA.

Source: ministry of local government, n.d.

Up until 2000s, the city was considered a village, where agriculture was the main local profession. This can be clearly spotted by the architecture of some areas (figure 12), and was confirmed by some community members. Today there are few farmers that remain to utilize their property for agricultural purposes in the city, while urban expansion is compromising agricultural land (figure 13).

During the 2000's, the city of Beitunia was classified as an urban area. This definition was based on the Palestinian Central Bureau of Statistics PCBS (2021b), which defines an urban area in Palestine as following:

“Any locality whose population amounts to 10,000 persons or more”, or areas with “population from 4,000 to 9,999 persons, if they have at least four of the following elements: a public electricity network, a public water network, a post office, a health center with a full-time physician, and/or a school offering a general certificate of secondary education” (Hithnawi, 2016).



FIGURE 12 BUILDING IN THE OLD TOWN.
Source: Beitunia Municipality, n.d.-a



FIGURE 13 RESIDENTIAL BUILDINGS COMPROMISING AGRICULTURAL LAND.
Source: Author 2021.

3.2 Municipality of Beitunia

3.2.1 City Planning and Governance

The municipality of Beitunia is responsible to plan and govern the land of Beitunia that lies in area A, and operating the planning functions in area B. Areas A and B only constitute 21% of the original area of Beitunia, with a land area of 5000 Donums. This implies high restrictions on the planning and urban expansion of the city. Additionally, area C which comprises 79% of the original land area, is under full Israeli occupation's control, which hinders the organic expansion of the urban fabric, sacrifices agricultural land, and causes rapid urbanization (Local Economic Development Plan – Beitunia, 2018). Today the municipality of Beitunia is adopting a counter-planning approach, where land use maps are being developed in area C.

In terms of planning within the sub-regional level, the city is included within the “Integrated Cities Project” – a collaborative planning and governance project between Ramallah, Al-Bireh, Beitunia, Surda, and Abu Qash land. The project is working on developing shared municipal services such as roads, transportation, pedestrian pathways, infrastructure, water, and electricity. Additionally, the project provides professional development training for municipal planners and employees. Within that framework, Beitunia has paved roads and an accessible transportation network that covers most residential areas. Nevertheless, further investigation needs to occur for the quality of those roads and sidewalks, and the accessibility (physical accessibility for special needs) of the transportation network (Local Economic Development Plan – Beitunia, 2018).

3.2.2 Municipal Services

The municipality of Beitunia provides electricity and water services to residents. As electrical services are available 24\7, water availability varies between the neighborhoods. Providing clean water is more challenging for the new neighborhoods in contrast to the old town and Balou' neighborhood. This is due to the low pumping pressure, high demand in relation to the low availability, and weariness of the old water network (Local Economic Development Plan – Beitunia, 2018).

Solid waste management is provided in Beitunia with sufficient collecting schedule, and minor recycling collaboration for paper waste with some local businesses (Local Economic Development Plan – Beitunia, 2018). Nevertheless, the management systems need further investigation; where rubbish can be spotted on the streets, and around trashcans on the sidewalks. This could be connected to the shortage of trashcans and the lack of covers for the existing trashcans. Additionally, the municipality is registered within a shared solid waste management service council alongside Ramallah and Al-Bireh city. Nevertheless, all collected solid waste is exported to “Zahret Al-Finjan” landfill (Local Economic Development Plan – Beitunia, 2018), which might cause environmental pollution to the cities and villages nearby the landfill. Solid waste management protocols and procedures need further investigation towards developing a sustainable environmental system.

One of the major weaknesses in the city is the lack of a sewage system for residents and industrial facilities. Sewage management is the responsibility of individuals, where each residential building and facility is responsible to construct a soak pit and manage to discharge it when needed. This incorporates major environmental, social, and health

issues, and affects the quality of life of residents in the city (Local Economic Development Plan – Beitunia, 2018).

3.3 The Urban Context of Beitunia

From an urban context perspective, the city is bordered with Ramallah city from the northern-east and surrounded by Palestinian villages namely: Rafat, Qalandia, and Jobaira from the east, Jeeb, Beit Iksa, and Beit Duke from the south, Tara and Beit Uor from the west, and Ein Qinya From the north. Figure (14) shows the urban context of the city.

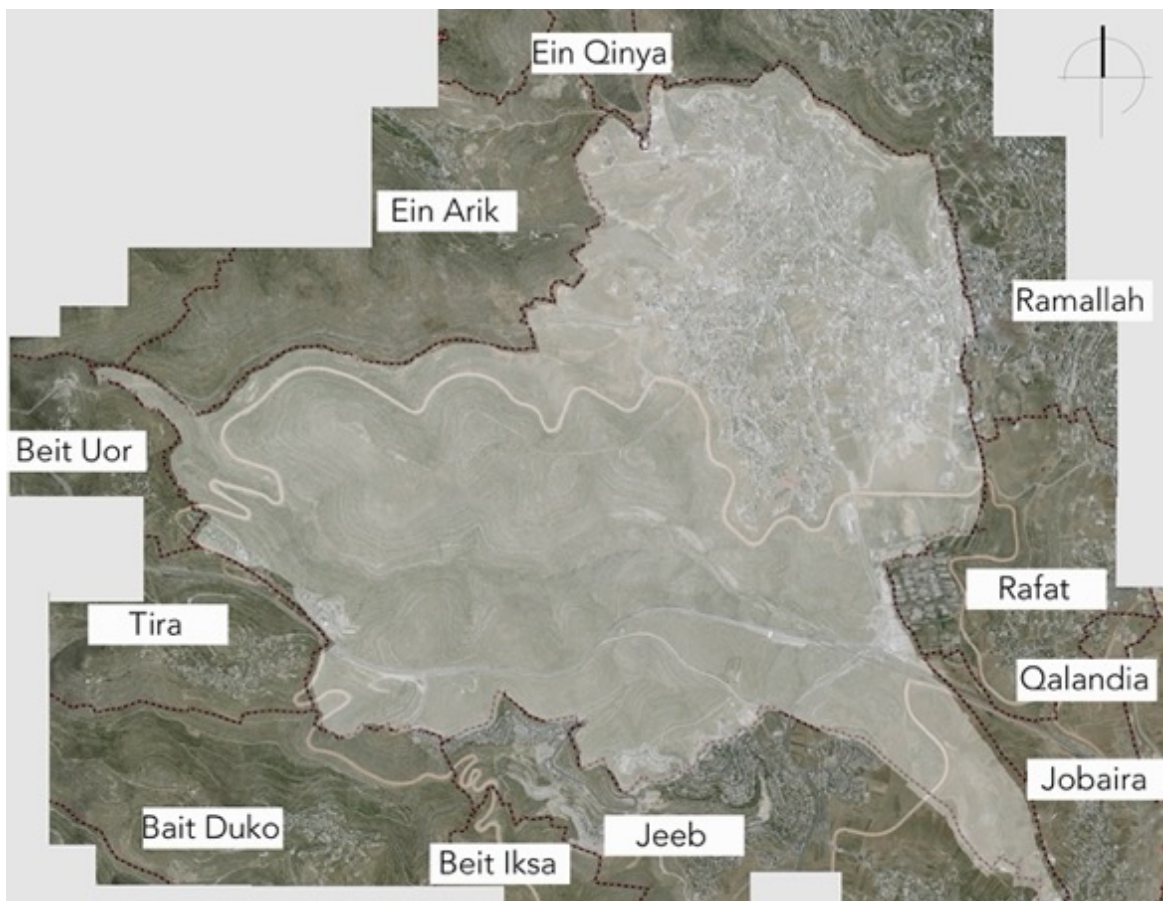


FIGURE 14 THE URBAN CONTEXT OF BEITUNIA.
Source: (Geomolg, n.d), edited by author.

3.3.1 Economic Activities

As the urban gateway to Ramallah for 17 villages, the city is being a service and commercial hub for the context and surroundings. Economically, the city comprises a vocational area providing tinkering, light manufacturing, local craftsmanship, and maintenance services to the context.

Beitunia provides affordable housing with reachable services such as schools, pharmacies, groceries, and transportation. Unfortunately, the lack of infrastructure is converting this strength point into a weakness, as it affects the quality of life of stakeholders, specifically residents (Local Economic Development Plan – Beitunia, 2018).

3.3.2 Landscape Characteristics

Evidence shows the diversity of landscape features between agricultural terraces and valleys, to the overlooking hilltops. Also, the city has a natural water spring (Ein Jar-yout) and a seasonal natural water reservoir (Al-Balou'). Additionally, the city comprises a fascinating natural landscape that could be considered a major opportunity to endorse the recreational and tourism sectors. Figure (15) below shows a panorama for the southwestern confiscated hilltops.

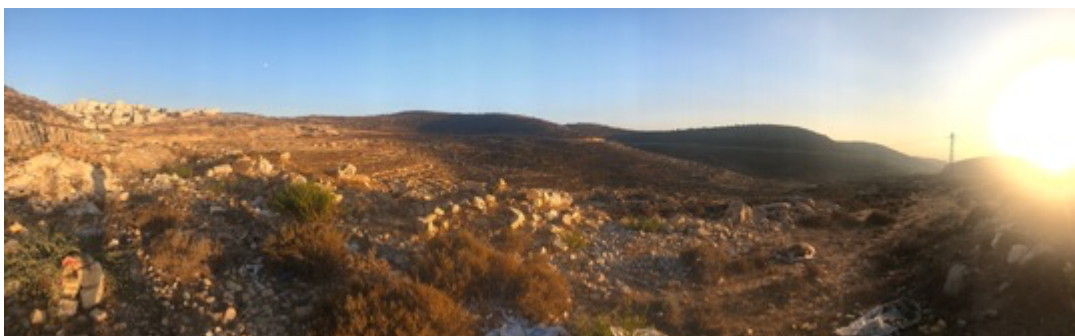


FIGURE 15 WESTERN PANORAMA OF THE CITY.

Source: the author, 2021.

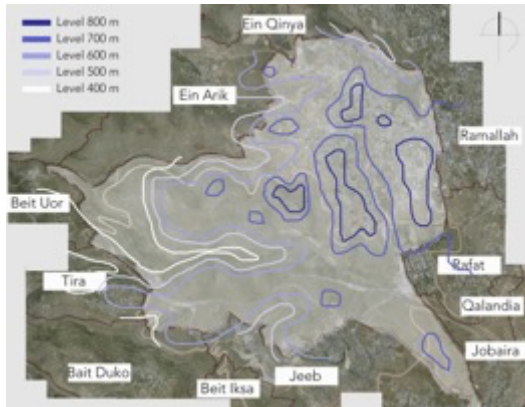


FIGURE 16 NATURAL TOPOGRAPHY AND HILL TOPS.

Source: (Geomolg, n.d), edited by author.

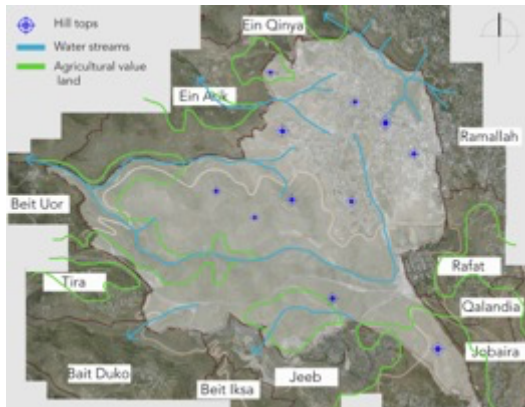


FIGURE 17 WATER FLOW AND AGRICULTURAL AREAS.

Source: (Geomolg, n.d), edited by author.

Figure (17) exhibits the directions of the water streams and the associated water reservoirs and agricultural areas.

Natural water reservoirs in Beitunia needs further surveying, yet there are two main locations. The first reservoir is Al-Balou 'area (figure 18), located in the eastern side of the old town, and takes a form of a seasonal lake. The second reservoir is Jaryout spring (figure 19-A), located on the western side of the city within area C, where community members can access, but the governance is under full occupational control.

Analyzing the natural contours of the city show that the landscape comprises of multiple hill tops going up to an elevation of 820 m above sea level. The hills located to the northern and southern east of the area overlook the western elevation of the country, to reach a lowest point elevation of 420 m above sea level on the southern west. Figure (16) shows the location of the main contour lines in Beitunia.

This natural composition created a natural rainwater flow in the city, which created multiple valleys and water streams, providing the context and surroundings with natural water resources and reservoirs.



FIGURE 18 BALOU' AREA IN THE WINTER.

Source: Al-Bireh Municipality, 2020.

Availability of water in the natural landscape, alongside other environmental factors, qualifies some areas in the context and surroundings to have moderate agricultural value, which provided the community with food sufficiency until the occupation and confiscation of land due to the construction of the Apartheid wall. Figure (19-B) shows the remain for an agricultural structure in Area C near Ein Jaryout.



A: Ein Jaryout area and spring.

B: Remains for an agricultural structure.

FIGURE 19 ELEMENTS IN THE NATURAL CONTEXT OF BEITUNIA.

Source: Ein Jaryout, 2019.

3.3.3 Colonial Forces

Satellite images of the city show the Apartheid wall cutting the land in half causing the loss of 35% of agricultural land and natural landscape. Additionally to the southeast, an Israeli military prison blocked the city's gate to Jerusalem and surrounding villages. To the south, on land confiscated from Jeeb village, the illegal Goviat Zeiev Israeli colony lays separating the city from southern villages. And finally, to the south west, the illegal Beit Horn Israeli colony lays separating the city from southern villages. These colonial forces work together to steal the right of community members to access their land, fragments Palestinian communities, and compromises hinder the agricultural activities of the city. Additionally, land occupation is causing high density in the built-up area of the city, due to the limitations associated with urban expansion and land confiscation.

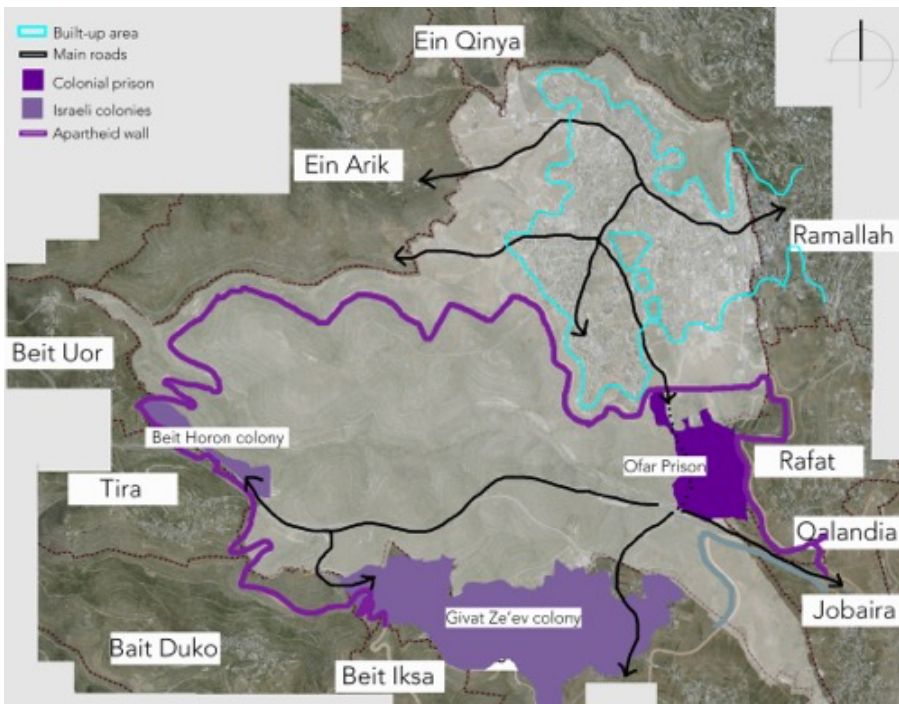


FIGURE 20 COLONIAL FORCES LIMITING THE URBAN EXPANSION IN BEITUNIA.

Source: (Geomolg, n.d), edited by author.

Figure (20) shows the satellite images of colonial forces of the city and their effect on land accessibility, population density, and urban expansion. Figures (21) and (22) show images of these forces, specifically the Ofar prison, and the fenced colonial road that surrounds the confiscated land of the city.

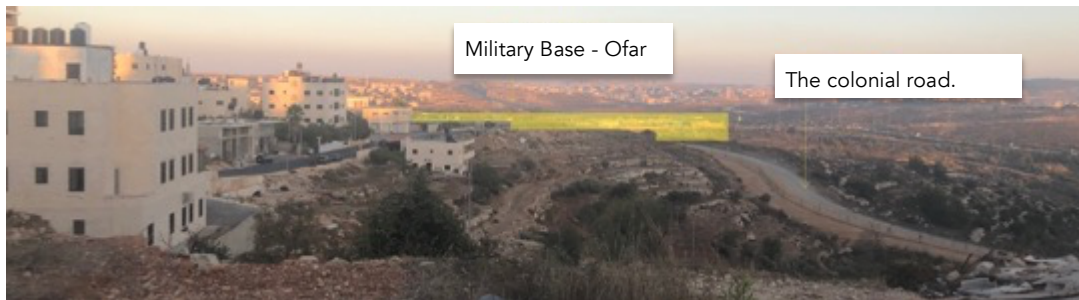


FIGURE 21 VIEW TO THE SOUTH SHOWING JERUSALEM AND SEPARATED BY THE ISRAELI MILITARY BASE AND ISRAELI SEPARATION ROAD.

Source: the author, 2021.



FIGURE 22 THE COLONIAL FENCE SURROUNDING THE CONFISCATED HILLS OF BEITUNIA.

Source: Beitunia Municipality, n.d.-b.

The exhibition of the context of Beitunia shows strengths in its location within the metropolitan of Ramallah. The city is surrounded by a vital area and connects 17 villages

to the area. Additionally, a value was shown in its natural landscape, water resources, hilltops, and water streams. On the other hand, internal weaknesses are showing in the urban spaces of the city, and major colonial forces exist in its urban context. This thesis investigated those forces and utilizes the findings to develop a strategy for sustainable development. The next chapter will discuss the methodology and research process in attaining the goal of this research.

Chapter 4: Methodology

As previously mentioned in chapter 2, the research problem that this thesis tackle is: **challenges facing the sustainability of the urban development in the Palestinian context.** The gap of literature was highlighted, and the justification for conducting this study was exhibited. It was also mentioned that Beitunia city was adopted as a case study, in which the reason for this choice was also justified.

The previous chapter exhibited the case study of Beitunia city, in which its context was used as the field to attain the findings of this study. This was achieved through collecting secondary data from documents and maps, and primary data from observations, and interviews with community members. Interviews occurred over two main phases, the first focused on highlighting the main strategic issues of the context through interviewing officials in the municipality and governance bodies. The second phase of interviews focused on understanding the factors that play role in the urban sustainability of Beitunia through interviewing community members. Additionally, this has resulted in highlighting the needs and aspirations of community members, and therefore facilitated the later formation of adequate strategies. The triangulation of data between community members, officials, and the researcher's observations was vital to the validation of the findings.

Analysis of the data was done through the encoding of interviews to form codes and categories for community perceptions of the factors affecting sustainability in Beitunia. The emerged factors were then categorized under 4 main themes relating to: urban governance, environmental quality, social equity, and economic development. The second treatment of data was done through using SWOT analysis, where the factors and forces

went through a second layer of categorization into strengths, weaknesses, opportunities, and threats, which formed a matrix of the affecting forces in the context.

This chapter will focus on highlighting the research methodology adopted and further discuss and justify the research process.

4.1 Importance of the Study

The importance of this study lays in contributing to the enhancement of the quality of life of community members in Beitunia city through presenting an urban development strategy that leads to achieving their needs and desires. On the micro-level, the research process and interaction with community members will contribute to raising their awareness and responsibility towards achieving sustainability in their city. Additionally, through interacting with policymakers and by publishing the results, the thesis will contribute to raising the municipality's awareness of their community members' needs and aspirations. Finally, this research will contribute alongside other scholars in paving the road for a sustainable urban development model that could be implemented in the Palestinian context to promote sustainability.

4.2 Research Objective

Locally, and since 1990s, the Palestinian government has been taking initiatives towards sustainability in the context. Starting from "The Emergency Natural Resources Protection Plan" (ENRPP) in 1998, followed by "The Reformation and Development Local Plan" and the Spatial National plan in 2008, and reaching to the latest publication in 2018 of exhibiting the Implementation of the Sustainable Development Plan 2030. Within that framework and towards achieving sustainable development, the Ministry of

Local Government published “The Strategic Development Urban Planning Guide” in 2009 for municipalities and local councils to utilize. The guide advocates utilizing strategic planning to achieve sustainable urban development and focuses on highlighting community participation as a core aspect of strategic planning. Since it was published, some municipalities and local councils have been adopting the manual. Nevertheless, sustainability in the local context of Palestine is not showing much progress since the publishing of the manual, and community participation in the urban context is still questioned by researchers in the field. Therefore, through a local case study, this thesis investigated the role of community participation in strategic planning as an approach for sustainable urban development.

The city of Beitunia was one of the governances that claim to utilize the 2009 guide to develop a five-years strategic development plan for the city. This thesis investigated the community’s perception of sustainability in the city and highlighted their needs and aspirations. The data collected contributed to proposing a strategy for the context, and as a result, highlighted factors to be adopted in the development of Beitunia. Finally, these factors were used to develop a suitable model for planning and management in the Palestinian context, while focusing on the community participation and involvement.

Therefore, the **research objective** is: investigate the role of community involvement in promoting sustainability in the strategic planning process in the urban context of Palestine.

4.3 Research Hypotheses and Questions

Although some of the factors that contribute to achieving sustainability in the urban context could be generalized, others are context-specific. Within that theoretical framework, this research will adopt the inductive approach and authorize the collected data to form a theory. The collection of data and questions will be based on the following main hypotheses:

1. There is minor community participation in the implementation of strategic planning for urban development in Beitunia city.
2. Involving community members actively in the process of strategic urban development could add important aspects to the context analysis and development of strategy.

Subsequently, the main research questions for this thesis are:

1. How should the city of Beitunia involve community members and other stakeholders in the process of strategic planning?
2. How do community members in Beitunia perceive sustainability?
3. Why is it essential to involve stakeholders in the development process?

4.4 Research Philosophy and Values

Creswell (2013) perceives philosophy as the use of abstract ideas and beliefs that inform the research. In qualitative research, perception of realities (ontology) varies between different individuals involved in the research. Therefore, interpretation of data in qualitative research is core to making sense of the collected data (Willing, 2014). Since the 1980s, interpretivism definition was surrounding meaning-centered (meaning-seeking and meaning-making) research (Scauso, 2020), as a result, many theoretical

approaches – such as postcolonialism – emerged to explore and investigate new methods to deconstruct, reconstruct, and compare meanings (Scauso, 2020).

This thesis is investigating urban sustainability in the context of Palestine and aims to develop a sustainable development model that specifically serves the context and its community. For that purpose, this research is positioned within the **constructivism epistemological framework**, believing that the findings should be constructed – in contrast to discovered - through the meaning-making of data. Within the aforementioned theoretical framework, one of the theoretical perspectives that are perceived as essential is **interpretivism**, which will lead to adopting an **inductive** approach to research methods.

In addition to the significance of the context and its' inhabitants, the Palestinian context in specific has been affected by many colonial forces and is still under occupation and settler colonialism. This summons a **postcolonial perspective** towards the study of meaning and results' induction process.

As the axiological assumption is the set of values that a researcher brings to the study and positions herself in (Creswell, 2013), this research adopts **values** that will position the research, and influence the study meaning process. namely:

1. In the urban context, sustainable development enhances the quality of life of community members and contributes to their wellbeing (El-Atrash, 2020), which is achieved by meeting the needs and aspirations of habitants through participating all stakeholders in the process (Blair, 2004). In this thesis, and within the aforementioned framework, the core research value is adopting a participatory research approach, starting from defining the research gap by interviewing officials, academics, and researchers in the field. Another level of participatory was adopted while

answering the research questions through interviewing various community members through one-to-one interviews and focus groups. This interaction could also contribute to deepening the community's awareness and knowledge in sustainable development, in an attempt to shift the space of dialogue from the offices of officials to the urban space.

2. Additionally, this research values the community and is investigating a community-centered approach in the research methodology. This is reflected during the data collection phase, by forming questions focusing on the community members' perceptions towards sustainability, in addition to their needs and aspirations.
3. Finally, this research values the Palestinian history and culture, and focuses on adopting a decolonizing lens and mindset throughout the overall research project. For that purpose, the interpretive research approach provides a respectful approach by dropping all colonial assumptions related to the Palestinian communities and culture, and collecting the data that could contribute to forming a theory that is context-specific.

4.5 Research Methodology

Yin (2014) defines case study research as the “empirical inquiry that investigates a contemporary phenomenon” in depth within its real-world context. The case study method is utilized in social science research when the main research questions are either “how” or “why”, the researcher has minimal control over the behavior or the subject study, and the topic of study is a contemporary phenomenon (Yin, 2014), for which all apply to the case of this study. Therefore, this research adopted the city of Beitunia as case study; in which evaluation of the sustainability of its urban development will be con-

ducted, to investigate the contemporary issues related to urban sustainability, taking into consideration the factors that are beyond the control of stakeholders in the city.

4.5.1 Research Process

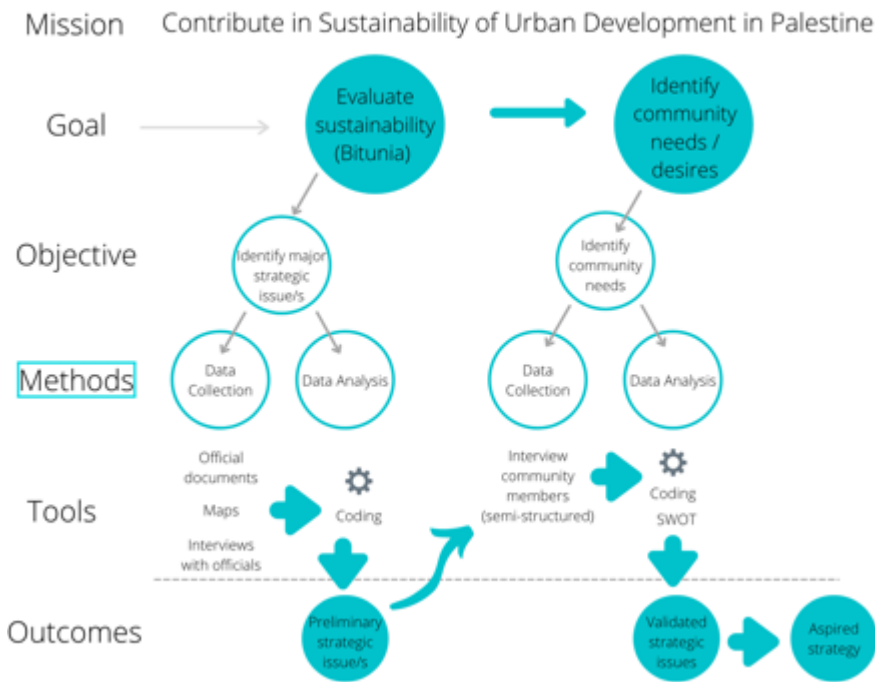


FIGURE 23 FRAMEWORK OF METHODS AND RESEARCH TOOLS.

Source: Author, 2021

The overall mission of this study is to contribute to endorsing the sustainability of urban development in Palestine through a case study. This mission was achieved through two main goals, the first is by evaluating the context to determine the strategic issues and develop solutions, and the second is through identifying the needs of community members in order to provide them.

The case study of Beitunia is the context was utilized to collect data and analyze them, and findings were used to develop strategies and factors that contribute to sustainability in the urban context. Iterations between analysis and synthesis of data was a core ap-

proach for the implementation of this study. Figure (23) visualizes the overall framework of the research methods and tools.

4.5.1.1 Validity and Reliability

The findings of this research (the factors affecting urban sustainability of Beitunia city and the community needs and aspirations) were validated through validity and reliability tests. Yin (2014) overviews four main validity and reliability tests namely: construct validity, internal validity, external validity, and reliability.

To test the validity of research, Yin (2014) advises the identification of correct operational measures for the studied concepts. This could be achieved by utilizing tactics such as the use of multiple sources of evidence and establishing a chain of evidence in the data collection and analysis phases. While in the research design phase, it is recommended to use the available theory to define the specific domain where the findings could be generalized. And finally, to test the reliability of the findings, it is essential to demonstrate that the operations of the study could be repeated throughout the data collection phase.

In this thesis, specifically in the evaluation of Beitunia city's sustainability, constructing validity occurred by the corroboration of data from different sources namely: previous literature, community's perceptions, and the researcher's observations. While for the reliability of this research, all data collection and analysis procedures were carefully documented to be shared alongside the study publication, to ensure minimizing the errors and bias in the study, and make it available for other researchers to use.

4.5.2 Data Collection

Results of this study were induced from both primary and secondary data through documents, observations of the researcher, and two phases of interviews; the first phase aimed to identify the major strategic issue/s in urban sustainability in Beitunia by interviewing officials and academics, and the second phase took place to validate the strategic issue/s in the urban development in Beitunia city by interviewing community members.

4.5.2.1 Observations (the Researcher's Viewpoint)

Site visits and road trips took place beforehand interviewing stakeholders who aimed to understand the general context of the city. Also, this stage of data collection resulted in a collection of evidence to some of the factors that play a role in the sustainability of the context. The collected evidence were documented by taking pictures when possible, which were exhibited and explained in chapter 3. These observations contributed to the validation of findings in this study.

4.5.2.2 Interviews

Academics and Officials

Interviewing academics and officials focused on highlighting the main strategic issues in the context of Beitunia, where access to valuable official documents and maps was granted to the benefit of attaining this research's objective. During the phase, semi structures interviews were conducted with 10 academics and officials, focusing on discussing topics related to urban sustainability in Palestine in general, and Beitunia city in specific.

These interviews provided access to important documents and maps, as well as led to understanding the existing forces that affect the urban development of the city. Discussions with these professionals lead to the preliminary highlighting of the major strategic issues in the context, which was later confirmed\denied by community members. This stage played a major role in corroborating the findings.

During this stage, questions discussed with academics focused on understanding:

1. The history of strategic planning and urban planning in Palestine.
2. The different roles and responsibilities of the national and regional planning and governance bodies.
3. Community participation in sustainable urban development in Palestine.
4. Beitunia city's experience in community participation in the strategic plan.

While during interviews with officials at the national, regional, and local levels, the focus of questions was to understand:

1. How was community participation part of the process for developing the latest strategic plan.
2. The major issue/s that hinder sustainability in the city.
3. The effect of the industrial zone of Ramallah on the sustainability of Beitunia city.
4. The role of the "integrated cities and urban development ICUD" project in sustaining the city within the metropolitan.
5. Opportunities of development that exist in the city.

Community Members

Interviewing community members aspired to validate the major strategic issue/s that were highlighted by the scholars and officials. Additionally, the stage aimed to participate community members in the evaluation and assessment of urban sustainability by using their perceptions of the various dimensions in the city. Moreover, the interviews discussed their future vision of the city, community members' needs, and aspirations. During this stage, 16 residents from Beitunia were participated, of which 10 of them were females and 6 males. Participants ranged in age from less than 16, up to more than 65, and varied in their educational level, their field of work, and their residential status. Detailed demographic information for participants during this interview stage are found in appendix (1).

Sampling technique was snowballing technique of convenience sampling, where the first interviewee was a parent for one of my friends, followed by her introducing me to her neighbor, which in return connected me with her colleague, and so on. During the interviews, a recorder was used to document the discussion, which allowed me to give full attention to the interviewee. Verbal permission for using the recorder was given by interviewees beforehand of the interview. All interviews ranged from 20-40 minutes, and took the form of semi-structured questions which allowed participants to talk about their experiences, perceptions, and concerns. See appendix (3) for the semi-structured questions.

During this stage, interviewees were asked to sketch a map for the city and highlight the important elements in the context. This mental mapping tool was used to understand the community's spatial perception of the urban context of Beitunia. Following the mental mapping, questions were asked to understand the interviewees' feelings

about their city, and their perception of factors of sustainability in the city within the environmental, social, and economic dimensions. An additional dimension emerged through the discussion and later was added as a theme in the analysis stage which is: the urban planning and management dimension. Moreover, after the questions that focused on assessing sustainability, a short discussion took place to highlight how they see their future city, and what are interventions that they believe are urgent to enhance their quality of life.

4.5.2.3 Focus Groups

In addition to the aforementioned individuals from community of Beitunia, two focus groups for 14-year-old students were conducted in a private school. The school separates the students according to gender, where the boys' classroom contained 22 students and the girls' classroom contained 11. Appendix (2) shows the demographic data for the focus groups.

Meeting with the focus groups took a form of an open-ended discussion with the whole classroom. The discussions contributed to understanding their spatial perception of the city, alongside their perceptions towards the environmental quality, as well as the social equity in the city. Desires of this age group as well as their most urgent needs were communicated and highlighted clearly at the end of the meeting. At the end of the discussion, students were asked to sketch a mental map for the city, highlighting the important elements in the context.

4.5.3 Data Analysis

4.5.3.1 Indicators of Sustainability

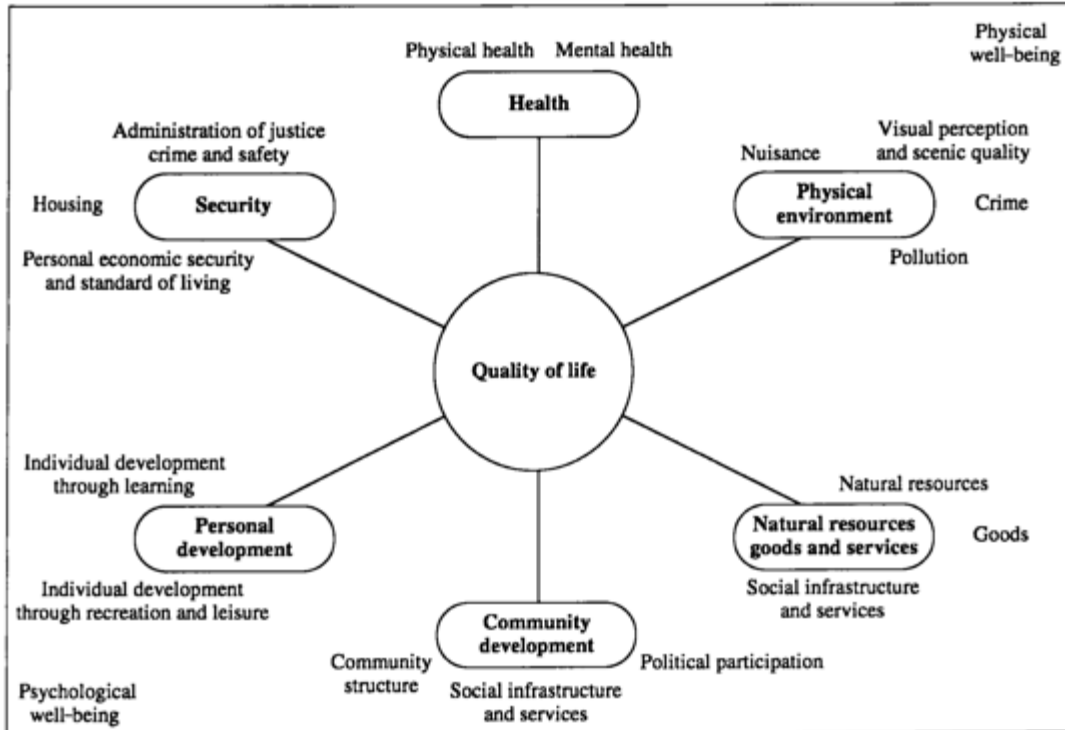


FIGURE 24 EXAMPLE FOR UTILIZING THE PICABUE MODEL TO VISUALIZE THE COMPONENTS OF QUALITY OF LIFE.

Source: Mitchel et al., 1996.

During interviews with community members, international indicators of sustainability formed the outline for those discussions. Nevertheless, due to the semi-structured nature of the questions, community members were able to highlight additional indicators, and eliminate others.

This approach of developing indicators was based on Mitchell et al. (1996) PICABUE model, which was found to be compatible with the philosophical framework of this study, taking into consideration that it's based on community participation, and with the theoretical perspectives of constructivism, specifically in the induction of data to construct meaning.

After the emergence of indicators, the PICABUE model proposes classifying the indicators into components that affect the quality of life of community members, and visualizing them in a diagram form. Figure (24) shows the original example from Mitchell et al. (1996).

4.5.3.2 Treatment of Data

Research shows that the best way to induce facts from the collected data is by tracking the emergence of patterns that suggest relationships between variables (Gray, 2004). In this study, data collected during interviews with community members, and specifically in the sustainability assessment section, were analyzed through the inductive approach; where sentences were developed into codes, and codes were grouped into categories of similar meaning. Similarly, similar categories were grouped into themes, which formed the main structure for the findings namely: urban planning and management, environmental quality, social equity, and economic development.

Following the first treatment of data, factors under the same themes (dimensions of development) were categorized again using the framework of the SWOT analysis, where each factor (indicator) was determined as a strength, a weakness, an opportunity, or a threat for development in the urban context, depending on the role the factor plays in (enhancing or hindering) sustainability in Beitunia, and depending on whether this factor was an internal force or external. This stage of treatment of data lead to developing a matrix of the forces. This matrix formed the keystone for developing the aspired strategy. Figure (25) shows the process of developing the matrix of forces (internal and external) in relation to the dimensions of development (themes).



FIGURE 25 GROUPING THE FINDINGS INTO CATEGORIES AND SORTING THEMES WITHIN THE SWOT FRAMEWORK.

Source: Author, 2021.

4.5.3.3 Developing Alternative Strategies

For the development of the strategic plan, integrating the forces in a unified matrix enabled this research to utilize SWOT analysis and a strategic thinking tool in the process. This was achieved through: utilizing TOWS analysis to form alternative strategies, developing desires into the vision and mission of the strategy, converting urgent needs for development into strategic goals and objectives.

TOWS analysis is a strategic tool developed by Wehrich (1982), and is used in the formation of strategies through a process of recognizing the various organizational input, identifying factors, and developing alternative strategies.

Wehrich proposed 4 main approaches to forming strategies (table 3) namely:

- Maxi-maxi (SO) strategies by maximizing the effect of strengths (S) and opportunities (O), and utilizing them in the organization's strategic plan.
- Mini-maxi (WO) strategies attempt to minimize the weaknesses (W) and maximize opportunities (O).
- Maxi-mini strategies focus on maximizing and utilizing strengths (S) against threats (T).
- Mini-mini strategies aim to eliminate the weaknesses (W) and threats (T) from the context.

4.5.3.4 Developing Strategy

Forming the strategy to achieve the sustainability of the urban development in Beitunia was based on achieving the needs and desires of the community members. Therefore, the needs of community members were developed towards the objectives of the strategic plan of the city, while the desires contributed to developing the vision of the strategy.

4.5.3.5 Validating the Findings

Corroboration

Towards enhancing the validity and reliability of this qualitative research, data from different resources were embedded in the grouping and sorting of perceptions. Mainly all data collected from primary resources (interviews and observations) and secondary resources (interviews with officials, documents, and maps) were integrated into the matrix of forces. For example, com-

munity perception of water quality could be in line with the data available in the formal documents, which will validate the perception and make it a fact (finding of the study).

TABLE 3 PROCESS OF STRATEGY FORMATION AND THE TOWS ANALYSIS.

<p>Step 1.* Prepare an Enterprise Profile: (a) the Kind of Business; (b) Geographic Domain; (c) Competitive Situation; (d) Top Management Orientation</p>			
		<p>Step 4. Prepare a SW Audit in: (a) Management and Organization; (b) Operations; (c) Finance; (d) Marketing; (e) Other</p>	
Internal Factors	<p><i>Step 5. Develop Alternatives</i> <i>Step 6. Make Strategic Choices</i> <i>Consider: Strategies, Tactics, Action</i> <i>Step 1 to 6. Test for Consistency. Also Prepare Contingency Plans. (Step 7)</i></p>	List Internal Strengths (S): (1)	List Internal Weaknesses (W): (1)
External Factors			
<p>Step 2. Identify and Evaluate the Following Factors: (a) Economic, (b) Social, (c) Political, (d) Demographic, (e) Products and Technology, (f) Market and Competition</p> <p>Step 3. Prepare a Forecast, Make Predictions and Assessment of the Future</p>	List External Opportunities (O): (Consider Risks Also) (1)	SO: Maxi-Maxi	WO: Mini-Maxi
	List External Threats (T): (1)	ST: Maxi-Mini	WT: Mini-Mini

*The Steps Are Suggestive and May Vary

Source: Wehrich, 1982.

Dissemination

Iterative sharing of findings and insights took place during the data collection and analysis process. This aimed to refine the analysis and share some insights with the different stakeholders during the process. Nevertheless, due to the limited timeframe of the study, the dissemination of findings occurred only with 3 community members through social media communication tools. Further dissemination of data is planned to occur after the submission of this thesis through a webinar, which will be organized to discuss and obtain feedback regarding the research process and findings of this study. Various stakeholders will be invited to attend the webinar and contribute their insights.

4.6 Dimensions of Development (Themes)

The main findings of this study show that the forces affecting the urban sustainability of Beitunia are categorized under four main dimensions of development: urban planning and management, environmental quality, social equity, and economic development. Core strengths forces that were found in the context are related to human capacity and the natural landscape. Major weaknesses were found related to services, pollution, infrastructure, and the urban spaces. Main opportunities of development were found in the metropolitan, community members' relation to the city, youth, and community social fabric. While the main threats were found to be related to colonial forces and internal political instability. See appendix (4) for the data table with associated codes, categories, and themes.

Chapter 5: Findings and Discussion

The previous chapter explained the research philosophy and associated research process for attaining the outcomes of this study. This qualitative study is based on interpretivism as the research theoretical perspective and adopts an inductive approach to research methods. The source of collected data was from primary sources specifically observations and interviewing of community members, and secondary sources specifically documents and maps. The data collection aimed to identify the main strategic issues (forces affecting sustainability) of Beitunia, as well as define the needs and aspirations of community members. The analysis of data was through phases of encoding the interviews with community members, and SWOT analysis for primary and secondary data. Findings from the analysis were inputs for developing an adequate strategic plan for the city.

5.1 Dimensions of Development

The main findings of this study show that the forces affecting the urban sustainability of Beitunia are categorized under four main themes: **urban planning and management, environmental quality, social equity, and economic development.**

The **strengths** that were found in the context are related to: human capacity in the city (municipality staff, community members knowledge), diversity of services, location of city in relation to surroundings, natural landscape and elements, and architectural heritage. While **weaknesses** were found in the: employment opportunities, basic services (sewage system, availability of water), public services (educational, health, recreation-

al), safety, pollution and biodiversity, building regulations, urban design and planning, and urban management.

In contrast, **opportunities** of development were found in the: JCU, community members relation to city, capacity and energy of young children of the city, community fabric and social relations, and the vital metropolitan. While **threats** were found to be related to: colonial forces, internal political situation, the location of industrial zone of Ramallah, lack of awareness in the environmental and social equity dimensions, and global warming.

These findings will be discussed in details below, under a framework of the SWOT analysis.

5.1.1 Urban Planning and Management

Data collected under this theme were found to focus on two main categories which are: **city management** in terms of regulations and enforcement of law, and **city planning** in terms of spatial planning. Insights were developed under this theme based on the corroboration of available documents, maps, observations from the site, and confirmation of codes from different individuals during the interviews.

Main opportunities for development were found in the existence of the JCU, which could provide many opportunities for sustainable development, capacity building, and holistic municipal services for the city and the metropolitan. Additionally, it was found that the emotional and social connection of community members to their city is a major opportunity that the municipality could utilize in good governance. This was seen also as a **strength** where the municipality have good relationship, and effective communication channels with some members of the community. And finally, the municipality

have a qualified human capacity, organizational structure and some minor automation for internal systems, which could be utilized and further developed towards good governance.

On the other hand, **threatening forces** that affect good governance in the city were found to be: instability in the Palestinian government affecting the decision-making processes towards urban development, the settler colonialism restricting the city expansion, planning, and controlling, and the location of the industrial zone of Ramallah affecting the residential area quality and forcing traffic and pollution to the city. Alongside these external forces, **weaknesses** in the city planning and management are forcing challenges which affects the quality of spaces in the city. These weaknesses are: inadequate building regulations and the low enforcement of them, absence of accessible and inclusive urban spaces, low and questionable public participation in governance, absence of sustainable financial resources for the municipality, and many pitfalls in the municipal organization structure.

Details of the internal and external forces for urban planning and management theme (theme 1) are discussed in the following sections.

5.1.1.1 Internal Forces Affecting “Urban Planning and Management”

5.1.1.1.a Strengths

It was found from the data that community members are able to highlight major weaknesses in the governance of Beitunia city, while not perceiving much strengths in the context. Nevertheless, the Local Economic Development Plan (LED) of Beitunia 2018-2021 (2018) shows various strengths related to managing the urban context of Beitunia namely:

1. Municipal Internal Management Systems

The municipality perceives great strengths in their internal management systems such as organizational structure, adequate human resource, and automated financial systems. Nevertheless, officials shared some recommendations related to developing the human capacity in terms of professional development and recruitment, specifically in the field of project management and fundraising is essential to empower the financial ability of the municipality.

2. Relation with Community

Officials in the municipality of Beitunia adopt great pride in their relationship and communication channels with community members. The municipality has a public service centre functioning since 2015, which provides a communication space. Nevertheless, although some community members – specifically who are originally from Beitunia – expressed their ability to easily reach officials in the municipality, the reach was questioned by other residents who are originally from other cities. Further investigation is needed to understand the relationship between community members and their municipality, and efforts are recommended to create diverse inclusive channels of connections that suits all members of the community.

5.1.1.1.b Weaknesses

Findings from analysis of the primary data, collected from the researcher's observations, and community members, that weaknesses in Beitunia city's urban planning and management are:

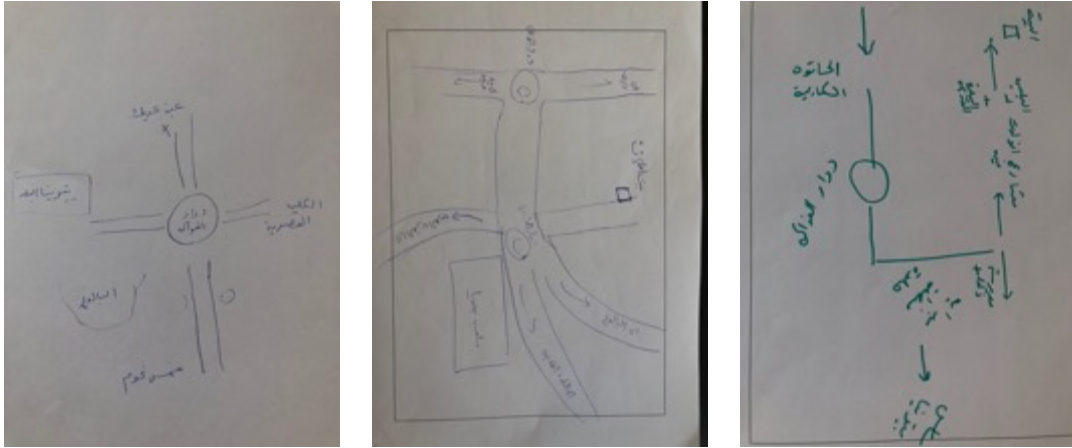
1. Inadequate Building Regulations and Weak Enforcement

Community members show disappointment in the quality of the urban space in the context. This was explained by community members due to the absence of enforcing building regulations on investors in the city. Additionally, residents expressed discomfort with the mixed-use zones in some neighborhoods in the city, which was said to affect their quality of life, specifically by causing noise, traffic, and visual pollution which will be further discussed in the next theme. Further concerns regarding the rapid urbanization was shared by community members, which they perceive through the exploding numbers of high residential building in the city. These buildings are causing the loss of agricultural land to the expense of investment purposes, while compromising the quality of services – specifically water availability and waste management.

2. Spatial Planning and Design

The mental maps showed that 50% of residents perceived Beitunia's urban plan as a radial composition with one monumental node in the middle. On the other hand, 33% of residents perceive it as axial composition with multiple public nodes along the way. Only 17% of residents perceive the city as a complex composition of spaces, zones and places. Figure (26) shows some selected samples from the mental maps developed by community members during the interviews. The community's spatial perception itself reflects superficial interaction between community members and the land. Observations show that the city focuses on serving vehicles and investment needs in contrast to the community and pedestrians' needs. The vehicle centered city design is causing heavy traffic. Community members have expressed that the heavy traffic is forcing discomfort as it elongates their daily commute jour-

ney, and induces anger and dissatisfaction. This issue could be avoided by presenting efforts towards urban space design and adequate urban planning.



Sample A: Beitunia's urban plan is a radial composition with one monumental public space in the centre.

Sample B: Beitunia's urban plan is an axial composition with multiple public nodes along the axis.

Sample C: Beitunia's urban plan is a complex composition of spaces and places.

FIGURE 26 SELECTED SAMPLES FROM THE MENTAL MAPS.

Source: The author, 2021.

3. Accessibility in\to Public Spaces

Community members suffer daily from the lack of accessibility in the public spaces of the city. This was exhibited in the low quality of streets and sidewalks that enforce accessibility challenges to different physical needs such as wheelchairs and strollers. Additionally, there are major challenges to access open areas and natural landscape, as community members perceived it as dirty and lacks services and adequate road. Additional factors related to the apartheid wall and the confiscation of land, which will be discussed in details under threats in the external forces section.

4. Public Participation in Urban Development

As officials and documents show that public participation was a major aspect in the development of the city strategic plan 2018-2021, while community members expressed that there is absence of public participation in the urban development of Beitunia. This might indicate that community members didn't have equal opportunities to participate in the developing of urban context, and that the sample of community members participated was not representative to all community.

5. Availability of Fund

Officials discuss that one of the major challenges that hinders sustainable planning and management of the city is the limited resources that are available to implement development plans, specifically those related to the financial resources. Financial resources in the city are limited to personal donations and taxes from community members only. Nevertheless, within the strategic planning and management process, allocation of financial resources is an essential function in implementing strategies. For that purpose, the municipality should recruit experts for the purpose of managing the financial needs for the city's projects.

6. National and Regional Planning Bodies

Through discussions with officials, it was found that the planning bodies of the Palestinian authorities suffer from major weaknesses related to the institutional management, specifically in the implementation of strategic plans and urban development projects. This is the result of the 2015 presidential decree to merge the ministry of planning with the ministry of finance, where the function of planning was scattered between different municipalities. Not only does this affect planning on the national level through elongating the decision making, it also increases the need for

coordinating bodies between the scattered authorities to achieve development. Example of these coordinating bodies was the Joint Cooperation Unit JCU – which functions as a collaborative unit between the Ramallah, Al-Bireh, and Beitunia municipalities – and is working towards coordinating the urban development in the metropolitan. Nevertheless, the unit lacks human capacity and organizational structure, as well as authority, as the unit merely constitutes of adjunct committees. The ineffectiveness of the unit is a major weakness in the metropolitan’s management and planning, and further investigation is needed to address the problem and ideate a solution.

5.1.1.2 External Forces Affecting “Urban Planning and Management”

5.1.1.2.a Opportunities

In contrast to the aforementioned weaknesses, opportunities for good governance were found in the context based on community perceptions, observations, and official documents.

1. Joint Cooperation Unit (JCU) of Ramallah, Al-Bireh, & Beitunia Metropolitan

As previously mentioned, the Joint Cooperation Unit JCU is a collaborative unit between the Ramallah, Al-Bireh, and Beitunia municipalities, working towards coordinating urban development projects, developing joint urban plans for the metropolitan, and building capacity for the three municipalities. Although various weaknesses in the unit’s organizational structure and capacity was highlighted by officials, the city of Beitunia is a member in the unit, and this membership could be utilized for the benefit of the municipality. For example, the unit could empower the municipality’s fundrais-

ing capacity, which in return could contribute to achieving sustainable development by enabling the municipality to implement strategic urban projects.

2. Community's Emotional Relationship with the City

Although not perceived by officials, there are social and emotional factors related to the residents' decision to live in the city of Beitunia. In addition to that, major challenges that are affecting the quality of life of community members doesn't seem to affect their emotional relationship with the city. These factors are worth investigating and perceived as opportunity for the municipality to enhance the residents' satisfaction.

5.1.1.2.b Threats

In addition to the internal forces that were previously discussed, major threats are hindering the urban planning and management of the city namely:

1. Instability in the Palestinian Authority

The internal political instability and rapid changes is forcing challenges on the municipality and associated planning bodies to conduct long-term projects. This was confirmed through scanning the multiple strategic development proposals and reports developed that weren't commenced or implemented. Some of These documents have been developed since 1995, which associates with the signing of Oslo accord and the establishment of the Palestinian Authority. The documents are: The Emergency Natural Resource Protection Plan ENRPP in 1998, followed by the Reformation and Development Plan in 2008, and finally the National Spatial Plan in 2015. This extensive planning process is not associated with tangible outcomes and limited to soft outcomes such as more documents, plans or maps, consuming the financial and human resources available, thus prohibiting actual development and hinders sustainability in the urban

context in Palestine. Further investigation is needed to determine the cause of this trend and suggest a solution.

2. Land Fragmentation and the “Apartheid Wall”

The land fragmentation between areas A, B, and C in the west Bank enforced by the Israeli occupation’s military forces is a major obstacle to long-term urban development and sustainability, specifically in Beitunia city. Approximately 80% of the city’s land is sacrificed to area C, which prohibits the Palestinian government to plan, manage or control the area (LED, 2018). This is leading to rapid urbanization in area C, and fragmentation in the regional spatial and strategic planning. Additionally, the Apartheid Wall and confiscation of land caused the loss of 70% of agricultural land, leading to farmers losing their source of income and restricting the mobility of community members. Both these forces, land fragmentation and the Apartheid wall, are major challenges to the city’s urban planning and management. Further investigation towards counter-planning methods might lead to ways to mitigate with this colonial challenge (Zeid & Thawaba, 2018).

3. Restrictions on Movement

Some community members express their sadness when describing the loss of freedom to move in the land of Palestine. The restriction of movement caused by the Apartheid wall, checkpoints as well as the occupational restrictions to access occupied cities, is highly affecting the wellbeing of the community, as some expressed their feeling of depression and reduced satisfaction for life quality.

Quote from interviewees (#12 code MDCKD): “*We live in the biggest prison in the world*”!

4. Industrial Zone of Ramallah

The Industrial zone of Ramallah city is located to the east of the city, and functions as the doorway to Beitunia. The zone is forcing heavy traffic to the entrance of the city, which is affecting the quality of life of residents by increasing their daily driving time and increasing anger. The location of the zone also forces a major challenge to the municipality to plan streets infrastructure and manage the traffic flow. Towards a solution, a previous study conducted by the Ministry of Planning (MOP) in 2006 concluded that industrial areas should not be located within residential complexes, and a recommendation was highlighted to evacuate the industrial area and suggested an alternative location. The study was not commenced to implementation, and was handed to the Palestinian Industrial Estates & Free Zones Authority (PIEZA) after shutting down the MOP. Reinitiating the study and implementing the suggested plans is recommended, and further studies could focus on creating an alternative doorway to the city in-order to manage the traffic flow.

5.1.1.3 Summary of “Urban Planning and Management” Forces

Findings of the “urban planning and management” theme show few strengths and opportunities in the dimension, yet major internal weaknesses and external forces affecting the good governance of the city are highlighted. The findings are exhibited briefly in table (4) below within a SWOT template table.

TABLE 4 SWOT ANALYSIS FOR URBAN PLANNING AND MANAGEMENT THEME.

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Internal capabilities in the municipality of Beitunia specifically: human capacity, automated systems, and organizational structure. 2. Community and municipality relations and communication channels. 	<ol style="list-style-type: none"> 1. Inadequate building regulations and weak enforcement of existing regulations. 2. Lack of human centered urban spaces that serve different needs for different social groups in the community. 3. Major accessibility issues in the public spaces. 4. Minor public participation in the governance and decision-making process. 5. Absence of financial stability for the governing body. 6. Lack of organizational structure and authority for the JCU.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Existence of the JCU coordinating the development of holistic urban development plans for the metropolitan. 2. Community members' emotional connection to the city of Beitunia. 	<ol style="list-style-type: none"> 1. Political and internal instability in the Palestinian Authority. 2. Land fragmentation due to settler colonialism and the Apartheid wall. 3. The location of the industrial zone of Ramallah.

5.1.1.4 Potentials for Development

As previously mentioned in the methodology chapter (chapter 4), and based on Wehrich's (1982) TOWS analysis, the integration of forces and alternatives for development shows various potentials for development strategies in the urban planning and management dimension of Beitunia.

Through **utilizing the strengths and opportunities** in the city, strategies such as developing adequate urban plans and designs, as well as participating community members in the processes show high potential for development. Additionally, it was found that **opportunities in the context could be utilized to minimize weaknesses** through: utilizing JCU to enhance the building regulations, urban spaces standards, and fundraising capacity, and utilizing the relationship with community members to engage them in the urban planning and development process.

Also, **strengths of the context could be utilized to minimize threats** through utilizing the human resource in the municipality to conduct counter-threat research, and through

initiating community education programs to develop counter-threat actions by community members. Finally, an approach to **minimizing weaknesses and threats** could be adopted, and strategies for elimination could be achieved by: adopting a passive governance approach, following the industrial zone trend in the city, or simply taking down the local governance.

This last approach is the most passive approach, and data from observations and community members' testimonies show that it is very similar to the current situation in the governance of the city. Therefore, it could be the **least recommended among the other scenarios of development**.

Table (5) summarizes the TOWS analysis and exhibits the various strategies that could be adopted in the proposed strategic plan for Beitunia's sustainable urban development.

TABLE 5 TOWS ANALYSIS AND ALTERNATIVE STRATEGIES FOR "URBAN PLANNING AND MANAGEMENT" DIMENSION.

	S	W
	<ol style="list-style-type: none"> 1. Internal capabilities in the municipality of Beitunia specifically: human capacity, automated systems, and organizational structure. 2. Community and municipality relations and communication channels. 	<ol style="list-style-type: none"> 1. Inadequate building regulations and weak enforcement of existing regulations. 2. Lack of human centered urban spaces that serve different needs for different social groups in the community. 3. Major accessibility issues in the public spaces. 4. Minor public participation in the governance and decision-making process. 5. Absence of financial stability for the governing body. 6. Lack of organizational structure and authority for the JCU.
O	<p>S/O: maxi-maxi strategies</p> <p>S1O1 - Develop adequate urban plans and designs for Beitunia.</p> <p>S2O2 - Participate and engage community members in planning and design functions.</p>	<p>W/O: mini-maxi strategies</p> <p>W1O1 - Develop adequate building regulation and enforce them.</p> <p>W2O1 - Develop regulations for human centered urban spaces and urban design.</p> <p>W4O2 - Participate community members in developing adequate regulations for buildings and urban spaces.</p> <p>W5O1 - Utilize JCU to fundraise urban projects.</p>
T	<p>S/T: maxi-mini strategies</p> <p>S1T3 - Initiate research and development department to conduct urban research for the sake of highlighting urban issues and threats of sustainability.</p> <p>S2T2 - Initiate community education programs that develops community solutions against the occupation and colonial forces.</p>	<p>W/T: mini-mini strategies</p> <p>W1T1 - Adopt passive governance within the existing capabilities.</p> <p>W5T1 - Take down the current urban governance for the city.</p> <p>W6T3 - Follow the industrial zone trend and open wide opportunities for investors.</p>

Source: Author, 2022, Analysis Tool based on Wehrich (1982).

5.1.2 Environmental Quality

It was found that **environmental sustainability is in high risk, and the least developed** in comparison to other dimensions. This conclusion is based on data collected from documents and observations, as well as the perceptions of community members. General overview of the data shows major challenges facing the environmental context, in contrast to very few strengths and opportunities.

Findings within the environmental quality theme highlight a **strength** in the availability of water in the context, which could be utilized for the benefit of the city and the environment. It was also found that an **opportunity** for a better future lays in the hands of young community members as they were aware and perceptual to the environmental aspects of their city. On the other hand, **major threats** were found related to: cultural factors that contribute to irresponsible behaviors, colonial forces that compromise the quality of the environment, as well as global warming that affects the agricultural sector. In addition, internal **weaknesses** affecting inhabitants of the city rotate around loss of biodiversity and pollution in air, soil, water, visual, and noise.

Below is a detailed exhibition of the findings within the theme of environmental quality.

5.1.2.1 Internal Forces Affecting “Environmental Quality”

5.1.2.1.a Strengths

1. Natural Water Resources

Despite the confiscation of land and loss of natural water resources, the city still comprises some water resources that could be utilized to serve the community needs. Example of these areas is the Balou’ natural water reservoir, which lies to the southern entrance of the city. This natural reservoir is well-known by most of the community members, yet not utilized and is not perceived as an opportunity for water resource by them, claiming that it is private property. Nevertheless, the Palestinian water law, spe-

cifically within decree (14) for the year 2014², article (3) discusses ownership of water resources, and clearly states that “all water resources in Palestine shall be considered public property, and the authority has the power to manage these resources in a manner that ensures justice and efficiency in distribution”. The municipality is recommended to utilize water resources in serving some needs for the residents specifically recreational and availability of water. It is also recommended to investigate further examples of local natural water resources in the context.

5.1.2.1.b Weaknesses

Major challenges were found in the environmental quality, and were found to lay under categories related to: noise, visual pollution, air pollution, water pollution, soil pollution, and biodiversity. Nevertheless, as community members could perceive some factors that are compromising the quality of environment, their perception to some of these factors as pollution - specifically noise, air, and visual pollution - needs more effort towards community awareness and education. Biodiversity on the other hand had contradictory perceptions. Below are the weaknesses that affect the quality of environment negatively:

1. Noise Pollution

Community Perception to noise pollution varied between residents in the city. As codes show that some interviewees can clearly distinguish the existence of factors causing

² The Palestinian water law could be accessed through the link:
<http://www.pwa.ps/userfiles/server/law/Water%20Law%20new%202014.pdf>

noise in the city, others deny the existence of these factors. My observations were able to touch differences between noise levels in the city from one neighborhood to another. Nevertheless, noise levels were found high and are categorized as noise pollution. In that context, factors that were listed by community members as causes of noise pollution are: traffic, industrial facilities, repair shops, and motorcycles. These factors are highly associated with the absence of adequate urban planning and design in the city, specifically to street design and land-use design. An additional factor that was highly connected as a causation of noise in the city by community members was the excessive need for wastewater aspirators. As community members described the intensity of its' need, and length of the process. This need for aspirators is caused by the absence of functioning sewage network. Regardless of community perception to these factors, they could have effect on the wellbeing of community members, as t could affect their hearing on the long-term. The municipality needs to give high attention to this issue and plan to solve it.

2. Air Pollution (Air Quality)

Major causes of air pollution in the city as perceived by residents were: burning trash-cans, random fires, and wastewater. In the context of Beitunia, burning trash-cans are considered common in some neighborhoods, while less common in other. This might be a result of the density of population in contrast to the frequently of municipality's waste collecting schedule. Burning trash-can might be considered irresponsible behavior from community members, but further investigation is needed to understand waste management procedures and rethink the process.

In addition to burning trash-cans, specifically during the summer, random fires initiated by community members frequently to get rid of potential reptiles - specifically snakes -

that might live between stones and dry grass. As this behavior is not perceived negatively by community members, the emissions that come along with the act is considered annoying. The impact of burning land could have major effect on the wild life, as well as the quality of life of community members. Major efforts are needed towards community environmental awareness and education in the context.

Finally, wastewater is a major issue that community members' highlighted to affect their quality of life. In Beitunia, community members are obligated to collect their waste water for each facility in reserving tanks, and empty the tanks as soon as they fill up to avoid wastewater overflowing. The process of emptying the tanks requires aspirating trucks to suck the water out for hours each time. This process is more frequent than community members can accept, and is claimed to enforce health issues due to the sludge remains, and discomfort due the bad odors. Providing a high functioning sewage system appears to be a top priority in the city.

3. Soil and Water Pollution

Solid waste and wastewater sludge were found to be the main factors that affect the quality of soil and natural water reservoirs in the city. As residents perceive negatively the existence of these two factors, the perception to their effect on the environment needs further investigation. Farmers in particular perceive the effect more clearly as they have direct interaction with the land. Farmers suffer from the remains of wastewater on the quality of soil, and claim that solid waste and plastic garbage affects the quality of crops they produce. Major efforts are needed towards providing adequate sewage system in the city, and reconsider a more effective solid management process.

4. Visual Pollution

Visual pollution was highlighted by very few community members through factors associated with lack of building regulations and enforcement of law, the insufficient waste management causing frequent accumulation of solid waste in public spaces, as well as the low-quality infrastructure specifically street structures and the low urgency associated with repairing damages in the public spaces. Additionally, other community members clearly expressed their dissatisfaction for the visual scene specifically in the absence of green covers and elements in the city. On the other hand, other elements that were noticed through observations - such as billboards and electricity - were not mentioned by community members. As visual pollution might not seem an urgent issue in comparison to the aforementioned challenges to environmental quality, it has high effect on the wellbeing of residents and their quality of life as some expressed their discomfort with the urban visual components. Instant measures should be taken by the municipality to raise quality of public spaces and the visual scene.

Quote from interviewee (#2 code MEEEE): *“When I come back to town, I feel suffocated by approaching the city. I could get depression only by walking down the streets”!*

5. Biodiversity

Data show some contradictions in perceiving the role of biodiversity in enhancing the quality of environment and sustainability. As most community members perceived the absence of flora negatively while talking about the environmental quality of the city, some perceived the absence of fauna positively. For example, while some residents oppose the killing of wild dogs by municipality, others encourage the act and sometime volunteer to do it. This could be correlated to cultural factors related to perception of

hygiene and safety. Instant actions are needed to raise the awareness of community members towards environmental sustainability and biodiversity.

5.1.2.2 External Forces Affecting “Environmental Quality”

5.1.2.2.a Opportunities

1. Young Catalyst of Change

Discussions conducted with the sample of students in schools of the city show that the future generation has high mental and perceptual capabilities. The generation is facing great limitations due to occupation and the associated restrictions on mobility. Yet they are exposed to the international world through the internet and social media. This exposure is affecting their perception to environmental quality and sustainability to a level that could in some cases exceed the potentials of adults of the city. This also could be related to their engagement to educational track through the schools’ curriculum. This age group should be considered as catalysts of change in the environmental status of the city through voluntary work programs, and community education. Further research is needed to determine the ways to utilize the capacity of young children in enhancing the environmental quality and sustainability.

5.1.2.2.b Threats

In addition to all the aforementioned internal forces, many threats from external factors were found to play a major role as well. These factors are either global, national, or local forces, which are:

1. Irresponsible Environmental Behaviors (Community Behavior)

Observations and testimonies show tremendous amount of irresponsible behaviors toward the environment. Some of these behaviors are believed to be associated with cultural factors such as the use of poison to kill wild dogs, and the land-burning techniques to get rid of reptiles - specifically snakes. These behaviors, along other behaviors could be influenced by the definition of hygiene according to the community perception. Further investigation is needed in this matter to understand these factors and develop ways to divert them. A community awareness and educational program in the environmental sciences could contribute to shifting such behaviors.

2. Ramallah Industrial Zone

Some of the previously mentioned weaknesses in the environmental context such as air, soil, water, and noise pollution are associated with the existence of the Ramallah industrial zone at the entrance of the city. Some residents - specifically those living near the area - testify that the zone emits bad odors, and cause the accumulation of solid waste in the context. Additionally, some industrial facilities were perceived by community members to produce high noise and contribute to increasing the traffic flow. Factors associated with the industrial zone is affecting residents' daily life activities. Previous governmental study shared recommendation towards the importance of evacuating the area. Until the project commences its goals, efforts are needed to investigate potential internal solutions such as creating a green buffer zone between the industrial area and the residential context.

3. Israeli Occupation's Military Invasions

Residents of different ages shared many personal stories related to the Israeli occupation's military and the associated military invasions for the city at night. The analysis

process conceived insights related to the safety of the context which will be discussed in the following theme. Nevertheless, within the environmental quality framework, farmers expressed their discomfort with the early hours invasions which interrupt their working hours and hinder their farming jobs. Other residents associate the invasions with late night noise caused by sound grenades (sound bombs) and tear gas. These factors are interrupting the sleeping hours of residents, and the working hours of farmers, as well as contribute to the noise and air pollution of the city. Further research is needed to raise this issue to the global level.

4. The Apartheid Wall

It seems like the Apartheid wall, as one of the settler colonialism tools on the land, is contributing to hindering sustainability in the context, in all associated aspects. In the environmental quality framework, 35% of agriculture land was confiscated and community members were denied to access their land by the Israeli occupation. This has affected the balance of food production in contrast to consumption in the city., and was corroborated in the official documents and maps as well as testimonies of land owners who lost their land. Additionally, the Apartheid wall is compromising the biodiversity in the context as it separated inhabitants from the land, causing many flora and fauna to disappear through the years. Finally, the wall is prohibiting community members to access natural water resources from the valleys and natural landscape, which is compromising their right to natural water in their context. This was tangible in community members stories from their childhood, where the data show vanishing relationship between community and land. Adopting a decolonizing framework in local research could have a great role in highlighting the effect of these colonial forces.

5. Global Warming

The global environmental changes have influence on the local context, specifically Beitunia city. Farmers testify that the reduced rate of annual rainfall, in contrast to the rise in annual temperature, are affecting their ability to pursue agriculture as a career. They further explain that their seasonal local crops depend on rainwater, and they lack the capacity and ability to access alternative sources of water. Efforts are needed to develop alternative water collecting techniques, which some could be found in the local knowledge of community members.

5.1.2.3 Summary of “Environmental Quality” Forces

Findings of the “environmental quality” theme show very few strengths and opportunities in the dimension, in the face of major internal weaknesses and external threats. The findings are exhibited briefly in the table (6) below within a SWOT analysis framework.

TABLE 6 SWOT ANALYSIS FOR ENVIRONMENTAL QUALITY THEME.

Strengths	Weaknesses
1. Availability of natural water resources and reservoirs in the city.	1. Pollution is many aspects namely: air pollution, noise pollution, soil pollution, water pollution, and visual pollution. 2. Rapid decay in the local biodiversity of the context.
Opportunities	Threats
1. Young community members (children) aware and perceptual to the environmental local issues.	1. Cultural factors initiating unintentional irresponsible environmental behaviors. 2. Ramallah Industrial Zone’s location near the city. 3. Israeli occupation’s military invasions to the city. 4. The Apartheid wall. 5. Global warming.

5.1.2.4 Potentials for Development

TOWS analysis for environmental quality forces in Beitunia shows various potentials for development strategies in the urban context. Through utilizing the strengths and opportunities in the city, development strategies are: initiating community education programs to tackle environmental issues in collaboration between children of the city, community members, and researchers in the municipality. An additional strategy is to utilize the natural water elements in the city for the benefit of community education and awareness for the whole metropolitan by opening opportunities to environmental research centers to use the context through the JCU.

Additionally, it was found that opportunities in the context could be utilized to minimize weaknesses through: participating young children in acting against pollution through volunteering in environmental awareness programs, as well as developing a proposal with the JCU to establish a biodiversity museum that develops interventions and education programs in biodiversity for the community of Beitunia and the metropolitan.

Also, strengths of the context could be utilized to minimize threats, for example, utilizing human resources to initiate research in the environmental issues of the city, which could highlight the factors and call for external action against them. Another strategy for development is acting against irresponsible behaviors towards the environment through developing regulations to protect the environment and reduce causes of pollution, in parallel to having a functioning community education program that focuses on pollution and biodiversity awareness.

Finally, an approach to minimizing weaknesses and threats could be adopted, and strategies for elimination could be achieved by: evacuating the city from residents and fo-

cusing on serving other functions such as the industrial sector or handing over the environmental responsibility of the city to different governance. Strategies in this approach could be achieved through eliminating the community, or eliminating the effect of the weaknesses (pollution and lack of biodiversity), which either way is not centered around the needs of community members or around enhancing their quality of life inside the city. Therefore, it is the least recommended among the other scenarios of development.

Table (7) summarizes the TOWS analysis and exhibits the various strategies that could be adopted in the proposed strategic plan for Beitunia’s sustainable urban development.

TABLE 7 TOWS ANALYSIS AND ALTERNATIVE STRATEGIES FOR THE “ENVIRONMENTAL QUALITY” DIMENSION.

	S	W
	1. Availability of natural water resources and reservoirs in the city. 2. Human capacity in municipality (borrowed from theme1). 3. Community relations with municipality (borrowed from theme1).	1. Pollution is many aspects namely: air pollution, noise pollution, soil pollution, water pollution, and visual pollution. 2. Rapid decay in the local biodiversity of the context.
O	S\O: maxi-maxi strategies S3O1 - Initiate community educational programs focusing on environmental issues and pollution, directed by children, and facilitated by municipality. S1O2 - Utilize water elements for environmental research centers.	W\O: mini-maxi strategies W1O1 - Participate young children of the city in environmental awareness programs. W2O2 - Develop a proposal for biodiversity centre \ museum to see the whole metropolitan.
T	S\T: maxi-mini strategies S2T2 - Utilize research (mentioned in theme 1) to highlight environmental issues caused by threats. S2T1 - Initiating environmental educational program focusing on developing responsibility towards environmental quality. S1T1 - develop regulations and laws to protect the environment.	W\T: mini-mini strategies W1T1 - Evacuate the city from residential functions while focusing on serving other functions that are not affected by pollution or reduced biodiversity - such as industrial activities. W1T2 - Hand-over the environmental responsibility to another governance body.

Source: Author, 2022, Analysis Tool based on Wehrich (1982).

5.1.3 Social Equity

Perceptions of community members towards social equity in the city vary from neighborhood to another, and between different genders and age groups. General perceptions and observations show weaknesses in the availability of basic services equally for all residents, while other needs for specific genders and age groups are not being met.

Some strengths were found and highlighted by community members and officials such as availability and affordability of housing, transportation, and daily groceries, as well as the perception of community members to the good quality of drinking water when available. Additionally, an opportunity was found in the organic social fabric between some community members, which could be utilized to creating collective change, as well as expanded to reach other members of the community.

In contrast, weaknesses in the social equity were found to be related to shortage or total absence of basic services, such as shortage of water or absence of sewage network, which is affecting some residents more than others. Additionally, it was highlighted by community members the major shortage in high quality health and educational public services, where it was found that community members who can afford to pay for such services usually avoid the public schools or clinics. And finally, some residents discussed their concerns to safety measures in the city, which varied from the absence of police forces, to the Israeli military invasions, or even to the inadequate urban design. Alongside the weaknesses, a threat was observed mainly related to the high acceptance of mediocracy among community member, which is perceived as obstacle to enhancing the status quo.

Below is a detail discussion of each of those forces.

5.1.3.1 Internal Forces Affecting “Social Equity”

5.1.3.1.a Strengths

1. Availability and Affordability of Housing

Although the city was perceived by residents as crowded, most of community members find housing as affordable and available. This, alongside other factors, is attracting more people to live in Beitunia, and therefore increasing the population.

2. Good Quality of Drinking Water

Despite major weaknesses in the availability of water services in the city, the quality of water when available is perceived positively by all interviewees. Residents of the city of different neighborhoods and social groups drink from the tap water. Research show that household water quality is one of the main pillars to water equity (Goff and Crow, 2014).

3. Adequate Transportation Network

Community members of different ages, genders, and from different neighborhoods are satisfied from the availability and affordability of the transportation network of the city. Additional efforts are needed to investigate ways to utilize the existing transportation network in solving the traffic issue.

5.1.3.1.b Weaknesses

Challenges reducing the social equity in the city vary rapidly from aspect to another, and from social category to another. According to community members, weaknesses in the context are:

1. Inconsistency of Water Service

Water availability is a major issue in the city according to most of the community members interviews. Some neighborhoods seem to have available tap water for longer hours than others, which might indicate that water availability and pressure is affected by the density of population for each neighborhood. As the availability of water varies rapidly from one neighborhood to another, residents of all areas of the city know the day of the week when water service is turned on, and they plan their needs accordingly. Some individuals seek to find a personal solution by either having extra reserving tanks on their roofs, or install water pumps to increase the pressure of municipality water. These techniques are affecting the equality for all residents to get the same water pressure, and consequently the amount of water. Few members use vernacular techniques for collecting rainwater such as water harvesting wells. Major efforts are needed to find alternative sources of drinking water for community members or possibly develop adequate techniques.

2. Absence of Sewage Network

As previously mentioned, the sewage management of the city is a burden on community members and their total responsibility. Nevertheless, the issues varies depends on the density of population in the different areas, as community members who live in high rise residential buildings suffer more frequently from the consequences of the issue. The urgency of this issue couldn't be stressed enough by community members. According to officials, the municipality has recently acquired a permit to establish the treatment plant in area C, and it is recommended to implement the project in the nearest future.

3. Poor Accessibility to Urban Spaces

Community members from different social groups (senior residents, children, women, and disabled people) expressed their need for accessible public urban spaces to serve their recreational and sport needs. Senior residents, specifically women, face difficulties leaving their premises due to inaccessible public spaces within a walking distance. The lack of inclusive accessible pathways is affecting children of the city, where parents expressed some concerns with children going outside by themselves due to the risk associated with traffic and demolished urban elements. Observations show that there is severe lack for accessible public spaces and pedestrian paths in the city in comparison to the density of population and the built up area. Additionally, natural recreational areas such as valleys, hills, and water natural resources lack accessibility due to prohibition by Israeli forces, as well as the lack of basic municipal services as expressed by some residents. The municipality alongside other planning bodies need to reconsider the land-use plan and city urban plan and develop an adequate alternative that could serve accessibility needs for all residents and social groups in the public urban space.

Quote from a senior resident, (interviewee #14, code FFALB): *“I don’t leave the house except if I have to go to the doctor”*.

4. Shortage in Public Services (Recreational, Health, Educational, Extra Curriculum)

Perceptions of community members towards availability of services in the city vary from sector to another. For the educational sector, residents are clearly aware of the shortage of public educational services in the city, specifically schools. Additionally, testimonies show mediocracy in the educational services provided in elementary schools, and incompetent human capacity working in the sector. Collected data testify

the excessive use of emotional and physical abuse in public schools, specifically the boys' schools, which was confirmed by observations as well. Decision makers and officials are recommended to follow-up the matter and take the appropriate measures.

The health sector on the other hand is not perceived as clearly from some residents. When asked about the availability of health services, community members expressed satisfaction. Deeper investigation in the matter showed massive shortage in public health services, and data shows that available health services in the city are private businesses which require payment for the health service provided. Additionally, community members elaborated that the available health centers only serve general medical needs, and further medical follow-ups are usually diverted towards clinics in Ramallah. Community satisfaction might indicate that community members are not aware that they have the right to access affordable medical services in their city. Some concern may come to mind that the society is accepting mediocracy as the norm, which could affect their resilience and drive to improve the reality.

Finally, the recreational sector is clearly compromised to the investors' needs. Children expressed that there is major shortage in public parks and sports areas in the city. The city urban spaces are not serving the diverse recreational and extra-curricula needs. These needs should be taken into consideration and embedded within the urban planning and development plans of the city.

Quote from interviewee (# 13, code FEFIC): *"I wouldn't register my children in public schools in Beitunia, even if I had to die"*.

5. Absence of Safety

Contradicting data was collected when tackling the safety factors of the city. Some children and community members shared personal stories about kidnapping incidents

and harassment in the public spaces, and some other claimed that the lack of safety in the streets is associated with cars accidents, traffic and motorcycles. On the other hand, other community members perceive the city as extremely safe. Moreover, safety was not perceived differently between the day and the night by residents. Perception of safety could be correlated with the neighborhood itself. Further investigation is needed to understand the rate of crime in contrast to the attendance of police forces in the city. Quote from interviewee (#12, code MDCKD) when describing the main street (Ofar street) in Beitunia: *“This street is called the death street, every year someone has to die from a car accident in this street”*.

5.1.3.2 Internal Forces Affecting “Social Equity”

5.1.3.2.a Opportunities

1. Community’s Social Fabric

Factors related to the social fabric of community members might be connected to the perception of social equity in the city. This fabric might be the result of the local culture and associated social behaviors. Community members perceive the importance of the social fabric’s role in enhancing safety in the city. Social relations between community members of different financial and educational status could be utilized as a base for collective movements towards sustainable development.

5.1.3.2.b Threats

Alongside the verbiage exhibition of weaknesses in the social equity of the city, threats are also present namely:

1. Acceptance of Mediocracy as the Norm

In some of the aforementioned aspects of equity, analysis of the data and personal observations touched some acceptance to mediocracy of quality of life in the context. This acceptance was tangible from data collected from both community members and some officials who live in the city. Community members acceptance to mediocracy could be a result of the absence of some basic human rights' related services, which is shifting the need of community members towards acquires the basics. This could be further investigated in the framework of Maslow's pyramid of needs, which shows that psychologically, the human pursues "the most basic needs for survival before moving on to more complex needs" (Poston, 2009). On the other hand, officials show pride in the social equity of the city, and positively perceive the general status of the city.

2. Israeli Occupations Military Invasions

Invading the city by the occupational forces was testified to affect the many aspects of life of community members such as sleep, agriculture, and environmental quality. Further factors were found to associate with these invasions related to compromising the safety of the context. It was noticed that as community members - specifically children - can verbalize the effect of occupation on the safety aspect of the city, these same members along others, refuse to confess their fear. Further investigation is needed to evaluate the mental health and wellbeing of residents and children of the city.

5.1.3.3 Summary of "Social Equity" Forces

Findings of the "social equity" theme show few strengths and opportunities in the dimension, in the face of major internal weaknesses and minor threats. Findings under

the social equity theme are summarized in table (8), showing the main forces under the SWOT framework.

TABLE 8 SWOT ANALYSIS FOR SOCIAL EQUITY THEME.

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Availability and affordability of housing. 2. Good quality drinking water. 3. Adequate transportation network. 	<ol style="list-style-type: none"> 1. Major shortage and inconsistency in drinking water (tap water) service. 2. Lack of functioning sewage system. 3. Poor accessibility to urban spaces. 4. Shortage in public services specifically recreational, education, extra-curricula, and health services. 5. Major safety issues in the city related to internal factors such as kidnapping, harassment, and traffic.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Organic social fabric of community members, connecting individuals from different social groups in a human-centered mesh. 	<ol style="list-style-type: none"> 1. Community members are accepting mediocracy in assessing quality of life. 2. Israeli military constant invasion of the city.

5.1.3.4 Potentials for Development

The TOWS analysis for the social equity dimension in Beitunia shows various potentials for development when integrated with factors from other dimensions. Through utilizing the strength of the context being an approachable and affordable residential area, and the opportunity of the community's social fabric, a potential proposed strategy is to initiate a citizenship awareness program in the city, which would empower the community's social fabric, and participate community members in the governance of the city.

Additionally, it was found that opportunities in the context could be utilized to minimize weaknesses, by utilizing the opportunity of JCU to: initiate a water network project, construct a sewage system, and utilize the unit to develop a study on the need and capacity for public services such as health, education, and recreation. Another strategy to adopt in the plan is to create social committees to utilize the fabric of the community in enhancing safety.

Also, strengths of the context, specifically community relationship with the municipality, could be utilized to minimize the threat of accepting mediocracy through initiating social committees focusing on citizenship.

Finally, an approach to minimizing weaknesses and threats could be adopted, where a strategy of evacuating the residential areas of the city, and focus on land use to serve industrial, recreational, or other functions. This approach is not recommended as it is based on land-use-centered development rather than community-based development.

Table (9) summarizes the TOWS analysis and exhibits the various strategies that could be adopted in the proposed strategic plan for Beitunia’s sustainable urban development.

TABLE 9 TOWS ANALYSIS AND ALTERNATIVE STRATEGIES FOR THE “SOCIAL EQUITY” DIMENSION.

	S	W
	1. Availability and affordability of housing. 2. Good quality drinking water. 3. Adequate transportation network. 4. Community relation with municipality (mentioned in theme1). 5. Human resource in municipality (mentioned in theme 1).	1. Major shortage and inconsistency in drinking water (tab water) service. 2. Lack of functioning sewage system. 3. Shortage in public services specifically recreational, education, extra-curricula, and health services. 4. Major safety issues in the city related to internal factors such as kidnaping, harassment, and traffic.
O	S\O: maxi-maxi strategies S5O3 - Initiate community program to spread awareness on citizenship.	W\O: mini-maxi strategies W1O2 - Develop project to enhance water service in city in collaboration with JCU. W2O2 - Construct functioning sewage system. W3O2 - Develop study to provide needed public services with the JCU. W4O1 - Utilize social fabric of community to create social committees to enhance safety.
T	S\T: maxi-mini strategies S4T1 - Initiate social committees focusing on citizenship.	W\T: mini-mini strategies W1T1 - Evacuate city from residential functions and focus expanding other functions.

Source: Author, 2022, Analysis Tool based on Wehrich (1982).

5.1.4 Economic Sustainability

The economic development framework of the city is affected by external and internal forces as well, but general analysis for the forces show that the overall status is devel-

oping, and little effort is needed to enhance economic status of the city. This could be a result of the 2018-2021 city strategic plan that was focusing on the economic development of the city, and findings within the theme show that focusing on this dimension is the least priority in contrast to other dimensions.

In the analysis and corroboration of data, strengths forces were found to be related to: the location of the city in relation to the surroundings, the architectural heritage and man-made artifacts in the natural landscape, the wide spectrum of services provided, and the natural landscape and land quality. Additionally, an opportunity for economic development was found in the vital nature of the metropolitan itself, and how Beitunia is connected to the metropolitan.

In contrast, few weaknesses were found in the economic sector, specifically in relation to the quality of employment opportunities, and the equity of these opportunities to all social groups. And finally few threat were found related to the community awareness and perception to economic factors such as agriculture and other employment opportunities, as well as the national corruption reflected in the inadequate employment procedures.

The following exhibition of these forces will further explain and discuss the status.

5.1.4.1 Internal Forces Affecting “Economic Sustainability”

5.1.4.1.a Strengths

1. Land Fertility

In 1998, the ENRPP evaluated the land of Beitunia as moderate fertile. Most community members, specifically those older than 25 years old, have the ability to list the major crops that the city used to produce annually. Senior community members testify that

the city had self sufficiency in the food production, which could indicate that the land of Beitunia has potential to serve the agricultural sector. With further investigation and careful planning, the city could develop towards self sufficient food production in the city, and possibly the metropolitan.

2. Doorway to the Metropolitan

The map of the city (previously exhibited in chapter 3) shows that Beitunia is located to the west of Ramallah city, and due to the Apartheid wall is serving as the only gateway to 17 different Palestinian villages to metropolitan Ramallah, Al-Bireh and Beitunia. Its natural location is a major player in the economic strength of the city, and is recommended to be utilized towards developing sustainable economic systems for the future.

3. Wide Spectrum of Services

Local members of the community, as well as some external investors, are perceiving the opportunity that comes along with high density of population. Many small business enterprises are rising in the context providing diverse everyday services for residents. This was also confirmed through discussions with officials and personal observation. The service sector is a strong player in the local economy of Beitunia city, and could be widely utilized in the sustainable development of the economic dimension.

4. Natural Landscape

Beitunia's landscape was categorized by the ENRPP (1998) as high value and with recreational potential. Despite the confiscation of approximately half of the land, observations show that the area has natural landscape of hills and valleys that face the western side of Palestine. Although not perceived by community members as recreational area,

but minor infrastructure and landscape design could convert some of the area into a human and animal friendly recreational and touristic inclusive zone.

5. Architectural Heritage

In addition to the natural valuable components of the Beitunia landscape, observations show many manmade architectural artifacts such as the vernacular agricultural towers (agricultural mintars) and the historic old town of Beitunia. These artifacts are not perceived by community members as strength components for the economy, nevertheless, the community values these structures. Official documents, specifically the strategic plan of the city for the years 2018-2021, highlight the value in the architectural heritage. Nevertheless, few efforts were found in the context to utilize these structures for the collective benefit. Utilizing these structures in the recreational sector could add great value to the sector, and subsequently benefit the local economy.

5.1.4.1.b Weaknesses

Data analysis from community members show weaknesses in the economic sustainability dimensions mainly:

1. Low Level Job Opportunities

Community members perceive Job opportunities in the city within the vocational and services sectors. The investors could be influenced by the Ramallah industrial zone, which is providing the community with jobs with minor financial return and low-quality. This is affecting the daily life of community members as they seek better job opportunities outside the city, which in return is elongating their daily driving time and increases traffic. Little effort is needed to attract diverse types of investment to the city which could create better job opportunities to the community.

2. Unequal Opportunities for Employment

Women in Beitunia find it impossible to find jobs in the city outside the educational sector. Female interviewees don't apply for vocational jobs in the city, and either seek employment outside Beitunia. This is reducing the financial capacity and independency for women in the city, which could affect their role in decision making process and hinders the economic development of the context.

In addition to women, some community members mentioned few indicators for corruption in the employment in the Municipality. This could entail that employment process and procedure of the governance lacks transparency. Minor efforts towards transparency could mitigate such issue in the city.

5.1.4.2 External Forces

5.1.4.2.a Opportunities

1. Social Fabric of Community

Conversations with community members showed that in addition to some financial factors contributing to their choice to live in Beitunia, some social factors play a major role as well. Community members are seeking refuge to the city to live closer to their relatives and beloved ones. These social factors should be utilized and endorsed to sustain population growth, and therefore economic development.

2. The Metropolitan as a Vital Centre

As the location of the city which was previously discussed as a strength in the city as it connects 17 villages to Ramallah, the location of the whole metropolitan itself near the city is perceived as opportunity for economic development. Officials and some community members see the metropolitan as a centre which services all Palestinians in the

West Bank, and this is giving the context a vital energy and increases the population during working days. Some community members see an opportunity for economic development, where they seek to present diverse services and low-cost products. Additionally, some officials speculate that by targeting visitors of the metropolitan (individuals from the west bank), community members could increase their income, and therefore increase the economic sustainability of the city.

5.1.4.2.b Threats

1. Corruption in the Employment Procedures

Alongside the internal difficulties in employment, most community members perceive corruption in the employment procedures on the regional level, and some officials emphasized this fact. This issue of corruption is forcing financial threats to the financial stability of community members of Beitunia, and reducing their equal right to attain jobs in contrast to other individuals who have connections with the municipality officials or the officials from the government. Officials and decision-makers should take this issue into account and enforce transparency by law, to achieve sustainable development in the economic status on the regional and national levels.

2. The Ramallah Industrial Zone (Architectural Typology and Investment Trend)

The location of the industrial zone of Ramallah right at the eastern gate to the city was associated with many challenges hindering the urban sustainability of the city. For the economic dimension, the zone's location near Beitunia, alongside the low-cost property in the city, are attracting investors to own land in the city. Nevertheless, the architectural typology of the industrial zone is affecting the investors' chosen architecture typology.

gy, which is affecting the visual scene of the city. This was confirmed by officials and observations during the data collection phase. Researchers, urban designers, and decision-makers in the context should consider additional regulations and building permits.

3. Community Perception to Agriculture

Discussions with children and students in schools show that residents within the age category of less than 25 are not aware of the agricultural history potential of the city. This could indicate that the sector has been degrading rapidly in the last 10 years. Additionally, adults perceive agriculture as a low-quality job and associate it with low income. In contrast, farmers perceive the sector as profitable and respectful. This spectrum of perceptions might indicate that the community's relation to land is shifting rapidly. Postcolonial literature identifies the land as "a spiritually infused place grounded in interconnected and interdependent relationships" (Tuck et al., 2014)³. In colonial contexts - such as Palestine - human relationships to land are restricted to the relationship of the owner to his property, which creates a shift in the epistemological, ontological, and cosmological relationships to land (Tuck and Yang, 2012)⁴. To restore the relationship between community members and their land, academics and officials are recommended to adopt a postcolonial framework in defining urban issues and ideating solutions towards sustainability.

³ Tuck, E., McKenzie, M., & McCoy, K. (2014). Land education: Indigenous, post-colonial, and decolonizing perspectives on place and environmental education research.

⁴ Tuck, E., & Yang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, education & society*, 1(1).

5.1.4.3 Summary of “Economic Sustainability” Forces

Findings of the “economic” theme show very few strengths and opportunities in the dimension, in the face of major internal weaknesses and external threats. Table (10) shows a summary of the findings in the economic sustainability theme.

TABLE 10 SWOT ANALYSIS FOR ECONOMIC SUSTAINABILITY THEME.

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Moderate fertility in soil quality. 2. Location of city in relation to the surrounding villages and the metropolitan. 3. Wide spectrum of services. 4. The natural landscape. 5. Architectural heritage and monumental elements. 	<ol style="list-style-type: none"> 1. Low quality and low pay job opportunities. 2. Unequal employment opportunities between different social groups (women vs. men, and local families vs. refugees).
Opportunities	Threats
<ol style="list-style-type: none"> 1. The social fabric of community members. 2. A vital context in the whole metropolitan providing a hub of services for the national and regional levels, as well as the local. 	<ol style="list-style-type: none"> 1. Perception of corruption in the employment procedures on the national level. 2. The influence of Ramallah industrial zone on investment trends. 3. Unaware community members of the agricultural sector’s history, capability and context ability.

5.1.4.4 Potentials for Development

TOWS analysis for economic dimension shows potentials for the development of the urban context of Beitunia. Through utilizing the strengths in the natural context and the opportunity in the vital metropolitan, a strategy of economic development is found in focusing on the recreational sector, and through the opportunity of the vital metropolitan, further strategies could be developed to utilize the service sector in the economic development.

Additionally, it was found that the opportunity of the vital metropolitan could increase job opportunities through empowering the services sector. An additional strategy was found in utilizing the JCU to minimize weaknesses in the economic dimension in Beituni, this is done by developing employment regulations to assure equity for all residents.

Also, strengths of the context could be utilized to minimize threats through initiating research tackling national corruption in employment and highlighting its effect on community members of Beitunia. This strategy could reduce the effect of national corruption and spread awareness of the topic. Another strategy to develop the economic dimension is to empower farmers of the city to access and utilize their land.

Finally, a strategy to minimize weaknesses in the employment factors and defeat the threat of national corruption and its effect on community members inside the city is to completely eliminate the economic sector, while focusing on developing the city's urban function towards residential zones only.

Table (11) summarizes the TOWS analysis and exhibits the various strategies that could be adopted in the proposed strategic plan for Beitunia's sustainable urban development.

TABLE 11 TOWS ANALYSIS AND ALTERNATIVE STRATEGIES FOR THE "ECONOMIC DEVELOPMENT" DI-MENSION.

	S	W
	1. Moderate fertility in soil quality. 2. Location of city in relation to the surrounding villages and the metropolitan. 3. Wide spectrum of services. 4. The natural landscape. 5. Architectural heritage and monumental elements. 6. Human resource in municipality (mentioned in theme 1).	1. Low quality and low pay job opportunities. 2. Unequal employment opportunities between different social groups (women vs. men, and local families vs. refugees).
O	S\O: maxi-maxi strategies S1O2 - Empower agricultural sector to serve city and metropolitan. S4O1 - Utilize natural context for recreational services for the West Bank.	W\O: mini-maxi strategies W1O1 - Empower the services sector to serve the vital metropolitan. W2O2 - Develop regulations for equity in employment inside the city.
T	S\T: maxi-mini strategies S6T1 - Initiate research to tackle corruption in employment to highlight its effect on community members of Beitunia. S6T2 - Empower farmers of the city to access and utilize their land.	W\T: mini-mini strategies W1T1 - Develop city urban function towards residential zones only and eliminate the economic sector.
1. A vital context in the whole metropolitan providing a hub of services for the national and regional levels, as well as the local. 2. JCU (mentioned in theme 1).		
1. Perception of corruption in the employment procedures on the national level. 2. Unaware community members of the agricultural sector's history, capability and context ability.		

Source: Author, 2022, Analysis Tool based on Wehrich (1982).

5.2 Beitunia's (Quality-of-Life) Components

Based on Mitchell et al. (1996) PICABUE model - as previously mentioned in the methodology chapter (chapter 4) - indicators of sustainability for the city of Beitunia were emerged from the corroboration of interviews with community members, interviews with officials, official documents and maps, and observations. Subsequently, the components affecting the quality-of-life of community members in Beitunia city, which were abducted from the indicators, are:

1. Community members: knowledge, relation with the municipality, social fabric, emotional feeling to the city, culture.

2. Political scene: internal stability in government, corruption, coordination, occupation and colonialism.

3. Urban governance: internal capacities.

4. Public services: health, educational, recreational, housing, infrastructure.

5. Safety: housing, financial safety, occupation, health.

6. Natural environment: landscape, architectural heritage, water, agriculture, pollution, biodiversity.

7. Built-up environment: human-centered spaces, architectural heritage, accessibility, green open spaces, infrastructure, pollution.

Figure (27) shows these components and the relation between them in the urban context of Beitunia.



FIGURE 27 COMPONENTS ASSOCIATED WITH QUALITY-OF-LIFE IN BEITUNIA CITY.

Source: The author, 2022.

5.3 The Community's Urgent Needs and Desires

5.3.1 Urgent Needs of Community Members in Beitunia

Urgent needs of community members were found to be: **high quality urban spaces and services**, as well as **conserved natural environment**. Data from interviewing community members show that urban space development is needed through achieving better quality for streets and sidewalks, regulated land-use plans to save agricultural land, and more parks and public open spaces. Additionally, community members listed the infrastructure as the top priority for enhancing the quality of their lives, specifically by constructing sewage network system, solving the water shortage issues, and present an adequate waste management system.

5.3.2 Desires of Community Members in Beitunia

On the other hand, when asking community members to describe their utopian city, some community members described a **rural context based on agricultural activities**, with less traffic and less residential density. Others mentioned their aspiration to have a **pedestrian-based context with green public spaces and places** for community members to spend time for free. Only few members of the community mentioned their vision to see Beitunia as a vital commercial centre.

When comparing the needs of community members with their aspirations, some contradictions were spotted. As some community members aspire to see the city back to its rural origins, few of those individuals explained their need for urban city services. For example, an interviewee described her dream to see agricultural activities in the city, while she doesn't farm in her own land and moreover adopts the land-burning technique used to evacuate reptiles from her property. In general, some community mem-

bers in Beitunia desire to live in a rural context, while having the advantages associated with the “urban” lifestyle.

5.4 Stakeholders’ Analysis

Stakeholders are defined as the group or individuals who have an interest or ownership in a project, can contribute knowledge or support, and can affect or be affected by the outcomes of a project (Bourne, 2006). Analyzing stakeholders is essential, as it paves the road to developing an appropriate engagement strategy and communications plan (Bourne, 2006). Yang (2014) defines stakeholders analysis as the process of identifying and prioritizing stakeholders (Yang, 2014).

For the city of Beitunia, data collected from interviews with community members and officials show that stakeholders for the urban development of Beitunia city are **community** members of Beitunia, **Beitunia Municipality**, **expatriates**, **investors** and **business owners** in the city, regional and national **governmental bodies**, and the **international community**.

A draft identification and prioritization of the stakeholders of Beitunia is exhibited in the appendix (4).

5.5 Summary of the Findings

Primary data (observations and interviews of community members) and secondary data (documents and maps) show that the **forces that play a role in the urban sustainability of Beitunia** are categorized as follows: urban governance, environmental quality, social equity, and economic development forces.

A holistic exhibition of these forces shows **strengths** related to human capacity in the city (municipality staff, community members knowledge), diversity of services, location of the city in relation to surroundings, natural landscape and elements, and architectural heritage. Previous studies in the Palestinian context complement some of these findings, where Nazer (2008) mentioned that community members appreciate the natural landscape in their context. **Weaknesses** in the urban context of Beitunia were found in employment opportunities, basic services (sewage system, availability of water), public services (educational, health, recreational), safety, pollution and biodiversity, building regulations, urban design and planning, and urban management. These findings were complemented by the Arab Region SDG index and dashboard (2019), which presented challenges in clean water and sanitation (SDG 6) and decent work opportunities (SDG 8). Additionally, literature highlighted the under-capacitated planning bodies, and lack of internal coordination (AbdelRazek, 2017; Nazer, 2008).

In contrast, few **opportunities** for the development of Beitunia were found in the: JCU, community members' relation to the city, young children of the city, community fabric and social relations, and the vital metropolitan. Nevertheless, these few opportunities have a major role in enhancing the sustainability of the city if utilized strategically. While **threats** were found to be related to colonial forces, internal political situation, the location of the industrial zone of Ramallah, lack of awareness in the environmental and social equity dimensions, and global warming. Some of these findings complement the discourse of other scholars in the context. In the effect of colonial forces on the Palestinian urban context, Shaheen and Salim (2012) highlighted the effect of colonialism and occupation on land scarcity, while Sadaqa, (2012) discussed land fragmentation, El-Atrash (2014) highlighted the instability in the geopolitical boundaries.

The conducted SWOT analysis shows **urgent needs for development** in the urban planning and management dimensions and the environmental quality dimension. Some specific interventions were found needed in the social equity dimension, specifically relating to the sewage and water infrastructures and services. And finally, the least urgency was found in developing the economic dimension of the city, which could be due to the latest strategic plan for the city that was focusing on the Local Economic Development (LED) of the city (2018-2022). Therefore, **scenarios for development** - emerged from the TOWS analysis framework (Wehrich, 1982) - show potentials in focusing on strategies of maximizing strengths and opportunities, minimizing weaknesses utilizing opportunities, maximizing strengths to defeat threats, and eliminating weaknesses and threats factors.

On the other hand, the findings of the study highlight the **main desire** of some of the community members is to live in a rural context based on agricultural activities, with less traffic and less residential density, and a pedestrian-based context with green public spaces and places for community members to spend time for free. Few members of the community vision Beitunia to be a vital commercial city. Some contradictions were spotted between the needs and desires of some community members in Beitunia, where they desire to live in a rural context while having the advantages associated with the “urban” lifestyle.

Finally, through **stakeholders’ analysis**, stakeholders for Beitunia city were found to be: community members of Beitunia, Beitunia Municipality, expatriates, investors and business owners in the city, regional and national governmental bodies, and the international community.

Chapter 6: Proposed Strategy for the Development

The findings of this study were discussed in detail in the previous chapter and were categorized under four main themes namely: Local governance, environmental sustainability, social equity, and economic development. Urgent strategic issues were found related to the local governance, environmental quality, and community awareness. And urgent needs of community members were found to be: high-quality urban spaces and services, a conserved natural environment, and equal opportunities for various services. A core opportunity for development was found in the social fabric of community members, which should be embraced and flourished. Finally, the main stakeholders of the city were found to be: community members of Beitunia, the municipality of Beitunia, expatriates, investors and business owners in the city, regional and national governmental bodies, and the international community. This section will focus on developing an adequate strategy to meet the urgent needs of community members within the coming 15 years while participating in various stakeholders.

6.1 The Adopted Strategies for the Sustainable Development of Beitunia

The previous chapter discussed the different strategies that could be adopted in the strategic urban development plan of Beitunia city for the coming 15 years (2023 - 2038). While most strategies proposed above seem direct and approachable within a framework of 15 years, urgent needs of development were found in the enhancement of urban spaces and services, as well as enhancing and conserving the natural environment. But as research discusses, that the urban context is a complex and multidiscipline field (Pinson, 2004) that is associated with many multi-disciplinary factors (El-Atrash,

2014), adopted strategies should be multidisciplinary and multidimensional; acting on different levels of the city and proposing interventions in the different dimensions within the context. This could be achieved through integrating the different strategies proposed above and forming a holistic strategic plan. Nevertheless, some strategies under eliminating factors that present threats and weaknesses were found passive, unrealistic, and not community-centered, thus they are believed to postpone facing the problem rather than eliminate it. For that purpose, the proposed strategy will avoid adopting them. Below is an exhibition of the adopted strategies.

- Develop the quality of urban spaces (building standards, regulations, infrastructure).
- Develop the quality of natural areas (enhancement projects, environmental protection law).
- Develop municipality human capacities (professional development, recruitment).
- Participate community members in the local governance (urban committees, children s' urban volunteering program).
- Counter-threat-based research (colonialism and occupational forces, environmental threats).
- Community education (citizenship, environmental behavior, biodiversity museum, agricultural knowledge).
 - Develop public services (educational, health, recreational).

6.2 Forming the Strategic Plan

In the context of organizations, research encourages the adoption of knowledge-based theory for strategy formulation by Sveiby (2001) shown in chapter 3, where the process of strategy formulation starts with the competence of people and is based on the

knowledge transfer and production between the individuals. In the urban context, and within the knowledge-based urban development framework, knowledge cities emerged. They require the development of cities based on information and knowledge, calls for vibrant socio-cultural activities, associated with conserved natural environments, quality built context, good governance, and rotates around humans as main capital (Yigitcanlar et al., 2008). These requirements were found to fit the urgent needs of community members in Beitunia, and therefore the framework was embedded in the development of the strategy.

Additionally, as discussed earlier in chapter 3, research stresses the importance of co-development for achieving sustainability in the urban context of developing countries (de Graaf & Dewulf, 2010) - such as Palestine. The co-development of cities is considered a social innovation process (Remesar, 2021). And utilizing the social innovation process achieves sustainability by enabling cities to develop new social relations and values, meet human needs, and engage a range of stakeholders (Ardill & Lemes De Oliveira, 2018). This was found to fit the need to empower the social fabric of community members and provide spaces for this fabric to expand and grow.

Therefore, to achieve sustainable development for Beitunia, the proposed strategy will be based on co-developing the city with various stakeholders with clear roles and responsibilities for each, as well as embedding the framework of the knowledge cities model (knowledge-based development). The process of strategy formulation is based on converting weaknesses into strengths, utilizing strengths and opportunities for development, and acting against the existing threats.

6.2.1 Turning Weaknesses into Strengths

Weaknesses in the urban context of Beitunia are lack of building regulations, lack of accessible public urban spaces, shortage of public services (educational and health), lack of functioning sewage system, shortage in water, are all associated with the lack of planning capacity, fundraising, management, and coordination. These weaknesses are enhanced through the recruitment of competent human resources who should be able to develop, implement, and manage urban projects. For example, recruiting urban planning competencies (urban planners) and project management competencies (project manager, financial officer, ...), in parallel to utilizing the opportunity of the JCU's role in capacity building for the municipalities of the metropolitan, should result in a better built-up environment. Providing and developing a high-quality urban context in Beitunia is one of the most urgent strategic goals for the coming 15 years.

Moreover, weaknesses related to environmental dimensions such as pollution and lack of biodiversity were connected to factors such as community irresponsible behaviors, and colonial actions on the land. This is enhanced through developing environmental regulations and laws, in parallel to working on the awareness of community members. Enhancing and preserving the environment of the context of Beitunia is one of the most urgent strategic goals as well.

6.2.2 Utilizing Opportunities and Strengths

Community members and their associated capacity, social fabrics, knowledge, and energy were listed as strengths in some dimensions, and opportunities in others. The community of Beitunia is therefore a core opportunity for development, where utilizing them in the continuous development and implementation of urban interventions is a

core goal in the proposed strategy, and is reflected through focusing on community education and learning programs and projects.

Additionally, the natural context of the city and the associated architectural and water elements are great strengths that exist in the context. Utilizing these strengths presents an opportunity to meet the needs of community members in having public green spaces, specifically that the lack of green public spaces was highlighted as a major weakness. Within the strategy, these strengths forces contribute to providing a high-quality urban context.

6.2.3 Planning Against the Threats

Finally, threats hindering the sustainable development of the city of Beitunia were related to Israeli occupation and associated colonial acts, alongside the internal weaknesses in the Palestinian government and associated corruption. In addition to that, some threats were found in the community behaviors and perceptions that were linked to the lack of awareness of the factors affecting urban sustainability. In contrast, this same community, alongside their knowledge and capacities, was found to be a core opportunity for development. Blair (2004) stresses the need to utilize the knowledge of community members to define their problems and develop the appropriate solutions. This theory was also utilized in many cities around the world in the framework of knowledge cities, which are cities that adopt a knowledge-based development through the continuous interaction between citizens of the city (Carillo, 2006). This is achieved in the context of Beitunia by creating suitable spaces and infrastructure to support knowledge production and sharing, and (as previously mentioned) through having a strategic goal focusing on community education and learning. Community members of

Beitunia are believed to be able to find solutions for these threats by utilizing their knowledge, energy, and social fabric.

6.3 The Proposed Strategic Plan for Beitunia

The proposed strategy constitutes of three main tracks focusing on: the built-up context, the natural context, and the untenable context of knowledge, culture, and social fabrics. Perceiving those three tracks is parallel while intersecting, where interventions in one sector creates change in another. Areas of intersections between the tracks occur within the community education programs, and counter-threat-based research programs and projects.

6.3.1 Timeframe and Phases of Implementation

Within the **timeframe** of 15 years, Beitunia aims to reach the aspired vision through achieving strategic goals over three phases of implementation (five years for each phase). The urgent needs of community members alongside the political situation and colonial existence in the land of Beitunia, played major roles in determining the phase of implementation for each of the strategic goal. The implementation phases are namely:

- Phase 1 – A five-years phase focusing on enhancing the quality of urban spaces and services.
- Phase 2 – A five-years phase focusing on enhancing the quality of the natural areas.
- Phase 3 – A five-years phase focusing on empowering and developing the local knowledge and social fabric.

6.3.2 The Vision, the Mission, and the Values of Beitunia

The vision

“Knowledge city with high-quality urban spaces and places, respectful to local values and culture”.

This will be achieved through **the mission** which is to:

“Provide high-quality life for community members through co-production, education, and communication”.

This strategic plan will respect and follow the **values**:

1. Community including all residents of all social groups are a core resource for the development and sustainability of the city. Their knowledge, experience, and insights are valuable and should be integrated into the decision-making processes of the city.
2. Research and community education are core values to the production, development, and transition of local knowledge.
3. The high-quality natural and built-up environment is a core value to respect the land, eco-system, and cultural aspect of urban hygiene.

6.3.3 Goals and Objectives

6.3.3.1 Strategic Goal 1: Human-Centric High-Quality Urban Context.

This goal is focusing on enhancing the quality of life of citizens by affecting two dimensions in the urban context. First is the **social equity** dimension, which will be enhanced through providing **high-quality public services and infrastructure**. The second focus is related to the **city governance** dimension, which will touch on **developing urban spaces and urban plans** that will meet the needs of community members.

This goal is the most urgent and will be implemented during the **first phase** of the strategic plan through achieving the following **objectives**:

1. **Increase capacity and quality of public services** specifically for the educational, recreational, and health sectors. This is achieved through increasing numbers of public centers specifically schools, parks, community centers, youth centers, sports halls, and public clinics. Special focus will be given to schools and the quality of education provided through recruiting qualified human capacity for the sector. Responsible stakeholders for achieving this objective are the municipality in collaboration with the regional governance (JCU - Joint Cooperation Unit for Metropolitan).
2. **Conduct a holistic urban plan for the city** to meet the functional needs of community members. These plans shall focus on developing adequate land-use plans and zoning for the city, while involving community members in the process, taking into account the community right to their land and property in areas C and the confiscated area around the Apartheid wall. Responsibility for implementation lays in hands of the municipality through recruited human capacity (urban planners) while collaborating with community members.
3. **Initiate an urban design project**, which will focus on providing green public accessible spaces for the use of all community members. This project will be focusing on participating community members in the design of the urban elements of the city. Responsibility of implementation lays in hands of the municipality through recruited human capacity (urban designers) while collaborating with community members.
4. **Provide adequate infrastructure services** specifically a functioning sewage network and water system. The water system aims to solve the water shortage issue in the city by utilizing the local knowledge and experience of community members within the

vernacular architectural solutions. The municipality is responsible for the implementation of this objective.

5. **Develop building regulations** that would assure high quality in the urban spaces as the urban fabric grows. High measures will be taken into considerations to enforce these regulations for the collective benefit. The municipality is responsible for the implementation of this objective.

6.3.3.2 Strategic Goal 2: An Environmentally Friendly City.

This goal focuses on enhancing the quality of life of citizens by providing a green and clean natural and urban environment in the context. Within this goal, potential efforts are aspired to be achieved against threats of the environment such as colonial forces and inappropriate location of Ramallah industrial zone.

Approaching this goal will be during the **second phase of implementation**, through parallel efforts in the following **objectives**:

1. **Developing environmental regulations** that best suits the context of the city. These regulations aspire to preserve the quality of the natural context. Responsibility of implementation for the objective lays in the hands of the municipality through recruiting experts in sustainability and environmental related issues.
2. Conduct assessment of the existing natural resources to **develop ways to utilize the resources** to enhance community members' quality of life without compromising the quality of the environment. Responsibility of implementation for the objective lays in the hands of the municipality through the same recruited capacity as the first objective.

3. Initiating community education program to focus on developing community knowledge and awareness in issues related to sustainability of the environment. This objective works towards creating an aware responsible community that thinks globally while acting locally. Implementation of this objective is a collaboration between recruited experts, the municipality body, the JCU, and community members specifically farmers. Additionally, it could be the future responsibility of a biodiversity museum in the city.

6.3.3.3 Strategic Goal 3: Knowledge-Based Production and Communication.

The final strategic goal is associated with non-tangible outcomes, where it aspires to decolonize the land knowledge to achieve social equity and environmental quality in the context. In this framework, and on the local scale of Beitunia, **decolonizing land** will focus on presenting an urban model in the Palestinian context **against colonialism, and irresponsible social behaviors and individualism**. Outcomes of this goal are aspired to initiate **counter-colonial movements** towards research, documentation, and awareness of the occupational effect on the sustainability of the city. Also, the goal might produce projects that endorse the city towards joining the “knowledge cities” movement. Additional outcomes will focus on developing collective ethical values, and will be achieved during the **third phase** of the strategic plan through the following objectives:

1. Empower community social fabric through creating channels of communication and decision-making committees. These committees are aspired to represent the different social groups and coordinate the implementation of participatory projects between municipality and community. This objective aims to de-center the decision-making

process and give the community the steering wheel. Responsibility for this objective lays in the hands of the municipality in collaboration with recruited experts and recruited community members.

2. **Reconnect community with the land** through empowering farmers and community members to utilize the land for the collective benefit. Outcomes of this objective are community projects that focus on presenting services for the local community and surrounding context. Implementation of this objective is the responsibility of the municipality through recruiting experts and recruited community members.

3. **Community education program** focusing on land knowledge and community-related issues. This program aspires to find the knowledge and practices of the local context, and communicate this knowledge, in order to develop a local specific economic model. This program is the responsibility of the municipality in collaboration with recruited experts, and community members, specifically farmers.

6.4 Proposed Urban Plan for the Strategy

The previous sections presented and justified a proposed strategic plan aiming to develop the city of Beitunia within the framework of knowledge cities. Outcomes of the proposed strategy will need the availability of **urban spaces**, and community members will need **urban places** to meet their daily needs and desires. For that purpose, an urban zoning plan for the city will be presented and discussed below.

The site previously discussed in chapter 3 reflected major challenges and threats related to the apartheid wall and the Israeli colonies and the prison, which are hindering a holistic urban planning approach. Nevertheless, conducting counter planning, in parallel to the previously proposed strategy, could lead to better community resilience, and

eventually better sustainable context through utilizing the existing strengths and opportunities of the context. Therefore, the proposed urban plan will consider the whole area of Beitunia city for the zoning of the urban area.

6.4.1 City Zoning and Conceptual Urban Plan

Based on the aforementioned framework - counter planning, knowledge-based development, and site components analysis - the following zoning for the city is proposed as a parallel effort for the developed strategy. The zoning map in figure (28) shows three main types of proposed urban zones: community zones, residential zones, and interaction zones. The zones are surrounded and penetrated by two types of main roads: main roads to connect the city with its surroundings, and the main road to link the urban monuments to each other.

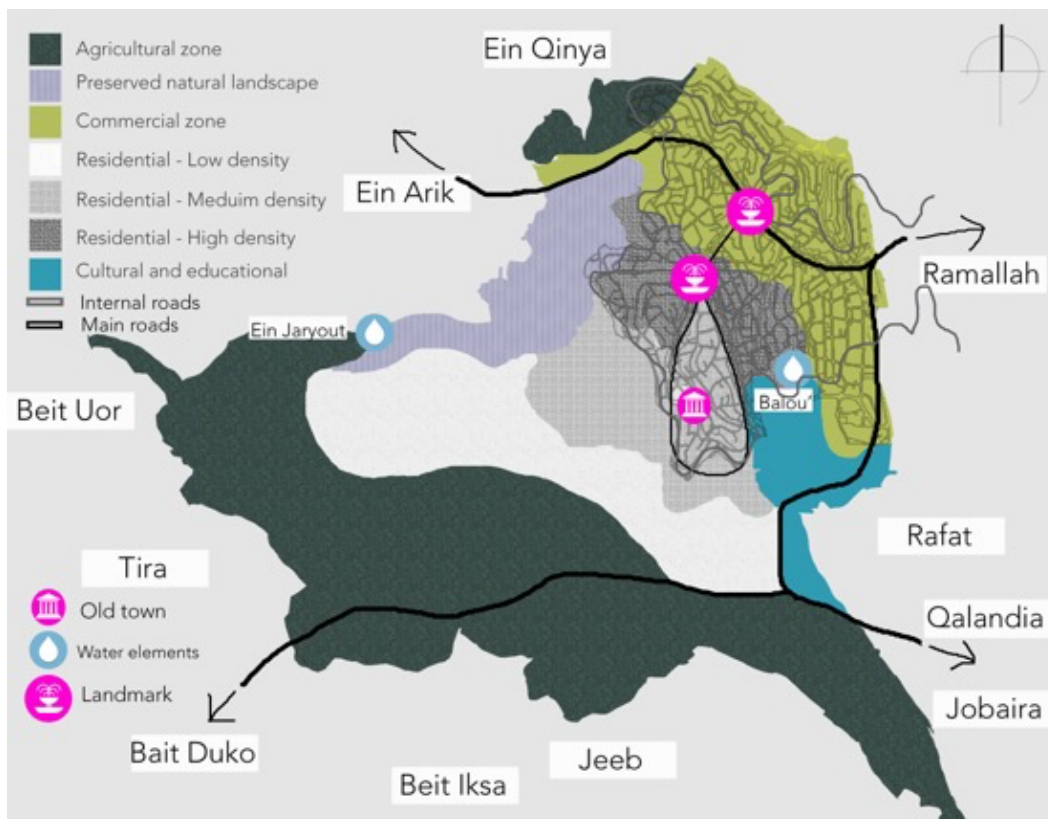


FIGURE 28 PROPOSED URBAN ZONING PLAN.

Source: Author, 2021.

Note that, although the municipality is allowed by law for the acquisition of any land within its governance to serve a collective good (Land Law No. 2 - Acquisition of Land, 1953), further investigation is needed to take place in order to determine the land ownership in the proposed development areas.

6.4.1.1 Main Roads

The zoning plan proposes maintaining the main access roads in the city, while emphasizing (expanding) the main road that connects Ein Arik and western villages with the metropolitan. Two new access roads are proposed namely: an eastern main road to connect the metropolitan with Jerusalem, and a southern road to connect the southern and south western villages with the Jerusalem and the metropolitan.

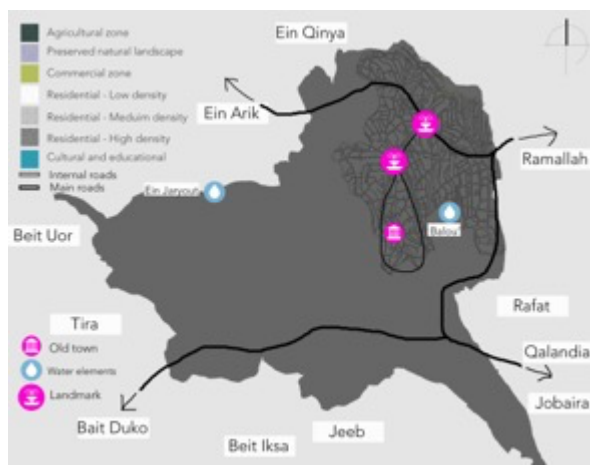


FIGURE 29 MAIN ROADS, INTERNAL ROADS, AND URBAN MONUMENTS.

Source: author, 2021.

These proposed road development projects are aspired to Endorse city connectivity to the context, providing community members with high quality urban infrastructure.

In parallel to connecting the city with the regional context, the main architectural heritage of the city that lies in the old town is perceived as a source of pride for community members. Additionally, as the mental maps show, community members perceive some nodes as urban landmarks, which are proposed to play a great role in the local setting by connecting the main road with the old town. This plan is aspired to present an urban

identity and historic image for the city, which could meet the emotional needs of community members towards their city.

6.4.1.2 Residential Context

Residential Zones

Community members are core component of the urban context based on the strategic plan and the associated values. Therefore, residential zones are aspired to present the best housing opportunities in the city, taking into consideration the functional, spatial, environmental and visual needs of the habitants. Building on the existing built-up area, and following the existing built-up density, the future residential zones are proposed to be divided into 3 main types, high density, medium, and low.

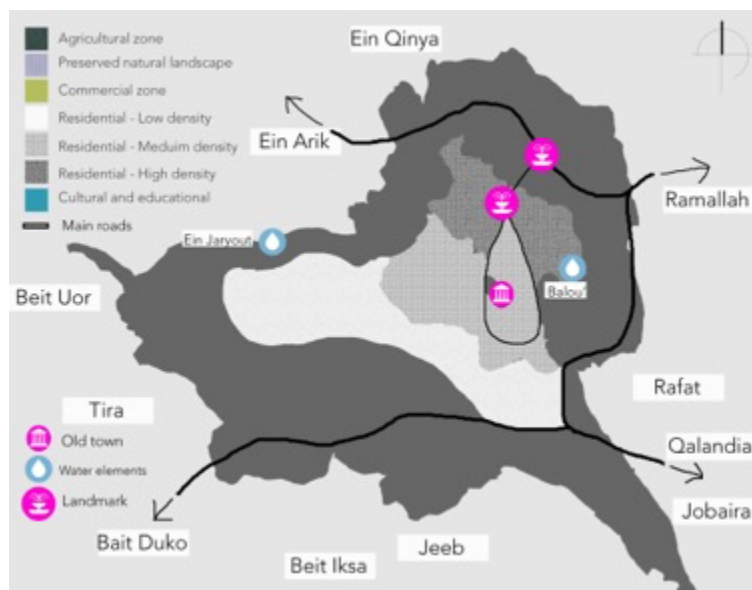


FIGURE 30 RESIDENTIAL AREAS.

Source: author, 2021.

High density zones would serve the needs of residents who have daily interaction with commercial activities, while medium density zones target residents who need to interact daily with cultural and educational activities. Low density zones on the other hand is aspired to serve needs for residents who have daily interactions with agriculture.

Urban Lungs

The proposed urban plan is a zoning plan for the city, which needs further development and study. One of the major issues within the plan is to assure creating open green spaces for community services within the residential, commercial, cultural and educational zones, which would serve as lungs for the city. These urban lungs should be connected through green pedestrian paths that penetrate the city zones, and create a mesh for community interaction and learning.

6.4.1.3 Community Urban Spaces

Agricultural Zones

In respect to the surrounding agricultural zones, and based on the natural landscape and fertile areas, the zoning plan dedicates 35% of land to agricultural purposes. Within the strategic plan framework, the agricultural zones are perceived as areas to investigate food sufficiency in the context, as well as provide space for projects within the “knowledge cities” framework.

Natural and Historic Landscape

Alongside the agricultural zones of the city, the natural landscape is important to reconnect community members with the land and associated knowledge through the natural and man-made historic elements. The natural context provides opportunities for community members to pursue free learning experiences through a recreational natural mindset. Additionally, the natural landscape zone should be kept preserved as some Bedouin communities still use it in particular annual seasons.

Water Resources (Natural Reservoirs and Springs)

As elements of water resources play a great role in providing scenery for recreational community activities, they could be considered as vital elements for community learning, specifically in the vernacular water technology. In the city of Beitunia, observations and data from community members found 2 main sources of natural water: Ein Jaryout (spring) located on the western side of the city, and Balou' reservoir located on the eastern side. Embedding these elements as natural monuments within the natural and agricultural setting is essential to the continuation of community learning and knowledge production.

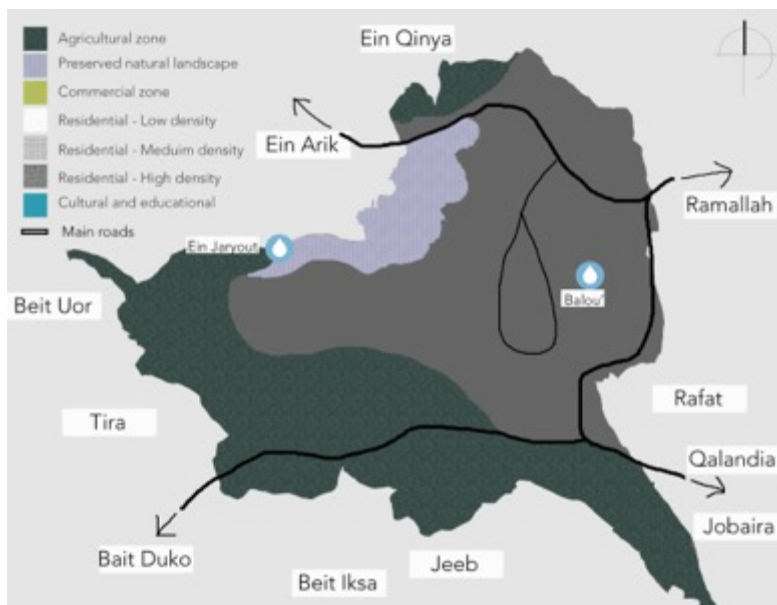


FIGURE 31 AGRICULTURAL AND THE NATURAL LANDSCAPE AREAS.

Source: author, 2021.

6.4.1.4 Interaction Zones

Commercial Zones

Along the main road that penetrates the city connecting surroundings with the metropolitan, a commercial zone is aspired to reflect the city's identity and local knowledge.

The commercial zone, within the strategic plan, is aspired to define the skyline of the city and reflect the contemporary aspect of it. It is a zone where community members exchange their knowledge and production with other communities to achieve their economic sustainability.

Cultural Zones

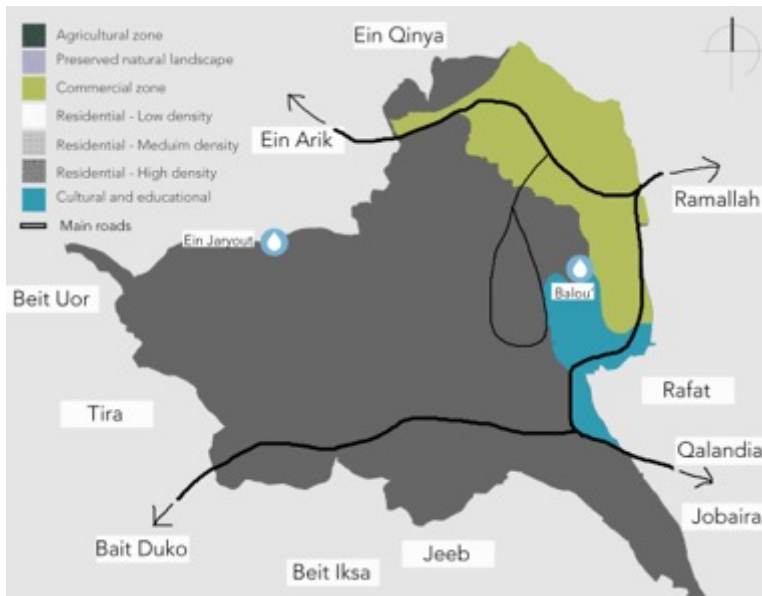


FIGURE 32 COMMERCIAL, CULTURAL, AND EDUCATIONAL ZONES.

Source: author, 2021.

The cultural zone is an extension for the knowledge communication of the city, where its location expands the commercial skyline of the city, as well as extends the potential for interaction between community members themselves, and with residents from surrounding contexts, within a cultural context. It is located to be facing the southern entrance of the city, while respecting the cultural zone of Ramallah city that is located to the east of Beitunia.

6.4.2 Considerations to the implementation of the Strategic Plan

Co-design and Co-Development

1. As the timeframe for this thesis was limited, dissemination of findings and proposed solutions (proposed strategy and proposed urban zoning maps) need further effort.
2. Before the implementation phase begins, and development of action plans take place, intensive dialogue is needed to take place with community members and other stakeholders (specifically academics in the field and officials in the context).
3. Additionally, as the implementation of plans was not within the expected scope of this thesis, facilitators of the implementation phase are recommended to consider authentic ways to participate community members throughout the process.
4. Participation (co-design and co-development) is essential to assure the support of stakeholders, and distribution of responsibilities in the urban context.

Implementation Phases

The exhibited urban zoning plan might seem unrealistic taking into consideration the colonial forces that exist on the land. Nevertheless, the urban plan could be developed and implemented in two phase namely: Phase 1 while under occupation, and phase 2 post-colonialism (after liberation of land).

1. While under occupation and within the framework of areas A, B, and C, the urban development should focus on conducting projects in area A and B, while controlling and preventing rapid urbanization in area C.
2. After liberation of land, the local governance body (municipality) in collaboration with the metropolitan governance (JCU) and regional governance (ministry of local governance), should initiate the implementation of plans in area C.

6.5 Towards a Sustainable Urban Development Model

Literature (previously discussed in chapter 2) shows that the process of urban planning consists of iterative phases of research, identifying community goals and objectives, formulating plans, and implementing the plan, which intersects with the basic process of strategic planning. By reviewing the different models of strategic urban development, and reflecting on the process adopted throughout the data collection, data analysis, strategy development, and urban plan development within this study, a strategic urban planning model is proposed to place community knowledge as the core element in the process. This model could have a great potential in attaining sustainability in Beitunia if utilized by the municipality for the urban development of the city. Further investigation is needed to utilize this model in the general context of Palestine.

To develop a strategy that achieves sustainable development in the urban context of Beitunia, this study proposes **three main stages** namely: evaluate and define, develop, and implement, which are shown in figure (33). These stages occur subsequently while participating various stakeholders.

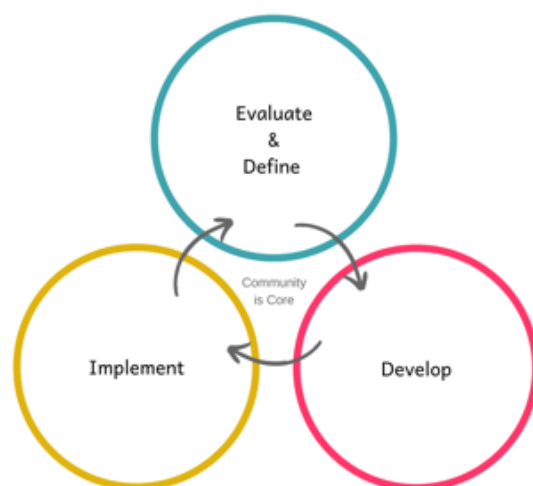


FIGURE 33 STAGES OF THE PROPOSED STRATEGIC URBAN PLANNING MODEL.

Source: Author, 2021.

The section below will discuss each of the phases within the model: evaluate and define, develop, and implement, and present examples from the process of this thesis.

In the **evaluation and definition stage**, evaluation of sustainability and context should take place through collecting data related to the environmental, social, and economic factors of the city, in addition to all necessary variables related to the existing urban components of the city. As shown in figure (34), during this stage, data should be collected from various sources starting from observations of researchers, information from official documents, available maps and satellite images, and even collected testimonies and perceptions of officials and community members. The collected data should be analyzed, synthesized, and shared with community members through different mediums of interaction. Outcomes from this stage should be: a holistic exhibition of sustainability forces (could be in the SWOT framework), comprehensive plans showing the urban forces, and clear needs and desires of community members.

Outcomes from the first stage are incomes for the **stage of developing the strategy**. This is achieved through collaboration with community members of Beitunia and necessary experts, where officials should facilitate the utilization of outcomes of the first stage to develop the aspired strategy. In that framework, desires are developed into a collective vision, and community needs should be developed into objectives, and the corroborated SWOT is utilized to develop strategies. Afterward, similar objectives are categorized under wider goals, and alongside the previously developed vision, a draft of a strategic plan (strategy) should be produced and discussed with community members of the city. Iterating the proposed strategy with community members should lead to amendments and the development of the mission and values of the finalized vision.

The strategy should be translated into a tangible proposal for an urban zoning plan, and should go through iterations and amendments in collaboration with community members. Figure (35) shows the outcomes from this stage, which should be a strategy and associated urban plan for the context.

The last stage focuses on **implementing the developed strategy and urban plan**. The stage focuses on developing adequate action plans, and managing the implementation. The stage concludes in meeting the aspired vision, and outcomes of this stage are considered indicators of sustainability within the different dimensions of the context (environmental, social, and economic). Further investigation is needed to develop a detailed process of this stage, where the implementation of proposed strategies for Beitunia city was not planned to occur in the timeframe of this thesis.

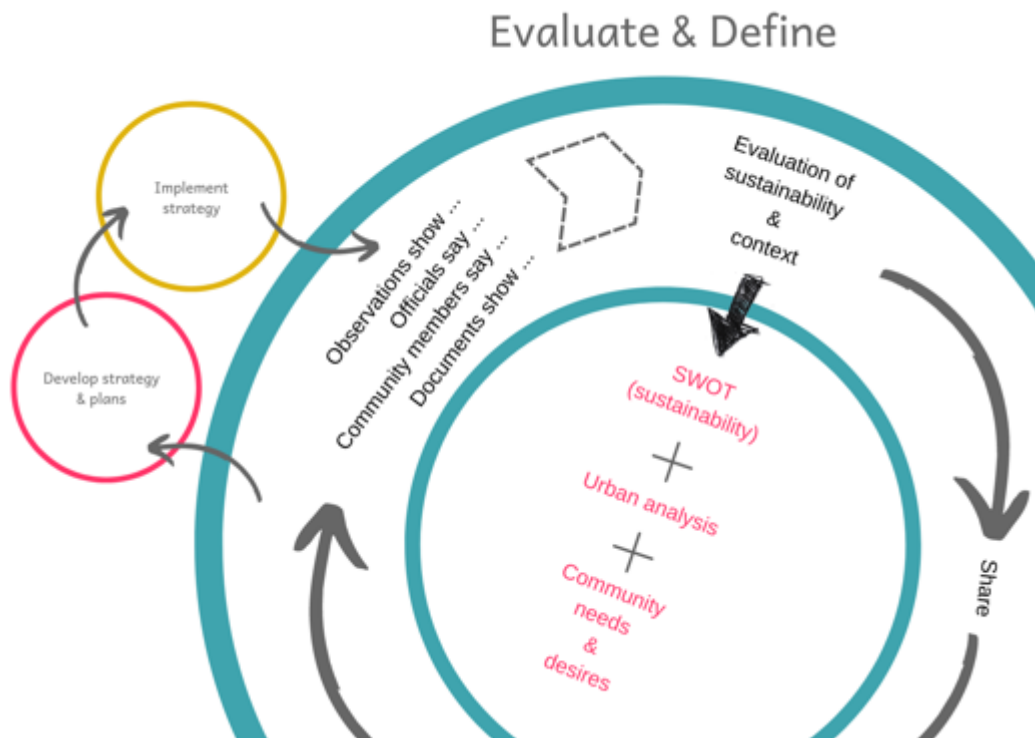


FIGURE 34 THE FIRST STAGE PROCESS - EVALUATE AND DEFINE.
Source: Author, 2021.

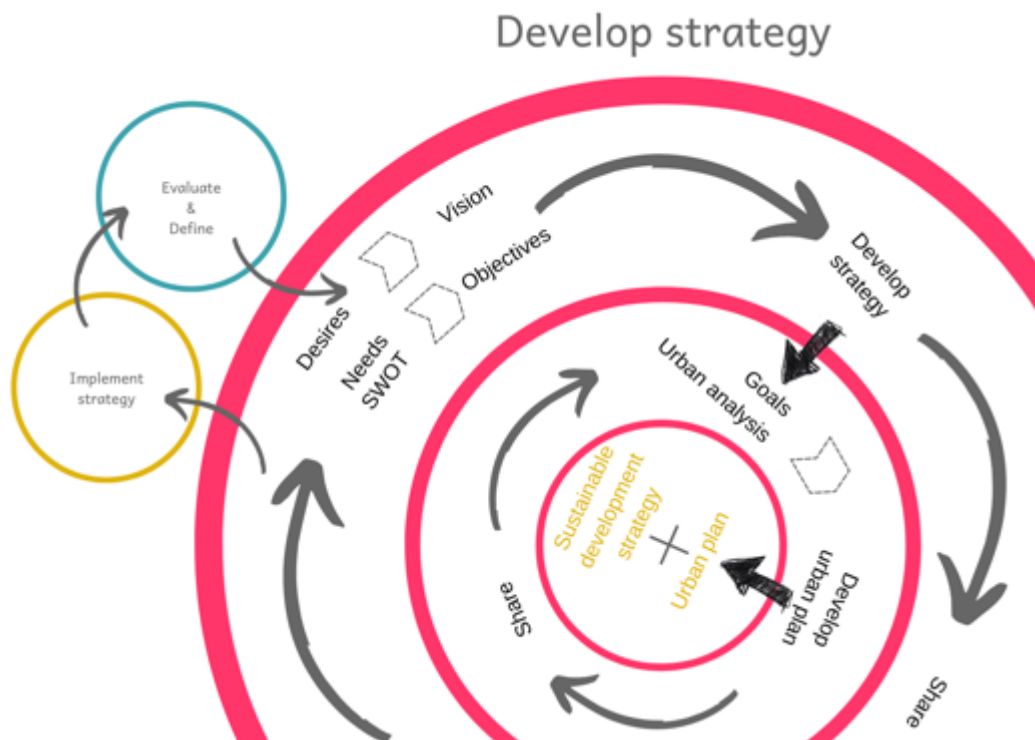


FIGURE 35 THE SECOND STAGE - STRATEGY DEVELOPMENT.

Source: The author, 2021.

6.6.1 Considerations in Utilizing the Sustainable Development Model

The model was developed based on specifications related to the case of Beitunia city. In order to develop the model, researchers and professionals in the field are recommended to utilize the model in different contexts and reflect upon their experiences. Moreover, as models might be a temptation towards the simplification of a complex process, it is essential to fight this temptation in the utilization of this model in other similar urban contexts in Palestine. For that purpose, facilitators of the process should take into consideration the following points:

1. Involving community members is not an option, it is the core to the succession of this model. Community members should be part of the research, planning, and implementation bodies.

2. The model aims to present a replicable method to approach the process, nevertheless, it is essential to adapt the process according to the significance of each community and context.
3. The sequential form of the stages in the proposed model doesn't entail the linearity of the process, iterating the different steps within the proposed stages should occur as needed.
4. Validating the findings of each stage by iterating them and communicating them with different stakeholders is essential before moving on to the subsequent stage.
5. Visualizing the future for community members in Beitunia could play a great role in comprehending the proposed strategy, and increase their responsibility towards achieving the vision.

Chapter 7: Conclusion and Recommendations

In an attempt to develop a model for sustainable development in the Palestinian urban context, this study adopted a case study, and investigation the forces that affect sustainability in its urban context. The main findings of the investigation will be highlighted below, as well as the suggested solutions.

7.1 Findings

The main findings of the study show that the challenges in the urban context of Beitunia city are related to both external and internal factors; **weaknesses** were connected to **lack of competent urban governance** as well as **major deficiencies in the environmental quality**, while external factors (challenges) were related to **settler colonialism and occupation** of land. In contrast **opportunities** for development were found in the **vital metropolitan** (Ramallah, Al-Bireh, & Beitunia), the **JCU's** role in capacity building and fundraising as well as the **social fabric** of community members. And finally, **strengths** were found to be related to the **natural landscape** and associated **agricultural elements, availability of daily services**, and the **community members** and associated capacities. The findings were categorized under four main themes: local governance, environmental quality, social equity, and economic development.

In the **local governance** of Beitunia, findings exhibit major weaknesses in the governance body reflected in the mediocracy in the urban spaces. Although Few strengths and opportunities of development showcase, the strength in the community members' knowledge, emotional bond with the city, and social fabrics, alongside the opportunity of development in the JCU's role to governance capacity building and fundraising are

believed to shift the weaknesses into new strengths in the context. The urgent needs of community members in this dimension focus on acquiring human-centered high-quality urban spaces through building regulations, green urban spaces, pedestrian tracks, and adequate infrastructure.

General perceptions and observations exhibit major weaknesses and threats to the **environmental quality** of the context related to pollution, and biodiversity in the face of irresponsible local behaviors, occupation and settler colonialism, and global warming. Few strengths and opportunities were found in the environmental dimension of the city, yet the potential for development seems to be approachable and realistic. Community needs and desires show urgency for having an environmentally clean city.

Social equity seems to be facing major internal and external forces. In addition to the absence of basic services in the city, some other services have different standards for different social groups. Vulnerable social groups in the community such as children and women are the most groups who suffer from these forces. Opportunities for developing the dimension lay in the hands of the local community and governance (municipality of Beitunia), the regional governance (JCU), and the national (Ministry of local governance). The needs of community members focused on providing basic yet high-quality public services in the city, specifically educational, health, extra-curricular, and recreational services.

In the **economic development** in the city, some minor weaknesses were found hindering sustainability of the dimension, which were related to employment opportunities and jobs in the city. Additionally, threats were found related to employment corruption, as well as lack of perception of the capabilities of agriculture as an economic sector in the city. In contrast, many strengths and opportunities for development were perceived;

where strengths were found in the availability of amenities within the local businesses, architectural heritage, natural landscape, and location of the city in relation to the surrounding communities, and a core opportunity was found in the vital metropolitan and its geopolitical location in relation to Palestinian communities in the West Bank. Community members of Beitunia stressed the need for transparent employment procedures and ethics in the local context. Nevertheless, the economic dimension was found to be the least urgent and most developed in comparison with other dimensions.

7.2 Actions to Urban Sustainability

The findings of the study were used to develop a proposed strategic plan for the city, alongside a proposed urban zoning plan. Reflecting on the process of developing the proposed plans (strategic development plan and urban zoning plan), a model for sustainable development was presented and discussed.

7.2.1 Proposed Strategic Plan

By turning weaknesses into strengths, utilizing existing strengths, taking advantage of opportunities, and defeating threats, a proposed strategy for development for the city of Beitunia was presented. The strategy focuses on knowledge-based development approach, through the participation of stakeholders, specifically community members. The strategic development plan tackled three main aspects of development namely: the **built-up context** through providing a high-quality urban context, the natural context through enhancing the quality of environment and preserving the natural resources, and the **context of knowledge** through empowering the social fabric and utilizing local know-how for the production and co-production of the city.

7.2.2 Proposed Urban Plan

Through this thesis, the development of the strategic plan was associated with developing a proposal for an urban zoning plan. The proposed zoning plan aimed to **provide the outcomes of the strategy with urban spaces**, in addition to **provide the community members with adequate urban places** to meet their various needs. Three main types of urban zones were proposed in the zoning map which are: community zones, residential zones, and interaction zones. **Community zones** aim to provide spaces for production and community learning through agricultural spaces, natural landscape, and natural water elements. **Residential zones** aim to provide variety of residential options and spaces that serve different residential needs and aspirations. **Interaction zones** aim to provide spaces for communication with the other communities through cultural and commercial spaces. Alongside these zones, two types of main roads were proposed in the zoning plan: the main connecting roads aiming to connect the city with its surroundings, and a main internal road connecting the urban monuments to each other.

7.2.3 Proposed Model for Sustainable Development

For the sustainability of Beitunia city, this study concludes that municipality should adopt of an urban development model that **assures community participation** and **iterates between** three main stages namely: evaluating the context and defining the strategic issues, developing strategic plan and urban plan, and implement the plan.

The first stage (evaluation & definition) focuses on conducting evaluation of sustainability and context, in order to result in: a holistic exhibition of forces affecting sustainability, comprehensive analysis plans for the urban forces, and a list of needs and desires of community members. During the **second stage (development)**, outcomes of

first stage - forces, desires, and needs - should be developed into a collective strategic plan and urban plan. Iterating the developed plans between various stakeholders occur during this stage. And finally, **the last stage (implementation)** focuses on producing action plans, and rotates around managing and implementing the interventions. Outcomes of this final stage should converge into meeting the collective vision of the strategy, where evaluation should take place to ensure good governance.

7.3 Conclusion and Recommendations

Assessment efforts of urban sustainability in the Palestinian context showed that many forces hindering the sustainable development of cities in the west bank are related to colonial forces and internal insufficient governance. Yet, there are many opportunities and strengths to be utilized for the **sustainability of Palestinian cities and communities if a competent governance was in place, and if that governance adopted a decolonizing approach in leadership**. Additionally, this study concluded in some recommendations for decision-makers and facilitators of urban development projects to adopt namely:

1. Multidisciplinary fields - such as strategic urban development - entail a multidisciplinary approach for development. Borrowing various development tools from different disciplines could benefit the process of development. For example, during this study, visual tools - such as sticky notes - were found useful in the analysis and synthesis process, which allowed for the rapid iterations of different scenarios and strategies, in less time and effort.
2. This study found that embedding corroboration enabled the incorporation of information from diverse sources of data while preserving the credibility of the find-

ings. This technique gave voice to the community members through embedding their perceptions and gave voice to the researcher through embedding her observations. This could be a useful approach towards decolonizing research methodologies in the Palestinian context.

3. For the analysis of data, social media tools - as informal mediums of communication - were found useful in iterating the data analysis and synthesis with various stakeholders. This enabled multiple interviewees to participate in the research process and emphasized the de-centering of the researcher.
4. In the developing of strategies, utilizing the TOWS method to develop different scenarios for development was found useful. Nevertheless, it is important to utilize the tool in a holistic approach rather than specifying the factors for each theme alone.
5. A major opportunity for development was found in the JCU's role in capacity building and fundraising in Beitunia. Nevertheless, further investigation is needed to find ways to make the unit more effective, which could be done by giving the unit authority and defined organizational responsibility and structure.

7.4 The Implications of the Results and Future Suggestions

The results of this thesis, alongside similar studies, contribute to a better understanding of the factors that affect the urban context in Palestine. Although the research was focusing on Beitunia city as a case study, the research methodology could be replicated in the context of Palestine to converge towards precise findings. Additionally, this study contributes to investigating approaches to sustainable urban development in Palestine.

For that purpose, the presented model for sustainable development should be utilized in various urban contexts in Palestine towards developing a comprehensive model.

This study focused on investigating community participation as an approach for sustainability in the urban context through the lens of the strategic planning process. Future researchers are encouraged to:

1. Investigate other approaches for sustainable development in Palestine, such as the co-production approach for developing cities.
2. Deeper investigate the potential of the knowledge-based approach and community learning in the development of sustainable cities in the Palestinian context.

7.5 Limitations

This study was associated with some limitations that affected the extent of the contribution of this study as follows:

1. Limitations related to the timeframe of this study limited the ability to conduct the necessary iterations with stakeholders for the confirmation of the findings, the proposed strategy, and the proposed urban plan. Additionally, dissemination of the findings was not possible before the submission of this thesis.
2. Data collection of this study took place in the period between April and September 2021, which is a period associated with the COVID-19 pandemic. These imposed challenges related to coordinating interviews dates and locations.
3. At last, some challenges were associated with the informal culture of communication, where it was challenging to schedule meetings using formal mediums - such as e-mails.

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Appendices

Appendix 1: Demographic Information of Interviewees - Community Members

Interviewee	Total	
Gender	Female (F)	10
	Male (M)	6
Age	15-18 (B)	4
	19-24 (C)	1
	25-34 (D)	3
	35-65 (E)	7
	More than 65 (F)	1
Education	Illiterate (A)	1
	Less than high school degree (B) Students ?	5
	High school degree (C)	2
	Diploma (D)	1
	Bachelor degree (E)	3
	Master degree (F)	3
Field of work	Without a job (L)	4
	Engineering and construction (E)	1
	Agriculture (F)	2
	Government (K)	2
	Humanitarian sector (K)	1
	Merchandise trade (K)	1
	Governance and municipalities (I)	1
	Student (J)	4
Residential status	Indigenous owner (A)	4
	Indigenous renter (B)	2
	Visitor owner (C)	2
	Visitor renter (D)	7
	Expatriate (E)	1

Appendix 2: Demographic Information of Focus Groups

	Interviewee	Focus group 1	Focus group 2	Total
Gender	Female (F)			11
	Male (M)			22
Age	Less than 15 (A)			33

Appendix 3: Semi-Structured Questions

Part 1: Demographic Information

Gender Female Male	Age group Less than 15 15-18 19-24 25-34 35-65 More than 65
Academic level Less than high school High school level Diploma Bachelor degree Masters Doctoral More than doctoral	Field of work Education Culture and art Health sector Industrial and vocational sector Engineering and construction Agriculture General trade sector Tourism and recreational sector Governance and municipal sector Other

Part 2: How are you Connected to Beitunia?

I'm a/an: Resident, Investor, Business/store owner, Other _____

Draw a map of the city, and on the map:

- Locate the most important area that should never be removed.
- Locate the most place you love in the city.
- Locate the most fun area that they like to hang out in.
- Locate the place where you go to have fun in their vacation time (hiking, biking, visiting relatives ...)
- Draw a line for your movement tracks in the city (walk up every morning, go to work \ school, come back home, go to the market, go to the park, ...)

Please tell me ...

- Do you like the city?
- Do you like living in it?
- Do you like spending time in it?

Part 3: Sustainability Assessment (Indicators)

In the environmental quality, how do you evaluate the general environment of the city?

Lets' talk about ...

Air pollution

Satisfaction of local environment (air quality) (subjective indicator)

Transmission of CO₂ from transport (cars, busses, public transportation, taxis, ...)

Transmission of CO₂ from industrial zone in Ramallah.

Transmission of CO₂ from industrial zone in Beitunia.

Transmission from fire from burning lands, garbage tanks, tires, ...

Municipal solid waste treatment. (Plastic rubbish on sidewalks and streets)

Municipal dump sites.

Municipal water waste treatment.

Agricultural waste and use of manure.

Chemical pastilles.

Silage effluent.

Access to clean water.

Water pollution from industrial waste.

Water pollution from municipal waste-water.

Lets' talk about effect colonialism and environment. Tell me about ...

Burning trees

Dumping sewage on farmland

Runoff of wastewater from settlements

Pollution from industrial settlements in declared "industrial zones"

Soil erosion on the hills due to settlers' environmentally irresponsible behavior

Do you think that people in Beitunia are responsible towards the environment⁵? Tell me about ...

Resource and energy productivity.

The share of renewables in final energy consumption.

The recycling rate for packaging waste.

The sewage sludge production

The sewage sludge disposal.

⁵ Environmentally responsible behavior is associated with resource and energy savings, the use of renewable energy sources instead of fossil fuels, waste recycling and proper waste-water management and disposal (Streimikiene, 2015).

How about the natural context? Tell me about ...

Biodiversity-protection

Animals

The extent to which their proposals for Sites of Community Importance adequately cover the species and habitats listed

Terrestrial habitat types of community interest

Terrestrial species of community interest

Amounts of freshwater abstracted per inhabitant

Forests

Access to green areas

Access to natural recreational outdoor spaces (Ein Jaryoud ...)

Access to municipal recreational outdoor spaces (parks ...)

How do you evaluate social equity in the city? Tell me about ...

Equality of wealth

Affordable housing

Equality of access to entertainment

Equality of access to education

After schools

Summer camps

Extra curriculum activities

Art, culture, and learning interactive activities and spaces

Innovation hubs

Equality of access to health

Mental health

Health issues (Azmma, Amebia, ...)

Safe outdoor spaces

Safe sidewalks and crosspaths

Crimes in the city

Manholes opened

Collapsed retaining walls

Lighting at night in public spaces

Availability of public transportation

Accessibility of public transportation

Community participation in urban planning and management

How about safety in the presence of colonial forces? Do you feel safe when ...

Settlers' attack Palestinian property

Walking near the safe boundaries of the city such as Ofar or in Area C

In the sectors of the economy, tell me about about ...

Industries and source of income and local craftsmanship

Full and productive employment opportunities

Decent work opportunities

Equal employment opportunities for women and men

Part 4: Urgent Needs and Desires

What are your needs\desires that will enhance your life quality in Beitunia?

Number the aforementioned needs\desires from the most urgent (1) to the least (5).

What is the suggested solution?

What to do to make it sustainable?

What is the first thing you would change in Beitunia if you were elected as Mayor?

What is the immediate next thing?

How would you like to see Beitunia?

Where do you imagine Beitunia to be in 10 years?

Appendix 4: Data Table

Table key

Gender: Female (F), male (M)

Age: Less than 15 (A), 15-18 (B), 19-24 (C), 25-34 (D), 35-65 (E), more than 65 (F)

Educational level: Illiterate (A), less than a high-school degree (B), high school degree (C), Diploma (D), Bachelor degree (E), master degree (F), more than master level (G)

Field of work: Educational sector (A), Culture and Art (B), the Health sector (C), industrial and vocational (D), engineering and construction (E), agriculture (F), general trade (G), tourism and recreational (H), governance and municipalities (I), student (J), other (K), without a job (L) ...

Residential status: Indigenous owner (A), Indigenous renter (B), visitor owner (C), visitor renter (D), expatriate (E), not relevant (O)

Interviewees

Interviewee 1 **FEDLA** – Female, around 60's YO, holding a diploma degree, housewife, indigenous owner.

Interviewee 2 **MEEEE** – Male, around 60's YO, holding a bachelor's degree, working in engineering, expatriate.

Interviewee 3 **FEEDF** – Female, in her 40's, holding a bachelor's degree, working in the ministry of agriculture, a visiting renter.

Interviewee 4 **FEAFA** – Female, 61 YO, illiterate, working as a farmer, indigenous owner.

Interviewee 5 **FDEKD** - Female, 20's YO, holding a bachelor's degree, working in the government, renting resident from outside Beitunia.

Interviewee 6 **MDFMD** - Male, 20's YO, holding a master's degree, working in the humanitarian sector, renting resident from outside Beitunia.

Interviewees 7,8 **MBBJO** – 2 males, 15 YO, students from public schools (29 Sep)

Interviewees 9,10 **FBBJO** - 2 females, 15 YO, students from public schools (29 Sep)

Interviewees 11, **FEBLD** - Female, early 60's YO, acquired high school certificate, without a job, renting resident from outside Beitunia. (22nd September)

Interviewees 12, **MDCKD** - Male, late 20's early 30's YO, acquired middle school education, working as a vegetable seller, renting resident from outside Beitunia. (22nd September)

Interviewees 13, **FEFIC** - Female, mid 30's YO, holding a master's degree, working in the government, owner from outside Beitunia. (22nd September)

Interviewees 14, **FFALB** - Female, late 60's YO, illiterate, without a job, indigenous renting resident. (22nd September)

Interviewee 15, **FDCLD** – Female, late 20's YO, holding a high school degree, without a job, renting resident from outside Beitunia. (22nd September)

Focus groups 1 – **MBBJO** 22 males 9th-grade class from private schools (21 Sep)

Focus group 2 – **FBBJO** 11 females 9th grade class from private schools (21 Sep)

Interviewee 16 **MEPIA** – Mayor of Beitunia, Male

Section 1: Relationship with City

Categories							Researcher's notes \ insights
Codes							
Residents' emotional relationship with the urban space.							<p>The reduced quality of life for the citizens is not affecting their emotional relationship to the city.</p> <p>This was confirmed by renting residents who are not from the indigenous families of the city \ town, yet they spent their whole life living in the city, and to a certain extent, they start feeling connected to the spaces and places of the city. This might be connected to the area of residence, where living near the old town and away from the industrial zone proposes a different living experience than living in the industrial zones.</p> <p>This perception and relationship with the land and spaces \ places was different for residents who spent their whole life in the city living in renting apartments in the industrial zone.</p> <p>Quote: " Although I grew up in Beitunia, my perception of the city shifted after I got married, as I learned new things about the city from my in-laws. I understand now why my husband loves the city!"</p>
Residents love the city.	1	F	E	D	L	A	<p>Farmers' emotions to their land is very strong, and is most likely connected to the knowledge that they form around the places \ in contract to spaces of their urban context.</p> <p>Despite all challenges that reduce the quality of life of residents, residents of different connection to the city (rentals, owners, ...) seem to love the city and like living in it. Some would move if to a better quality city, others claim that they will never do.</p>
	1	F	E	A	F	A	
	1	M	D	F	M	D	
	2	M	B	B	J	O	
	2	F	B	B	J	O	
	1	F	F	A	L	B	
Residents like living in the city.	1	F	E	D	L	A	
	1	F	E	A	F	A	
	1	M	D	F	M	D	
	2	M	B	B	J	O	
	2	F	B	B	J	O	
	1	F	F	A	L	B	
	1	F	E	E	I	C	
Residents are willing to move to a better place.	1	F	E	D	L	A	<p>There are economical factors associated with choosing to live outside Beitunia.</p> <p>Quote: "I can't afford to buy a land in Beitunia, and therefore I prefer to buy in rural areas"</p>
	1	M	D	F	M	D	
	1	F	D	E	K	D	
	2	M	B	B	J	O	
Residents don't like living in the city.	1	M	E	E	E	E	
	1	F	D	E	K	D	
Residents' activities in the city.							
Visit relatives.	1	F	E	D	L	A	<p>There are social factors associated with choosing to live in Beitunia such as (specifically) living nearby relatives.</p>
	1	M	E	E	E	E	
	2	M	B	B	J	O	
	2	F	B	B	J	O	
Farming	1	F	E	A	F	A	<p>Farmers have a strong relationship with the land, and perceive the importance of farming as part of their duty to their property.</p>
Children like to spend their free time in football playgrounds and parks.	2	M	B	B	J	O	<p>The city's map of activities differ as gender changes. For example, as boys like to spend their time in football fields, girls seem to enjoy their time in parks.</p> <p>A question occurs: does the map have different layers according to gender? This needs further investigation. Could be investigated using the mental maps.</p>
	2	F	B	B	J	O	
Residents' general perceptions.							

Residence perceives the city as crowded.	1 2 1 1	F M E M	D B E D	E B E C	K J I K	D O C D	Specifically they relate to the traffic caused by extensive number of vehicles in comparison to the size of the streets.
Residents correlate traffic with existence of industrial zone.	1	F	D	E	K	D	
Residents correlate noise with existence of industrial zone.	1	F	D	E	K	D	Industrial zone seem to affect the quality of life of citizens in terms of: Increasing traffic in working hours, Affecting the visual identity of the city as being the doorway to the residential area,
The city has wide spectrum of services (groceries, pharmacies, transportation...)	1 1 1 1 1	F F M F E	E E D D E	D A F M K	L A D D D	A A D D D	
Major weaknesses revolve around safety, infrastructure, and traffic.	1	F	D	E	K	D	
Major strength points in Beitunia are its location connecting villages to Ramallah.	1	M	D	C	K	D	Residents perceive this strength point highly in parallel to providing a wide spectrum of services. This could be a major point in the economic development of the city.
Services are developing rapidly in the city.	1	M	E	F	I	A	
Residents perceive the city as a prison.	1	M	D	C	K	D	Quote: "We live in the biggest prison in the world". How can we connect this quote with the same interviewee's answer when describing the perfect city, and when asked about the perception for solution "Nothing"? Could there be any development that can provide sustainability and meet the resident needs, while under occupation.
The role of achieving sustainability.							
Achieving sustainability is a shared responsibility between Residents and the municipality.	1	M	E	F	I	A	
The municipality role is to enhance the concept of citizenship and participation.	1	M	E	F	I	A	The mayor of Beitunia believes that it is important to involve citizens as the main stakeholders in the city. Nevertheless, the definition of citizens needs further investigation.
Participating community members in planning is essential to achieve good governance.	1	M	E	F	I	A	Participation was directed by external experts during the strategic planning. The mayor believes that participation was fair, and the sample was representative. Nevertheless, all interviewees from community members were not aware of the strategic plan or the focus groups and committees formed. The method of forming these committees needs further investigation.
Residents didn't understand the boundaries of their role in participation.	1	M	E	F	I	A	The mayor defines one of the major challenges in participation is the extend to where residents are allowed to participate, specifically in their role in accountability.
Participation includes decision-making, defining priorities, and transparency.	1	M	E	F	I	A	

Residents believe there is air pollution in the city.	2 2	M F	E E	B B	J J	C C	Students are more aware to the factors that cause air pollution in their city, which facilitates the correlation. This might be related to their daily interaction with the topic within the curriculum. How can we apply this to the adults? Maybe some form of community education program!
Residents believe industrial structures don't affect the air quality in Beitunia.	1 1 1 1 1 1	F F F M E	E E E E D C	D A F L B K	L A F L D C	A A B D D D	Some residents don't think the industrial facilities affect the quality of air because they are far away.
Residents believe the industrial zone doesn't have heavy industrial facilities.	1	F	E	D	L	A	
Residents recognize air pollution cause by the industrial zone.	1 2 2 1 1 2 2	F M E M E F E	D E B E B E B	E B B B B B B	J J J J J J J	C C C C C C C	The perception of existing air pollution in the city differs rapidly from one zone to another. This might entail that the air pollution cause by industrial facilities and traffic affect some neighborhoods more than others. Looking at the testimonies of residents, and comparing the answers with their residence location and the city map, areas around the industrial zone are highly affected by air pollution than other such as the old town. This is also connected to their type of residents, as some members of the indigenous community still live in the "clean area" away from the industrial zone, while rental dwellings' residents suffer from different type of air pollution.
Residents recognize air pollution from traffic.	1 1 1 2	F F F M	E E E E	D E E B	L F E B	A D K J C	
Residents notice air pollution from stone crushers.	1	M	E	B	J	C	Only one student mentioned this source of air pollution. I'm speculating that it might have been a misunderstanding in the question, where the student was generally listing the cause of air pollution in the Palestinian context, not specifically to Beitunia. There are no stone crushing sites \ plants in Beitunia.
Residents don't recognize air pollution from traffic.	1	F	E	A	F	A	
Residents are not annoyed by the emissions of vehicles.	1	F	E	D	L	A	
Residents don't notice burning trash cans in the city.	1 1	F F	E E	D E	L F	A D	
Residents notice burning trash cans in the city.	1 1 2 2 1 1	F M E F F F	D I E E E E	E F B B A B	K F J J L L	D D C C B D	So far, these two residents notice burning trashcans. This was not perceived by residents living near the Balou' area. This might entail that: Municipal services differ from one space to another. The level of services needed from one space to another differs according to the land-use.

Residents smell bad odor from trash-cans.	1	F	D	E	K	D	
Residents smell bad odor from tear gas frequently.	2	M	E	B	J	C	As tear gas was not directly perceived as air pollution, children described the smell of it and declared that it affects the quality of life.
Residents are not annoyed from the gas emissions caused by the land-burning technique.	1	F	E	D	L	A	
Residents approve the land-burning technique and practice it.	1	F	E	D	L	A	
Farmers recognize the risk of the land burning technique on their crops.	1	F	E	A	F	A	Land burning of neighboring properties is associated with the risk of burning some crops and trees.
Residents notice the land-burning technique to get rid of reptiles.	1	F	E	D	L	A	
	1	F	D	E	K	D	
	1	M	L	F	M	D	
	2	M	E	B	J	C	
	2	F	E	B	J	C	
	M	E	B	J	C		
	F	E	B	J	C		
	E	B	J	C			
Residents smell bad odor from wastewater.	1	F	E	D	L	A	From the mayor: The lack of wastewater treatment was hindered by the Israeli occupation, and the municipality was waiting permissions to build the treatment plant in area C. Today the municipality acquired permission, and the tender should be released soon.
	1	M	E	E	F	D	Wastewater was discussed among residents in the context of: noise pollution, air pollution, and soil pollution.
	1	F	E	F	D		It has effect on the quality of their life and contributes in reducing their satisfaction towards the municipality.
	1	F	D	E	K	D	It is also (among other factors such as the financial capability) affecting their decision to buy \ own \ acquire property in the city.
	1	M	L	F	M	D	
	2	M	E	B	J	C	
	2	F	E	B	J	C	
	2	M	E	B	J	C	
	1	F	E	B	J	C	
	1	F	F	A	L	B	
	1	F	E	B	L	D	
	1						
Residents are annoyed from the gas emissions caused by the land-burning technique.	1	F	E	A	F	A	
	1	F	D	E	K	D	
	1	M	L	F	M	D	
	2	M	E	B	J	C	
	2	F	E	B	J	C	
Residents oppose the land-burning technique.	1	F	E	A	F	A	
Residents are annoyed from the gas emissions associated with the military attacks (burned car wheels, tear gas, skunk water...)	1	F	E	D	L	A	
Residents recognize air pollution from industrial zone emissions.	1	F	E	E	F	D	
Residents believe air pollution affects the quality of their life in Beitunia.	1	F	E	E	F	D	
Residents recognize air pollution from fireworks in occasions.	1	F	E	E	F	D	

Residents don't notice the land-burning technique to get rid of reptiles.	1	F	E	E	F	D	A	
Residents' perception to soil pollution.								The relationship between the community and land is being destructed. This could be connected to the role of colonialism in fragmenting the human from the land. The new relationship between the community and their land needs further investigation. This could open an opportunity for projects related to place-making. Check El-Atrash (2020).
Residents see solid waste and plastic rubbish in public spaces.	1	F	E	D	L	A		
Residents are satisfied with the municipal process of handling solid waste.	1	F	E	D	L	A		Some residents claim that the municipal services in handling solid waste is not unified for all areas, which might be the reason to cause the accumulation of rubbish in some areas of the city.
Residents are not satisfied with the municipality role in enhancing the responsible environmental behaviors (banning laws, regulations, policies ...).	1	F	E	D	L	A		Many testified that there are no equality in the quality of municipal services in the city. Residents see some areas get trash collecting more frequently than other areas.
Residents acknowledge the effect of wastewater sludge remains on quality of life.	1	F	E	D	L	A		
Residents acknowledge the effect of wastewater sludge remains on quality of soil.	1	M	D	F	M	D		
Residents see solid waste in their private property.	1	F	E	D	L	A		
Residents are not satisfied with the quality of trash-cans in the city (no-cover).	1	M	E	E	E	E		
Residents don't think the number of trash-cans is enough to serve the city.	1	F	D	E	K	D		

<p>Residents believe that the municipality needs to empty the trashcans more often.</p>	1	F	E	E	F	D	
<p>Residents believe that the municipality needs to sweep the streets regularly.</p>	1	F	E	E	F	D	
<p>Residents' perception to audio pollution (noise).</p>	<p>The community is used to the level of noise in the city, to the level where audio pollution is not perceived. Major efforts are needed to raise awareness to issues related to the soundscape of Beitunia.</p> <p>While others claimed that the noise cause by motorcycles are constant day and night, others were very specific that it peaks at night hours. This was in contrast to perceiving the absence of noise and traffic caused by the industrial activities. This might entail that the city has layers of quality. These layers could be perceived: Vertically, in terms of distant from ground, literally and metaphorically; where literally as living in high rise buildings vs. in one story dwelling, and metaphorically as having interactions with the land and forming connections with places in the city. Horizontally, as the areas/zones of living and interaction (old town, Balou', industrial zone, ...). It might be useful to connect the perceptions with the map.</p>						
<p>Residents acknowledge the existence of noise pollution in the city.</p>	1	F	E	D	L	A	<p>Although many residents recognize noise pollution and are able to list the factors that are causing this pollution, some perceive it as "normal".</p> <p>Normalizing noise in the urban context is a phenomenon that needs further investigation, not only in Beitunia, but in the Palestinian context as a whole.</p>
<p>Residents don't perceive noise pollution in the city.</p>	1	F	E	A	F	A	<p>As an observer \ researcher, and based on my field visits, environmental noise is clear and noticeable. Nevertheless, some residents – specially the original residents of the city – don't acknowledge the existence of noise. This might be explained as the normalization of pollution, so they might not perceive it, or it could be the least of their priorities. Another possible explanation could be denying admitting the mediocrity as a surviving mechanism, or as a sign for patriotic behavior.</p>
<p>Residents don't hear noise from construction sites.</p>	1	F	E	D	L	A	
<p>Residents hear noise from construction sites.</p>	1	M	I	F	M	D	

Residents don't hear noise from industrial facilities.	1 F E D L A 1 F E E F D 1 F D E K D	
Residents hear noise from industrial facilities.	1 M L F M D M E B J C F E B J C	There was a discussion about the noise cause by brick factory. This might entail that dwellings near the industrial areas suffer from more noise pollution than other areas. Additionally, many complained from the noise associated with having car repair shops within the residential area.
Residents hear noise from traffic.	1 F E D L A 1 F E E F D 1 F D E K D 1 M L F M D M E B J C F E B J C	
Residents hear noise from motorcycles.	1 F E D L A 1 F D E K D M E B J C 1 F F A L B 1 F E B L D	After further investigation, it appeared that the main street of Beitunia expands all the way to the Ofar military base, and the road is basically a dead-end ending with the Ofar gate and the Annexation and Apartheid wall. This gives young motorcycle riders a space to ride all along the road and turn back easily. Bringing this thread alongside the strength of having the Balou' natural water reservoir on both sides of the same road, I see an opportunity of developing the area towards a pedestrian and recreational space in the city.
Residents recognize noise peaks at evening hours from motorcycles.	1 F E D L A 1 F D E K D	
Residents perceive noise level differences between the different hours of the day.	2 M E B J C 2 F E B J C	
Residents perceive noise level differences between the different places in the city.	2 M E B J C 2 F E B J C	
Residents recognize noise in evening from recreational activities (weddings, graduation celebrations, carting field, ...)	1 M L F M D 2 M E B J C 2 F E B J C F E B J C	
Residents believe noise pollution affects their quality of life.	1 F E D L A 1 M E E E E 1 F E E F D 1 F D E K D 1 M L F M D 2 M E B J C 2 F E B J C	

<p>Residents recognize noise from wastewater aspirators.</p>	<p>1 M E E E E 1 F E E F D F B B J C 1 F F A L B</p>	
<p>Residents notice noise from the Israeli military invasions to the city (the sound of stun grenade “sound bombs”) at night.</p>	<p>1 F E A F A 2 M E B J C 2 F E B J C</p>	<p>This was frequently described as “annoying” by different residents as it interrupts with their sleeping hours.</p>
<p>Residents’ perception of agricultural activities in the city.</p>		<p>They notice the shrinkage, but not necessary perceive it as negative indicator. Other residents don’t perceive the city as agricultural. I noticed that residents who perceive the city as agricultural are endogenous residents, farmers, or other individuals who lived in the city while it was still a village.</p>
<p>Residents think there is agricultural sector in Beitunia.</p>	<p>1 F E D L A 1 F E A F A 1 M D F M D 1 F F A L B 1 1 F E B L D M D C K E F E C L E</p>	
<p>Residents notice the lack of seasonal crops in the city.</p>	<p>1 F E D L A 1 F E E F D 1 F E B L D</p>	
<p>Residents notice the shrinkage in the number of farmers over the years.</p>	<p>1 F E D L A 1 F E A F A 1 M D F M D 1 F F A L B 1 1 F E B L D M D C K E F E C L E</p>	<p>According to the farmers’ perspective, the effort needed for land farming and management, in contrast with the profit margin is not efficient in contrast to selling the land or investing in the property. Some residents speculate that agriculture will vanish in couple of years.</p>
<p>Residents don’t think there are agricultural sector in the city.</p>	<p>2 M E B J C 2 F E B J C M E B J C F E B J C</p>	<p>I noticed that children in specific believe there is no agricultural sector of the city. This might be an indicator of the rapid shrinkage in the sector, compared to other 20’s years old residents who know about the sector. Half of the male students in the classroom think there is agricultural sector in the city, while the other half don’t think it exists.</p>
<p>Residents acknowledge the importance of the agricultural sector in the city.</p>	<p>1 F E A F A</p>	
<p>Residents notice the shrinkage in agricultural land in the city.</p>	<p>1 F E D L A 1 F E A F A 1 M D F M D 1 F F A L B 1 1 F E B L D M D C K E F E C L E</p>	<p>Some residents believe that farmers are abandoning their farming activities and prefer to sell the land because land has higher value if invested for residential buildings \ manufacturing facilities in the city. Additionally, the wall compromised private agricultural land for residents. Quote: “We have 56 donums behind the wall that we only can access it through a special permission”.</p>

Residents believe that constructing residential buildings is contributing to the loss of agricultural land.	1	F	E	A	F	A	The financial value of land is high. Landowners prefer selling the land or building a residential building to sell/rent the apartments, than preserving the area for agricultural activities. Most of the landowners (original community of Beitunia) are expatriates; some have their old parents living in Beitunia.
Farmers are not satisfied by the irresponsible behavior of apartment buildings residents towards the agricultural land.	1	F	E	A	F	A	There are some residents who pick crops from farmers' land, causing to ruin the seasonal crops. This behavior is causing some farmers to abandon the land and the sector. The behavior of residents might be connected to the diversity of cultural background of residents, associated with the lack of regulations and law that protect the private properties.
Pollution is affecting the agricultural practices in the city.	1	F	E	A	F	A	Quote: "Farming is requiring water in contract to the rain-fed local crops".
Residents acknowledge the effect of wastewater sludge remains on crops.	1	M	I	F	M	D	
Farmers are annoyed by the Israeli army invasion to the city.	1	F	E	A	F	A	Usually, the Israeli army invades the city in late night and early morning hours when arresting citizens. This activity usually interrupts the farmers work schedule, where it interferes with their picking time.
Residents' perception to irresponsible environmental behaviors in the agricultural activity.							
Residents notice the use of chemical substances in farming.	1	F	E	D	L	A	
Residents believe the amount of chemicals used in farming is acceptable.	1	F	E	D	L	A	
Residents claim that farming is impossible without the use of pesticides.	1	F	E	A	F	A	
Farmers don't use irrigation despite the lack of annual rainwater.	1	F	E	A	F	A	Quote: "We don't have the ability to irrigate all the crops. The amount of water needed is beyond our capacity". As this might be an indicator to the reduction of annual rainwater, it might also be an indicator for the loss of knowledge in the indigenous irrigation systems and the use of natural water resources such as: collecting rainwater, aqua-ducts, underground water ...
Farmers don't reuse the containers of pesticides.	1	F	E	A	F	A	
Farmers use natural fertilizers.	1	F	E	A	F	A	The existence of Bedouin communities contributes to providing farmers with the required natural fertilizers.

Residents' perception to the absence of ranching sector in the city.						
Residents don't notice ranching activities the city.	1	F	E	D	L	A
	1	F	E	E	F	D
	1	M	E	B	J	C
Residents don't recognize the existence of forage production facility in the city.	1	F	E	D	L	A
	1	F	E	E	F	D
Residents see flock of sheep passing by the city.	1	M	E	E	F	E
	1	F	E	B	J	C
Residents don't see a flock of sheep passing by the city.	1	F	E	E	F	D
Residents recognize the shrinking in ranching sector.	1	M	L	F	M	D
Residents' perception to biodiversity.	<p>Perception of community members towards the loss of biodiversity had two extreme sides. As community members express their satisfaction towards the disappearance of wild animals (Fauna) in their context, many express their disappointment towards the loss of flora diversity.</p> <p>Community members are not aware of the role of biodiversity in sustaining the environmental quality of the city. They also don't consider the existence of animals as a positive indicator. This could be explained through the cultural perception of hygiene.</p>					
Residents don't see native wild animals (deer, pigs, ...) passing by the city.	1	F	E	D	L	A
	1	F	E	E	F	D
	1	F	E	A	F	A
	1	F	E	B	L	D
	1	M	D	C	K	D
	1	F	E	C	L	E
Residents testify seeing wild pigs released in the streets by the occupation military.	2	M	E	B	J	C
	2	F	E	B	J	C
Residents see native birds in area C.	1	M	L	F	M	D
Residents recognize the absence of indigenous fauna in the city.	1	M	L	F	M	D
Residents prefer the absence of fauna in the city.	1	F	E	D	L	A
Residents are annoyed by the existence of wild dogs in the area.	1	F	E	D	L	A
	1	F	L	E	K	D
	2	M	E	B	J	C
	1	F	E	B	J	C
	1	F	E	B	L	D
	1	M	D	C	K	D

Residents don't see seasonal flora in the city.	1 1 2 2	F F M F	E D E B	D E B E	L K J E	A D C C	The absence of natural flora and fauna in the city is extremely noticeable.
Residents recognize the absence of indigenous flora in the city.	1 1 1	F F M	E E D	D A F	L F M	A A D	Specifically, farmers are connecting this loss to the reduced amount of rainwater, as they claim that all crops in the past years were rain fed.
Residents have the ability to list indigenous crops of the city.	1 1 1	F F M	E E D	D A F	L F M	A A D	
Residents recognize the loss of biodiversity in the city.	1 1 1	F F M	E E D	D A F	L F M	A A D	This might be due to farmers neglecting their land and changing their field of work. Or might be connected to other challenges associated with farming that are caused by the environmental changes such as the lack of water.
Residents don't recognize the absence of indigenous flora in the city.	1	F	E	E	F	D	
Residents' perception to the quality of drinking water.							
Residents don't think there is pollution in drinking water.	1 1 F M 1 1 I I	F F E B B B F F E E	E D E B B F E B L C L	D L F J J A L B L C L	A C C B J C B B J C B B J C		The perception of quality of drinking water differs among residents. This might be affected by cultural factors. After further investigation, it turned out that residents who avoid drinking from the tap water are worried about the cleanness of the water tanks rather than the quality of municipality water. This was highlighted by residents from residential buildings in contrast to the individual dwelling houses.
Residents avoid drinking water directly from tanks.	1 F M 1 1 I I	F E B B B F F E E	E D E B B F E B L C L	D L F J J A L B L C L	A C C B J C B B J C B B J C		
Residents only drink bottled water.	1 F M 1 1 I I	F E B B B F F E E	E D E B B F E B L C L	D L F J J A L B L C L	A C C B J C B B J C B B J C		
Residents are aware of the risk of wastewater sludge remains on quality of groundwater.	1	M	D	F	M	D	
Residents' perception to the natural water resources.							Between the shortage of water in the city, and the availability of natural water resources, the municipality may utilize these resources to fill in the gap in needs.

Residents recognize the existence of natural water spring (Ein Jaryout).	1 F E D L A 1 F E A F A 1 F D E K D 1 M D F M D 2 M E B J C 1 F E B J C 1 F E A L E 1 F E B L D 1 N D C K E 1 F E C L E	Only 2 out of 22 students know about the existence of Ein Jaryout natural spring. In the girl's school, only 1 out of 11 students knew about the existence of Ein Jaryout. This girl was not a resident of Beitunia. This entails that knowing about the natural elements in the landscape of a city is not connected connected to living in that city.
Residents don't know about Ein Jaryout's natural spring.	2 M E B J C 2 F E B J C 2 M E B J C 0 F E B J C 1 0	Most boys in the focus group don't know about the existence of the spring. An alternative outdoor destination was mentioned is the pedestrian tracks near Mahmoud Darwish memorial. Through the discussion, the children highlighted that they visit (Ein Qinya) instead because people talk about it. This could entail that there are social factors that could affect the use of natural spaces for recreational purposes.
Residents believe that the municipality should renovate the area of Ein Jaryout to enable community members to use it.	1 F E D L A 1 F D E K D 1 M D F M D	
Residents don't go to Ein Jaryout anymore.	1 F E A F A 1 M D F M D 1 F E B L D 1 N D C K E 1 F E C L E	Some residents describe it as far away, or explain that they got older, so this might entail that it is not accessible for old people. Others claim that there is no reason to go since they don't have own a land anymore.
Residents think Ein Jaryout reservoir \ pool is contaminated.	1 F E B J C	The student described the existence of Algae in the water reservoir.
Residents describe Ein Jaryout as recreational area.	1 F E D L A 1 F D E K D 1 M D F M D 1 F E B L D 1 N D C K E 1 F E C L E	
Residents describe Ein Jaryout as agricultural area.	1 F E D L A 1 F E A F A 1 F D E K D 1 M D F M D	
Residents think Jaryout water spring (Ein) is dry.	1 F E D L A	
Residents know about previous use of Jaryout spring for agricultural purposes.	1 F E D L A 1 F E A F A	
Residents know about the current use of Jaryout spring for agricultural purposes.	1 F E A F A 1 F D E K D 1 M D F M D	

Farmers believe Ein Jaryout water is not accessible.	1	F	E	A	F	A	As one of the farmers said: “Ein Jaryout is far away, but previously we used to carry water from the spring”. This perception of lack of accessibility could be connected to the change in the form structure of the family. For example, as some farmers previously had lots of children who helped the family to carry water from the spring, today, many of the kids are either in schools or busy at their jobs.
Residents see an opportunity in utilizing Ein Jaryout’s water for the city of Beitunia.	1	M	D	F	M	D	
Residents recognize the existence of natural rainwater collecting in Balou’ (sink) area.	1	F	E	D	L	A	
	1	M	D	F	M	D	
		M	B	B	J	C	
		F	B	B	J	C	
		I	F	F	A	L	B
		1	F	E	B	L	D
		I	F	E	C	L	E
Residents see an opportunity in utilizing Al-Balou’ water for the city of Beitunia.	1	F	E	D	L	A	As this natural water collection occurs in area that is divided into private properties, it is not likely to utilize the water for the use of the city, unless the municipality coordinated with the landowners.
	1	M	D	F	M	D	
Residents perceive Al-Balou’ area as risky for children.	1	M	D	F	M	D	Many cases for children drowning in the mud have occurred over the years.
Residents perceive Al-Balou’ area as a recreational space.	1	F	D	E	K	D	Boys described the area as charming in the winter. This might be an opportunity to invest in this street, maybe transfer part of it as pedestrian path.
	1	M	D	F	M	D	Residents, specifically males, use this street to walk their dogs, smoke shisha, some residents also mentioned that they barbeque in the area.
		M	B	B	J	C	
Residents’ perception to the effect of occupation on the quality of the environment in the city.							The interaction between community members and the colonial forces in the context is passive. This needs further investigation.
Residents don’t think occupation affects the quality of environment in Beitunia.	1	F	E	D	L	A	
Residents don’t perceive settlers attacks to agricultural land (Area C).	1	F	E	D	L	A	
	1	F	D	E	K	D	
	1	M	D	F	M	D	
Residents don’t interact with the area C land.	1	F	E	D	L	A	
	1	F	E	E	F	D	
	1	F	E	A	F	A	
	1	F	D	E	K	D	
	1	M	D	F	M	D	

<p>Residents' perception to the visual pollution.</p>	<p>Visual pollution is not a topic that concerns community members. They are not aware of its' effect on compromising sustainability and quality of life. Male interviewees – so far – are more aware of and annoyed by the chaos and the lack spacial planning. This is interesting observation, as women are more common to be responsible for the organizational functions inside the dwellings. This might entail that male residents are more dominating to the outdoor spaces of the city, and therefore their perceptions to the quality of urban spaces might have a different level than the female perception. Could this lead to females having functional perceptions (e.g. strollers on side walks), while men have more aesthetic perceptions (e.g. architectural typology)?</p>						
<p>Residents believe that some areas in the city look better than other areas.</p>	<p>2</p>	<p>M</p>	<p>E</p>	<p>B</p>	<p>J</p>	<p>C</p>	<p>As children couldn't define this as visual pollution, but they expressed how the existence of trees and flowers in some areas in the city make the neighborhood look better, and how this image is not available in other (non-important) areas.</p>
<p>Residents believe medium and high-rise buildings affect the scene of the city.</p>	<p>1</p>	<p>F</p>	<p>E</p>	<p>D</p>	<p>L</p>	<p>A</p>	
<p>Residents believe medium and high-rise buildings affect the amount of light reaching their dwellings.</p>	<p>1</p>	<p>F</p>	<p>E</p>	<p>D</p>	<p>L</p>	<p>A</p>	
<p>Residents think the architectural typology is not appealing.</p>	<p>1</p>	<p>M</p>	<p>E</p>	<p>E</p>	<p>E</p>	<p>E</p>	
<p>Residents think the mixed-use buildings affect the image of the city.</p>	<p>1</p>	<p>M</p>	<p>E</p>	<p>E</p>	<p>E</p>	<p>E</p>	
<p>Residents think the image of the city affects their wellbeing.</p>	<p>1</p>	<p>M</p>	<p>E</p>	<p>E</p>	<p>E</p>	<p>E</p>	
<p>Residents believe the municipality should have regulations to enhance the quality of visual environment.</p>	<p>1</p>	<p>M</p>	<p>E</p>	<p>E</p>	<p>E</p>	<p>E</p>	
<p>Residents perceive stone as an opportunity to enhance the visual quality of buildings.</p>	<p>1</p>	<p>M</p>	<p>E</p>	<p>E</p>	<p>E</p>	<p>E</p>	<p>Quote: "The use of stone as a building material is an opportunity to achieve visual quality".</p>
<p>Residents correlate the city image with the existence of the industrial zone.</p>	<p>1</p>	<p>F</p>	<p>D</p>	<p>E</p>	<p>K</p>	<p>D</p>	
<p>Residents' perception to environmentally responsible behaviors in the city.</p>	<p>Residents perceive the irresponsible environmental behavior of others, but this doesn't change their own behavior. The collective irresponsible behavior is stronger than the force of change.</p>						

Residents recognize the disposal of trash by residential medium rise buildings inside other land property.	1	F	E	D	L	A	This is explained by the lack of trash cans in addition to the absence of regulations.
Residents recognize the disposal of trash by other residents on floors despite the availability of empty trash cans.	2	M	E	B	J	C	
Residents recognize the use of collected rainwater in agriculture.	1	F	E	D	L	A	
Residents don't recognize photovoltaic cells on the roof of homes.	1	F	E	D	L	A	
Residents don't recognize the use of alternative energy to light streets and sidewalks.	1	F	E	D	L	A	
Residents acknowledge the use of alternative energy in public schools.	1	F	E	D	L	A	
Residents see the use of alternative energy to light outdoor spaces.	1	F	E	E	F	D	
Residents notice the use of alternative energy in some private dwellings.	2	F	E	B	J	C	
Residents see trashcans for collecting cartoon trash.	1	F	E	E	F	D	Residents think this might belong to one of the manufacturing facilities in the city.
Residents see vans collecting plastic bottles from inside the trashcans.	1	M	D	F	M	D	Students say they see solid waste separation in specific neighborhoods. Specifically they used the term "rich neighborhoods". This term was used many times during the interviewees with community members. As residents might not feel the financial gap between difference residents, the quality of neighborhoods highlight this gap. In other words, the social fabric of the community is naturally balanced to the social equity, but the services are not.
Residents see vans collecting metals from inside the trashcans.	1	F	D	E	K	D	This might entail that there is an opportunity in the need of manufacturing facilities to use raw material from home trash.
Residents testify seeing people put plastic trash inside the cartoon collectors on purpose.	1	M	D	F	M	D	

<p>Residents testify seeing people take out trees from the main street and plant it in their private property.</p>	<p>I M D F M D I N E E I A</p>	
<p>Residents don't recognize trash separations cans in the city.</p>	<p>I F E D L A I F E E F D I F D E K D I M D F M D F B B J C I F E B L D I N D C K E I F E C I E</p>	
<p>Residents recognize individual initiatives to separating food (specifically bread) from other trash.</p>	<p>F E B J C</p>	<p>Although this behavior was not mentioned by interviewees, it is widely seen in the Palestinian context. This might entail that it is considered a normal behavior. In my point of view, this might be the key to introducing trash separation, starting from organic elements. Nevertheless, the study of community readiness to following trash separation system needs further investigation. Meanwhile, the municipality should have a trash management system ready to receive and reuse the produced amount of trash.</p>
<p>Residents testify that the municipality had many attempts to kill wild dogs in the city.</p>	<p>I F D E K D I M D F M D</p>	
<p>Residents don't approve the municipality's approach to controlling the number of wild dogs in the city.</p>	<p>I F D E K D I M D F M D</p>	
<p>Theme: Social Equity</p>		
<p>Social equity is developing in Beitunia.</p>	<p>I M D F M D I N E E I A</p>	<p>The mayor is highly satisfied of the equity in his city. Nevertheless, accessibility is not perceived as a priority for the municipality rather than a responsibility of the government.</p>
<p>From my point of view as the researcher, and when referring to the meaning of social equity in literature, social equity is not achieved in the context of Beitunia. Nevertheless, the absence of services that contributes in enhancing the quality of life for residents of the city, give the illusion for community members that social equity is achieved. Community members are accepting mediocrity as the norm. The city lacks accessibility to public spaces in terms of physical and economical. The city lacks safe continuous sidewalks and pathways.</p>		
<p>Residents' perception to wealth distribution in the city.</p>		

Residents recognize the existence of wealthy community members.	1	F	E	D	L	A	
Residents recognize the existence of poor community members.	1	F	E	E	F	D	Quote: “no one knows about poor members in the community because the poor usually doesn’t complain”.
Residents claim that indigenous communities of Beitunia are wealthy.	1	F	D	E	K	D	This was connected to land owners specifically. Residents connect wealth with land ownership (asset). Additionally, residents believe that most indigenous families have relatives who sustain their living by working in Latin America. Additionally, many indigenous residents are investors in the city. Therefore, while they live in high quality life outside of Beitunia, they are not affected by the low level of services in the city.
Residents don’t have perception to the wealth status of other residents of the city.	1	F	E	D	L	A	
Residents believe the indigenous communities of Beitunia share the same wealth status.	1	F	E	D	L	A	
Residents don’t feel inequality in wealth distribution in the city.	1	M	B	B	J	C	
Residents feel the inequality in wealth distribution in the city.	1	F	E	B	L	D	
Perceptions of housing availability and accessibility.							
Residents feel that housing in Beitunia is affordable.	1	F	E	D	L	A	
Residents acknowledge that land is not affordable in Beitunia.	1	M	D	F	M	D	
Residents recognize the lack of land in Beitunia.	1	M	D	F	M	D	
Residents recognize the lack of equity in accessing services in the city.							

Residents acknowledge the lack of equality to access recreational services.	1 F E D L A 1 F E E F D	
Residents acknowledge the lack of equity to access extra curriculum services.	1 F E D L A 1 F E E F D 1 F D E K D 1 M D F M D 2 F E B J C	
Residents acknowledge the lack of equity to access cultural services.	1 F E D L A 1 F E E F D	
Residents recognize the lack of accessible sidewalks (special needs, strollers, ...) in the city.	1 F E D L A 1 M E E F E 1 F E E F D 1 F D E K D 1 M D F M D 2 F E B J C	This was claimed by mayor that it the responsibility of the government to set standards and enforce them in the planning processes.
Residents' perception to water availability in the city.		Although local knowledge of communities in Palestine focus on collecting and preserving water for agricultural and domestic use, this knowledge is exponentially vanishing in Beitunia.
Acknowledge the shortage in drinking water.	1 F E D L A 1 F E E F D 1 F E A F A 1 F D E K D 1 M D F M D 1 F E B L D	During the interview, a student asked me: "why is there enough water for all in the villages near Beitunia, while Beitunia itself suffers this massive shortage in water?" Answering this question needs further investigation.
Residents' perception to basic services.		
Residents recognize the existence of public educational services.	1 F E D L A 1 F E E F D 1 F E A F A 1 F D E K D 1 M D F M D 1 F E B L D 1 M D C K D	As public schools are available, they are not enough. They could have the spatial capacity to open new classes, but there is major shortage in the human capacity. Public educational facilities (schools) exist in Beitunia but necessary enough to serve all population. Also residents reflected on the many weaknesses in the sector such as the crowded classrooms and the mediocrity of the quality of educators and subsequently the education provided. Also many mentioned the excessive use of physical and emotional abuse, specifically in the boys' schools.
Residents acknowledge the shortage in educational services.	1 F E D L A 1 F E E F D 1 F D E K D 1 M D F M D 2 F E B J C	

<p>Residents perceive mediocrity in the quality of education in public schools.</p>	<p>2</p>	<p>M</p>	<p>F</p>	<p>E</p>	<p>B</p>	<p>J</p>	<p>C</p>	<p>Students mentioned factors affecting the quality of life of students inside public schools namely: the lack of hygiene, lack of advanced educational technology tools (projectors), lack of commitment from teachers during the pandemic, lack of commitment from teachers to attend the classroom, crowded classrooms, worn out books, lack of control on students.</p>
<p>Residents mentioned the use of physical abuse in public and private schools.</p>	<p>1</p>	<p>F</p>	<p>E</p>	<p>B</p>	<p>B</p>	<p>J</p>	<p>C</p>	<p>I witnessed the use of physical, emotional, psychological, and oral abuse during my visit.</p>
<p>Children feel public schools are crowded.</p>	<p>2</p>	<p>F</p>	<p>E</p>	<p>B</p>	<p>B</p>	<p>J</p>	<p>C</p>	<p>Quote: “The boys public schools are in their worst condition ever, I will never put my kids in public schools in Beitunia even if I had to die”. This might indicate that people who register their boys in public schools has no other choice than to live with the low of quality of education.</p>
<p>Children in some public schools suffered from following up with the online platforms during the pandemic.</p>	<p>2</p>	<p>F</p>	<p>F</p>	<p>E</p>	<p>B</p>	<p>B</p>	<p>J</p>	<p>Female students mentioned that during the pandemic, the availability of the appropriate technology was not available to all students, and the public schools didn't use a suitable alternative for all. There was inequality in the accessibility of education during the pandemic.</p>
<p>Residents don't recognize shortage in public health services.</p>	<p>1</p>	<p>F</p>	<p>E</p>	<p>D</p>	<p>L</p>	<p>A</p>	<p></p>	<p>Most students claim there are enough health services in the city. This might entail residents \ children can't recognize the difference between private and public health services. Almost all residents mentioned “Hamarsheh” health center. After investigation, this center appeared to be a private facility. The only public clinic is Beitunia clinic, which serves as emergency room, and some basic services such as vaccination.</p>
<p>Residents feel health services are not affordable in Beitunia.</p>	<p>1</p>	<p>F</p>	<p>F</p>	<p>A</p>	<p>L</p>	<p>B</p>	<p></p>	<p></p>
<p>Residents acknowledge the shortage in public health services.</p>	<p>1</p>	<p>F</p>	<p>E</p>	<p>E</p>	<p>F</p>	<p>D</p>	<p></p>	<p>Shortage in public health services was highlighted in the specialty clinics. Additionally, students discussed the gap in client services between the private clinics and the public health centers. Also, some students mentioned that there inequality in health services between different community members in the public emergency center.</p>
<p>Residents acknowledge the shortage in extra-curricula activities and spaces.</p>	<p>1</p>	<p>F</p>	<p>D</p>	<p>E</p>	<p>K</p>	<p>D</p>	<p></p>	<p>Residents see an opportunity in utilizing the schools' spaces for afternoon public activities for children \ community members. Only one student out of the 22 said that there aren't enough extra curricula activities in the city.</p>

Residents don't feel safe to use public transportation means during the pandemic of COVID-19.	1	F	E	D	L	A	
Residents feel that the public transportation network is accessible.	1	F	E	D	L	A	There is high satisfaction in the transportation availability and affordability in the city. Nevertheless, the physical accessibility of these means of transportation is limited to those with physical impairments or parents with strollers.
Residents face difficulties to use public transportation.	2	F	E	B	J	C	Schoolgirls in specific face major difficulties in acquiring a seat on public means of transportation. The law prohibits drivers to charge school children, therefore, some drivers avoid picking up children.
Residents feel that the public transportation network is sufficient.	1	F	E	D	L	A	
Residents are not satisfied with the quality of public spaces in the city.	1	M	E	E	E	E	Lack of accessibility, narrow, not connected, higher than 4" ... No inclusiveness in public services (infrastructure, sidewalks, and public transportation).
Residents' perception to the municipality role.							
Residents are satisfied with the quality of municipal services.	1	F	E	D	L	A	
Residents are not satisfied with the quality of municipal services.	1	F	D	E	K	D	Residents away from the Balou' area (the area with non-endogenous residents) have lower satisfaction for municipal services.
Residents think that the municipality services (planting, infrastructure, availability of water, maintenance of urban elements...) are not the same for all neighborhoods in the city.	1	F	D	E	K	D	A student highlighted the urgency of conducting services differ from one area to another.
Residents feel the municipality is approachable.	1	F	E	D	L	A	
Residents don't feel the municipality is approachable.	1	F	E	B	L	D	

Residents feel the municipality is corrupt.	1 1 1	F M M	D D D	E F C	K M K	D D D	There is a perception that quality of services are not equal for all, and there is the assumption that neighborhoods with endogenous communities get better services as they are socially connected to the municipal body, or even work in the municipality themselves. This could be valid, as the parents of one of the interviewees live in Balou', and notice the difference in the quality of services. Residents correlate this with the role of municipality elections, as non-endogenous residents usually don't vote.
Residents don't know about the strategic plan conducted in 2018.	1	F	E	D	L	A	
Residents were not involved in the process of strategic planning.	1	F	E	D	L	A	
Residents believe the municipality is not fulfilling the role of planning and organizing land-use.	1	M	D	F	M	D	
Residents feel the municipality is not fulfilling their urban management role.	1 1	F M	E D	B C	L K	D D	
Residents are not satisfied with the building regulations.	1 1 3 1	M M F M	E D E D	E F B C	E M J K	E D C E	Some residents claim that the municipality should have regulations relates to the quality of architectural typology of the city. For example, the color of water reservoirs, the exposure of mechanical and electrical elements in buildings, the offsets, the greenery, the inconsistent sizes of store banners, ...
The mayor believes that the lack of funding is a major challenge in the development of municipal services.	1	M	E	E	I	A	The sources of funding for the municipality are from personal donations, and taxes.
The mayor is not satisfied by the unequal services between the cities in the metropolitan.	1	M	E	E	I	A	The mayor believes the integrated city unit is not effective due to the lack of teamwork.
Residents' perception to recreational areas in the city.							
Residents know about the existence of natural recreational areas (Ein Jaryout) in the city.	1 1 1 1 1 1 1	F F F M F F F	E E D D E F E	D A E F M A L	L A K D M B L	A A D D C B D	
Residents don't consider natural areas (valleys, agricultural terraces, springs...) to be recreational.	1 1	F F	E E	D E	L F	A D	

Residents consider natural areas (valleys, agricultural terraces, springs...) to be recreational.	1 F E D L A 1 F E A F A 1 F D E K D 1 M L F M D F E B J C 2 M E B J C 1 F F A L B 1 F E B L D	Residents discuss Ein Qinya, Ein Sonya, Beit Liqia, Abu Qash, while few mentioned Ein Jaryout as natural areas that they visit for recreational purposes. They described these areas as clean, available, quiet, and accessible. Why don't resident perceive the agricultural terraces of Beitunia as recreational? It might be related to the pollution cause by the industrial waste. This needs further investigation.
Residents don't go to Ein Jaryout.	1 F F A L B	Although this resident is an endogenous local who know about Ein Jaryout and consider it a recreational area, she doesn't go to it. This might be connected to accessibility of the area. This needs further investigation.
Residents believe natural recreational areas (Ein Jaryout) need rehabilitation.	1 F E D L A 1 F D E K D 1 M L F M D	
Residents believe that Ein Jaryout needs to have extended municipal services (public toilets, trash cans, ...)	1 F D E K D 1 M L F M D	
Residents feel there is shortage of public recreational spaces in the city.	1 F E D L A 1 F E E F D 1 M L F M D 2 M E B J C F E B J C F E B J C 1 F F A L B 1 F E B L D	Residents used to utilize the public spaces in layers according to the season of the year \ time of the day ... Quote: "In the summer, we used to play football in the wheat fields". Some students mentioned that they go to Mikhmas play area, which is a paid area. Others mentioned that they go to Ramallah to use the public parks. A girl said: "Beitunia has one public park, and it is not suitable for our age, it is more for little children".
Residents believe there are no free public spaces for playing sports in the city.	1 F D E K D 1 M L F M D 2 M E B J C F E B J C	Quote: "The only football playground available belongs to the city club, which is available for members only. Some children, illegally, climb the schools' fences to play in the playgrounds in evening hours". Girls in the city don't have areas to practice sports. Some girls wished there was closed playground so they can practice different sports activities such as swimming and basketball. Boys on the other hand feel that they need a playground to use for free.
Residents attend recreational spaces outside the city.	1 F E D L A 1 F E E F D 2 M E B J C F E B J C F E B J C	
Residents don't know about natural recreational areas (Ein Jaryout) in the city.	1 F E E F D	
Residents use the public park in the city.	1 F E E F D	
Residents don't use the public park in the city.	1 F F A L B 1 F E B L D	Quote: "we don't leave home, except for visiting doctors or going to Ramallah". Quote: "the city is like prison".

<p>Residents would go to public parks if they were available and developed.</p>	<p>I F F A L B I F E B L D</p>	<p>This might be connected to the need to go to public parks without having to pay.</p>
<p>Residents think public parks are not enough in the city.</p>	<p>I F D E K D I M D F M D F F A L I F E B L D</p>	
<p>The mayor perceives the surge alongside the rise in population as major challenges is develop and plan the land use and plan the land use.</p>	<p>I M E F I A</p>	
<p>The mayor perceives the Ramallah industrial area as major challenge to developing the city towards becoming a recreational area.</p>	<p>I M E F I A</p>	
<p>The mayor doesn't see an essential need to have more services in the city.</p>	<p>I M E F I A</p>	<p>The argument was revolving around achieving sustainability (creating outdoor green spaces, ...) on the metropolitan level, and that public parks in other areas in the metropolitan (Ramallah and Al-Bireh) is enough. This argument could be valid, but deeper investigation needs to be conducted on the metropolitan level.</p>
<p>Residents' perception of the safety of the city.</p>	<p>Most residents describe the city as safe, while only few feel that its not safe. Nevertheless, many factors that could affect the safety of the city exist in the context. The definition of safety needs further investigation. 14:50</p>	
<p>Residents think the city is safe.</p>	<p>I F E D L A I F E E F D I F E A F A I F D E K D B B J C I M E B L D I F L C K D M</p>	
<p>Residents don't think the city is safe.</p>	<p>I F D E K D I M D F M D I F E B J C I F E B J C I F F A L B I</p>	<p>Residents feel there is absence by the police force.</p>
<p>Residents don't feel the city is safe for girls.</p>	<p>2 F E B J C I F E B J C I</p>	<p>School female students mentioned verbal harassment in the street, the fear of kidnapping, traffic ...</p>

Residents feel safe to walk in the streets at night.	1 F E D L A 1 F E E F D 1 F E A F A 1 F D E K D 1 F F A L B 1 F E B L D	
Residents don't feel safe to walk in the streets at night.	2 F E B J C	
Residents don't feel safe to walk towards the Israeli military camp \ detention center (Ofar).	1 F E D L A 1 D F E K D	
Residents don't think that Ofar threatens their safety.	1 F E B L D 1 M D C K D 1 F E C L E	Residents correlate the danger of Ofar to the occasional clashes between civilians and the Israeli occupational forces only.
Residents feel safe to let their children play outside their houses \ apartments.	1 F E D L A 1 F E E F D 1 M D C K D 1 F E C L E	Residents correlate safety with the social relations between community members in their area.
Residents don't think the streets are safe.	1 F F A L B 1 F E B L D	
Residents don't think the streets are safe for children.	1 F D E K D 1 M D F M D 1 F B B J C 1 F E B J C	Some testimonies focused on the car drifting habit during evening hours. A resident mentioned that young children usually drown in Al-Balou' Area. Students also mentioned the danger of open manholes that cause children to fall into. Also a student mentioned how her sister was kidnapped.
Residents feel the city is safe for women.	1 F E D L A 1 F E E F D 1 F E A F A 1 F D E K D	
Residents don't perceive the danger of demolished urban elements (open manholes, demolished retaining walls, excavation pits in construction sites, ...)	1 F E D L A 1 F E E F D	
Residents don't feel safe to drive in the city.	1 M E E E E	
Residents don't feel safe to walk in the streets at night.	1 M E E E E	
Residents don't feel safe when the Israeli military invades the city.	1 F E E F D 1 F E A F A	

Residents feel safe despite the Israeli military invasions of the city.	2 2	M F	E E	B B	J J	C C	Children don't acknowledge feeling afraid from the occupational military despite one of the girls described in details how the occupational forces arrest her father frequently. This might reflect a resistance mindset rather than the actual feeling of safety, or it might indicate the frequency of its occurrence, as one of the girls said: "We are used to it". This needs further investigation.
Residents recognize the existence of Israeli military frequently.	2 2	M F	E E	B B	J J	C C	
Residents' perception to mental health.							Quote: "when I approach the city, I feel suffocated"!
Residents feel that living in Beitunia affects their wellbeing and mental health.	1	M	E	E	E	E	
Residents are concerned about their wellbeing.	1	M	E	E	E	E	
Theme: Economic Sustainability							
Residents' satisfaction for the employment status in Beitunia.							Economic sustainability is major concern of community members, and needs extensive investigation. As job opportunities are available in the city, residents don't seek jobs in the city thinking that they are only low-level employment, or in the vocational sector.
Residents don't think there are enough job opportunities in the city.	1 1 1 1 1 1	F F F F F M	E E E E E D	D E A B F C	L E A B A C	A F J L E K	
Residents don't think the job opportunities are decent.	1 1 1	F F F	E E E	D E A	L E B	A F J	Residents mentioned that the local wages are not enough to cover the basic life expenses.
Perception to job opportunities.							
Residents don't think the job opportunities are equal for women and men.	1	F	E	D	L	A	
Residents think there is corruption in the employment procedures in the city.		F	E	B	J	C	

Residents don't think farming is a job opportunities for the current generation.	1	F	E	A	F	A	Although the remaining farmers in Beitunia believe that farming is a decent job that can sustain the financial needs of a family, they don't recommend the next generation to peruse it as a career. This might be explained by the belief that current generation is less able and less proactive. Quote: "I will not advice my niece and nephew to take farming as a career because this generation is not used to it". This also could be explained by the abruption of knowledge transfer, which caused a gap in transferring the local knowledge and techniques related to the sector.
Residents think there is availability of vocational job opportunities.	1	F	D	E	K	D	
Residents don't think that the existence of the industrial area provides job opportunities for the residents of Beitunia.	1	M	D	C	K	D	
Residents believe the city has an opportunity for more diverse jobs by being a service hub for all villages around.	1	F	D	E	K	D	

Section 3: Resident desires

“Description of the utopian city”

Needs vs. Desires:

Major contradictions were spotted when comparing the desires of community members and their needs.

This might be explained as a nostalgic behavior rather than proactive approach of thinking.

Another explanation might be related to the influence of colonial forces on the perception of community members.

The image of the European cities (big cities, investments, green long pine trees ...) is perceived as “better” and is listed as a need. On the other hand, the cultural influence on community members creates the desire to “go back” to the previous agricultural lifestyle.

Another contradiction was spotted between desires and behavior. For example, some community members desire to live in agricultural context, while having the advantages associated with the “urban” lifestyle.

Codes							Researcher's notes \ insights
Residents have the desire to reset the city status to 40 years later.	1	F	E	D	L	A	
Residents desire a city without residential buildings.	1	F	E	D	L	A	
Residents desire to see Beitunia as an agricultural city.	1 1 1 2	F F F F	E E D B	D E E B	L E K J	A D D O	
Residents desire to see large green cover.	1 1 1 2	F F F F	E E D B	D E E B	L E K J	A D D O	
Residents desire a quiet city.	1 1 1 1	F M F F	E D D D	D C C C	L K L L	A D D D	
Residents desire a suburban context.	1 1 1 1	F M F F	E E D D	D B C C	L L K L	A D D D	
Residents desire to see more public parks.	1 1 1 1 1	F F M F F	E D D B E	E E D B B	F K F J L	D D D O D	
Residents desire to see wide streets.	1 1	F M	E D	E C	F K	D D	
Residents desire to see more lighting in the streets at night.	1	F	E	E	F	D	
Bigger sidewalks.	1	F	E	E	F	D	
More recreational spaces	1 1	F M	E D	E F	F M	D D	Parks, playgrounds, parks, running fields, swimming pools, indoor sports, ...
More public child inclusive spaces.	1	F M	E D	E C	F K	D D	
Less traffic, and more places to park cars decently.	1	M	D	C	K	D	

Nothing	I I	F M	E D	A C	F K	A D	<p>This farmer perceived the city as better today than in the past. This contradicts with the first interviewee (FEDLA), her neighbor. This might be explained through the lens of cultural colonialism, where residents aspire to live a “modern” life. This colonial force have minor effect on farmers, as their relationship with their land, culture and knowledge couldn’t be disconnected.</p> <p>This was also the same for this over 65 YO women who is originally from Beitunia. Could this be related to the age group? But in contrast to that, there was a statue of helplessness, where a male interviewee couldn’t see that Beitunia can ever become the perfect city.</p>
Residents wish there was a different entrance for the city (aka, Al-Tireh neighborhood).	1	F	D	E	K	D	
Residents want to live in an environmentally clean city.	I I	M F	D B	F B	M J	D O	<p>Solid waste, wastewater, availability of water... Quote: “These are not Utopian, yet there should be the minimum”.</p>
Spatially planned and organized urban spaces, with separation between the uses of the urban space.	I I	M F	D B	F B	M J	D O	
Elimination of manufacturing facilities in the city.	1 1	F M	D D	E F	K M	D D	
A city with people that respect the law.	I	F	B	B	J	O	
A city with more and better wages job opportunities.	I	F	B	B	J	O	
A city with high standard and equal educational opportunities.	I	F	B	B	J	O	

Section 4: Community Needs

“In describing the priorities: what would you do first if you became a mayor”

Categories							Researcher's notes \ insights
Codes							
Urban space development.							Needs vs. Desires:
Better quality for streets and sidewalks.	I I I I I I I I	F F F M M	E B E D B D B D	E B E C B C C	F J L K	D O D D D D	Major contradictions were spotted when comparing the desires of community members and their needs. This might be explained as a nostalgic behavior rather than proactive approach of thinking.
Preserve agricultural land use. Regulate the land use of the city.	I I I	F F M	E D D	D E F	L K M	A D D	Another explanation might be related to the influence of colonial forces on the perception of community members. The image of the European cities (big cities, investments, green long pine trees...) is perceived as “better” and is listed as a need. On the other hand, the cultural influence on community members creates the desire to “go back” to the previous agricultural lifestyle.
Decline building permits for medium and high-rise buildings.	I I	F F	E E	D D	L J	A O	Another contradiction was spotted between desires and behavior. For example, some community members desire to live in agricultural context, while having the advantages associated with the “urban” lifestyle.
Provide green spaces that are human friendly.	I I I I I I I I	F M M	D D B B	E F B B	K M J	D D D D	
Infrastructure							
Develop a sewage network.	I I I I I I I I	F F M M F F M	E D D B B	D E F A B C	L E K J L K	A D D O B D	
Solve water shortage issue.	I I I I I I I I	F M M F F M	D D B B	E F B B	K M J	D D O D	
Solve waste management issues.	I I I I	F M M F	D D B B	E F B B	K M J	D D O D	
Initiate recycling system to waste management.	I I	M M	D B B	F B B	M J	D O	
Provide consistent electrical and water services.	I	M	B B	B B	J	O	
Enhance the economy							
Attract more investors.	I	F	E	D	L	A	
Provide decent employment opportunities.	I I	F F	E B B	D B B	L J	A O	
Public services							
Raise the number of parks and public open spaces.	I I I I	F M M	E D B B	D F C C	L M K	A D D	

Raise number of public schools.	1	F	E	E	F	D	
Provide safety forces and systems.	1	F	D	E	K	D	
	1	M	D	F	M	D	
Systemize the municipal services.	1	F	B	B	J	O	
Urban space management							
Stop giving more building permits.	1	F	E	D	L	A	
Regulations towards environmentally responsible behaviors.	1	F	E	D	L	A	
Prohibit and control the phenomenon of child labor.	1	F	B	B	J	O	

Section 5: Perception of the Solution

Codes							Researcher's notes \ insights
Residents claim the change could happen through strict regulations.	1	M	E	E	E	E	Quote: "we don't need to re-build the city, we just need some organization".
	1	M	B	B	J	O	
	2	F	B	B	J	O	
Residents believe solution doesn't need much money.	1	M	E	E	E	E	
Residents feel unable to enhance the quality of life in the city.	1	F	E	D	L	A	Community members face many challenges, and are tide by the helplessness state of a victim. In another word, community members are passive rather than pro-active, and they wait for "others" to solve their problems. This intersects with the concept of "others" in the colonial theories.
	1	M	B	B	J	O	
Residents feel there is a constant reduction in the quality of life in Beitunia.	1	F	E	D	L	A	
Residents feel that changing the entrance of the city could enhance the city visual identity.	1	F	D	E	K	D	

Appendix 4: Stakeholders Analysis

The stakeholders that were found to affect and be affected by the urban forces in Beitunia are:

Community Members of Beitunia

Those are all individuals, groups, and families who live in Beitunia, included all social groups of different genders, ages, residential status, academic level, or field of work.

Community members of Beitunia are key stakeholders in the strategy development and implementation. Additionally, they are perceived as primary stakeholders that are affected by the results and outcomes of the strategy.

The Municipality of Beitunia

For the local governance of the urban context, and as a facilitator of communication between the national and regional governance and the community, the municipality plays a key role in the context and therefore it is a key stakeholder.

The responsibility of strategic planning, implementing, and associated decision-making process is facilitated and coordinated by the municipality. Yet, it is a governing body that assures participation and the involvement of various stakeholders in the process.

Expatriates

Statistics related to the number of expatriates that are associated with Beitunia is not available, yet, some community members who live in Latin America still visit the city each summer. Expatriates of Beitunia are emotionally and socially involved with the context in different ways. As they are not directly affected by the quality of life presented in the context, their perception and satisfaction play a major role in the fundraising of public projects in the city. They are categorized as VIP stakeholders, who shall be kept in the loop of updates in the context.

Investors and Business Owners in the City

Secondary stakeholders are those who are not included in the activities of the strategy, but are affected by the outcomes of the context. Under those categories lays the investors and business owners. Assessment and evaluation of their status should take place regularly during the implementation of the strategy, and amendments should be discussed as needed.

Regional and National Governmental Bodies

The Palestinian authority represented by its local and national governmental bodies is a key stakeholder in the implementation of the strategy, and adequate coordination with the JCU and the ministry of local government shall take place regularly.

International Community

In the Palestinian context in general, and specifically for Beitunia, the international community is a VIP stakeholder that plays a great role against the colonial efforts to hinder sustainability in the urban context. Channels for representation and communication are essential to keep the international community in the loop of the local updates.

ملخص

يواجه السياق الفلسطيني العديد من التحديات التي تؤول دون تحقيق التطور الحضري المستدام ومنها وجود الاستعمار والاحتلال والعديد من نقاط الضعف المرتبطة بمؤسسات التخطيط على المستويين الوطني والمحلي. في المقابل، يوجد العديد من نقاط القوة والفرص التي يمكن استغلالها لتطوير وتنفيذ استراتيجيات الاستدامة الحضرية. في هذا الإطار، تسعى هذه الرسالة للبحث في إمكانات الإشراف المجتمعي ليكون نهجاً للتطوير المستدام في سياق التخطيط الاستراتيجي. كما تقدم الرسالة نموذج تطوير حضري مستدام ليتم تطبيقه على أرض الواقع في السياق الحضري الفلسطيني.

يستند هذا البحث الكيفي على التأويل كإطار نظري للبحث، كما وتتبنى الاستقراء كتوجه لعملية البحث. في هذا الإطار، تم تحقيق هدف البحث من خلال تبني مدينة بيتونيا كحالة دراسية وتقييم الاستدامة في سياقها الحضري من خلال مراحل ترابطية من جمع البيانات وتحليلها. في البداية، تم استخدام بيانات ثانوية من مقابلات مع مسؤولين والوصول إلى مستندات رسمية وخرائط بهدف عنونة القضايا الاستراتيجية الأساسية في المدينة. تلى ذلك استخدام البيانات الأولية من مقابلات مع أفراد من المجتمع المحلي ومشاهدات الباحثة بهدف التحقق من صحة وجود القضايا الاستراتيجية التي تم عنونها سابقاً، بالإضافة إلى تعريف العوامل المؤثرة على استدامة التطور الحضري في المدينة، وتسليط الضوء على احتياجات المجتمع المحلي الحالية وتطلعاته ورغباته المستقبلية للمدينة. لتحقيق هذه النتائج، تم إخضاع البيانات لمراحل من التحليل من خلال ترميز المقابلات والتحليل الرباعي للبيئة الداخلية والخارجية للمدينة.

تقدم نتائج هذه الرسالة - الناتجة عن مراحل التحليل السابق ذكرها - فهم شامل للعوامل المؤثرة على استدامة التطور الحضري لمدينة بيتونيا، التي تم تصنيفها إلى أربع ثيمات رئيسية هي: الحوكمة المحلية والاستدامة البيئية والعدالة الاجتماعية والتطور الاقتصادي. في المقابل، تظهر النتائج أن الاحتياجات العاجلة والآنية للمجتمع المحلي تتركز في توفير فضاءات حضرية وخدمات ذات جودة عالية وبيئة طبيعية نظيفة ومصونة.

من خلال استخدام أداة مصفوفة TOWS، تم توظيف نتائج البحث لتطوير خطة استراتيجية تحقق تطوير حضري مستدام خاص بمدينة بيتونيا. كما تم تقديم مقترح مخطط هيكلية لمدينة بيتونيا ليوقر فضاءات حضرية تحتضن نتائج الخطة الاستراتيجية، ويوقر أمكنة حضرية تحتضن احتياجات المجتمع تحقق رغباته. في النهاية، ومن خلال التأمل في عملية تطوير الخطة الاستراتيجية المقترحة لمدينة بيتونيا والتي تم اعتمادها في هذه الدراسة، تم اقتراح نموذج تطوير حضري مستدام ليتم نقاشه وتطبيقه في سياقات مشابهة لمدينة بيتونيا في السياق الحضري الفلسطيني.

الكلمات المفتاحية: التخطيط الاستراتيجي، التطوير الحضري، النهج التشاركي، الاستدامة، نموذج تطوير مستدام، مدينة بيتونيا.